‘CLIMATE CHANGE ENDS UP TAKING A BACK SEAT’: MULTI-LEVEL OBSTACLES TO COMMUNICATING ABOUT CLIMATE CHANGE IN SMALL NATURE-RELATED NON-PROFITS

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ABSTRACT

A large middle portion of the Canadian population enjoys outdoor activities, is politically moderate, and is concerned about climate change (Lachapelle and Comeau 2024). Local nature-related non-profits (NRNPs) across the country support them, including hiking clubs, naturalist clubs, and nature conservation groups. Many of these organizations are entirely volunteer-run or with very small staffs, they have been in existence for decades, and their leadership is overwhelmingly White and affluent. The main questions of this dissertation are whether and how NRNPs communicate about climate change and what obstacles they face in doing so.

The dissertation is a mixed methods study of NRNPs in Ontario, Canada. The study applies quantitative and qualitative analysis to interviews, Twitter feeds, websites, annual reports, and a survey. Primarily, semi-structured interviews were held with 43 communications officers to understand how their organizations framed climate change and the challenges they encountered.

The dissertation employs a unique set of theoretical bases. It situates NRNPs in nature and illustrates the broader field using an actor-network theory (ANT) approach, adding two case studies to the ANT corpus. Addressing the concept of organizational inertia in the sociology of organizations, it finds a continuum of engagement on climate change communications and identifies obstacles at the levels of the individual, organization, and larger field. Whiteness theory is also employed to explore how the concept of environmental privilege applies to these organizations. The dissertation juxtaposes NRNPs' treatment of decolonization, equity, diversity, and inclusion (DEDI) and climate change, finding that similar obstacles limit their uptake.

Finally, framing theory reveals that framing by NRNPs tended to avoid the political discourse used by the climate movement, preferring instead post-political or apolitical discourse. Diagnostic, prognostic, and motivational frames generally referred to climate change implicitly

rather than explicitly. In avoiding mentioning climate change, the links from these frames to climate change become muddied and fail to support the existing interest in climate action.

DEDICATION

I dedicate this dissertation to my father, Nick Seiler, who passed away on Earth Day 2022, after a life well lived. I would not be where I am today without having inherited his fierce work ethic. Nor would I be in the same place without his guidance, although I did not appreciate it at the time. Dad wanted to get his master's degree. I got there and kept going. This dissertation is for him.

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TABLE OF CONTENTS

Abstract ii
Dedication iv
Acknowledgments v
Table of Contents viii
List of Tables x
List of Figures xii
Preface xiv

Chapter 1 – Introduction 1
1.1 Historical Context of the Dissertation 7
1.2 Layout of the Dissertation 16

Chapter 2 – Describing NRNPs 19
2.1 History of the Canadian Environmental Movement 19
2.2 NPOs, NGOs, and ENGOs 27
2.3 Nature-Related Non-Profits (NRNPs) 29
2.4 The Environment and Nature 34
2.5 Rationale for Studying this Population 36

Chapter 3 – Theoretical Locations 40
3.1 Framing Climate Change 43
3.2 Organizational Inertia 65
3.3 Whiteness and Environmental Privilege 77
3.4 Actor-Network Theory (ANT) 97
3.5 Bringing the Theoretical Strands Together 101

Chapter 4 – Methodology 103
4.1 Twitter Feeds 105
4.2 Survey 115
4.3 Interviews 118
4.4 Textual Data 131
4.5 Triangulation 141
4.6 Case Studies 142
4.7 Ethics 143
4.8 Summary of the Methodology 144

Chapter 5 – Insects, Trees, and NRNPs 146
5.1 The Story of the Emerald Ash Borer 146
5.2 The Story of Black-legged Ticks 156
5.3 Discussion and Conclusion 167

Chapter 6 – Communicating about Climate Change 172
6.1 Framing Climate Change 173
6.2 Methodology 180

6.3 Engaging on Climate Change 180
6.4 Climate Change Frames 195
6.5 Discussion and Conclusion 221

Chapter 7 – Obstacles to Communicating about Climate Change 227
7.1 Organizational Obstacles and Environmental Privilege in ENGOs 228
7.2 Descriptive Statistics 232
7.3 Case Studies: Subfields of NRNPs 249
7.4 Discussion and Conclusion 287

Chapter 8 – Conclusion 295
8.1 Why NRNPs? 296
8.2 Theoretical Contributions 299
8.3 Methodological Contributions and Research Outputs 316
8.4 Positive Signs 320
8.5 Takeaways for NRNPs 321
8.6 Limitations and Future Directions 323
8.7 Conclusion 327

References 330
Appendices 368
Appendix A: Positionality (Insider-Outsider) 368
Appendix B: Reflections on Methodology 371
Appendix C: Climate, Justic, and Nature Lexicons 383
Appendix D: Interview Guide – General 388
Appendix E: Latornell Symposium Questionnaire 393
Appendix F: Email Requests to Participate in Survey 398
Appendix G: Pre-interview Questionnaire 400
Appendix H: Interview Guide – Conservation Authorities 402
Appendix I: Email Request for Interview – General 405
Appendix J: Consent Form 406
Appendix K: Email Request for Interview – Conservation Authorities 410
Appendix L: Ethics Approval 411
Appendix M: NVivo Code Summaries 412
Appendix N: Supplementary Climate Change Tables 415
Appendix O: Supplementary DEDI Tables 419
List of Acronyms and Abbreviations 422

LIST OF TABLES

Table 2.1: Characteristics of NRNPs in Ontario 34

Table 3.1: Climate change frames in the literature 50

Table 4.1: Top 10 words and bigrams within each topic 113

Table 4.2: Distribution of organizations in the interview sample 121

Table 4.3: Criteria for climate change score and DEDI score 140

Table 6.1: Criteria for climate change score 186

Table 6.2: Percentage (frequency) of climate change scores by organizational type 186

Table 6.3: Climate change frames mentioned in interviews 196

Table 7.1: Percentage of racial identity by age range for survey respondents 236

Table 7.2: Criteria for DEDI score 243

Table 7.3: Percentage (frequency) of DEDI scores by organizational type 244

Table 7.4: Percentage (frequency) of climate change score by DEDI score 245

Table 7.5: Summary of case studies 250

Table C.1: Evaluation of precision and recall for climate, justice, and nature lexicons 387

Table N.1. Percentage (frequency) of climate change scores by overarching category, based on websites and annual reports of the NRNPs in the interview sample 415

Table N.2. Percentage (frequency) of climate change scores by number of employees, based on websites and annual reports of the NRNPs in the interview sample 416

Table N.3. Percentage (frequency) of climate change scores by size of catchment area, based on websites and annual reports of the NRNPs in the interview sample 417

Table N.4. Percentage (frequency) of climate change scores by urban or rural catchment, based on websites and annual reports of the NRNPs in the interview sample 417

Table N.5. Percentage (frequency) of climate change scores by age of organization, based on websites and annual reports of the NRNPs in the interview sample 417

Table O.1. Percentage (frequency) of DEDI scores by overarching category, based on websites and annual reports of the NRNPs in the interview sample 419

Table O.2. Percentage (frequency) of DEDI scores by number of employees, based on websites and annual reports of the NRNPs in the interview sample..... 420

Table O.3. Percentage (frequency) of DEDI scores by size of catchment area, based on websites and annual reports of the NRNPs in the interview sample..... 420

Table O.4. Percentage (frequency) of DEDI scores by urban or rural catchment, based on websites and annual reports of the NRNPs in the interview sample..... 421

Table O.5. Percentage (frequency) of DEDI scores by age of organization, based on websites and annual reports of the NRNPs in the interview sample..... 421

LIST OF FIGURES

Figure 1.1: Global Warming's Six Americas 2014-2024 [graphic used with permission] 12

Figure 4.1: Sequence of data collection and analysis 104

Figure 4.2: Proportion of tweets that are climate tweets, justice tweets, and nature tweets by type of NRNP..... 114

Figure 4.3: Identification of NRNPs interviewed as an environmental organization and/or part of the environmental movement..... 124

Figure 4.4: Derivation of categorization of discourses in the mission statements of NRNPs 136

Figure 4.5: Frequency of discourses in the mission statements of NRNPs in the interview sample 138

Figure 5.1: Simplified illustration of the action of EAB on ash trees..... 147

Figure 5.2: Simplified illustration of the network related to the spread and initial control measures in the EAB network in Ontario 150

Figure 5.3: EAB detection by year, 2002-2013 [map used with permission]..... 150

Figure 5.4: Simplified illustration of the ultimate EAB network in Ontario 153

Figure 5.5: Spread of black-legged ticks in central Canada, 2000-2080 [map used with permission]..... 157

Figure 5.6: Simplified illustration of the initial network related to the spread of *B. burgdorferi* in Ontario 159

Figure 5.7: Simplified illustration of the ultimate *B. burgdorferi* network in Ontario..... 166

Figure 6.1: Communication channels used by NRNPs in the interview sample 181

Figure 6.2a-b: Importance of communicating about climate change compared to the explicitness of doing so..... 187

Figure 6.3: Percentage of NRNPs using diagnostic, prognostic, and motivational frames plus avoidance, by overarching organizational category..... 197

Figure 6.4: Frequency of use of diagnostic, prognostic, and motivational frames plus avoidance, by type of NRNP..... 198

Figure 6.5: Percentage of NRNPs using apolitical, post-political, or political discourse, by overarching organizational category..... 199

Figures 7.1a-b: Demographics of interviewees 233

Figures 7.2a-b: Demographics of Latornell survey respondents 233

Figures 7.3a-b: Demographics of Ontario residents age 15 and older, 2021 census data 234

Figure 7.4: Percentage of board versus staff position of interviewees by age range..... 235

Figure 7.5: Frequency of size of staff complement by overarching organizational category..... 246

Figure 7.6: Proportion of tweets that are climate tweets, justice tweets, and nature tweets by region 248

PREFACE

The journey to my dissertation has been a long one. When I was finishing my first bachelor's degree decades ago, a dear friend tried to encourage me to continue on to post-graduate studies. I did not have a passion for the subject matter (mathematics), so I refused. After a long and winding set of careers, including stops for coursework along the way, I finally arrived back in academia in 2016 with a fair degree of certainty that I was where I was meant to be. My new home was environmental sociology, focusing on how people make sense of climate change. The passion was there.

That passion was formed over 20-plus years in the environmental non-profit sector. Over that time, I ran a small, grassroots, alternative transportation advocacy group, led outreach on renewable energy options for households, supported a regional network of approximately 50 environmental groups of various types, and supported a national interfaith network of regional environmental project coordinators, in addition to other volunteer roles and memberships. My involvement spanned a wide cross-section of the environmental movement, intersecting with the general public at many points. I was motivated to apply that broad experience to academic research.

Given my varied work history, which included for-profits, non-profits, and educational institutions, as well as frequent interactions with government, I found during my studies that I also had a strong interest in the sociology of organizations, particularly non-profit organizations. This dissertation combines that interest with my interest in climate change.

The specific interest in the topic of this dissertation came during my time with the regional environmental network. As I tried to promote renewable energy, I felt pushback from some of the member organizations. I found it curious that groups supposedly within the environmental

movement could not agree on environmental issues. How could a movement expect to gain traction with the general public if it could not even agree on solutions internally? This dissertation is an attempt to understand that divide. A discussion of my insider-outsider positionality is found in Appendix A.

CHAPTER 1 – INTRODUCTION

> Birding used to be one of the joys in my life, and now … every time I go out, I just come home depressed now. [laughing] But from an organizational standpoint, you know, you don't want to do that to people, right? I mean, because you realize that action, you know, action does not come out of hopelessness. (Rick, board member of Big Pines Cross Country Ski Club[1])

> There is a lot of fatigue around hearing the words "climate change." You know, people have started to tune out because it's a scary concept. And so, we are more likely to come at the message in a less explicit way. (Trish, employee of Lakeview Conservation Authority)

Trish and Rick had three things in common. First, both were responsible for communications in their organization — Trish as an employee in a medium-sized conservation organization and Rick as a board member in a volunteer-run recreational club. Second, both were Alarmed about climate change, on the *Global Warming's Six Americas* scale (Leiserowitz et al. 2021; Verner et al. 2023; Leiserowitz et al 2025). Third, both were reluctant to communicate explicitly about climate change with their constituents.

Rick, like a growing number of North Americans (Leiserowitz et al. 2025), was Alarmed about climate change. His birding observations made it obvious to him that things were changing. In addition, skiing conditions for Big Pines were becoming less reliable. As a lifelong environmentalist, Rick was inclined to listen to environmental warnings about climate change and other environmental issues. On the other hand, he did not want to burden his members with worries about climate change when they were coming to the club for an escape.

Trish was also Alarmed about climate change but took it less seriously than Rick. She described herself as:

> a perfect example of a lot of the people that are out there who know that climate change is a crisis, but who have so many other things in their day-to-day lives to be worried about that climate change ends up taking a back seat.

[1] All names of individuals and the organizations that they represent are pseudonyms.

Trish went on to say that she took that lens to her communications, recognizing that climate change was not necessarily top-of-mind for her constituents. Her organization took the time to "research every target audience," to ensure that they were framing their messages so that they resonated. That meant often avoiding using the term "climate change." This dissertation identifies the many sources of reluctance for Rick, Trish, and other nature-related non-profits (NRNPs) in communicating about climate change.

A brief introduction to NRNPs is helpful at this point. Chapter 2 provides a full description. NRNPs include both recreation-oriented groups — in this case, hiking clubs, cross-country skiing clubs, and naturalist clubs — and conservation-oriented groups that arrange tree plantings and other outdoor events for volunteers and supporters. I am interested in groups, primarily at the local level, that organize outdoor activities for their members, thus exposing them to the potential for embodied experiences of climate change. O'Reilly (2018:8) asserts that "the substance of climate matters. Sensorial engagements with the changing climate, through … everyday life, create knowledge." The interaction of NRNPs with their environment brings their members into close contact with nature, exposing them to embodied experiences that include fewer birds, more insects, and changing snow conditions.

I chose to focus on NRNPs in the province of Ontario, Canada. Ontario is an ideal site for this study because it is both extremely diverse and well-defined. First, it is by far the most populous province, with about 38 percent of the population of Canada[2]. Second, it is the most biologically diverse and one of the largest provinces in Canada (CESCC 2022), spanning the area from the Great Lakes bordering the United States to Hudson Bay on the Arctic Ocean. Third, it is socioeconomically diverse and includes the cities of Toronto and Ottawa, a rural population of 17

[2] According to the 2021 census, the population of Ontario was 14.2 million out of a total Canadian population of 37.0 million (StatsCan 2023).

percent (ROI 2023b), and a racialized population of 34 percent, mostly concentrated in the urban areas (ROI 2023a). Fourth, it is a politically centrist province compared to other provinces (Lachapelle, Borick, and Rabe 2012; Seiler and Stalker 2023), making it a good site for exploring the middle of the Canadian population. Fifth, limiting the scope to one province provides a consistent focus on the impacts of provincial politics and regulatory arrangements in a country where jurisdiction over the environment is split between the federal and provincial governments (MacDowell 2012:253). Finally, it is my home province and one in which I have personal experience with the larger field in which NRNPs are situated.

Trish and Rick are typical within this dissertation. The vast majority of individuals interviewed were Concerned or Alarmed about climate change[3] and experienced the effects of climate change in the course of their organizations' activities (Seiler 2024), yet most of the websites for which they were responsible had little to no mention of climate change. Interviewees noticed changes in the range of flora and fauna, increased flooding and droughts, and changes in the length of the seasons, which affected their ability to engage in their activities (Seiler 2024). Why would organizations that experienced and were affected by climate change not communicate about climate change to their members? That is the main research question for this dissertation.

I answered the question in five steps, which included interviews as well as a survey and textual data from Twitter, annual reports, and websites. First, I analyzed *whether* NRNPs communicated about climate change, based on the textual data. Those sources revealed that NRNPs communicated very little about climate change. I also interviewed communications

[3] Out of the 38 interviewees who were asked where they would situate themselves on the *Six Americas* scale (Leiserowitz et al. 2021; Leiserowitz et al. 2025), 15 (39 percent) self-identified as Alarmed, 19 (50 percent) as Concerned, 3 (8 percent) as Cautious, and 1 (3 percent) as Disengaged. Nobody was Doubtful or Dismissive. The one Disengaged individual was a parent of young children who was somewhat worried about climate change but had no time to think about it (Seiler 2024).

personnel from NRNPs about their organizations' approach to climate change. Organizational responses to societal shifts, such as climate change, include: 1) ignoring the shift; 2) actively resisting change; 3) making conservative, incremental adjustments; or 4) embracing change (Minkoff and Powell 2006; Brulle and Norgaard 2019). I identified a more nuanced continuum within my interview dataset.

Second, I analyzed *how* NRNPs communicated about climate change. Using the interview data, I applied Snow and Benford's (1988) categorization of framing tasks as diagnostic, prognostic, and motivational to how interviewees discussed their framing of climate change. While Snow and Benford (1988) were interested in how social movement organizations frame issues in order to mobilize a movement, I found that framing by NRNPs often focused on the very local effects of climate change and local benefits of action, essentially avoiding any hint of collective action on a global issue.

Interviewees were generally hesitant to acknowledge whether their organization was part of the environmental movement, described well by Brian, an employee of Preservation in Partnership:

> We definitely *support* the environmental movement. … I see that as being, like, on the front lines with, you know, the activists and stuff. And we definitely *support* what the activists are doing. … We're mostly focused on … protecting the lands that we have and ensuring they are healthy. … So I would say, yes, we are part of the environmental movement, but we are not as active as other parts of the environmental movement are.

Brian was typical in equating the environmental movement with activism and distancing his organization from that. Thus, the concept of mobilization from the social movement literature was not overly applicable to NRNPs. Chapter 2 discusses the history of the environmental movement and the location of NRNPs in relation to that movement.

Third, I identified the obstacles and pressures, internal and external, that NRNPs faced in communicating about climate change. Internally, NRNPs demonstrated organizational inertia

(Hannan and Freeman 1984) in responding to the threat of climate change. The mission of the organization was in some cases a shield to hide behind, as interviewees claimed that communicating about climate change was "not part of our mandate" (Seiler 2026). As small non-profit organizations (NPOs), NRNPs were vulnerable to the particular make-up of their boards of directors. NRNPs are run by volunteer boards, and those boards have inconsistent capacities in terms of time, knowledge, and interests, both as individuals and as a collective, to be able to lead an organization (Martinelli 1998; Rochester 2003; Seiler 2026). For non-profit boards, reviewing the mission takes effort (Seiler 2026).

Externally, most NRNPs were part of a field of similar organizations where all were silent on or downplayed climate change. NRNPs engaged in free-ridership (Munck af Rosenschöld, Rozema, and Frye-Levine 2014), relying on organizations in other fields and subfields to do the work of communicating about climate change. With climate change as a polarizing topic, most NRNPs maintained a non-advocacy stance, in part because they were concerned about maintaining legitimacy in the eyes of their members, funders, and others in the community. In the next section, I describe the contextual factors influencing the behaviour of NRNPs at the time of this research.

These obstacles suggest the applicability of the sociology of organizations, particularly the concepts of habitus and field (Bourdieu 1990; Bourdieu and Wacquant 1992) as well as new institutionalism (DiMaggio and Powell 1983), which is concerned with maintaining legitimacy within a field. Munck af Rosenschöld et al.'s (2014) theorization of institutional inertia on climate change and Brulle and Norgaard's (2019) application of field theory to social inertia on climate change are starting points for my analysis.

My fourth step in answering my research question was to look more closely at the make-up of NRNPs. Although the sociology of organizations was useful for identifying obstacles applicable

to NPOs in general, there were aspects of NRNPs that demanded different viewpoints. Trish, Rick, and Brian were all White[4] and middle-aged. While the gender balance of my interviewees was fairly even, most were middle-aged or older, and almost all were White. Descriptions of their boards were similar: primarily older, affluent, and White. Descriptions of their memberships were more varied in some cases, reflecting the demographics of the community, but in others the membership was also "overwhelmingly White." The concept of environmental privilege (Pellow 2009:5; Park and Pellow 2011; Norgaard 2012; Argüelles 2021) seemed applicable.

Could environmental privilege be an obstacle to communicating about climate change? Argüelles (2021) posits three aspects of environmental privilege: 1) access to environmental amenities, 2) environmental representation and identity, and 3) naturalization of privilege. Ontario had been lucky up until the time of study in that signs of climate change could be ignored. The wildfire smoke in June 2023 was the first climate change event to hit the whole province in a way that was impossible to ignore. People were advised to stay indoors, if possible, due to extremely bad air quality (Casaletto, Talbot, and Mackey 2023). Relative to other parts of the world, Ontario had been experiencing environmental privilege through greater access to environmental amenities in not having to deal directly with the effects climate change.

Rick knew that climate change did affect his cross-country skiing club. The winter skiing season was becoming shorter with less pleasant conditions. Cross-country skiers portrayed environmental identities as models of environmentally-friendly behaviour, which they cited to justify travel to engage in their pastime. Big Pines was reluctant to send out negative messages about climate change when the ethos of the club was to provide an escape for members. The

[4] Following APA style guidelines, I capitalize "White" and "Whiteness" in reference to racial identity. To not do so leaves Whiteness as an unmarked category (Sirleaf 2023). It is my intention in this dissertation to draw attention to the Whiteness of NRNPs and the consequent effects.

naturalization of environmental privilege allowed cross-country skiers to continue to enjoy their access to environmental amenities without being forced to think about climate change.

My fifth and final step considered another aspect of NRNPs and the reason that I chose to study this particular collection of organizations: they conducted their activities in the natural environment. I was interested in learning what effect the beings and phenomena that announced climate change through their presence might have on NRNPs and their communications, whereas a traditional sociological approach would ignore those effects. Actor-network theory (ANT) treats humans and non-humans as equally capable of acting and, therefore, affecting the actions of others (Law 1999; Latour 2005; Law 2008; Jackson 2015). Tracing the connections involved with emerald ash borers (EAB) and black-legged ticks revealed NRNPs to be small players in a large web. Constituents of NRNPs were encouraged to consider the arrival of these beings as just something that was happening and that might require individual behaviour adjustments.

In the following section, I outline the historical context at the time of data collection, including the current status of concern about climate change and biodiversity loss as well as shorter-term situations. I close the chapter with an overview of the layout of this dissertation.

1.1 HISTORICAL CONTEXT OF THE DISSERTATION

Societal trends and shifts, large and small, affect the behaviour of individuals and organizations nested within that society. With the bulk of my data collection occurring in 2023, one long-term trend and five shorter-term situations were of relevance. The long-term trend was a slow increase in concern about climate change. Before sharing the statistics on climate change concern and describing the smaller situations, I discuss the concepts of climate change and biodiversity loss more generally.

1.1.1 Twin Challenges of Climate Change and Biodiversity Loss

Climate change and biodiversity loss are both scientific facts and socially constructed issues. The United Nations Framework Convention on Climate Change (UNFCCC) has constructed the three issues of climate change, biodiversity loss, and air pollution as a "triple planetary crisis … the three main interlinked issues that humanity currently faces" (UNFCCC n.d.c). The International Union for Conservation of Nature (IUCN) focuses on climate change and biodiversity loss as "twin crises" (IUCN 2023). Because air pollution is of lesser relevance to conservation organizations (Johnson 2006), I choose to limit my considerations to the twin crises. In this subsection, I outline some of the science and international governance structures, deferring most of the discussion on framing to later chapters.

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as "a change in the state of the *climate* that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external *forcings*" (IPCC 2018, emphasis in original). One notable measure of climate change is the Keeling Curve, which has continuously tracked the increases in the concentration of carbon dioxide (CO_2) in the atmosphere at Mauna Loa in Hawaii since the 1950s (Beck 2008). When measurements first began in 1958, the CO_2 level was 315 parts per million (ppm). The monthly average in May 2025 topped 430 ppm for the first time (Monroe 2025).

There is little doubt that climate change is now affecting weather patterns, causing floods, droughts, wildfires, and melting glaciers (IPCC 2023). The wildfire smoke that blanketed southern Ontario in the course of data collection for this research was given a much greater likelihood of having occurred because of climate change (NRCan 2024). Despite the existence of vocal climate

change denial, the IPCC was able to agree that climate change is happening and it is primarily caused by human activity (IPCC 2023). The report states that the primary source of CO_2 emissions is "fossil fuels combustion and industrial processes" (IPCC 2023:4). Furthermore, the IPCC has agreed that communities that have contributed the least to causing climate change are suffering disproportionately from the effects of climate change (IPCC 2023).

Climate change has been brought into the public eye and updated regularly through the UNFCCC, the associated annual Conferences of the Parties (COPs), and the IPCC reports (Uggla 2010:83). COP21, held in 2015, was a landmark conference at which the Paris Climate Agreement was reached. The agreement committed countries to limiting global average annual temperature to 1.5°C above pre-industrial levels, and to establishing nationally determined contributions (NDCs) to achieve that goal (UNFCCC n.d.a). Allowances have been made for countries in the Global South, recognizing their less developed status (UNFCCC n.d.b). Despite the expectation that there will be at least a temporary period surpassing the 1.5° target, most nations continue to commit to NDCs and other actions (UNFCCC 2025).

Similarly, there is a United Nations Convention on Biological Diversity (UNCBD). Its associated Conferences of the Parties (COPs) are officially held every two years (UNCBD n.d.). According to the UNCBD (n.d.), "biological diversity is about more than plants, animals and micro organisms and their ecosystems — it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live." The UN definition is quite broad, incorporating both intrinsic value and instrumental value (Uggla 2010:79). In international negotiations, biodiversity is a normative concept, assumed to be "something that is good" (Uggla 2010:81). The term itself refers to the *existence* of difference rather than its *usefulness*, which tends to weight its understanding toward the side of intrinsic value

(Elliott 2020). The European Parliament (2025) defines biodiversity as "the variety of all living things on our planet." For the purposes of this dissertation, biodiversity refers to the richness of plant, animal, and other life in an area, in an ecosystem, or globally.

Like biodiversity, biodiversity *loss* can refer to any level of geography. Biodiversity loss occurs when species become globally extinct or extirpated from a given area. Because of food chains or food webs, loss of one species may have cascading effects (European Parliament 2025). Biodiversity is thought to contribute to ecosystem resilience (Uggla 2010:81), so biodiversity loss may reduce resilience to disturbances. Some claim that we are in the midst of the sixth mass extinction on Earth, the fifth occurring 65 million years ago with the end of the Age of Dinosaurs (Crist 2007:51; MacDowell 2012:326; European Parliament 2025). Consequently, the Kunming-Montreal Global Biodiversity Framework was adopted in December 2022, establishing goals and targets to reduce biodiversity loss (UNCBD 2024).

Biodiversity loss can be the result of a number of different causes. Climate change may cause some species to move out of an area, others to die off, and still others to thrive. Other human-induced causes of biodiversity loss are: 1) encroachment from agriculture, industry, and human settlements, resulting in immediate direct losses as well as longer-term indirect losses; 2) excessive extraction for consumption or sport (e.g., hunting and fishing); 3) pollution of air, water, and land; and 4) the introduction of non-native species with no natural predators (Uggla 2010:81; UNEP 2023; European Parliament 2025).

Biodiversity loss in some instances may lead to climate change. For instance, forests absorb CO_2, thereby offsetting increases in CO_2 emitted by other activities (UNEP 2021). Destruction of forests through logging or burning removes that carbon sink, contributing to climate change over the longer term in addition to the direct carbon contributions of that destruction. That is to say that

biodiversity loss *may* lead to climate change and climate change *may* lead to biodiversity loss (Crist 2007; Uggla 2010:81). Paula, an employee of Cliffside Conservation Authority, described the interrelationship:

> They kind of reinforce each other. You know, as you lose biodiversity, ecosystems become less resilient to climate change. And as your biodiversity decreases, you know, they're not sequestering as much carbon as they would. So there's a lot of feedback loops involved. And, you know, there's also kind of additive effects and unpredictable things that can happen, because, you know, climate change may affect some elements of biodiversity or some species in a positive way, and it may affect other species in the same patch of forest, say, in a different way. So we're seeing a lot of shifting going on, and those two factors kind of playing off each other and affecting different components of the ecosystem in different ways.

As Paula described, climate change and biodiversity loss are entangled and unpredictable, so communicating about them might be complicated.

Solutions to the twin crises are intertwined with the goal of sustainable development in international negotiations (Uggla 2010:80; IPCC 2023). The Brundtland Report defined sustainable development as follows: "Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future" (WCED 1987:1.II.49). In 2015, the UN launched the 2030 Agenda for Sustainable Development and its associated 17 sustainable development goals (SDGs) (UN 2015). The SDGs include fighting climate change[5] and halting biodiversity loss in addition to ending poverty and hunger, reducing inequality, and other social goals, and provide targets for achieving the goals (UN 2015). Climate change, however, poses threats to the ability to achieve the SDGs, notably, food and water security and human well-being (IPCC 2023:6, 24).

1.1.2 Climate Change Concern

Concern about climate change is most easily demonstrated through *Global Warming's Six Americas* (Leiserowitz et al. 2021; Leiserowitz et al. 2025). The Yale Program on Climate Change

[5] The 2030 Agenda recognizes the primacy of the UNFCCC regarding climate change.

Communication developed a survey which enabled the categorization of U.S. adults under six labels: Alarmed, Concerned, Cautious, Disengaged, Doubtful, or Dismissive about climate change. This categorization has been used in Canada as well (Martel-Morin and Lachapelle 2022). The categorization was intended to improve the targeting of communications in order to increase climate action (Leiserowitz et al. 2021; Martel-Morin and Lachapelle 2022; Lachapelle and Comeau 2024; Leiserowitz et al. 2025).

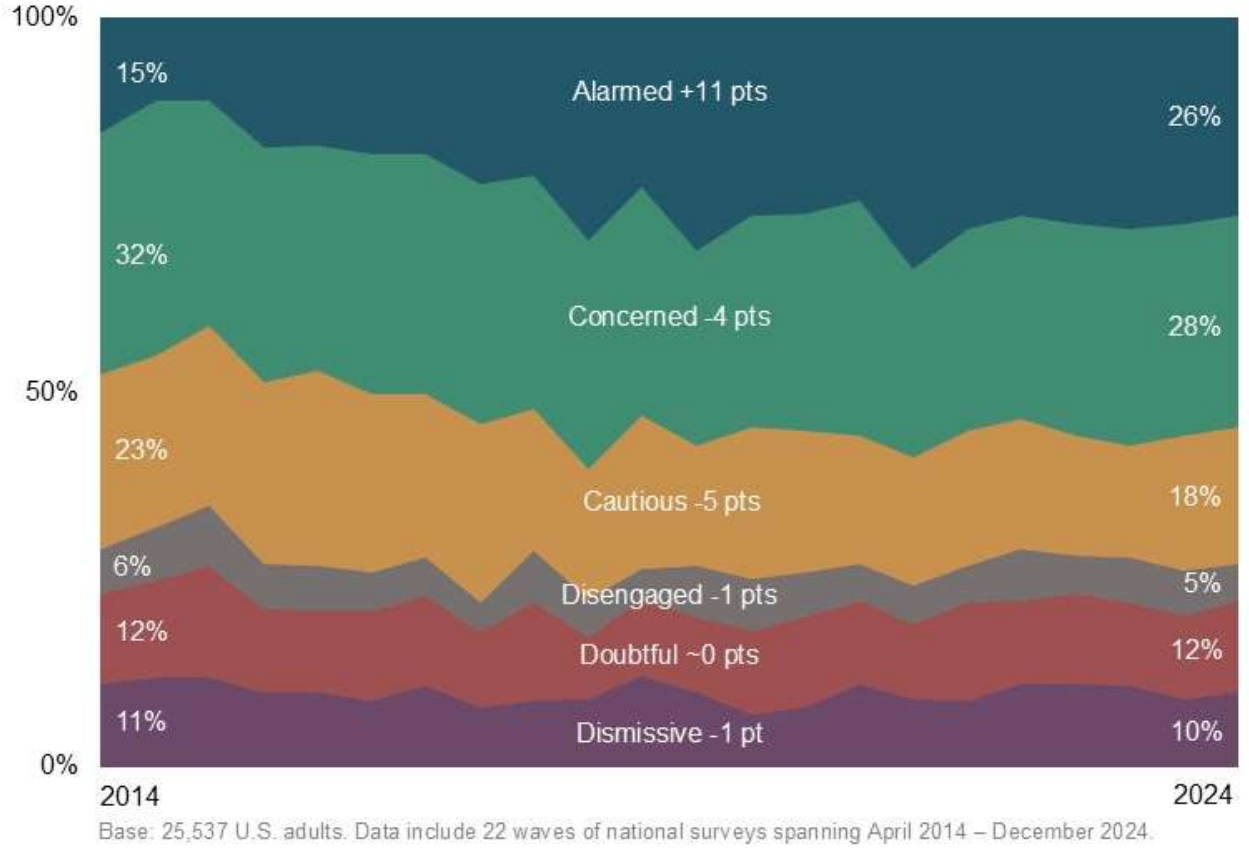


Figure 1.1. *Global Warming's Six Americas 2014-2024. Graphic used with permission. Yale Program on Climate Change Communication; George Mason University Center for Climate Change Communication.*

The *Six Americas* survey has been conducted semi-annually in the United States since 2008. The results from 2014 to 2024 are presented in Figure 1.1. As of 2024, 26 percent fell within the Alarmed category, up from 15 percent in 2014 (Leiserowitz et al. 2025). In contrast, the Disengaged, Doubtful, and Dismissive categories have remained relatively stable at around 27

percent in total. Climate skeptics and deniers would primarily fall in these categories. Conservative, White men tend to be overrepresented within the ranks of climate change skeptics and deniers (McCright and Dunlap 2011; McCright 2016; Leiserowitz et al. 2021:98).

Canadian statistics from 2017 showed that 25 percent were Alarmed, 45 percent were Concerned, and the remaining 30 percent were Disengaged, Doubtful, or Dismissive about climate change (Martel-Morin and Lachapelle 2022). These results are fairly similar to U.S. figures, with the exception of the lack of a Cautious category in Canada.

A more recent analysis recategorized the *Five Canadas of Climate Change* under more evenly split labels: Progressive Activists (15 percent), Civic Nationals (21 percent), Centrist Liberals (20 percent), Disengaged Middle (30 percent), and Fossil Fuel Conservatives (14 percent) (Lachapelle and Comeau 2024). Birders firmly fit within the Civic Nationals category, so much so that the icon for that category is a bird and binoculars (Lachapelle and Comeau 2024). The category also includes hikers, hunters, and anglers (Lachapelle and Comeau 2024), which suggests some alignment between this category and my target population. Progressive Activists, Civic Nationals, and Centrist Liberals are all concerned about climate change, with Civic Nationals being the most conservative-leaning of the three (Lachapelle and Comeau 2024). New research shows that even conservatives in Canada are more likely to support serious climate action than oppose it (Huddart 2025).

The main question of this dissertation is that, if NRNPs are affected by climate change and concerned about it, why would they not communicate about it with their constituents? Experiencing climate change increases individual interest in climate action (Weber 2016:126), but only if that experience is cognitively linked to climate change (Ballew et al. 2022; Ayers et al. 2024:16). More precisely, individuals with strong climate change beliefs, either Alarmed or

Dismissive, are likely to have those beliefs confirmed through experiencing climate change events, due to motivated reasoning (Kahan, Jenkins-Smith, and Braman 2011; Myers et al. 2013), whereas moderates[6] are more likely to accept that climate change is happening based on the experience (Myers et al. 2013). If NRNPs refrain from making the link between an experience and climate change in their communications, then their constituents might not make the connection, which is an opportunity lost.

Despite the majority of the population in both Canada and United States being concerned about climate change (Martel-Morin and Lachapelle 2022; Sparkman, Geiger, and Weber 2022; Lachapelle and Comeau 2024; Leiserowitz et al. 2025), the loud voices against climate action give the false perception that anyone who cares about climate change is in the minority (Sparkman et al. 2022). Remaining silent produces "a climate change 'spiral of silence'" that perpetuates the misconception (Maibach et al. 2016:1). Hearing trusted others voice climate change concern and perceiving that trusted others are taking climate action, however, help to break the spiral and change opinions on climate change (Ballew et al. 2022). Talking with trusted others, such as members of one's social circle, creates a positive social feedback loop that increases communications about climate change (Goldberg et al. 2019). One goal of this dissertation is to increase the understanding that there is concern about climate change in the middle of the population and, thereby, provide courage to those organizations that are hesitant to speak up on climate change.

1.1.3 Immediate Historical Context

Four short-term situations were of relevance to this dissertation. First, data collection for this study occurred primarily in 2023, at the tail end of the COVID-19 pandemic. The Freedom Convoy

[6] Concerned, Cautious, Disengaged, and Doubtful segments (Myers et al. 2013)

and protest in Ottawa against vaccine mandates and restrictions took place over a year earlier (CBC News 2022; Askanius, Molas, and Amarasingam 2025).[7] Life for most people in Canada was starting to get back to normal, and NRNPs were returning to their pre-pandemic level of activities.

Politically, right-wing populism was on the rise, negatively affecting climate action around the globe and in Canada (Lachapelle and Kiss 2019; Lockwood and Lockwood 2022). South of the border, Donald Trump was campaigning towards a return to the White House (Greenfield 2023). In the aftermath of the pandemic, concern about inflation was growing (Angus Reid Institute 2023). With the Liberal Party of Canada in their eighth year in power under Prime Minister Justin Trudeau and hanging on to a minority of seats in Parliament, discontent was rising. The leader of the Conservative Party of Canada, Pierre Poilievre, and his slogan "Axe the [Carbon] Tax" were enjoying increasing popularity (Angus Reid Institute 2023).

Third, on the provincial front, the Ontario Progressive Conservative Party under Premier Doug Ford was in its sixth year with a strong majority. That majority gave the government the power to upend environmental protections, including limiting the mandate of conservation authorities (Syed 2021) and opening the previously protected Greenbelt around the Greater Toronto Area to development (Canadian Press 2023). The revelation of backroom deals regarding development in the Greenbelt, and associated political unrest, culminating in a reversal on the part of the government (Canadian Press 2023), was unfolding during my data collection period.

The fourth situation was a record-smashing level of wildfires across Canada starting in the late spring of 2023 (NRCan 2024). Those fires caused extremely bad air quality with an unprecedented level of smoke blanketing southern Ontario in June and July 2023 (Casaletto et al.

[7] The Freedom Convoy was a weeks-long blockade of downtown Ottawa, Canada, in January and February 2022 (CBC News 2022). Originally in protest of COVID-19 vaccine mandates for truckers crossing the border into the United States, activists co-opted the protest to promote a far-right anti-government agenda (Askanius et al. 2025).

2023), just a month after I started interviewing. Until that point, Ontario had been relatively untouched by large-scale climate change events.

The above circumstances resulted in a paradoxical situation of growing concern about climate change amongst left-leaning individuals, countered by a decrease in concern amongst right-leaning individuals.[8] The polarization between left and right seen in the United States was also apparent in Canada (Hatch and Granados 2023; Hatch et al. 2024). Only 26 percent of Conservative supporters attributed the wildfires to climate change, whereas over 80 percent of centrist and left-leaning voters did so (Hatch et al. 2024:26).

1.2 LAYOUT OF THE DISSERTATION

The dissertation starts with this introductory chapter, then proceeds with a theoretical chapter, a methodology chapter, three empirical chapters, and a concluding chapter.

Chapter 2 — inserted between this chapter and the theory chapter — develops the concept of NRNPs. It opens with the origin of NRNPs and the history of the Canadian environmental movement. There is a brief description of NPOs, followed by an extended discussion of the three main types of NRNPs and the similarities and differences in their organizational situations. I include a section on the terms, "nature" and "environment," for clarity. I conclude the chapter with my rationale for studying NRNPs, including the many gaps in the literature around choosing this population as an object of study.

Chapter 3 presents the main theoretical strands. I start with framing theory, since the main contribution of this dissertation is to analyze whether and how NRNPs communicate about climate change. The second section discusses the sociology of organizations, with contributions from non-profit studies, to set the stage for organizational obstacles to communicating about climate change.

[8] Deduced by comparing survey results by political leaning a year before and shortly after the 2023 wildfires (Hatch and Granados 2023:11; Hatch et al. 2024:26).

Following that, I turn to Whiteness studies to understand the Whiteness of NRNPs, particularly in the Canadian context. White privilege and related concepts are helpful in understanding the more relevant concept of environmental privilege. The chapter ends with a discussion of actor-network theory (ANT). I use ANT to demonstrate the array of forces interacting with NRNPs on a daily basis, which could affect communications. As ANT is, in part, a methodology, it is logical to place the ANT theory adjacent to the methodology chapter. The empirical ANT chapter follows immediately after the methodology chapter.

Chapter 4 focuses on the methodology. This is a mixed methods study with interviews as the main source of data. In-depth, qualitative interviews were held with 43 members of NRNPs in Ontario. Most interviews were between one and two hours in length, producing rich data. Supporting and supplementing the interviews are textual data from the websites and annual reports of the interviewees, as well as Twitter data and surveys from the broader target population of NRNPs in Ontario. The chapter describes and ties together the various approaches and includes some basic quantitative analyses.

Chapter 5, the first empirical chapter, introduces the world of NRNPs through the lens of ANT. ANT gives equal footing to humans and non-humans in identifying networks or fields of action. The very label NRNP (nature-related non-profits) indicates that nature, as in the non-human world, is very important to these organizations. What better way to begin than to take a walk through the forest? The chapter tells the stories of two insects — EAB and the black-legged tick — as illustrative of the circumstances of NRNPs in Ontario. Understanding how these beings are translated into communications by NRNPs, the reader will start to get a sense of the obstacles to climate action.

Chapter 6 analyzes the communications of NRNPs using framing theory to answer the questions of whether and how they frame climate change. First, quantitative analyses show that climate change is not a popular topic for NRNPs, but also that they feel that it is more important than they are willing to let on, as verbalized by Rick at the start of this chapter. A deeper qualitative analysis finds a continuum of ignoring the topic, purposely avoiding the topic, avoiding using the term "climate change," selectively using "climate change," downplaying climate change, and treating climate change as a serious problem. The qualitative analysis of frames is extensive, categorizing them as diagnostic, prognostic, or motivational and as political, post-political, or apolitical.

Having analyzed NRNPs' approaches to communicating about climate change, Chapter 7 asks why. It identifies obstacles to doing so by discussing the composition and operations of NRNPs. The most glaring finding was their Whiteness. The chapter presents a descriptive analysis of the demographics of NRNPs to confirm this assertion. There is also a quantitative analysis of the degree of social justice discourse used by NRNPs, to complement and compare with the quantitative analysis of climate change discourse in the previous chapter. Further analysis quantifies potential organizational obstacles to change. Finally, nine in-depth case studies are presented to explore the obstacles that affect different subfields of NRNPs. Each subfield has specific characteristics that affect its approach to climate change. Commonalities are brought together in the conclusion to the chapter.

The final chapter pulls together the empirical chapters, describes theoretical and methodological contributions, presents positive signs and takeaways for NRNPs, and discusses limitations and future possible research directions.

CHAPTER 2 – DESCRIBING NRNPS

Nature-related non-profits (NRNPs) are a construct for this dissertation. As such, they deserve an extended development through this chapter. NRNPs are non-profit organizations (NPOs) that conduct activities with their members in nature.[9] Examples are hiking clubs and cross-country skiing clubs that organize recreational activities for their members, as well as conservation organizations that engage volunteers in tree plantings and nature remediation projects. The construct was intended to capture a slice of the population that has been exposed to the effects of climate change and analyze how that exposure is reflected in their communications about climate change.

To describe NRNPs, I start with the history of the Canadian environmental movement. NRNPs are descended from the original conservation and preservation branches that constitute the mainstream environmental movement in North America. I describe the evolution of those branches as well as more recent branches, to help delineate NRNPs. Next, I define and describe non-profit organizations (NPOs) and related distinctions, then define NRNPs more specifically. I include a brief section on the use of the terms, "nature" and "environment." I close the chapter by providing a rationale for studying NRNPs, noting gaps in the literature regarding this population.

2.1 HISTORY OF THE CANADIAN ENVIRONMENTAL MOVEMENT

The history of the Canadian environmental movement is not as well known or documented as the movements in the United States or Europe (O'Connor 2010:286). Like those other movements, there have been waves of developments in different directions, influenced by and influencing the movements in other nations. This section focuses first on the settlement of Canada by Europeans and the early environmental movement, then discusses developments since the

[9] I discuss the use of the term "nature" in section 2.4.

1960s. The purposes of this section are to situate NRNPs in their roots and draw attention to some problematic aspects of their history.

2.1.1 Early Environmental Movement

The dominant social paradigm in Europe and the European colonies has long been one of human domination over nature (Uggla 2010:80; MacDowell 2012:46). As the second largest country in the world, Canada is vast with, at least at one time, seemingly unlimited natural resources (MacDowell 2012; Paehlke 2014:283). As a result, in the early days of European settlement of Canada and up to much more recently, mistakes were made in allowing some natural resources to become depleted (MacDowell 2012:53; Paehlke 2014:284). The environmental movement developed to address such issues.

In 19th century United States and Great Britain, two strands of environmentalism grew in reaction to reckless destruction of nature as human populations expanded (Cronon 1996:13; Brulle 2000:135; Rootes 2004:612). One strand — preservationism — viewed nature and wilderness as a place of inspiration and spiritual rejuvenation, following the Romantic movement (Cronon 1996; Brulle 2000:161-162; Rootes 2004:612; Uggla 2010:80). The preservation movement was largely driven by privileged White men looking for an escape from the problems of the city (Cronon 1996:13-14; Brulle 2000:163; Taylor 2016). The other strand — conservationism — saw value in managing nature in order to continue to maintain a stock of resources (Brulle 2000:135; Rootes 2004:612). One strand within conservationism focused on wildlife, encouraging an ethos of understanding wildlife and striving to conserve it in perpetuity (Love-Nichols 2020:3). The membership of this wildlife management strand continues to be mainly hunters and anglers due to its focus on the value of nature to humans through recreational activities (Brulle 2000:145). The

other strand took a more scientific, managerial approach to conserving forests and other natural resources (Brulle 2000:149-150).

While all of these views eventually made their way to Canada (MacDowell 2012; Paehlke 2014:283-284), it was the managerial conservation approach that predominated, especially with regard to forest management (MacDowell 2012:101). Canada's first national park — Banff National Park — was created in 1885, just over a decade behind Yellowstone — the first U.S. national park (MacDowell 2012:106; Paehlke 2014:284). "Policy makers viewed parks as a potential source of revenue from tourism, mining and logging, and hunting and fishing licences" (MacDowell 2012:106). The first provincial park in Ontario — Algonquin Park — was established in 1893 as a recreational area and nature reserve. Algonquin Park included a forest reserve — an area set aside for forestry as a renewable resource — and hunting and fishing were allowed, with permits (MacDowell 2012:101-102).

Concern for wildlife conservation was slower to develop, due to seeming abundance; consequently, some species were hunted to extinction (MacDowell 2012:110). Hunters and anglers took up wildlife conservation, developing codes of ethics based on British upper-class traditions (Brulle 2000:135) and pushing for game regulations that favoured sportsmen over subsistence hunters (MacDowell 2012:111-113; Love-Nichols 2020:3-4). Naturalist clubs were generally more interested in local natural history than conservation (MacDowell 2012:111).

The development of Canadian environmental non-governmental organizations (ENGOs) initially took a regional approach, in contrast to the large, national and international ENGOs in the United States (O'Connor 2010:2). Counterparts to major U.S. ENGOs made their way to Canada over time. The Sierra Club came to Canada in 1913 with a preservation focus (Paehlke 2014:288), establishing provincial chapters that were not united until 1989 (O'Connor 2010:281). In Ontario,

the Federation of Ontario Naturalists — later rebranded as Ontario Nature — was formed in 1931 when several local naturalist clubs decided to create an umbrella organization (Paehlke 2014:285). Ducks Unlimited was established by U.S. waterfowl hunters in 1937 to address habitat loss and came to Canada in 1938 (DUC n.d.). Other Canadian equivalents of major U.S. ENGOs were not formed until the 1960s, including the Canadian Wildlife Federation (CWF n.d.), Nature Conservancy of Canada (NCC n.d.), Canadian Parks and Wilderness Society (CPAWS n.d.), and Birds Canada — the Canadian equivalent of the much older National Audubon Society in the United States (Birds Canada 2020).

The sometimes-conflicting conservation and preservation movements (Brulle 2000:167-168; Rootes 2004:612; Taylor 2016:384-385) were rooted in settler colonialism in North America: both preservationism and conservationism resulted in the disturbance and displacement of Indigenous peoples for the benefit of rich, White people (Cronon 1996:15; Binnema and Niemi 2006; Taylor 2016:395; Bacon 2019:61-62; Love-Nichols 2020:4). Land designated for conservation or preservation was treated as *terra nullius*, ignoring any previous subsistence activities and blocking access, not only by Indigenous peoples but also by poor rural residents (Cronon 1996:15; Taylor 2016:396). In addition, the early conservationists and preservationists tended to ignore urban environmental issues in favour of wilderness pursuits (Taylor 2016:394). The environmental movement has continued to have a reputation of being White and elitist (Agyeman 2005:80; Pezzullo and Sandler 2007), including in Canada (Jafri 2009; Gibson-Wood and Wakefield 2013).

2.1.2 Environmental Movement since the 1960s

The environmental movement in North America expanded with the publishing of Rachel Carson's *Silent Spring* (1962), which drew attention to the toxic effects of chemical pesticides on the environment and, ultimately, humans (Brulle 2000:182-183; Taylor 2002:8; Rootes 2004:613;

MacDowell 2012:243-244; Paehlke 2014:286). Although still interested in saving flora and fauna, "reform environmentalism" was more interested in addressing pollution and the effects of modernization (MacDowell 2012:244-245; Paehlke 2014:287). The movement largely attracted White, well-educated supporters (Taylor 2002:9).

Many environmental non-governmental organizations (ENGOs) formed across Canada in the period between 1969 and 1971 (O'Connor 2010:279). Most focused on local problems (O'Connor 2010; MacDowell 2012:252). One of the more successful was Pollution Probe, based in Toronto (O'Connor 2010; MacDowell 2012:249; Paehlke 2014:288). Greenpeace was another ENGO that originated in Canada at that time, but with an international focus (O'Connor 2010:18; MacDowell 2012:250-251; Paehlke 2014:285). The activism of the reform movement, particularly through organizations like Greenpeace, was a reaction to the conservatism of the preservation and conservation movements (Macnaghten and Urry 1998:49; Rootes 2004:614-615).

In the 1980s, transnational problems, such as acid rain and the ozone hole, supplanted local issues on the environmental agenda (O'Connor 2010:279). With the publication of the Brundtland Report (WCED 1987) in conjunction with the earlier *Canada as a Conserver Society* (Paehlke 2014:296), the concept of sustainability became popular, shifting reform environmentalism to a position of working within the capitalist system as an environmental sustainability movement (Agyeman 2005; Mol, Spaargaren, and Sonnenfeld 2009:5-7). In Canada, these shifts led to national amalgamations of local and provincial ENGOs (O'Connor 2010) and the rise of new, more globally-oriented ENGOs (O'Connor 2010; Paehlke 2014:298). Working within the capitalist system and dependence on grant funding, however, have left ENGOs open to co-optation by funders (Brulle 2000:192-193; Carroll, Graham, and Shakespear 2021:302). Carroll et al. (2021) note the more recent emergence of "clean-growth" ENGOs in Canada, friendly to the fossil

fuel industry, that advocate a slow (rather than urgent[10]) transition away from fossil fuels. Pollution Probe is one that has become a clean-growth advocate (Carroll et al. 2021:298).

The province of British Columbia (BC) has been a hotbed of "politically progressive" Canadian environmentalism (Carroll et al. 2021:300). Greenpeace started in Vancouver, BC in 1971 (O'Connor 2010:18). Vancouver is also the home of well-known biologist and science broadcaster, David Suzuki, who established the David Suzuki Foundation (DSF) in 1990 (DSF n.d.). The DSF is a well-respected, generalist ENGO with a national following. One of the biggest environmental actions in Canadian history pitted preservationists against the logging industry in Clayoquot Sound, BC in 1993 (Tindall and Robinson 2017). In that protest, environmentalists were aligned with local First Nations. More recently, First Nations in BC have protested against proposed fossil fuel pipelines running from Alberta through BC to the Pacific Ocean (Waldron 2022).

Environmental activism elsewhere in Canada has often involved BIPOC communities. In 2002, Grassy Narrows First Nation in northwestern Ontario worked with non-Indigenous environmental groups to blockade a logging road (Wallace 2010). Grassy Narrows had been subject to mercury poisoning in the 20th century from an upstream paper mill (Wallace 2010; York 2019). First Nations in southwestern Ontario have long suffered exposure to and have tried to speak out against pollutants from Sarnia's Chemical Alley and, more recently, from Toronto's waste disposal (Mascarenhas 2007). Marginalized Black and Indigenous communities in Nova Scotia have also experienced disproportionate exposure to local pollution (Rahder 2009; Waldron 2018, 2022).

[10] Climate change ENGOs, such as 350.org, advocate for an urgent transition away from fossil fuels and towards renewable energy (350.org).

Unlike the strong environmental justice movement and body of literature in the United States (e.g., Bullard 2000; Pezzullo and Sandler 2007; Mohai, Pellow, and Roberts 2009; Pellow 2009; Agyeman et al. 2016; Perkins 2021), scholars have claimed that there has been no identifiable environmental justice movement in Canada (Haluza-DeLay 2007; Jafri 2009:219; Keil, Ollevier, and Tsang 2009; Haluza-DeLay and Fernhout 2011:728), although that seems to be changing (Giang et al. 2022). The lack of discussion of an environmental justice movement has been attributed to the lack of racial segregation in cities (Rahder 2009:85; Teelucksingh et al. 2016:383) and the difficulty of talking about race in Canada (Jafri 2009:219; Teelucksingh et al. 2016:383). The happy discourse of multiculturalism obscures Canada's long history of oppressing Indigenous populations (Rahder 2009:84; Teelucksingh et al. 2016:383). In further obfuscation, Canada has been known more for its history as a haven from U.S. slavery (Reese 2011) than as a site of slavery (Kihika 2020:714) and discrimination against Blacks (Reese 2011:215; Kihika 2020).

Relatively recent developments have increased the profile of systemic racism across North America. Idle No More — an Indigenous-led movement — started in Canada in 2012 (Idle No More n.d.), a year before the Black Lives Matter movement started in the United States (BLM 2024). Both movements are rights-based, but Idle No More includes a focus on environmental protection (Waldron 2018:259-260; Idle No More n.d.). The Truth and Reconciliation Commission of Canada (TRC) released its 94 calls to action towards decolonization in 2015 (TRC 2015), bringing attention to the unthinkable treatment of Indigenous peoples since European settlement. Canadian environmental movement organizations have been increasingly incorporating Indigenous rights and awareness of environmental harms to Indigenous communities into their work (Graham and Robinson 2025).

Large ENGOs in the United States and elsewhere, including both reformist and conservationist organizations, have evolved to embrace the issue of climate change (Northrup 2012; Markham and van Koppen 2014; Boscarino 2015; Johnson, Coma, and Castonguay 2023). For conservation organizations, this is due in part to the realization that preservation cannot protect an ecologically sensitive area from the effects of climate change (Crist 2007:43-44; Northrup 2012:4). One goal of this dissertation is to determine whether that evolution has also occurred in conservation organizations in Canada.

The issue of climate justice is another relatively recent addition to the environmental movement, emerging out of the international environmental justice movement (Agyeman et al. 2016:329). Climate justice combines the issues of climate change and environmental justice to recognize that inequitable exposure to the harmful effects of climate change fall on those least able to withstand those effects (Harlan et al. 2015; Agyeman et al. 2016:329; Bäckstrand and Lövbrand 2019:526-527; Dietz, Shwom, and Whitley 2020:144). The proportion of large ENGOs in the United States that address climate justice, however, is quite small (Johnson et al. 2023). Again, I explore use of the climate justice frame amongst NRNPs.

Conservation and preservation organizations remain the core of the North American environmental movement (Brulle 2015:277; Carroll et al. 2021:289; Tindall 2025). The conservation and preservation branches tend to refer to themselves collectively as the "conservation movement," whether they are interested in wildlands or wildlife and whether for intrinsic or utilitarian purposes (Brulle 2000:133; Northrup 2012:14). This use of the term, "conservation," and the related, "conservationists," are intended to distinguish the conservation movement from the larger environmental movement, with its myriad of other issues (Northrup 2012:14-15). In Canada in 2025, the two ENGOs with the largest followings, both on social media

and more broadly, were wildlife organizations — the Canadian Wildlife Federation and World Wildlife Fund (WWF) (Tindall 2025). Two reform organizations — the DSF and Greenpeace — were in the mix with other conservation-oriented organizations near the top of the list (Tindall 2025).

Wrapping up the history section, another question for this dissertation related to the conservation movement is whether it is part of the environmental movement. In the United Kingdom, Saunders (2007) found that the conservation branch of the environmental movement tended to operate fairly independently from the rest of the movement. "[M]ost of the work of local conservationists is onsite at a local nature reserve, precluding the need for extensive networking" (Saunders 2007:236). Conservation organizations exchanged information with each other but were less likely to do so with other environmental organizations (Saunders 2007). Saunders (2007) questions whether conservation organizations are actually part of the environmental movement, in part because they do not engage in a social change agenda. Johnson et al. (2023:966) note the same question specifically about U.S. wildlife organizations. According to Snow, Soule, et al. (2019:6), social movements use unconventional means to communicate their demands, whereas interest groups operate within the existing system. Furthermore, social movements require some degree of coordination among participating bodies (Snow, Soule, et al. 2019:8). Bringing those assertions together suggests that conservation organizations behave as interest groups rather than a social movement.

2.2 NPOS, NGOS, AND ENGOS

DiMaggio and Anheier (1990) assert that the concept of NPOs in the United States originated in the 19th century from the desire of wealthy citizens to direct philanthropic activities. That aligns with the history of the environmental movement, as previously outlined. This has two implications

for this dissertation. One is that it speaks to the historic Whiteness and eliteness of NPOs, whether or not they are part of the environmental movement. The other is that it raises questions about how NPOs operate. It is important to note that the institutional context for NPOs varies from country to country (DiMaggio and Anheier 1990). I apply a Canadian lens to the discussion.

NRNPs are, by definition, NPOs. A frequently cited passage lists three characteristics of NPOs that distinguish them from for-profit organizations and government: "(1) they do not coerce participation; (2) they operate without distributing profits to stakeholders; and (3) they exist without simple and clear lines of ownership and accountability" (Frumkin 2002:3). In other words, membership or participation in or donating to an NPO is voluntary, any money received is used to fulfill the purposes of the organization, and the organization is run by a volunteer board of directors that must consider its many stakeholders in making its decisions (Frumkin 2002).

NPOs range from small, local, unincorporated, grassroots groups to large, incorporated, national or international bodies. Aside from incorporation, the main legal distinction in Canada among NPOs is whether or not an organization is charitable. That distinction is not always obvious in practice.[11] Charitable organizations must be incorporated.

There is no well-defined difference between NPOs and NGOs (non-governmental organizations) other than that the latter is explicitly not a government body. Because one category of NRNPs is quasi-governmental,[12] I use "NPO" rather than "NGO" in this dissertation. In addition, the term "NGO" is often associated with national and international organizations (Davies 2019). A subcategory of NGOs is ENGOs (environmental non-governmental organizations),

[11] Charities and NPOs are mutually exclusive categories in Canada (CRA 2016). For the purposes of this dissertation, however, "NPO" is used as an umbrella term for charities and non-charitable non-profit organizations. At the level of smaller organizations, the two types of organizations work side-by-side and are relatively indistinguishable without checking an organization's website for the presence of a donation page with wording about charitable tax receipts. This research revealed that even employees and board members sometimes did not know whether their organization was charitable or incorporated.

[12] The third category in the next section is provincially-mandated conservation authorities.

referring in general terms to the environmental movement. Again, the term ENGO tends to apply to such organizations that are active at the international level (Partelow, Winkler, and Thaler 2020).

2.3 NATURE-RELATED NON-PROFITS (NRNPS)

The foregoing discussion on the conservation movement,[13] along with the brief discussion of NPOs, provides the necessary background for describing NRNPs. I define NRNPs as NPOs that are dependent on nature as a site for their activities. My definition encompasses the conservation movement as well as conservation-adjacent NPOs. I limit the term to organizations that are physically out in nature, at least in part, so that they might be exposed to the effects of climate change in the course of their activities. As such, they tend to be relatively small, local organizations. I exclude any group whose sole activity is lobbying. In targeting NRNPs within the province of Ontario, Canada, I also exclude groups whose focus is nature outside Ontario, such as tropical rainforests.

In this section, I distinguish among three categories of NRNPs on the basis of: 1) purpose, 2) charitable status, 3) sources of funding, 4) whether the organization has paid staff, 5) whether the organization promotes social change, 6) geographical scope, 7) whether the organization is nested under an umbrella organization, 8) the composition of the board of directors, and 9) the composition of the voting membership. These characteristics are summarized in Table 2.1.

One key distinction between NPOs is their purpose (Tschirhart 2006:524). A long-standing categorization in the literature is "expressive" versus "instrumental," where the former exists to serve the membership and the latter exists for purposes external to the organization and its membership (Gordon and Babchuk 1959; Frumkin 2002; Tschirhart 2006:524). Recreational clubs

[13] Including wildlife and forest conservation and preservation organizations.

would be considered expressive membership associations.[14] Conservation organizations would be considered instrumental due to their external focus.

One category of NRNPs is comprised of conservation-oriented NPOs that take on local nature projects, such as planting trees or restoring wetlands. These organizations could be related to: 1) the preservation branch if they are focused on a vision of pristine nature, such as a local land trust; 2) the wildlife conservation branch if they are focused on conservation for the purposes of maintaining wildlife habitat, which could include hunting and fishing clubs; or 3) the resource conservation branch if they are focused on restoring nature for the value and services it provides to humans. Due to their involvement in conservation activities, all would be instrumental organizations, at least to some degree (Gordon and Babchuk 1959; Frumkin 2002; Tschirhart 2006:524).

A second category includes nature-related membership associations, such as hiking clubs, naturalist clubs, and cross-country skiing clubs. Hiking clubs are descended from the preservation branch. Naturalist clubs are descended from the National Audubon Society and are related to scientific conservation with a focus on nature appreciation. Cross-country skiing was imported from Norway (Stoddart 2012:17-18). As member-oriented recreational clubs, these three types of groups would be primarily expressive organizations (Gordon and Babchuk 1959; Frumkin 2002; Tschirhart 2006:524).

Instrumental purposes for NPOs would generally be considered charitable whereas expressive purposes generally would not. In the Canadian context, most conservation-oriented organizations would qualify for charitable status, whereas most recreational clubs would not unless they have a conservation component in their mission. Naturalist clubs and some hiking clubs are

[14] A membership association is defined as "a formally organized named group, most of whose members —whether persons or organizations — are not financially recompensed for their participation" (Knoke 1986:2).

both expressive and instrumental, and so, qualify as charitable organizations.[15] Being a registered charity qualifies an NPO for a much wider range of grant funding and donations than is available to non-charitable organizations, such as recreational clubs, which are mostly dependent on membership fees. Consequently, conservation organizations are more likely to have a paid staff than are recreational clubs.[16]

Another aspect of the purpose of an organization is whether it engages in a social change agenda (Tschirhart 2006:524-525). Membership associations may be categorized by whether they operate in alignment with the status quo, attempt to change the status quo, or provide an alternative lifestyle to their members (Tschirhart 2006:524-525). Knoke (1986:2) defines the difference between associations and interest groups as follows: "Whenever associations attempt to influence governmental decisions, they are acting as interest groups." None of the organizations interviewed were activist organizations, although some could be considered interest groups due to engaging in advocacy with one or more levels of government.[17] They all could be considered to be working within the status quo.

A third aspect of the purpose of an organization is the geographical scope of its operations. Within the context of this dissertation, the recreational clubs and conservation groups in which I am interested tend to conduct their activities in and draw their membership from the local or

[15] This is based on information gathered in the pre-interview questionnaire.
[16] This conclusion is derived from information gathered in the pre-interview questionnaire. Of the organizations interviewed, only two fairly new conservation organizations did not have a paid staff and they also did not have charitable status. In contrast, only one member-oriented recreational organization, other than umbrella groups, had a part-time paid staff member.
[17] One-third of organizations interviewed mentioned making representations to the local government regarding conservation issues, engaging in backroom meetings with the provincial or federal government, or supporting advocacy initiatives of their umbrella group. Two NRNPs took part in (did not organize) a "little protest" against the provincial government as a one-time event. This level of activity would be consistent with being categorized as interest groups rather than social movement organizations (Snow et al. 2019:6). The remainder could be categorized as associations.

regional communities. The local organizations often belong to an umbrella organization at a higher geographical level.

Another distinction between NPOs is how they are governed. NPOs are reliant on a volunteer board for governance and ongoing oversight of the organization. Ontario's *Not-for-Profit Corporations Act, 2010* (ONCA), which applies to all NPOs incorporated in the Province of Ontario, vests certain rights in the membership, whereas other rights and responsibilities may be delegated to the board (Province of Ontario n.d.a). The general members would have the opportunity to express their opinions at an annual general meeting (AGM) if the organization was incorporated (Tschirhart 2006:533; Province of Ontario n.d.). Recreational clubs tend to elect board members from within their membership; all of the organization's members would typically have voting rights at an AGM. Conservation organizations have greater governance concerns and may recruit board members with needed expertise from the wider community. They also vary in how they regard their membership, as described by Doug, a board member of Expansive Preservation Organization:

> Land trusts and probably other conservation groups seem to fall into two categories: those that have extremely limited membership — the board and a couple dozen others. We have always opted for an open membership.

While some conservation organizations limit their voting membership to the board, Expansive PO was one that opened their voting membership to all financial supporters. Separate from or overlapping with financial supporters, conservation organizations might also have volunteers, who are generally not considered members.

My third category of NRNPs is conservation authorities (CAs). CAs are quasi-governmental, instrumental bodies operating under a mandate from the Province of Ontario to "undertake watershed-based programs to protect people and property from flooding, and other natural hazards, and to conserve natural resources for economic, social and environmental benefits" (Conservation

Ontario n.d.a). I include them because they are involved in similar work to conservation organizations, their activities are in nature, and their target population is their local communities. Over one-third of the interviewees from non-CAs[18] mentioned working with the regional CA, and most of the CA interviewees mentioned working with other NRNPs. This situates CAs and NRNPs in the same field.

As provincially-mandated organizations, CAs are very different from the other NRNPs in how they are governed. Each CA operates within a defined watershed. Members of CAs, officially, are the municipalities within their watershed. The boards of CAs are comprised of elected politicians from those member municipalities. The 36 CAs are all members of a provincial coordinating body — Conservation Ontario.[19] Most CAs have a separate foundation that is able to collect charitable donations. CAs are well-staffed relative to most other NRNPs.[20]

To conclude my description of NRNPs, I offer this summary from Veronica, a board member of Save Our Trails Conservation Organization:

> We're just filling a particular niche. … All these organizations, some of which would, I'm sure, be quite happy to call themselves part of the environmental movement, are absolutely part of this group. Right? But we're performing different functions within it. Right? And communicating to a different, like, a connected, but an overlapping network of individuals.

From Veronica's description, NRNPs are situated within a field that includes organizations both inside and outside, but adjacent to, the environmental movement. Whether NRNPs are part of that movement is another research question for this dissertation.

[18] "CA" refers to conservation authority. I use "non-CA" to refer to other types of NRNPs.
[19] At the time of completion of this dissertation, the 36 CAs were threatened with restructuring and consolidation (Canadian Press 2026).
[20] All CAs interviewed had more than 10 paid staff members, while only 16 percent of the other NRNPs did.

***Table 2.1**. Characteristics of NRNPs in Ontario.*

Characteristics of NRNPs	Recreational Clubs	Conservation Organizations	Conservation Authorities (CAs)
Includes	Hiking clubs, cross-country skiing clubs, naturalist clubs	Conservation, preservation, and wildlife organizations, Friends of nature sites and provincial parks	Provincially-mandated conservation authorities
Purpose	Expressive, maybe also instrumental	Instrumental, maybe also expressive	Instrumental
Charitable	Maybe	Usually	Yes (through separate foundations)
Funding	Primarily membership fees	Primarily grants and donations	Primarily government funding
Paid staff	Usually none, unless an umbrella organization	Often small	Yes
Social change	No	No	No
Geographical scope	Primarily local or regional	Primarily local or regional	Watershed-based
Related umbrella organizations	Regional, provincial, or national	Regional, provincial, or national	Provincial
Board of directors	Volunteers elected from the membership	Volunteers	Municipal/regional politicians
Voting membership	All club members	May be limited to board members or include supporters	Board only

2.4 THE ENVIRONMENT AND NATURE

While there are overlaps between my definition of NRNPs and the conservation and preservation branches of the environmental movement, I avoid the terms "environment," "environmental groups," and "environmental movement" in reference to NRNPs for four reasons. First, the environmental movement includes branches other than conservation and preservation, such as reform environmentalism, whereas my focus excludes the other branches. Second, there is some debate as to whether conservation groups constitute part of the environmental movement, because they tend to lack ties with and have different interests than the rest of the movement (Saunders 2007). Third, I allow room for recreational groups that might not consider themselves

part of the environmental movement. Fourth, and most importantly, the label of "environmentalist" is rejected by many, including birders, due to its cultural association with activism and radicals (Cherry 2019). Environmentalists frequently try to influence others in their social networks (Tindall and Piggot 2015), from which some people prefer to distance themselves (Cherry 2019).

In labelling my target population "nature-related," I recognize that the label emphasizes the separation of nature from everyday life. Nonetheless, that separation is in the genesis and ongoing ethos of many of these organizations, as discussed in Section 2.1. Lynn White, Jr. made waves in 1967 with a declaration that the Christian religion was founded on the belief that humans are separate from and above the rest of God's creation — that God created nature for human use. White blamed Christians for the abuse and destruction of nature over the centuries (White 1967; Kinsley 1995:103-106). Others have asserted, instead, that this view of human dominion over nature, specific to Western culture, arose with the Enlightenment (Kinsley 1995:165; Uggla 2010:80; Arora-Jonsson and Ågren 2019:878). Nonetheless, since White's intervention, some branches of Christianity have recognized their complicity and converted to ethics of stewardship, ecojustice, or ecospirituality (Kearns 1996).

"Nature" implies "natural" or unaffected by humans, which is romantic but nearly impossible on the planet today (Uggla 2010:80). Geographers have coined the term "socionature" to refer to the view that all nature has a social dimension; that is, nature is intertwined with and impossible to separate from human activity (Castree 2001). In the Canadian context, the idea of wilderness is part of the Canadian identity due to the continued abundance of vast, seemingly untouched landscapes (Paehlke 2000:284). Nature, in the view of conservationists, generally ignores that fact that people, often non-White, might have been living in and/or gaining their sustenance from that nature (Mortimer-Sandilands 2009; Taylor 2016:396). While an integral

element of leisure studies, nature is often seen in that field as "an uncontested spatial backdrop against which the human experience unfolds" (Rose and Carr 2018:266). The conservationist and leisure studies views are at odds with an Indigenous worldview that all living things are connected (Clarkson, Morrissette, and Régallet 1992; Kinsley 1995:3). Reform environmentalism, as well, recognizes that all living things are connected, thanks, in part, to Rachel Carson, whose work showed that damage to nature could also have consequences for humans (Brulle 2000:183).

Despite the fact that I problematize the distinction between humans and nature, many of the subjects of this research still embrace the separation between the two, whether, for instance, overtly participating in an exploitative form of hunting[21] or more subtly viewing nature as a place to which to escape or an object to view and record. The term "naturalist," itself, reveals a human-nature split. Although I fully recognize that humans are part of nature, my topic requires that I separate the two.

2.5 RATIONALE FOR STUDYING THIS POPULATION

My overarching interest is in increasing action on climate change. My primary interest in constructing the concept of NRNP was to capture NPOs that are physically out in nature. My rationale was that groups that experience the effects of climate change in their regular activities might have an increased concern about climate change, which could be translated into an increased interest in climate action. Research has shown that those who have experienced climate change are more likely than those who have not to accept that climate change is happening (Myers et al. 2013) and, consequently, are more likely to take action (Ayers et al. 2024), as long as the connection of the experience to climate change is made (Ballew et al. 2022). NRNPs can play a role in making that connection. In addition, action need not be activist but could involve contributing

[21] Thank you to Dr. Tom Beckley for pointing out that there is a variety of approaches to hunting and angling, some much more respectful of and in relationship with nature.

observational data — an activity well-suited to NRNPs — or simply increasing interest in climate change through conversation (Goldberg et al. 2019) and, thereby, dispelling misconceptions that others are not interested in climate action (Maibach et al. 2016; Ballew et al. 2019; Sparkman et al. 2022; Comeau 2026).

Seventy percent of Canadian adults spent time outdoors in 2012 in order to experience nature (Environment Canada 2014). If the large middle of the population that spends time in nature took more interest in climate action, that might tip the balance of public opinion and end the climate spiral of silence (Maibach et al. 2016). Politically centrist Civic Nationals, such as naturalists and hikers, comprise 21 percent of the Canadian population and are engageable on climate change at the community level (Lachapelle and Comeau 2024). Targeting this newly identified middle segment of the population addresses a gap in the literature.

Furthermore, I am interested in learning whether some NRNPs are ideologically opposed to climate change action. Proponents of wind turbines, intended to reduce greenhouse gas (GHG) emissions, have often met stiff opposition from residents and organizations concerned about bats and other wildlife populations (Wolsink 2007; Christidis, Lewis, and Bigelow 2017). I explore the role of NRNPs in this opposition.

Finally, knowing that the environmental movement has a reputation of being largely White and elitist (Agyeman 2005:80; Pezzullo and Sandler 2007; Jafri 2009; Gibson-Wood and Wakefield 2013; Taylor 2016), I selected types of organizations that have a low direct financial barrier to participation, to reduce the effect of financial barriers on my research. I included naturalist groups, hiking clubs, cross-country ski groups, hunting and angling groups, and volunteer-oriented conservation organizations. While some degree of financial outlay may be required for some of these activities depending on the level of involvement, for most of these

activities the biggest barriers to participation are the availability of leisure time and the ability to reach the activity location. Part of the lower financial barrier is that the types of organizations that I selected are able to perform their activities in existing environments, as opposed to a highly manufactured environment such as is required for downhill skiing (Stoddart 2012).

Having defined the target population, I need to outline the many gaps filled by engaging with this particular group of organizations. First, in very general terms, most of the literature on conservation organizations looks at large, established, national and international ENGOs (e.g., Johnson 2006; Markham and van Koppen 2014; Boscarino 2015; Partelow et al. 2020; Johnson et al. 2023). Smaller organizations are often overlooked, while many of the smallest organizations are not even listed anywhere (Tschirhart 2006:525). Second, these large ENGOs attract a broad range of supporters, but there is often little or no tangible connection among the ENGO, the supporter, and nature other than money. Smaller conservation organizations are on the ground, recruiting volunteers, and experiencing the local environmental conditions, as are local recreational clubs. Third, a lot of the literature focuses on the U.S. context or is heavily weighted in that direction. Researchers call for studies outside of the United States (e.g., Boscarino 2015:109). I have chosen Canada, but more specifically, Ontario. Much of the research on Canada's environmental movement and counter-movements focuses on the west (e.g., Tindall 2004; Stoddart and Tindall 2010; Stoddart, Ramos, and Tindall 2015; Tindall and Robinson 2017; Carroll 2021; Afanasyeva, Davidson, and Parkins 2022) and misses the great diversity of Canada's largest province. Finally, I posit that nature-related recreational groups are not only adjacent to, but interconnected with, conservation organizations, forming part of the same field, in the Bourdieusian sense. I include CAs because, in the Ontario context, they are doing similar work to conservation NGOs. I posit that they, too, form part of the same field.

In summary, I am studying a field that I have defined but not seen studied elsewhere. Lachapelle and colleagues (Lachapelle and Comeau 2024; Lachapelle and Martel-Morin 2024) have defined a similar population quantitatively but have not yet produced in-depth qualitative research focusing on this portion of the population. In very general terms, the existing research misses the field of the everyday. I bring this field to light in this dissertation. A description of my insider-outsider positionality with respect to NRNPs is in Appendix A.

CHAPTER 3 – THEORETICAL LOCATIONS

In this chapter, I lay out the literature and theoretical locations shared by later chapters. My main interest is the sociology of climate change. While that topic falls within the subfield of environmental sociology, there is recognition that climate change should receive greater attention within the broader field of sociology (Falzon, Roberts, and Brulle 2021; Davidson 2022; Lockie 2022). This dissertation looks at responses to climate change from a variety of perspectives that can open a broader conversation in the sociology of climate change. A "*sociology of* wildland recreation" was one of the foundations of environmental sociology (Dunlap and Catton 1979:248; also Stoddart 2012:6). While that strand shifted its focus over time from recreational groups to the environmental movement (Dunlap and Catton 1979:248), this dissertation returns to that early strand by focusing on NRNPs that spend time in nature.

This chapter contains four sections: 1) framing theory and climate change, 2) organizational inertia and the sociology of organizations, 3) Whiteness and environmental privilege, and 4) actor-network theory (ANT), followed by a section that brings the strands together. Climate change framing and discourse are a main strand in the existing sociology of climate change literature (Falzon et al. 2021; Davidson 2022; Lockie 2022); the other three theoretical directions are not. Because this dissertation spans a range of subfields within sociology, with which the reader might not be familiar, this chapter includes more foundational presentations of the literature than might normally be part of a dissertation.

In the framing section, I first discuss the canonical literature on framing, notably Snow and Benford's (1988) three "core framing tasks" of diagnostic, prognostic, and motivational framing. I employ this categorization as I discuss various frames used to communicate about climate change. An expected frame for nature-related organizations would be nature-based climate

solutions (NbCS) (Woroniecki et al. 2020; Osaka, Bellamy, and Castree 2021; Seddon et al. 2021; Melanidis and Hagerman 2022). The section raises the distinction between political and post-political framing, where NbCS would be an example of the latter. In Chapter 6, I use this background to discuss frames used by ENGOs and the media and apply that to my data. I find that NRNPs used all three types of framing: their diagnostic framing leaned towards describing the effects of climate change; for prognostic framing, they preferred NbCS; and for motivational framing, they noted the benefits of climate action rather than overtly encouraging action.

The second section develops the concept of organizational inertia (Hannan and Freeman 1984) and applies it to the issue of climate change. Theoretical strands include new institutionalism (Meyer and Rowan 1977; DiMaggio and Powell 1983, 1991), field theory (Bourdieu 1990; Bourdieu and Wacquant 1992), strategic action fields (Fligstein and McAdam 2012), resource dependency theory (Pfeffer and Salancik 1978; Hillman, Withers, and Collins 2009), and non-profit perspectives. The section ends by using these theoretical bases as background for Munck af Rosenschöld et al.'s (2014) institutional inertia on climate change and Brulle and Norgaard's (2019) social inertia on climate change. In Chapter 7, I find that the sources of organizational inertia for NRNPs on communicating about climate change exist at the level of the field, organization, and individual. Field-level challenges included: 1) the subfield of the organization within the larger field; 2) funding and institutional constraints; and 3) conservative constituencies. At the individual level, organizations were influenced by members of their leadership team. Organizational-level challenges included: 1) the age and mission of the organization, and 2) size and capacity.

Having laid out the background on how NRNPs communicate about climate change and organizational challenges to doing so, the third section of this chapter problematizes the finding

that my participants were overwhelmingly White. The section starts by presenting theories of homogeneity in NPOs, generally. Next, it defines general concepts related to Whiteness, bringing in the Canadian context. It then explores Whiteness in the environmental movement and in leisure studies. The section builds toward the ultimate concept of environmental privilege (Pellow 2009:5; Park and Pellow 2011; Norgaard 2012; Argüelles 2021).

In Chapter 7, I apply the concepts of organizational inertia and environmental privilege to my data. I find that some of the same organizational obstacles that limit communications on climate change also limit NRNPs' engagement with decolonization, equity, diversity, and inclusion (DEDI). The ability to ignore DEDI is a manifestation of White privilege, while extending that to privileged access to environmental amenities, representation, and identity, and the naturalization of that privilege (Argüelles 2021), as well as the ability to ignore climate change, are all manifestations of environmental privilege. Drawing links between an organization's handling of climate change and DEDI is a unique contribution of this dissertation, as is delving into the dimensions of environmental privilege in NRNPs.

The fourth section lays out the concepts and terminology of ANT (Callon 1984; Law 1999; Latour 2005; Law 2008; Mol 2010; Jackson 2015). ANT is an appropriate framework for studying NRNPs, considering that the location of NRNPs in nature puts them in frequent contact with non-human entities that might affect the behaviour of the NRNPs. ANT is built on case studies so, in Chapter 5, I apply ANT concepts to two case studies involving NRNPs.

Studies of climate change communications typically apply framing theory to news media coverage (Agin and Karlsson 2021). In this dissertation, I go beyond typical analyses to incorporate a novel collection of theoretical perspectives, not to be novel but because the data

demands it. I ask not just how NRNPs communicate about climate change, but also why they take the approach to climate change that they do.

3.1 FRAMING CLIMATE CHANGE

The main goal of my research is to understand how NRNPs communicate about climate change. I use framing theory to examine this issue, primarily from the social movement literature in sociology. I also draw on the communications literature because framing processes are undertaken by anyone who is trying to convince others to see the world in a particular way, whether they are social movement organizations (SMOs), politicians, corporations, media, or NRNPs (Entman 1993; Benford and Snow 2000; Snow, Vliegenthart, and Ketelaars 2019). After outlining framing theory, I add a section on factors affecting framing processes (Benford and Snow 2000), as a precursor to identifying obstacles faced by NRNPs in their communications. I then discuss the literature on climate change frames. This section forms the theoretical basis for Chapter 6 on framing.

3.1.1 Framing Theory

Framing theory begins with Goffman (1974) recognizing how people interpret situations in their own way and, at the individual level of interaction, may convey their interpretations differently depending on their audience. Those different interpretations are called frames. Frames help to organize and give meaning to an individual's experience (Goffman 1974; Entman 1993; Benford and Snow 2000). In communications studies, frames "*define problems* …; *diagnose causes* …; *make moral judgments* …; and *suggest remedies*," although a frame might not do all four things (Entman 1993:52). For social movements, frames are used to build movement participation (Snow et al. 1986:464). This dissertation focuses on frames used by NRNPs to communicate with their constituents.

Framing is the term for crafting a message for a target audience, in a deliberate process of meaning-making (Snow and Benford 1988; Benford and Snow 2000; Snow, Vliegenthart, and Ketelaars 2019). Two discursive processes are involved (Snow et al. 2019:397-398). "Frame articulation" involves tying together various events, issues, and ideas into a cohesive package (Benford and Snow 2000:623; Snow et al. 2019:397-398). "Frame elaboration" then involves the communicator selecting certain of those events, issues, and ideas and making them more salient, while downplaying other aspects (Entman 1993; Snow et al. 2019:398). For instance, the frame of NbCS focuses on nature, such as planting trees, as a benign solution to climate change, while sidelining any controversial issues.

Collective action frames, created by SMOs to mobilize constituents, may be classified as diagnostic, prognostic, or motivational (Snow and Benford 1988; Snow, Vliegenthart, and Ketelaars 2019:396-397). Diagnostic framing identifies a problem and its cause, and prognostic framing identifies a solution (Snow and Benford 1988:199). Markham and van Koppen (2014) found that the large NRNPs tended to communicate more about the problem of climate change than about solutions, which might lead to inaction (Snow and Benford 1988:203). Another challenge in framing climate that might lead to inaction is having too technical a diagnosis and prognosis (Snow and Benford 1988:204). Snow and Benford (1988:200) note that it is more difficult to come to agreement on the cause of a problem than its existence. This is true of climate change as well, in that more people accept that climate change is happening than that it is primarily human-caused.[22]

Motivational framing is required for mobilization because "agreement about the causes and solutions to a particular problem does not automatically produce corrective action" (Snow and

[22] In the November 2023 round of the *Climate Change in the American Mind* survey, Leiserowitz et al. (2023) found that 72% of U.S. adults thought climate change was happening but only 58% thought it was mostly human-caused.

Benford 1988:202). Motivational framing either encourages mobilization or provides a rationale for undertaking the solution (Snow and Benford 1988:199). Motivational framing often contains an emotional element in the call to action (Jasper 2011; Snow, Vliegenthart, and Ketelaars 2019:397). For the purposes of this dissertation, however, I place the emotional element outside the scope.

All NRNPs engage in framing messages for their internal and external communications, "whether … intentionally or intuitively" (Nisbet 2009:15). In Section 3.1.3, I organize the frames used to communicate about climate change under the three core framing tasks of diagnostic, prognostic, and motivational framing (Snow and Benford 1988). In the next subsection, I discuss the external factors that could affect framing processes.

3.1.2 Factors Affecting Framing Processes

Frames are constantly being generated and modified as issues arise and meanings change (Benford and Snow 2000). In their review article, Benford and Snow (2000:628) reported three particularly important factors that affect framing processes: "political opportunity structure, cultural opportunities and constraints, and the targeted audiences." This subsection addresses these factors, all of which are related to each other in the context of this dissertation.

Political opportunity structures refer to the effects of stability or changes in political institutions on the opportunities and constraints for social movements (McAdam, McCarthy, and Zald 1996:2-3; McAdam and Tarrow 2019). Changes in material conditions, such as increasing inflation, may create a political opportunity (Benford and Snow 2000:628). The most relevant and pervasive structural change in Canada throughout the data-gathering period was growing inflation in the wake of the COVID-19 pandemic (Angus Reid Institute 2023).[23] In terms of political process

[23] See section 1.1.3 of this dissertation for background.

theory, this created instability in political alignments, opening the door to contention (McAdam and Tarrow 2019:21). That contention was led by the leader of the Conservative Party of Canada, Pierre Poilievre, who enjoyed increasing popularity throughout 2023 (Angus Reid Institute 2023).[24] Poilievre's framing of the solution to inflation as "Axe the [Carbon] Tax" (Angus Reid Institute 2023)[25] imposed a discursive constraint on discussion of climate change.

In contrast and specific to Ontario, political opportunities arose out of Progressive Conservative Premier Doug Ford's attack on the mandate of CAs (Syed 2021) and manipulation of the Greenbelt around the Greater Toronto Area (Canadian Press 2023).[26] Although more related to nature conservation than climate change, these issues presented discursive opportunities relevant to NRNPs. Movement pressure was partially successful, as Ford backtracked on removals of parcels of land from the Greenbelt near the end of the data collection period (Canadian Press 2023).

Political opportunities affect the salience of particular topics, creating cultural and discursive opportunities (Jasper and Polletta 2019; Snow, Vliegenthart, and Ketelaars 2019:398-399). Goodwin and Jasper (1999) criticize political process theory for understating the influence of culture. "[G]roups with wide political connections and deep pockets have an advantage in" getting their messages heard (Jasper and Polletta 2019:68). In Canada, the fossil fuel industry, tied to the Conservatives, has long engaged in advocacy against climate action (Carroll 2021; Graham and Robinson 2025). At the time of data collection, the rise of right-wing extremism, as evidenced by the Freedom Convoy (Askanius et al. 2025), was the most pervasive cultural trend, resulting in the label of "culture wars" to refer to the growing polarization (Angus Reid Institute 2023).[27]

[24] See section 1.1.3 of this dissertation for background.
[25] See section 1.1.3 of this dissertation for background.
[26] See section 1.1.3 of this dissertation for background.
[27] See section 1.1.3 of this dissertation for background.

The third factor noted by Benford and Snow (2000) that influences framing processes is the target audience. To be effective, a frame should resonate with its intended receivers (Snow et al. 1986:477; Snow and Benford 1988; Benford and Snow 2000:619). Receivers are embedded in cultures (Johnston and Klandermans 1995:5) and have pre-existing values and frames (Snow et al. 1986:486; Entman 1993:53). To increase the probability that their messages resonate with their target audience, SMOs engage in "frame alignment" — linking "some set of individual interests, values and beliefs and SMO activities, goals, and ideology" (Snow et al. 1986:464). For instance, Markham and van Koppen (2014) found that nine of ten large nature-protection ENGOs in the United States, Germany, and the Netherlands framed climate change as a threat to nature — a frame that would resonate with their supporters.

"Frame bridging" is a type of frame alignment wherein a SMO links "two or more ideologically congruent but structurally unconnected frames regarding a particular issue or problem" (Snow et al. 1986:467). Climate action and action on biodiversity loss are two such frames that are congruent in their environmental focus. NbCS is a bridging frame between those frames that is intended to resonate with multiple audiences (Melanidis and Hagerman 2022). NbCS are described in more detail in Section 3.1.3.3.4.

One framing challenge for SMOs is having multiple target audiences with different values and interests (Benford and Snow 2000:630). "[F]raming messages in hopes of resonating with one audience run the risk of undermining the prospect of resonance with another audience" (Snow, Vliegenthart, and Ketelaars al. 2019:403). Therefore, a SMO might frame an issue differently for different segments of its target audience or for its members differently from a public communique (Benford and Snow 2000:630).

Two examples in the literature illustrate the effect of the target audience on framing processes. Cherry (2019) found that the Audubon Society — the largest birding organization in the United States — framed its arguments within a narrow, non-controversial space. This "strategic centrism" was intended to position the organization "between environmentalists and the ranchers, landowners, and conservative politicians that the Audubon Society seeks to work with," thereby hoping to keep from alienating either side (Cherry 2019:758). Similarly, Haluza-DeLay (2015:294) found that faith communities in Alberta tended to be apolitical due to "norms of niceness." In both of these cases, the organizations were hoping to achieve frame resonance with the largest possible audience by avoiding controversy.

This subsection has outlined some external challenges facing NRNPs in communicating about climate change, most notably a growing conservative trend. That has affected the political and cultural landscapes as well as portions of the constituencies of some NRNPs, as will be seen in Chapters 6 and 7. In the next section, I discuss frames used to communicate the issue of climate change.

3.1.3 Climate Change Frames

Since climate change rose to prominence as a public issue in the 1980s, most climate scientists, governments, the UNFCCC and IPCC, the climate movement, and others have joined in communications to convince the world about the seriousness of human-caused climate change (Bolsen and Shapiro 2018). For almost as long, conservative think tanks in the United States (Nisbet 2009:18-19; McCright and Dunlap 2010) and the fossil fuel industry in Canada (Carroll 2021) have been at work reframing climate change as something that does not require action. These think tanks and industry organizations have strong ties to powerful right-wing media outlets that have been successful in amplifying the messages and creating a skeptical public (McCright and

Dunlap 2010:124; Carroll 2021). Social media has become another forum for spreading skepticism, often through climate change conspiracy theories (Staggenborg and Meyer 2022:33; CCDH 2024:34).

The majority of Canadian and U.S. adults are now concerned about climate change.[28] Nonetheless, there is a substantial disengaged or cautious segment in both countries[29] that is the target of communicators on both sides of the climate change argument, which Hoffman (2011) labels as "convinced" versus "skeptical." These communications contribute greatly to the political polarization in both countries (Hoffman 2011; Bolsen and Shapiro 2018). In this dissertation, almost all communications were on the convinced side. It is, nonetheless, helpful to be aware of the frames used by opposing voices, including some of the constituents of NRNPs.

The convinced discourse may be subdivided into political versus post-political discourses. Political discourse, distinct from the field of politics, "acknowledges the existence of conflict, power, and division" in society (Kenis and Lievens 2014:535). Post-political discourse, in contrast, frames solutions as necessary and obscures the hegemonic powers that proffer those solutions (Kenis and Lievens 2014:535-536). Regarding climate change, a popular frame within the political discourse criticizes the fossil fuel industry for covering up the contribution of fossil fuels to climate change (Graham and Robinson 2025). Another political frame is the climate justice frame, which highlights disparities between the Global North and Global South (Tokar 2019; Graham and Robinson 2025). Post-political discourse implies that everyone needs to work together in the global fight against climate change (Swyngedouw 2010). In taking a scientific, managerial approach to

[28] In Canada, 56 percent fell into one of the three categories concerned about climate change (Lachapelle and Comeau 2024); 54 percent in the United States were Alarmed or Concerned (Leiserowitz et al. 2025).
[29] In 2023, 30 percent of Canadian adults fell into the Disengaged Middle category on climate change (Lachapelle and Comeau 2024). Martel-Morin and Lachapelle (2022) did not find a significant Cautious category in their Canadian study. In 2024, 5 percent of U.S. adults were labelled Disengaged; another 18 percent were Cautious (Leiserowitz et al. 2025).

climate change, the post-political discourse depoliticizes the discussion while supporting the status quo (Swyngedouw 2010; Brulle and Dunlap 2015:12).

Several researchers have used Snow and Benford's (1988) three core framing tasks of diagnostic, prognostic, and motivational framing to categorize climate change frames (Hoffman 2011; Wetts 2020; Vu et al. 2021; Graham and Robinson 2025). Using this categorization in the analysis in Chapter 6 provides an indication of the level of activism of NRNPs. Hoffman (2011) found that the frames within this categorization differed between convinced and skeptical communications. I spend the majority of this section outlining frames on the convinced side, then end the section with a brief look at skeptical framing. Table 3.1 provides an overview of the frames outlined in the remainder of this section, as a roadmap.

***Table 3.1**. Climate change frames in the literature, in the order discussed in this chapter.*

DIAGNOSTIC	PROGNOSTIC	MOTIVATIONAL
CONVINCED		
Science and environmental effects Economic consequences Blame	Mitigation and adaptation Ecomodernist solutions: - Science and technology - Economics and market-based solutions Conservation and nature-based solutions Climate justice	Catastrophism and urgency Efficacy Sustainability and resilience Moral responsibility, values, benefits, and risks
SKEPTICAL		
Questioning climate science	Opposition to climate action	Economics and risk

3.1.3.2 Diagnostic Frames

Diagnostic frames identify a problem, such as climate change, and attribute blame or causality (Snow and Benford 1988:200). Science, environmental effects, and economic

consequences are frequently-listed diagnostic climate change frames (Bolsen and Shapiro 2018; Badullovich, Grant, and Colvin 2020). I address these three frames in this section and add the frame of blame, based on Snow and Benford's definition.

3.1.3.2.1 Science and environmental effects. The physical mechanics of climate change were first discovered by scientists, so communicating about climate change using science terminology has been standard for decades (Nisbet 2009:14; Hoffman 2011; Badullovich et al. 2020). "[T]he scientific facts are assumed to speak for themselves" (Nisbet 2009:14). For example, the IPCC communicates in terms of global surface temperatures, GHG emissions, and likelihoods (IPCC 2023:4). Science framing of climate change can be diagnostic, prognostic, or motivational. When science is used to measure or explain past impacts, it is a diagnostic frame.

Related to the diagnostic science frame is the frame of simply identifying the environmental effects of climate change. For example, members of NRNPs noticed changes in the range of flora and fauna, shifts in the seasons and water levels, and more extreme weather (Seiler 2024). A diagnostic frame would share those observations with the membership. Researchers have categorized the effects frame as a frame of environmentalism (Rademaekers and Johnson-Sheehan 2014:7) or environmental consequences (Bolsen and Shapiro 2018:150).

The language of science and environmentalism does not always resonate with the general public and is subject to resistance (Rademaekers and Johnson-Sheehan 2014:10). Moreover, scientific language focusing on climate change as the problem obscures "*[t]he real problem* —the industrial-consumer complex" (Crist 2007:55; also Swyngedouw 2010; Brulle and Dunlap 2015:12). Thus, the science-effects frame is a post-political frame that directs attention towards CO_2 emissions and other measurables and away from human causation (Swyngedouw 2010). A more political variant of the effects frame highlights the disproportionate experience of the effects

of climate change by vulnerable populations (Dietz et al. 2020:144; Graham and Robinson 2025:201-202).

Scientific certainty is another diagnostic science-related frame. Convinced communicators have tried to convey the message that 97 percent of scientists agree that climate change is human-caused (Bolsen and Shapiro 2018:150). The corresponding skeptical frame is that the science is uncertain.

3.1.3.2.2 Economics. Another long-standing frame that could be diagnostic, prognostic, or motivational is the economics frame (Nisbet 2009; Hoffman 2011). One diagnostic economic frame refers to the negative economic consequences of climate change, such as damage from climate change events, as a problem that needs to be addressed (Bolsen and Shapiro 2018:151; Badullovich et al. 2020:11). Again, a more political variant of the economics frame highlights economic causes and effects of climate change in communities affected by inequality (Stoddart and Tindall 2015:415; Dietz et al. 2020:144).

An economic frame more often used in reference to nature conservation than climate change is the frame of ecosystem services. This frame is a way of putting an economic value on the things that ecosystems provide (Ring et al. 2010; Bekessy et al. 2018). Ecosystem services may be divided into three functions: 1) regulating contributions, such as "water purification, climate regulation and the regulation of soil erosion;" 2) material contributions, such as food, medicines, and building materials; and 3) non-material contributions, including recreation and inspiration (IPBES 2019:51). Framing nature in terms of its economic value to humans is an anthropocentric view that can "crowd-out" other reasons for valuing nature and possibly reduce support for nature sites that offer less "valuable" services (Bekessy et al. 2018:72-73).

3.1.3.2.3 Blame. Attributing blame is a diagnostic frame related to a prognostic frame that names who needs to engage in solutions (Snow and Benford 1988:201). The main target of blame for climate change is the capitalist system, particularly the fossil fuel industry (Dunlap and Brulle 2015; Stoddart and Tindall 2015:415; Carroll 2021; Graham and Robinson 2025). Various levels of government are also critiqued for their climate policies (Graham and Robinson 2025). The youth climate movement blames governments, individual politicians, and media organizations for their inaction on climate change (Boulianne, Lalancette, and Ilkiw 2020).

Another target of blame is individuals and their excessive consumption (Schor 2010; Stoddart and Tindall 2015:415). Encouraging individuals to calculate their environmental footprint or carbon footprint[30] could be a diagnostic frame if it is meant to get them to see how much their consumption contributes to climate change. Canada and the United States have amongst the highest per capita carbon footprints in the world.[31] Attributing blame to individuals or trying to change social norms may backfire, however, especially if the message is perceived as coming from an out-group (Constantino et al. 2022). Blaming individual lifestyles has not been a popular frame in the Canadian media (Stoddart and Tindall 2015:415).

3.1.3.3 Prognostic frames

Forward-looking, prognostic frames present solutions to climate change or concerns about the effects of those solutions. Graham and Robinson (2025) categorized the prognostic frames of major Canadian ENGOs into: 1) technological solutions, 2) market-based solutions, 3) conservation, and 4) climate justice. Of the four, only climate justice is a transformative, political

[30] The difference between these two is that the environmental footprint includes things like water consumption and land use, whereas the carbon footprint is solely focused on energy use (Ehrhardt-Martinez et al. 2015:96).
[31] Using 2023 and 2024 data, the United States ranked fourth behind Qatar, Kuwait, and the United Arab Emirates, at 15.5 tonnes CO_2 per year per person (Carbon Checks n.d.). Canada ranked sixth, behind Australia, at 14.9. India was lowest in the rankings, at 1.8.

frame (Graham and Robinson 2025). Graham and Robinson (2025:198) brought together technological and market-based solutions under the umbrella of "ecomodernist solutions." Another way of looking at prognostic frames would be according to their intended result — using the IPCC's terminology of mitigation and adaptation — rather than the technique (technology, market, nature) used to get there. In the following subsections, I discuss: 1) mitigation and adaptation, 2) ecomodernist solutions, 3) conservation and nature-based solutions, and 4) climate justice. Since frames are ways of expressing a message, they need not be mutually exclusive.

3.1.3.3.1 Mitigation and adaptation. Key concepts in the post-political climate discourse emanating from the IPCC are the frames of mitigation and adaptation (IPCC 2018, 2023). Mitigation refers to measures to decrease GHG emissions or increase carbon sinks, thereby hoping to reduce climate change (IPCC 2018; Bruine de Bruin et al. 2021:8). Adaptation accepts that climate change is happening and refers to measures to lessen the actual or expected harms or increase benefits from climate change (IPCC 2018; Bruine de Bruin et al. 2021:8). As classes of solutions as well as intended results, these frames could be prognostic or motivational. The frames are widely used but with some fuzziness, due to their different understandings in common language (Bruine de Bruin et al. 2021).

Mitigation has been the primary focus of the climate COPs because of the attribution of causation and, therefore, solutions to humans (Uggla 2010:83; Harlan et al. 2015:142). As an example, the 2015 Paris Climate Agreement's goal of limiting the global average temperature increase to 1.5°C is a mitigation goal.[32] The frame of mitigation extends to individuals and organizations through reducing their carbon footprint (Ehrhardt-Martinez et al. 2015:96).

[32] https://unfccc.int/most-requested/key-aspects-of-the-paris-agreement

Adaptation has been more controversial at the international level, since the effects of climate change are more localized, and more severely experienced in the Global South and in other vulnerable communities (Carmin et al. 2015; Harlan et al. 2015). Adaptation measures have tended towards costly, engineered solutions that exclude those who need them most, demonstrating that these are post-political solutions that work to maintain the status quo (Carmin et al. 2015; Harlan et al. 2015).

3.1.3.3.2 Ecomodernist solutions. Ecological modernization puts its faith in the capitalist economic system, guided by government policies, to motivate innovations to address climate change (Bäckstrand and Lövbrand 2006; Mol et al. 2009; Bäckstrand and Lövbrand 2019). Ecological modernization "portray[s] climate governance as an opportunity that will not only spur low carbon technologies and create green jobs but also benefit other policy areas such as health and energy security" (Bäckstrand and Lövbrand 2019:525). Because it works within the capitalist system and does not challenge the existing order, ecological modernization is aligned with the post-political discourse (Kenis and Lievens 2014:532; Graham and Robinson 2025:206).

International climate negotiations have involved "a techno-scientific notion of planetary carbon control," resulting in top-down technocratic administration of climate agreements (Bäckstrand and Lövbrand 2006:62). Although the top-down approach has given way to a more decentralized process at multiple levels (Bäckstrand and Lövbrand 2019), science frames continue to use measurements and projections in communicating solutions. For instance, the IPCC (2023:10) projected that it was "*likely* that warming will exceed 1.5°C during the 21st century" based on NDCs submitted up to October 2021.

Current technology-oriented frames may address either aspect of mitigation: 1) reducing GHG emissions through, for example, renewable energy and electric vehicles (EVs) (Graham and

Robinson 2025:201); or 2) increasing carbon sinks through carbon sequestration projects, such as carbon capture and storage (CCS), which has not yet achieved widespread adoption (IPCC 2023:21). Market-based frames include emissions trading schemes and carbon offsets (Perrow and Pulver 2015). Carbon offsets counter the production of CO_2 emissions with carbon sequestration actions to capture the equivalent emissions (Bäckstrand and Lövbrand 2006; Perrow and Pulver 2015; Seddon et al. 2021:1529). While market-based climate solutions are used at the international level (Bäckstrand and Lövbrand 2006; Perrow and Pulver 2015; Bäckstrand and Lövbrand 2019), carbon offsets are also used at the level of individuals and businesses as a way to reduce their carbon footprint (Dawson et al. 2010), for instance by paying others to plant trees. Carbon offset projects may be problematic, due to the potential for corruption, displacement of local communities, and adverse effects on native flora and fauna (Bäckstrand and Lövbrand 2006:65; Harlan et al. 2015:139; Perrow and Pulver 2015). Because carbon offsets and carbon sequestration, more generally, support the continued production of CO_2 emissions, they have been called false climate solutions (Bäckstrand and Lövbrand 2019:527; Tokar 2019; Graham and Robinson 2025:203).

3.1.3.3.4 Conservation and nature-based solutions. Graham and Robinson (2025) identified nature conservation as the top prognostic frame used by Canadian ENGOs, especially conservation ENGOs. Preservation of habitats addresses the carbon sequestration aspect of mitigation. This frame is not often mentioned when listing climate change frames but is appropriate to include in a study of NRNPs. A more complicated frame is the frame of nature-based climate solutions (NbCS). Whether conservation, preservation, or NbCS, "nature is approached as a terrestrial infrastructure subject to state protection, management and domination" (Bäckstrand and Lövbrand 2006:55). These frames work within the status quo and, as such, are post-political solutions.

NbCS are actions addressed at climate change mitigation and/or adaptation that typically involve the use of plants (Osaka et al. 2021; Seddon et al. 2021). Examples are planting trees to absorb CO_2 emissions as a mitigation measure or naturalizing a watercourse or shoreline and encouraging vegetation to grow in order to minimize flooding due to climate change (Seddon et al. 2021:1519). Osaka et al. (2021:4) clarify that NbCS are intended to be mitigation measures, by increasing carbon sinks, although adaptation benefits such as flood control may be co-benefits.

NbCS are promoted as win-win strategies, since they simultaneously address the climate crisis and the biodiversity crisis (Osaka et al. 2021; Melanidis and Hagerman 2022). As such, NbCS is a bridging frame (Snow et al. 1986), even "connect[ing] the UN climate change and biodiversity conventions" (Melanidis and Hagerman 2022:276). NbCS have been adopted by a majority of signatories to the Paris Agreement as part of their NDCs (Seddon et al. 2021:1526). NbCS are seen as more cost-effective than technological solutions (IPBES 2019:18; Osaka et al. 2021:10), and also provide co-benefits, including human well-being (Osaka et al. 2021:5). Nature-based ways of addressing climate change are not new, but the "nature-based" frame has only recently gained popularity (Osaka et al. 2021). Anything dubbed "natural" may increase its public acceptability while resonating with the conservation-preservation frame (Osaka et al. 2021).

Use of the NbCS frame is somewhat controversial, however. The distinction between natural and unnatural solutions is socially constructed and, thus, susceptible to politics and co-optation (Woroniecki et al. 2020; Osaka et al. 2021; Melanidis and Hagerman 2022). Some "natural" solutions, such as monocultures, might be detrimental to biodiversity, while other, more effective climate solutions might be ignored (Bäckstrand and Lövbrand 2006:65; IPBES 2019:18; Osaka et al. 2021; Melanidis and Hagerman 2022). NbCS must be biodiverse in order to provide ecosystem services and increase the resilience and long-term sustainability of the solutions (Seddon et al.

2021:1524). In addition, NbCS may be used as carbon offsets on carbon markets, so the same concerns apply, such as the need for monitoring and distracting from the need for decarbonization, as high-emitting industries such as airlines and fossil fuel corporations have begun using NbCS as a form of greenwashing (Perrow and Pulver 2015:81-82; Osaka et al. 2021:14; Seddon et al. 2021; Melanidis and Hagerman 2022:277). Tree planting also "distract[s] from the urgent need to effectively protect remaining intact ecosystems" (Seddon et al. 2021:1530). Finally, failure to involve local populations runs the risk of missing vital local knowledge and reducing community acceptance and, therefore, the long-term sustainability of the project (Bäckstrand and Lövbrand 2006:66; Seddon et al. 2021:1525).

The slightly shorter term, "nature-based solutions" (NbS), adds some ambiguity. The term has been applied to problems beyond climate change, including biodiversity loss and food and water security (IUCN 2020; Osaka et al. 2021); and peace building and environmental justice (Woroniecki et al. 2020). An accepted definition of NbS is "actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits" (IUCN 2020:1; Seddon et al. 2021:1520). Thus, NbS may be solutions to problems other than climate change. The ambiguities and variety of terms in use require sensitivity to the exact terminology used.

In summary, NbCS is a bridging frame that seems tailor-made for NRNPs that might otherwise be reluctant to engage in climate action. It is, in fact, the most popular prospective frame identified in this dissertation. It is, however, not without controversy.

3.1.3.3.5 Climate justice. Climate justice is a recent prognostic frame in the international discourse (Mohai et al. 2009; Harlan et al. 2015; Agyeman et al. 2016:329; Bäckstrand and Lövbrand 2019; Dietz et al. 2020:144; Graham and Robinson 2025). Like environmental justice

and in contrast to the post-political frame, climate justice recognizes the structurally-disadvantaged situation of the Global South relative to the Global North, and also of people of colour and other marginalized populations within the Global North (Tokar 2019). Climate justice asks for fair treatment for those who are expected to suffer the most from climate change although they have done the least to cause it (Mohai et al. 2009:421; Dietz et al. 2020:144).

The climate justice movement is a global movement, bringing together land-based movements from the Global South, U.S.-based environmental justice movements, and, increasingly, other Global North movements (Tokar 2019:17-18). There is a strong link between climate justice and recognition of the rights of Indigenous peoples (Harlan et al. 2015:147-148; Agyeman et al. 2016:329-330), especially in Canada (Alook et al. 2023; Graham and Robinson 2025:196). The movement and Global South nations have been demanding equitable financial transfers from the North to the South due to the North's greater historical responsibility for climate change (Carmin et al. 2015; Tokar 2019:16-17). While an agreement was reached at COP29 on tripling climate financing to the Global South (UNFCCC 2024), implementation is left to individual nations, so inequities continue.

3.1.3.4 Motivational frames

Motivational framing encourages mobilization or provides a rationale for undertaking the solution (Snow and Benford 1988:199; Snow, Vliegenthart, and Ketelaars 2019:396-397). Motivational framing for collective action "accent[s] the severity of the problem, the urgency of taking action now rather than later, the probable efficacy of joining others in the cause, the moral priority of doing so, and the enhancement or elevation of one's status" (Snow et al. 2019:397). Although this last point referred to martyrs in social movements (Snow et al. 2019:397), I extrapolate that to a benefits frame as a motivator. In the following subsections, I discuss these

points as they apply to climate change: 1) urgency and severity, which may be addressed through a catastrophist frame; 2) efficacy, which is the perception that actions will have the desired effect (Bolsen and Shapiro 2018:156); 3) sustainability and resilience, which are two of the desired effects; and 4) values, benefits, risks, and moral responsibility.

3.1.3.4.1 Catastrophism and urgency. The framing of climate change as a catastrophe draws attention to potentially dire future consequences if sufficient, timely action is not taken (Urry 2011; Bolsen and Shapiro 2018:152), thereby encouraging immediate action. "Catastrophism also presumes that many of these changes are in place and little can be done to stop the dire impacts which are already 'in the system'. There can be no effective adaptation, only the most extensive and sustained attempt at mitigation" (Urry 2011:22). In other words, it is a pretty bleak frame. Catastrophism runs the risk of backfiring by aligning with religious fundamentalism, in which the end of civilization is welcomed (Crist 2007:47-48), producing "a sense of fatalism" rather than motivation (Snow and Benford 1988:203), being seen as an overreaction by environmentalists (Nisbet 2009:19; Bolsen and Shapiro 2018:152), or causing chronic message fatigue (Nerlich, Koteyko, and Brown 2010:103-104). Chronic message fatigue can, in turn, produce acute message fatigue, resulting in lowered compassion (Lu 2022).

Urgency is a toned-down, vaguer version of a catastrophist frame (Wilson and Orlove 2019). For instance, the global climate action webpage of the UNFCCC[33] states, "The Paris Agreement formally acknowledges the urgent need to scale up our global response to climate change." Urgency is more of an internal feeling with the potential to motivate action compared to "crisis" or "emergency," which are more external phenomena (Wilson and Orlove 2019:4)

[33] https://unfccc.int/climate-action

3.1.3.4.2 Efficacy. Efficacy refers to the perception that solutions will be effective, and that individuals can make a difference (Hart and Feldman 2016:2; Bolsen and Shapiro 2018:150). Feeling that actions taken by oneself or others will be effective boosts hope and, thus, is motivational (Bolsen and Shapiro 2018:156; Vu et al. 2021:105-106). In its implication that we all need to work together (Kenis and Lievens 2014), it is a post-political frame. Nonetheless, increasing the perception of efficacy increases political engagement on climate change (Hart and Feldman 2016).

There are various dimensions to the concept of efficacy that "are often conflated in studies" (Bostrom, Hayes, and Crosman 2019:807). Bostrom et al. (2019) performed a quantitative analysis that revealed four aspects of efficacy: 1) personal self-efficacy, referring to the perceived ease of taking individual action; 2) personal response efficacy, referring to the perceived effectiveness of taking individual action; 3) collective/government self-efficacy, or the perceived ease of government or groups taking action; and 4) collective/government response efficacy, or the belief that the action will effectively address the issue. The first and last of these are most strongly connected with individual support for climate mitigation (Bostrom et al. 2019:816).

3.1.3.4.3 Sustainability and resilience. Sustainability and resilience fit within the motivational category because they are goals rather than solutions in themselves. They "have common goals of providing benefits to people and the environment" (Marchese et al. 2018:1275), but sustainability tends to encompass greater spatial and temporal scales, whereas resilience is more local (Marchese et al. 2018:1276). The goal in the case of sustainability is system survivability in the long-term; in the case of resilience, it is system survivability under pressure from disturbances (Marchese et al. 2018:1275). Both are used by the IPCC, as illustrated by this statement: "There is a rapidly narrowing window of opportunity to enable climate resilient

development. Multiple interacting choices and actions can shift development pathways towards sustainability" (IPCC 2023:25). The concept of sustainability, however, has "slipperiness" (Lockie 2016:1): without details, it may lead one to wonder what system is being sustained (Agyeman 2005:40; Lockie 2016).

One variation on the sustainability frame is the frame of "just sustainability." Just sustainability is "an infusion of ideas of equity and justice into" the sustainability discourse (Agyeman et al. 2016:326). Agyeman (2005; Agyeman et al. 2016) sees just sustainability as a bridge between the sustainability movement and the environmental justice movement.

3.1.3.4.4 Moral responsibility, values, benefits, and risks. Intergenerational and global, intersectional justice are two issues of moral responsibility related to climate change. Climate change is an intergenerational dilemma, in that its effects will hit future generations harder than people alive today (Wade-Benzoni and Tost 2009:165). Greta Thunberg and the Fridays For Future movement have expressed deep concern about the future faced by today's young people and future generations (Han and Ahn 2020). The inherent power imbalance places a moral responsibility on today's adults to take climate action (Wade-Benzoni and Tost 2009:178). Whether they choose to accept that responsibility depends, in part, on their values (Wade-Benzoni and Tost 2009). A self-serving bias is typical in such intergenerational dilemmas, although that may be complicated for parents, among others (Wade-Benzoni and Tost 2009). To counter this self-serving bias, framing should resonate with the values of the target audience (Benford and Snow 2000:621).

Climate justice frames the imperative to mitigate climate change as a moral issue (Harlan et al. 2015; Dietz et al. 2020:144; Han and Ahn 2020). Activists in the Global South place a moral responsibility on the Global North to take transformative climate action (Tokar 2019:17). The

youth climate movement has also taken up a global, intersectional justice approach to climate action (Han and Ahn 2020).

Values may be broadly categorized as self-centred versus other-centred (Schwartz 2012). Snow, Vliegenthart, and Ketelaars (2019:401) suggest that most Americans hold both sets of values, but that one set or the other tends to predominate. They note that those on the political right might be more inclined towards "individualism unconstrained by the rights of others" (Snow et al. 2019:401).

What one considers benefits and risks are informed by one's values (Nash 1996:198; de Groot, Steg, and Poortinga 2013:315). Values associated with support for or opposition to climate action have been identified as biospheric, altruistic, egoistic, and hedonic (Bouman, Steg, and Perlaviciute 2021). For those with biospheric values, appealing to the benefits to nature from climate action might resonate well (Bouman et al. 2021:103). This frame would be expected from NRNPs. The personal economic benefit of saving money through climate action might appeal to someone with egocentric values (Bouman et al. 2021:102). For community-minded individuals, framing benefits to the community could be viewed favourably. Schwartz (2012:7) defines the value of benevolence as "preserving and enhancing the welfare of those with whom one is in frequent personal contact (the 'in-group')." He distinguishes benevolence from universalism, which is a more global altruistic value (Schwartz 2012:7). For universalists, appealing to justice or global benefits could be motivators. In relation to climate change, global benefits are equivalent to the collective response efficacy frame.

Benefits and risks could also be framed in economic terms. Framing climate change as an opportunity to grow the economy and create jobs is intended to attract support for climate action from conservatives, "who think predominantly in terms of market opportunities, or labor

advocates, who value the possibility of job growth" (Nisbet 2009:20). A motivational frame of reducing risks is adjacent to a frame of gaining benefits.

3.1.3.5 Skeptical Frames

Fourteen percent of Canadian adults were labelled Fossil Fuel Conservatives in 2023 (Lachapelle and Comeau 2024). In 2024, 22 percent of U.S. adults were Doubtful or Dismissive of climate change (Leiserowitz et al. 2025). That proportion has remained relatively constant since the *Six Americas* surveys began in 2008 (Leiserowitz et al. 2021). Some NRNPs in this dissertation have received skeptical counterframes in reaction to their framing of climate change, so a brief look at those frames is relevant.

A series of skeptical frames have been identified: trend skeptics doubt that climate change is happening; attribution skeptics doubt that climate change is caused by human activity; impact skeptics claim that climate change might be a good thing or at least will not be harmful; and evidence skeptics doubt whether there is scientific consensus on climate change (Rahmstorf 2003; Stoddart et al. 2022:7; Gounaridis and Newell 2024). A newer form of skepticism accepts that climate change is happening — because the effects of climate change are now undeniable — but is skeptical that climate solutions will work (Stoddart et al. 2022:7; CCDH 2024).

Questioning whether climate change is a problem suggests that skepticism is primarily a diagnostic framing (Hoffman 2011:14). Hoffman (2011) found that almost all skeptical articles on climate change questioned climate science or scientists. The diagnostic frame of scientific uncertainty has been used since the 1990s (Nisbet 2009:14; McCright and Dunlap 2010; Hoffman 2011; Bolsen and Shapiro 2018:151-152). A long-standing anti-motivational frame expresses concern about the potential negative economic consequences of taking action on climate change (Nisbet 2009:14), including risks to quality of life (Hoffman 2011:18). Prognostic frames for

skeptics generally oppose climate action (Hoffman 2011:15-16). Even conservatives (Petrovic, Madrigano, and Zaval 2014) and climate skeptics (Haltinner and Sarathchandra 2022), however, often support prognostic environmental actions, such as tackling air pollution, as long as climate change is not explicitly mentioned.

In summary, while skeptical communicators focus on diagnostic frames that question whether climate change is a problem, convinced communicators prefer frames that offer prognostic solutions (Hoffman 2011). Snow, Vliegenthart, and Ketelaars (2019:397) note that all three types of frames — diagnostic, prognostic, and motivational — need to be present to be successful at mobilization.

In this dissertation, I focus on framing by convinced communicators. I identify that NRNPs used all three types of frames, but not in a way that suggested mobilization. In Chapter 6, I start by taking the frames outlined in this section and discussing the literature on their use by ENGOs and, more specifically, conservation organizations. The literature on framing by other types of NRNPs is scarce, so I also discuss framing in the media.

3.2 ORGANIZATIONAL INERTIA[34]

Having addressed the literature on the framing of climate change, the next relevant set of literature is the organizational literature. This literature shines a light on the constraints faced by NPOs that could potentially pose obstacles to communicating about climate change. The overarching concept for this section is organizational inertia in the face of climate change. Organizational inertia is a lagging response of organizations to changes in their environment (Hannan and Freeman 1984:151).

[34] This section shares commonalities with a recently published chapter in *Research in the Sociology of Organizations* (Seiler 2026).

I start with the literature on strategic action fields (Fligstein and McAdam 2012), to lay out concepts from a number of theoretical perspectives in the sociology of organizations to be used later. I include a section on resource dependency theory and related issues from the non-profit literature. I then discuss the application of the concept of organizational inertia to the issue of climate change (Munck af Rosenschöld et al. 2014; Brulle and Norgaard 2019). This section is applied in Chapters 6 and 7.

3.2.1 Strategic Action Fields

The concept of strategic action fields brings together field theory (Bourdieu 1990; Bourdieu and Wacquant 1992), new institutionalism (Meyer and Rowan 1977; DiMaggio and Powell 1983, 1991), social movement theory, and other perspectives to create "an integrated theory that explains how stability and change are achieved by social actors" within fields (Fligstein and McAdam 2012:3). I use this concept and its predecessors (Barman 2016) to study how specific social actors — NRNPs — handle the situation of slow, long-term change that is climate change. I organize the discussion around Bourdieu's concepts of field, capital, and habitus. Stability was a feature of the fields and organizations that I studied, so I mostly focus on theoretical aspects associated with stability rather than change, but end with a theorization of how change would happen in the case of climate change.

The field is defined as "a set of objective, historical relations between positions anchored in certain forms of power (or capital)" (Bourdieu and Wacquant 1992:16). In the new institutionalist literature, a field is the set of organizations active in a particular sector of the economy (DiMaggio and Powell 1983:148), but in field theory (Bourdieu 1990; Bourdieu and Wacquant 1992) and strategic action fields (Fligstein and McAdam 2012), other players may be included as well. In the context of NPOs, the NPOs occupy positions in a field that could extend beyond NPOs to include,

for example, granting organizations and various levels of government. Subfields may be nested within larger fields (Bourdieu and Wacquant 1992:104; Fligstein and McAdam 2012).

New institutionalism focuses on how organizations within a field tend to behave in a similar manner. "Institutional isomorphism" occurs as organizations adopt generally-accepted language and practices in order to increase legitimacy (Meyer and Rowan 1977; DiMaggio and Powell 1983; Helmig, Jegers, and Lapsley 2004:105; Barman 2016:449). Institutional isomorphism could be normative, coercive, or mimetic (DiMaggio and Powell 1983; Barman 2016:449). An example of normative isomorphism is the routine of completing grant proposals in order to attract funding (Sager 2010:1540). Coercive isomorphism may be achieved through strings attached to the funding by the state and other funders or through regulatory requirements (DiMaggio and Powell 1983:151; Minkoff and Powell 2006:593; Barman 2016:450). Mimetic isomorphism may result as larger NPOs become role models for smaller NPOs in the face of uncertainty (Barman 2016:450), such as climate change.

There are four key understandings within a strategic action field: 1) a general, shared sense of what is going on, 2) a sense by each actor of their position in the field, 3) a shared understanding of "what tactics are possible, legitimate, and interpretable for each of the roles in the field," and 4) a broad interpretive frame, which varies with the actor's position in the field, "to make sense of what others … are doing" (Fligstein and McAdam 2012:10-11). Thus, refining Bourdieu's (1990) assertion that actors know "the rules of the game," Fligstein and McAdam (2012) suggest that that understanding is dependent on the actor's position in the field. Fields may be stable or in contention, but even within settled fields there is a continuum ranging from consensus in these understandings to dissent (Fligstein and McAdam 2012:12). "Challengers" take advantage of political opportunities to create new paths (Fligstein and McAdam 2012:22).

Power struggles are a feature of fields and relate to the possession of capital (Bourdieu 1990; Bourdieu and Wacquant 1992; Emirbayer and Johnson 2008; Barman 2016:447-448). Capital includes not just economic capital but also cultural, social, and symbolic capital (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008; Barman 2016:447). The different species of capital vary in their relative importance depending on the field (Bourdieu and Wacquant 1992:98; Emirbayer and Johnson 2008). Economic capital refers to financial resources (Emirbayer and Johnson 2008:3). Cultural capital is a property of individuals that "encompasses educational capital, … possession of cultural objects and (even more importantly) possession of the cognitive, affectual, and even bodily means to appropriate and use them" (Emirbayer and Johnson 2008:25). Social capital operates through network ties (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008:3). Symbolic capital is any of these types of capital that is respected by others (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008). Gil de Zúñiga and Diehl (2017) found that social media social capital has an impact on and is more influential than offline social capital. Within organizations, the types and amounts of capital held by individuals can affect decision making (Emirbayer and Johnson 2008:24-25). Fredette and Bradshaw (2012) found that stronger social capital within NPO boards, evidenced by trust and information sharing among board members, results in more effective governance.

Fields and subfields may include "internal governance units" that fulfill a role of coordination, compliance, and stability within the field as well as linking to other fields (Fligstein and McAdam 2012:13-14). In a subfield of NPOs, that role may be played by an umbrella organization in which the NPOs are members. Umbrella organizations possess economic, social, and symbolic capital. Members benefit from that capital, receiving material resources as membership benefits as well as a sense of meaning (Fligstein and McAdam 2012:15).

Intertwined with field and capital is Bourdieu's (1990; Bourdieu and Wacquant 1992) concept of "habitus." Habitus is a property of individuals, developed and continually updated through socialization. Habitus is defined as:

> systems of durable, transposable dispositions, … that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them. (Bourdieu 1990:53)

Bourdieu (1990:53) notes that the existence of habitus does not negate the possibility of conscious calculations. The habitus puts greater weight on early experiences, being slower to incorporate newer experiences and information (Bourdieu 1990:54) and rejecting or avoiding those that conflict with the habitus (Bourdieu 1990:60-61).

Each individual brings their own habitus to an organization, which might affect the operation of the organization (Emirbayer and Johnson 2008:4). In a group situation, the durable nature of habitus can lead to a persistence of past practices (Bourdieu 1990:62). At the organizational level, Emirbayer and Johnson (2008:30) suggest that this inertia is because transformative individuals may have been forced out of the organization. At the field level, Fligstein and McAdam (2012:17) suggest that skilled actors in organizations with sufficient capital consciously work to maintain the status quo within the field.

The question remains as to how change would happen in the case of climate change. Fligstein and McAdam (2012) assert that even stable fields are always in flux. "At the very least, the rules, composition, and structure of the field will be in play constantly" (Fligstein and McAdam 2012:31-32), so change could happen incrementally. Stable fields may leave room for new entrants (Hannan and Freeman 1984:152). Alternatively, change could happen due to external circumstances, such as change in a related field that destabilizes the field of NRNPs or, more drastically, large-scale societal change that destabilizes many fields (Fligstein and McAdam 2012).

In this dissertation, I respond to Barman's (2016:454) call to apply field theory to NPOs. I identify the fields, subfields, and distribution of capital in my population of interest. I find that each type of NRNP is part of a separate subfield, most of which are headed by an umbrella organization possessing symbolic capital. Overall, the field of NRNPs is a settled field with little contention. I also respond to Emirbayer and Johnson's (2008:38) call to include habitus in empirical research. The stickiness of habitus is an obstacle to addressing climate change, which is the topic of Section 3.2.3. In Section 3.2.2, I add the resource dependency perspective and perspectives from the non-profit literature.

3.2.2 Resource Dependency Theory and Non-profit Perspectives

Resource dependency theory posits that the behaviour of organizations is dependent on their external environment (Pfeffer and Salancik 1978; Helmig et al. 2004:107; Hillman et al. 2009:1404). Organizations that possess resources possess power over organizations that need those resources (Pfeffer and Salancik 1978; Helmig et al. 2004:107; Hillman et al. 2009:1404). In that way, resource dependency theory has some similarity to the concept of capital in field theory (Bourdieu 1990; Bourdieu and Wacquant 1992). Resource *dependency* theory is more applicable to NRNPs than resource *mobilization* theory since the latter is focused on social movement organizations obtaining resources in order to mobilize followers (McCarthy and Zald 1977).

For NPOs that do not sell services, such as NRNPs, the main sources of funding are grants, donations, and membership fees (Sager 2010:1539), resulting in a degree of vulnerability in comparison to for-profit organizations (Helmig et al. 2004:104). NPOs are required to meet certain expectations under the terms of their funding, which would vary with the funder (Helmig et al. 2004:107; Eisenberg and Eschenfelder 2009). For instance, funders could constrain participation in advocacy activities (Eisenberg and Eschenfelder 2009:362). NPOs, however, might exercise

agency in the use of those funds once they have been received (Helmig et al. 2004:107). NPOs may also be slower to respond to changes, such as climate change, than for-profit organizations due to their more constrained funding arrangements (DiMaggio and Anheier 1990:148).

In order to better manage resource availability, NPOs might enter into collaborations with other NPOs (Guo and Acar 2005; Hillman et al. 2009; Proulx, Hager, and Klein 2014:749). In addition to tangible resources, collaborations may provide intangible resources such as knowledge, visibility, and legitimacy (Proulx et al. 2014:749). A common type of collaboration is confederating under an umbrella organization, which provides support to smaller organizations (Proulx et al. 2014:761-762). Collaborations, however, may lead to tensions and challenges, such as loss of autonomy (Guo and Acar 2005; Tschirhart 2006:533; Eisenberg and Eschenfelder 2009:362; Proulx et al. 2014:749).

Another organizational strategy to manage resource dependency is to turn to the board for advice and connections (Pfeffer and Salancik 1978; Hillman et al. 2009). Martinelli (1998) lists a number of challenges for NPOs related to the volunteer nature of their boards of directors: 1) limited time for the board to make big decisions and the resultant tendency to focus on easy decisions, 2) ineffective board selection, training, and removal procedures, leading to ineffective board members, 3) lack of rotation of board members, leading to stagnation, 4) limited size, limiting the breadth of expertise and amount of time available, 5) lack of a committee structure to do focused work, and 6) lack of a strategic plan. These capacity-related challenges are even greater for small NPOs (Rochester 2003).

Governance does not always reside solely with the board of directors; other arrangements include the dominance of the Executive Director and power sharing between the board and Executive Director (Rochester 2003; Ostrower and Stone 2006:617-618). Regarding employees,

if any, limited resources can lead to challenges in hiring and retention in NPOs (Akingbola 2006:1709-1710; Eisenberg and Eschenfelder 2009:370) and insufficient time to complete the work (Rochester 2003:126). These challenges, again, produce a lack of capacity. Small NPOs are particularly vulnerable, both financially and in their dependence on a very few people who do most of the work (Rochester 2003:117-119).

Edwards and Foley (2006) found that large-budget U.S. peace groups, whether at the national or non-national level, were more bureaucratized than smaller groups. In focusing on small NPOs and their boards, particularly membership associations, I respond to Ostrower and Stone's (2006) observation that most of the empirical research on NPO boards is on large social service organizations. I build on the work of Martinelli (1998), Rochester (2003), Akingbola (2006), Tschirhart (2006), and Eisenberg and Eschenfelder (2009) to highlight a range of capacity issues in NRNPs that affect their ability to address climate change. Those issues include limited funding, constraints on the funding, and the limited capacity of personnel, including board and staff.

3.2.3 Organizational Inertia and Climate Change

Two teams of researchers have observed and theorized the phenomenon of organizational inertia in the face of climate change. Munck af Rosenschöld et al. (2014) outline institutional forces that cause inertia on climate change. Brulle and Norgaard (2019) apply a field theory approach in discussing inertia on climate change at the societal, institutional, and individual levels. In this section, I take up each of these theorizations as they apply to NPOs and add insights from the previous two subsections. I start by discussing the general theorizing of organizational inertia.

According to Hannan and Freeman (1984), organizational inertia — by which they mean slowness to change rather than lack of change — may be a consequence of the need for an organization to demonstrate reliability and accountability to ensure its long-term survival.

Slowness rather than lack of change seems appropriate in the case of climate change, as evidence of climate change continues to build (IPCC 2023) and organizational change is inevitable. Hannan and Freeman (1984:149) distinguish between internal barriers, such as the sunk costs of previous decisions, and external barriers, including risking the continued legitimacy of the organization if it makes changes that are perceived as unwarranted by its stakeholders. Older organizations tend to exhibit more inertia than newer ones because of internal practices and external legitimacy built up over time (Hannan and Freeman 1984:157-158). Larger organizations also tend to exhibit more inertia than smaller organizations (Hannan and Freeman 1984:158).

Minkoff and Powell (2006) question whether these observations hold for NPOs. Small NPOs may be very flexible compared to larger NPOs, but they may be more constrained by funding arrangements (Minkoff and Powell 2006:593). Neoliberalism has led to an increase in government contracts for NPOs and a decrease in activism as NPOs try to maintain good relations with their funders (Minkoff and Powell 2006:593-594). Older and larger NPOs are more likely to have a variety of funding sources, leaving them better equipped to make changes than smaller NPOs (Minkoff and Powell 2006:593).

Munck af Rosenschöld et al. (2014) identify five causes of institutional inertia in the face of climate change: 1) legitimacy, 2) power, 3) uncertainty, 4) costs, and 5) path dependence. First is the threat to legitimacy, noted above. Powerful actors set the standards for what conduct is considered legitimate, while delegitimizing other conduct (Munck af Rosenschöld et al. 2014:643). Regarding climate change, legitimate actions tend to align with the economic interests of those with resources (Munck af Rosenschöld et al. 2014:644). Second, power within the field can cause inertia if those with power are preventing climate action (Munck af Rosenschöld et al. 2014:643). With the rise in right-wing populism across the globe and in Canada (Lachapelle and Kiss 2019;

Lockwood and Lockwood 2022) and the ongoing obstructionist actions of the fossil fuel industry (Carroll 2021), climate action may be viewed unfavourably by those with power, thus again threatening an organization's legitimacy. Third, uncertainty about the best path to take as signs of climate change increase is another obstacle to action (Munck af Rosenschöld et al. 2014:642). Fourth, the costs of making changes might not be considered worthwhile if climate change is not expected to cause immediate problems for the organization (Munck af Rosenschöld et al. 2014:641). In a field where others might take on the cost, there is incentive for free-ridership — "where a large number of dispersed actors create a rational individual incentive for inaction" (Munck af Rosenschöld et al. 2014:641). The structure of the field might be such that there are subfields that take on climate change while others benefit. Lack of capacity in small NPOs (Rochester 2003) may be an added incentive for free-ridership.

Fifth, path dependence from previous decisions may cause inertia at the organizational or institutional level (Munck af Rosenschöld et al. 2014:642-643), that is, the sunk costs noted by Hannan and Freeman (1984). Path dependence could refer to technology and equipment, but also to regulations and practices (Munck af Rosenschöld et al. 2014:642). One of those previous decisions in NPOs is the mission statement. A mission statement is a concise public expression of an NPO's intentions (Minkoff and Powell 2006; Souder 2016:2713). In response to external changes, the mission can be constraining or enabling (Brown and Iverson 2004; Minkoff and Powell 2006). Miles et al. (1978) categorized organizations into prospectors, defenders, analyzers, and reactors. These categories can be applied to NPOs: mission statements are used by prospectors as the basis for innovation while defenders use them as justification for maintaining the status quo (Brown and Iverson 2004; Souder 2016:2714). Small, volunteer-run NPOs may be more

committed to the mission than larger NPOs with employees, who might be more aware of external trends and pressures (Minkoff and Powell 2006:593).

Further constraining the mission, in Canada during the Stephen Harper era (2006 to 2015), the advocacy activities of charitable environmental and social justice NPOs were carefully scrutinized under threat of the removal of charitable status (Patterson 2014; Cameron and Kwiecien 2019). While the laws were changed during the subsequent Justin Trudeau era to allow unlimited non-partisan advocacy, many NPOs remain reluctant to engage in advocacy work (Cameron and Kwiecien 2019). "Decades of restrictive laws and policies have fostered an organisational culture of risk aversion towards advocacy within many [NPOs]" (Cameron and Kwiecien 2019:344). This demonstrates the path dependence of previous legislation at the institutional level (Hall and Taylor 1996:941). Thus, engagement with climate change faces many institutional obstacles in Canada.

Brulle and Norgaard (2019) invoke the concepts of habitus and field (Bourdieu 1990; Bourdieu and Wacquant 1992) to theorize social inertia regarding climate change. Climate change is a cultural trauma that causes disruptions in the field and habitus (Brulle and Norgaard 2019). Whether at the individual, organizational, institutional, or societal level, the range of responses to a cultural trauma or global shift such as climate change includes: 1) ignoring the problem, 2) actively resisting change, 3) making conservative, incremental changes, or 4) embracing the opportunity to address the problem (Minkoff and Powell 2006; Brulle and Norgaard 2019).

At the societal level are "reactionary, reformist, and radical" approaches to climate change (Urry 2011; Brulle and Norgaard 2019:890). The reactionary approach is climate skepticism and denial (McCright and Dunlap 2010; Urry 2011:20-21; Dietz et al. 2020:140-141; Gounaridis and Newell 2024). The reformist approach includes government cooperation at the international level

through the IPCC and ecological modernization efforts within the economy (Urry 2011:21; Brulle and Norgaard 2019:891; Dietz et al. 2020:139-140). The radical approach is advocacy for transformative climate justice (Brulle and Norgaard 2019:891; Dietz et al. 2020:144). These approaches align with divisions within the environmental movement and countermovement. As noted previously, the growing right-wing populist movement at the time of data collection presented a societal-level obstacle to climate action.

At the individual level, Norgaard (2011) found that, although Norwegian residents recognized that climate change was happening, they avoided talking about it. Norgaard references three types of denial — literal, interpretive, and implicatory — focusing on the third. "What I observed … is not in most cases a rejection of information per se, but the failure to integrate this knowledge into everyday life or to transform it into social action" (Norgaard 2011:11). Individuals engaged in cognitive dissonance in order to maintain their situation of environmental privilege (Norgaard 2011:216; Brulle and Norgaard 2019:900).[35]

At the organizational level, the stickiness of the organizational habitus can lead to a persistence of past practices (Bourdieu 1990:62). The mission statement is core to an organization's identity and, therefore, often difficult to change (Hannan and Freeman 1984:156; Rangan 2004). The mission, in large part, reflects the subfield of the organization within the larger field. Internal conflict may also lead to organizational inertia (Brulle and Norgaard 2019:902). This could be precipitated by individual members of a leadership team, who possess symbolic capital (Emirbayer and Johnson 2008:24-25) and present obstacles through literal or implicatory denial of climate change.

[35] Norgaard (2011:216) notes that there are different types of privilege, for instance, related to gender, race, and class. Privilege in this dissertation generally refers to environmental privilege, unless specifically noted.

This dissertation adds to the literature on organizational inertia regarding climate change by addressing Brulle and Norgaard's (2019) call for research at the organizational level and applying Munck af Rosenschöld et al.'s (2014) obstacles to the case of small NPOs. It applies field theory, resource dependency, and non-profit perspectives to the situation of how small NPOs respond to climate change. Obstacles identified within this section included the societal influence of right-wing populism; institutional constraints, such as power within the field and the subfield of the organization within the larger field; organizational constraints, such as mission, size, and capacity; and individual influences from the leadership team.

3.3 WHITENESS AND ENVIRONMENTAL PRIVILEGE

The environmental movement (Agyeman 2005:80; Pezzullo and Sandler 2007; Jafri 2009; Gibson-Wood and Wakefield 2013) and NPOs, more generally (DiMaggio and Anheier 1990), have long been criticized for their Whiteness and eliteness. I should not have been surprised, therefore, to find that my survey respondents and interviewees were overwhelmingly White, and their governing boards were all or nearly all White. At the same time, most of the organizations in my interview sample ignored or downplayed climate change in their communications. In this section, I explore the literature on environmental privilege and its possible applicability to NRNPs. I start with the literature on homogeneity within NPOs, as a manifestation of inertia and basis for the persistence of Whiteness in NRNPs. I then set the stage for the concept of environmental privilege by discussing White privilege more generally. I define the various concepts in the Whiteness literature, then review the literature on Whiteness in the environmental movement and in the leisure studies literature. I conclude the section by discussing the concept of environmental privilege. This literature grounds Chapter 7.

3.3.1 Homogeneity and Eliteness in NPOs

As one of the issues addressed in this dissertation is the Whiteness of NRNPs, this subsection looks at the literature on the composition of NPOs, specifically, membership associations. Recreational groups are clearly considered membership associations (Knoke 1986:2). It is less clear whether conservation-oriented groups would qualify, since they are more likely to have supporters and volunteers rather than true members. Nonetheless, the literature on membership associations is relevant to this dissertation, particularly the literature on who participates (Popielarz and McPherson 1995; Tschirhart 2006).

One of the functions of membership associations and volunteering is social cohesion (Putnam 2000; Tschirhart 2006:526; Sager 2010). Membership associations may be so homogeneous, however, that they may be a barrier to rather than a vehicle for social cohesion (Popielarz and McPherson 1995; Tschirhart 2006). There are a number of theories for why this might be so. Recruitment into membership associations tends to be through social network ties, and the homophily principle posits that those ties tend to be between people who are similar in some ways (Popielarz and McPherson 1995:701; McPherson, Smith-Lovin, and Cook 2001; Tschirhart 2006:529). Race and ethnicity have historically been one of the biggest divides in social networks (McPherson et al. 2001:420). Tschirhart (2006:530) notes that some membership associations may not be overly welcoming of new members, for fear of changing the mission or spreading resources too thinly.

From the point of view of potential members, a number of effects can limit ability or interest in joining. First, people's life stages affect their ability to participate, known as biographical availability (Tindall 2004; Tschirhart 2006:530). People in stable financial positions with free time available are more likely to participate in membership associations (Tschirhart 2006:530). Second,

historical theories suggest that the participation of racial and ethnic minorities might be limited by lack of awareness or cultural constraints (Tschirhart 2006:529). Third, ethnic community theory posits that a given minority community will stick together and form groups to shield themselves from an external majority (Olsen 1970; Tschirhart 2006:529). This theory has been borne out in the recent creation of BIPOC birders' groups in reaction to a racist incident involving a Black birder in Central Park, New York in 2020 (CBC News 2020; Scott 2021).

Once in a membership association, social network ties with others in the group tend to keep a member there (McPherson, Popielarz, and Drobnic 1992; Popielarz and McPherson 1995; Tschirhart 2006:532). Niche edge theory posits that those who are most unlike the bulk of the membership and have more social ties outside the group will be the first to leave (Popielarz and McPherson 1995; Tschirhart 2006:532). Niche overlap theory suggests that competition among similar organizations for membership will shorten membership duration for those within the overlap (Popielarz and McPherson 1995; Tschirhart 2006:532). Because overlaps tend to occur at the edges, the people lost to competition tend to have been near the edge anyway. Thus, both niche edge theory and niche overlap theory work to increase homogeneity within a group (Popielarz and McPherson 1995).

In short, there are numerous forces working to maintain homogeneity and eliteness in NPOs, including barriers in recruitment processes, individual capacity to participate, ethnic barriers, and the strength of network ties. Although my research does not delve into the causes of homogeneity at the individual level, this background is helpful for understanding contributors to the lack of diversity found in NRNPs.

3.3.2 Whiteness Studies, White Privilege, and Canada

Whiteness studies is an interdisciplinary field that turns racial studies around by problematizing the dominant group (Frankenberg 1997; Doane 2003:3; McDermott and Ferguson 2022). This section outlines a number of related concepts of relevance to NRNPs in Canada: Whiteness, White privilege, democratic racism, colour-blindness, multiculturalism, diversity, equity, inclusion, and decolonization. These concepts are used in the analysis of NRNP communications and behaviour in Chapter 7.

Whiteness is "a *historical systemic structural* race-based superiority" (Wander, Martin, and Nakayama 1999:15). The category of "Whiteness" has been constructed and adjusted over centuries of colonialism to enable Whites to maintain their dominance (Frankenberg 1997; Wander et al. 1999; Doane 2003). Whiteness is often unmarked, seen as the norm (Frankenberg 1997). Even in "cultural competence" training, "[W]hiteness may reemerge as the generic place marker, with [W]hites asked to become 'competent' in relating to members of 'marked' cultural groups" (Frankenberg 1997:18). The White socialization process has allowed homogeneously White communities to be seen as "natural" (Bonilla-Silva 2003:277). Furthermore, Whiteness tends to be an elitist category: it does not always apply to poor Whites (Wander et al. 1999:21; McDermott and Ferguson 2022).

In the historically majority-White North American context, Whiteness comes with White privilege (Pulido 2000; DiTomaso, Parks-Yancy, and Post 2003; Doane 2003; Hartmann, Gerteis, and Croll 2009; Gibson-Wood and Wakefield 2013; Pulido 2015; Mascarenhas 2016; McDermott and Ferguson 2022). Doane (2003:7) defines White privilege as "the unearned benefits that flow to [W]hites in the American racial order—as well as the 'lack of awareness' of this privilege by

[W]hites." Pulido (2015:810) notes that White privilege "does not require racial animus," which allows Whites to believe that they are personally blameless.

Canada demonstrates a subtle sort of racism, dubbed "democratic racism," which serves to maintain White privilege (Henry et al. 1995; Gosine and Teelucksingh 2008:47; Satzewich and Liodakis 2017:22-23; Mooten 2021:19). Two discourses associated with democratic racism are colour-blindness and multiculturalism (Henry et al. 1995; Satzewich and Liodakis 2017:22-23). In colour-blind ideology, "race is no longer viewed as a significant obstacle to social and economic participation" (Doane 2003:13; also Crenshaw 2011). Within this ideology, skin colour is seen as irrelevant, since everyone is purportedly equal (Doane 2003; Crenshaw 2011; McDermott and Ferguson 2022:260). "An affirmation of color blindness allows [W]hites to ignore, deny, or disregard any notion that race matters in people's lives" (DiTomaso et al. 2003:197). Lack of success is deemed an individual failure through blaming the victim while ignoring systemic barriers (Bonilla-Silva 2003:275; DiTomaso et al. 2003; Doane 2003:14; Hartmann et al. 2009; McDermott and Ferguson 2022:260). Self-identification as colour-blind is associated with a "limited and partial" racial awareness that could be positive for race relations (Hartmann et al. 2017:882). On the other hand, one of the results of colour-blindness is that allocation of extra resources for racial issues is considered unnecessary (Doane 2003:14; McDermott and Ferguson 2022:260).

Canada's history of multiculturalism (Satzewich and Liodakis 2017:9) produces different attitudes towards race than in the United States:

> Multiculturalism is distinct from the American assimilationist approach. … Instead, multiculturalism assumes that minority groups (including racial groups and immigrant groups) maintain aspects of their own culture while also interacting with the dominant groups' culture. (Gosine and Teelucksingh 2008:46)

After being enacted as federal policy in 1971, multiculturalism was initially a funded program in Canada focused on inclusion and cultural maintenance (Abu-Laban and Gabriel 2002; Satzewich and Liodakis 2017:155; Lei and Guo 2022:4). Canadians were encouraged to embrace a diversity of cultures through such events as multicultural festivals and ethnic dance performances (Abu-Laban and Gabriel 2002; Satzewich and Liodakis 2017:161-162; Lei and Guo 2022:4). Over time, policies and approaches have evolved (Abu-Laban and Gabriel 2002; Satzewich and Liodakis 2017:155-157), but this superficial, performative aspect remains, which can lead to stereotyping (Abu-Laban and Gabriel 2002:112).

Multiculturalism in Canada has been controversial for many reasons (Abu-Laban and Gabriel 2002; Jafri 2009; Keil et al. 2009; Satzewich and Liodakis 2017). First and foremost, Canadian multiculturalism is built around Whiteness as the norm (Abu-Laban and Gabriel 2002:108; Jafri 2009; Satzewich and Liodakis 2017:158; Lei and Guo 2022:4), as is implied in the above quote. As such, it tends to reinforce hegemonic structures (Gosine and Teelucksingh 2008:46; Jafri 2009; Keil et al. 2009; Satzewich and Liodakis 2017:158-159; Lei and Guo 2022:4). Multiculturalism implies that Canada is welcoming to all and free from racism, which is a myth (Gosine and Teelucksingh 2008; Lei and Guo 2022). Multicultural policies and funding have also been criticized for pitting cultural groups against one another to compete for economic and political resources (Satzewich and Liodakis 2017:154).

Along with multiculturalism is a discourse of diversity (Mooten 2021), which downplays the need to address systemic disadvantages (Ahmed 2006; Crenshaw 2011:1342; McDermott and Ferguson 2022:261). "[D]iversity, on its own, is not equivalent to equity" (Mooten 2021:18). Diversity is related to difference, whereas equity implies redistributive justice (Ahmed 2006:120). A particularly light operationalization of diversity is "checkbox diversity," wherein hiring people

of diverse backgrounds is seen as taking action against racism, but may simply be performative (Mooten 2021; Carter et al. 2023:264). It may even be *non*-performative if the organization communicates its commitment to diversity, but that commitment does not extend to the operational level (Ahmed 2006). For some organizations, perception is what matters, rather than actual, substantive action towards diversity (Ahmed 2006:118). Photographs and language may be used to support the perception (Ahmed 2006:119).

Inclusion is a distinct concept from diversity, and less easy to measure (Shore, Cleveland, and Sanchez 2018:177). Social inclusion has been discussed in Canada since the beginning of this century as "a way to overcome the limits of multiculturalism" (Saloojee 2005; see also Haluza-DeLay and Fernhout 2011). "Social inclusion is a process that ensures that all members of society—regardless of their ethnocultural origin—have access to the opportunities and resources they need to participate in economic, social and political life without any barriers" (StatsCan 2024a). Inclusion is intended to address structural barriers (Haluza-DeLay and Fernhout 2011:729), but the implication is still inclusion into mainstream (White) society (Haluza-DeLay and Fernhout 2011:729; Andreotti et al. 2015:26).

At the organizational level, inclusion implies a welcoming organization where all members are valued (Shore et al. 2018; Carter et al. 2023:253). Carter et al. (2023) studied an outdoor fitness club whose members described it as open and inclusive, but not diverse. The conclusion was that increasing the diversity of the leadership could help to increase diversity and inclusion within the group (Carter et al. 2023:264). It might also improve organizational performance (Fredette and Bernstein 2019; Legg and Karner 2021), although benefits to the organization should not be the only reason to do so (Legg and Karner 2021). Exclusion leads to social and economic disadvantages as well as negative psychological and physical health effects, whether intentional

or not (Saloojee 2005; Shore et al. 2018:176). Commitment from the leadership of an organization is important to the success of inclusion efforts (Shore et al. 2018:187; Patterson and Edge 2025:10).

Decolonization is intended to unsettle settler-colonial relations (Tuck and Yang 2012). Andreotti et al. (2015) have documented a continuum of approaches to decolonization. At the less effective end is the "everything is awesome" space, which demands no action. At the other end is the "beyond reform" space, which recognizes the epistemological and ontological dominance of settler-colonial society and works to overturn it. In between are "soft reform," which focuses on inclusion, and "radical reform," which includes recognition, representation, and empowerment (Andreotti et al. 2015:26). Tuck and Yang (2012) criticize "settler moves to innocence," by which they mean attempts by settlers to absolve themselves of the guilt of past wrongs. Performative references to decolonization, such as the rote recitation of Indigenous land acknowledgements, would be a settler move to innocence in the soft reform space (Ruffo 2019).

I end this section with a discussion of the colour-blind lack of collection of race-based data in Canada (Satzewich and Liodakis 2017:87-89; Rizvic 2020), and its possible effect on NRNPs. Collection of race-based data has been controversial because, on the one hand, it helps to address systemic discrimination but, on the other hand, it could lead to the continued reification of "race" (Satzewich and Liodakis 2017:88; Rizvic 2020). Prior to the COVID-19 pandemic, most Canadians associated racism with the United States but not Canada (Gosine and Teelucksingh 2008:35; Lei and Guo 2022:9) or with Canada's colonial past but not its present (Mascarenhas 2016:8; Lei and Guo 2022:9). The consequences of Canada's lack of race-based data were highlighted during the early days of the COVID-19 pandemic, when it became apparent that Black, Indigenous, and people of colour (BIPOC) communities were disproportionately affected, but the data did not exist to accurately measure or address the problem (Rizvic 2020; Lei and Guo 2022:9).

Recognition grew that front line workers were largely people of colour who faced greater health risks and lower access to health care than more affluent, largely White residents who were able to work from home and avoid risks (Lei and Guo 2022:9). Individual incidences of racism also increased because of the disease having been first reported in China (Lei and Guo 2022).

Given the Whiteness of their leadership, it can be assumed that NRNPs in Ontario are situated within the hegemonic discourse that Canada is a multicultural nation that is welcoming to all and that colour-blindness guards against racism. Evidence for this is that the large majority of my interview sample showed little or no effort toward DEDI, perhaps taking a colour-blind approach that demanded little or no action. It can also be assumed that many NRNPs would have been aware of race-based discrimination on both a systemic and individual basis during the pandemic (Rizvic 2020; Lei and Guo 2022:9). Four interviewees acknowledged a societal shift towards DEDI and suggested that their organization might be part of that movement. George, a board member of Small City Hiking Club, verbalized this:

> Maybe the inclusivity and diversity desire, which really has only come on, you know, in the last 10 years, if you want to call that social thing that we recognize the importance of doing that, yeah, I think we're trying to get there.

This background is necessary as I move toward the concept of environmental privilege. I next discuss the history of the environmental movement in North America through the lens of Whiteness.

3.3.3 Whiteness and the Environmental Movement

As discussed in Chapter 2, the conservation and preservation branches of the environmental movement were the birthplace of NRNPs, with a history dating back to the European settlement of the North American west. Settlers engaged in violence against Indigenous peoples through physical elimination from their traditional lands without consent (Tuck and Yang 2012; Whyte 2018; Bacon 2019). Limiting or curtailing Indigenous access to their traditional lands disrupted

land-based knowledge and practices (Tuck and Yang 2012; ICE 2018; Bacon 2019) and endangered the "collective continuance" of Indigenous societies and ways of life (Whyte 2018). These actions by settlers have been labelled as "colonial ecological violence" (Bacon 2019).

The removal of Indigenous peoples from their traditional lands was often for the purpose of establishing parks and protected areas (Cronon 1996; Spence 1996; Binnema and Niemi 2006; Park and Pellow 2011:12; ICE 2018:28), dubbed "coercive conservation" (Park and Pellow 2011:13). This happened not only in the United States (Cronon 1996:15; Spence 1996; Park and Pellow 2011:12) but also in Canada (Binnema and Niemi 2006; Mortimer-Sandilands 2009; MacDowell 2012:106; ICE 2018:28). Banff National Park was initially established by corporate interests for the purpose of creating an exclusive hot springs resort destination on the new Canadian Pacific Railway (CPR) line (Binnema and Niemi 2006; Mortimer-Sandilands 2009:164-165; MacDowell 2012:106). The removal of Stoney Nation from the park was at the insistence of hunters to protect game stocks (Binnema and Niemi 2006). Although this pre-dated the wilderness movement in Canada, it was strongly influenced by the U.S. movement (Binnema and Niemi 2006:728). Further harm was caused by ignoring Indigenous knowledge (Binnema and Niemi 2006:740; ICE 2018:29; Bacon 2019).

Park and Pellow (2011:13) make the link between coercive conservation and "nativist environmentalism." They describe the connection of some large U.S.-based conservation organizations to a nativist, anti-immigration, population control agenda, ostensibly to ensure resource conservation and land preservation, which has contributed to the elitist reputation of the environmental movement. "Nativist environmentalism is a form of racism rooted in a sense of entitlement to places imbued with particular socio-ecological importance" (Park and Pellow 2011:14). Nativist environmentalism supports environmental privilege, through the exclusion of

those seen as "Other" from desirable landscapes (Park and Pellow 2011:14). A small example in Canada is the charging of admission to national and provincial parks (see Park and Pellow 2011:53). Park and Pellow (2011:14) further claim that nativism and environmental privilege are linked to a belief in "greener capitalism" as "the only path to ecological sustainability." Thus, a significant segment of mainstream environmentalism in the United States has adopted a post-political, privileged stance. It "is most definitely *not* a movement concerned with racial justice. Nor … social justice" (Park and Pellow 2011:157). The fact that a number of mainstream ENGOs in Canada are directly linked to ENGOs in the United States suggests that nativism and environmental privilege might also be a feature of some portion of the environmental movement in Canada, and that this way of thinking might have an effect on the broader field of NRNPs. Lachapelle and Martel-Morin (2024) found that Civic Nationals — that portion of Canada's population that tends to include members of NRNPs — did lean nativist.

Because of the apparent Whiteness of the environmental movement in Canada, Gosine and Teelucksingh (2008:53-60) list and dispel five myths related to racial diversity in the movement. First, the environmental movement only appears to be White because White people tend to hold the leadership positions. Second, people of colour do care about environmental issues. Third, environmental racism is not just something that happens in the United States or the Global South. Researchers have documented numerous cases of environmental racism against Black and Indigenous communities across Canada (Agyeman et al. 2009; Waldron 2018, 2022). Fourth, simply increasing diversity within an organization is insufficient to engage a diverse audience; the issues addressed also need to change to reflect diverse interests and definitions of the environment (Gosine and Teelucksingh 2008:57-58; Jafri 2009; Gibson-Wood and Wakefield 2013; Arora-Jonsson and Ågren 2019). Structural barriers and White hegemony also need to be dismantled

(Jafri 2009; Gibson-Wood and Wakefield 2013). Finally, diversity should not be seen as a cost but as an investment that can reap rewards for the organization and the environment (Gosine and Teelucksingh 2008:58-59).

Efforts towards increasing diversity have been discussed in the environmental sector for decades. In the early 2000s, the well-known NRNP, Mass Audubon, commissioned a study to assist it in mainstreaming diversity, by which it meant "moving from paradigm to practice" "in line with their changing client populations" (Agyeman, Newhall-Smith, and Ringelheim 2005:2). Mass Audubon recognized that the population of Massachusetts was changing rapidly due to the influx of Latin American, Caribbean, and Asian immigrants. Today, Mass Audubon is a strong proponent of diversity, equity, inclusion, justice, and accessibility (DEIJA).[36] Various Canadian studies have focused on attempts by environmental organizations to reach diverse audiences (e.g., Jafri 2009; Gibson-Wood and Wakefield 2013; Teelucksingh et al. 2016). For example, Jafri (2009) studied three nature-oriented environmental organizations in Toronto that had embraced multiculturalism and inclusion but fell short in their delivery.

In addition to increasing diversity and inclusion in the movement, there have been efforts toward decolonization. An early example of decolonization occurred in Ontario starting in 2002, as Grassy Narrows First Nation worked with non-Indigenous environmental groups to blockade a logging road (Wallace 2010). More recently, the Truth and Reconciliation Commission of Canada (TRC) shed light on the colonial violence inflicted on Indigenous peoples since the arrival of settlers (Wotherspoon and Milne 2021). After the release of the TRC's calls to action (TRC 2015), discourse and action around reconciliation with Indigenous peoples increased in an attempt to right the wrongs of the past (Wotherspoon and Milne 2021). Graham and Robinson (2025) found that

[36] https://www.massaudubon.org/about/diversity-inclusion/deija-strategic-plan

Canadian ENGOs have started including Indigenous rights in their campaigns. The North American environmental movement has recently engaged in renaming: bird species that were named after White men are being renamed in an effort to eliminate Indigenous erasure and connections to slavery (American Ornithological Society 2023). For Indigenous peoples, renaming is highly meaningful due to the epistemic and ontological violence caused by removing traditional references (Smith 1999:51; Rose and Carr 2018:270; Bacon 2019:63-64). U.S. President Donald Trump has demonstrated this type of violence with his renaming of Denali in Alaska as Mount McKinley for a second time (Thiessen 2025).

This dissertation provides an analysis of the behaviour of NRNPs in Ontario related to their Whiteness by examining their claims around diversity, equity, inclusion, and decolonization, or lack thereof. I find that the boards of NRNPs were overwhelmingly White and their public presence generally had little to no recognition of DEDI. This shows that the Whiteness found by Jafri (2009), Gibson-Wood and Wakefield (2013), and Teelucksingh et al. (2016) in Toronto-based environmental organizations continues in NRNPs more generally across Ontario. This provides background for the concept of environmental privilege, which is addressed in Section 3.3.5, but first, I briefly discuss Whiteness in the leisure studies literature.

3.3.4 Whiteness and Leisure Studies

Given that many of what I classify as NRNPs are essentially recreational groups, it is appropriate to also consider the leisure studies literature. According to Pinckney et al. (2019), race is an understudied area in leisure studies, where it has been sufficient to acknowledge and quantify inequalities. Studies have confirmed inequalities in access to and participation in outdoor recreational activities by women, people of colour and various ethnicities, older adults, and people

from lower socioeconomic backgrounds (Lee, Scott, and Floyd 2001; Lee and Scott 2011; Lee et al. 2016; Arora-Jonsson and Ågren 2019; Powers et al. 2020).

Some of the most relevant leisure studies literature that I found related to sports. Spaaij, Knoppers, and Jeanes (2020) studied sports clubs in Australia to determine why the societal discourse valuing diversity in sport was resisted at the club level. They found six discursive themes that sports clubs used to justify their lack of diversity. The first they label "speech acts," where there was a gap between what representatives would say about their club's attitude toward diversity and their actual approach to diversity, for instance by saying "everyone is welcome" but not addressing systemic barriers to participation. This inclusive but limited approach is similar to the colour-blind assertion that "everyone is the same" (Doane 2003:13). Ahmed (2006) discusses speech acts by educational institutions as "nonperformatives," appearing as if the organization was doing something about diversity or equality but, in effect, reducing the need to do anything further.

Second is a discourse of essentialism, wherein representatives would justify their practices and lack of diversity as normal or traditional (Spaaij et al. 2020). Clubs might use this discourse to resist changes in practices that could accommodate non-traditional members. Third is self-victimization, where the club would claim lack of resources and capacity to address diversity, as if diversity was an extra rather than integral aspect of club membership. Researchers revealed:

> a common discursive theme across the data: club leaders' self-professed sympathy toward diversity is hindered in action only by the lack of capacity and resources to make change happen. Underlying ideologies and values remain firmly concealed in such statements. (Spaaij et al. 2020:370)

The other three themes — moral boundary work, bodily inscription, and silencing — are more applicable to the competitive environment of sports clubs than they might be to NRNPs. The six defences were used by those in power in their organizations to keep the power within their demographic. In this dissertation, I extend the relevance of Spaaij et al.'s (2020) themes of speech

acts, essentialism, and self-victimization to NRNPs. NRNPs engaged in speech acts with generic comments like "open to all" on their website without any other sign of inclusive action, they used a discourse of essentialism when describing their activities as traditionally European, and they engaged in self-victimization by claiming a lack of capacity to address diversity.

Rose and Carr (2018) advocate approaching leisure studies using a political ecology lens. Leisure is pleasure-oriented and involves a "relative sense of perceived freedom," which often situates it in nature (Rose and Carr 2018:267). Furthermore, its management and participants are often socio-economically privileged (Rose and Carr 2018:267-268). Nature is increasingly being recognized for its benefits to health and well-being (Bricker, Brownlee, and Dustin 2016; Lemieux et al. 2016), but those benefits are more likely to be experienced by more affluent people through the ability to visit nature sites more frequently (Lemieux et al. 2016:38).

The political ecology perspective enables an analysis of the globalized political and economic aspects of leisure activities in nature (Rose and Carr 2018:271). For example, Hill and Abbott (2009) published a political ecological analysis of surfers, who have a reputation for being environmentalists but who exist in a consumptive world. Surfers bear some similarities to birders, including their willingness to travel to find the perfect wave or see a rare bird. Hill and Abbott (2009:293) note that, when surfers act politically, it tends to be out of "self-interest and preservation of their pastime" rather than any environmental motivation. Stoddart (2012) wrote an extensive political ecology of downhill skiing in British Columbia, highlighting the conflict between the desire to spend time in a pristine natural environment and the economic and political forces necessary to create that experience. In this dissertation, I compare cross-country skiing in Ontario to Stoddart's (2012) analysis of downhill skiing in B.C. While cross-country skiing has a

far smaller environmental footprint than downhill skiing, it also generally involves manufactured landscapes, equipment, and transportation to and from skiing venues.

This dissertation addresses noted gaps in the leisure studies literature. It builds on Spaaij et al.'s (2020) identification of discursive themes related to diversity in leisure organizations, specifically, speech acts, essentialism, and self-victimization. It addresses the lack of critical analysis of the nature-society relationship (Rose and Carr 2018) by looking closely at the case of cross-country skiing to reveal the interventions involved. It addresses the lack of critical consideration of race (Pinckney et al. 2019) by exploring the degree of engagement of recreation groups with DEDI, which is a novel approach. It is also novel in connecting leisure studies with the concept of environmental privilege, which is the topic of the next section.

3.3.5 Environmental Privilege

The concept of environmental privilege is an extension of White privilege (Park and Pellow 2011). An early definition of environmental privilege was "the near exclusive access to coveted ecological amenities (parks, coastal properties, forests, rivers, open lands, and elite neighborhoods) by those in wealthy, often [W]hite, racially exclusive communities" (Pellow 2009:5). The concept was developed to focus attention on "the flip side of environmental injustice/inequality … where power resides and how privilege drives environmental injustice" (Pellow and Nyseth Brehm 2013:237). A study of the exclusive, mostly White, resort community of Aspen, Colorado, with its largely immigrant service population living outside the community in crowded and precarious conditions, is canonical (Park and Pellow 2011). Aspen is a contradiction as it caters to the ultra-rich, considers itself environmentally progressive, and is blind to the social and environmental harms it causes (Park and Pellow 2011:200-201).

> Environmental racism and environmental privilege are often part of the problem of [W]hite privilege. The possessive investment in [W]hiteness drives [W]hite communities to maintain

> the social, economic, political, and environmental privileges they have secured through histories of dominance over other groups. … The ultimate difficulty with social privilege of any variety is that it is often unrecognized and unmarked. (Park and Pellow 2011:204)

The environmental privilege literature builds on Freudenburg's (2005:89) insight that "[e]nvironmental harms involve a 'double diversion'" — both the inequitable diversion of resources and the diversion of attention, such that the inequities are normalized.

Argüelles (2021:652) identifies three dimensions of environmental privilege that extend it "to a wider White, educated, middle- to upper-class milieu," which includes the North American environmental movement (Agyeman 2005:80; Park and Pellow 2011:11; Argüelles 2021). Those dimensions are: 1) access to environmental amenities, 2) environmental representation and identity, and 3) naturalization of privilege.

First is access to environmental amenities. Gould and Lewis (2021) document how efforts in coastal communities to "build back better" after environmental disasters has increased inequality and decreased access to coastal amenities for those less economically privileged. In urban areas, green gentrification initiatives privilege the well-to-do while forcing out marginalized populations (Anguelovski et al. 2019; Argüelles 2021:653; Bauer 2023). Meanwhile, many Indigenous communities in Canada struggle with access to clean drinking water on an ongoing basis (Gosine and Teelucksingh 2008:37-40; McGregor 2009; Mascarenhas 2016)[37].

Part of my definition of NRNPs involves conducting activities out in nature. As noted previously, more affluent populations are more able to benefit from frequent visits to distant provincial parks (Lemieux et al. 2016). Urban residents, in general, experience lower access to transportation to nature sites and also to environmental jobs; economic inequalities exacerbate those barriers and add challenges when fees are charged (Agyeman et al. 2005).

[37] As of April 16, 2026, there were 40 long-term drinking water advisories in 37 Indigenous communities in Canada; 153 advisories had been lifted since 2015 (Indigenous Services Canada 2026).

The second dimension of environmental privilege is environmental representation and identity (Argüelles 2021:653-654). Environmental representations, like frames, define environmental problems and appropriate solutions (Gosine and Teelucksingh 2008:90). The mainstream environmental movement has long been predominantly White, educated, and middle-class (Taylor 2002; Agyeman 2005:80; Taylor 2016; Argüelles 2021:653-654), "giving the misleading impression that environmental protection is the domain of White people" (Argüelles 2021:653). Attempts to increase diversity within the mainstream movement have tended to fall short because of the movement's representations of wilderness, wildlife, and personal consumption practices as issues that matter (Pezzullo and Sandler 2007; Jafri 2009; Gibson-Wood and Wakefield 2013; Arora-Jonsson and Ågren 2019; Argüelles 2021:654). This focus obscures the environmental justice view of the environment as "where we live, work, and play" (Bullard 2000; Gosine and Teelucksingh 2008; Mascarenhas 2016:11), and the associated struggles for justice in the face of everyday environmental injustices (Agyeman et al. 2009; Park and Pellow 2011; Waldron 2018, 2022). As a local example, racialized and low-income residents of Scarborough, Ontario without a collective voice were resigned to face environmental harms from polluting industries near their homes (Teelucksingh 2007).

Related to this is environmental decision-making: those with environmental privilege dictate what is important to protect (Bauer 2023). The mainstream environmental movement has perpetuated the dominant view of nature as pristine wilderness that needs to be preserved and protected, ignoring the possibility that there might be existing uses (Park and Pellow 2011:130; Argüelles 2021:653). Ideally, such decisions would be made in consultation with existing users. Priorities on nature projects within urban boundaries can also exacerbate inequities when they

ignore the interests of marginalized communities (Bauer 2023). This dissertation does not venture into project decision-making but raises the possibility of lack of consideration of DEDI by NRNPs.

Another aspect of environmental representation is environmental identity (Gosine and Teelucksingh 2008; Argüelles 2021). Argüelles (2021:654-655) notes that the same people who have environmental privilege are the ones who establish norms of "green living" and sustainable communities, even "evangelizing" their practices. Such norms include riding a bicycle instead of driving, avoiding bottled water, and shopping at an organic market (Nevins 2014:305; Argüelles 2021:654).

The third dimension of environmental privilege is the naturalization of privilege (Argüelles 2021:654-655). Engaging in the essentialism argument by presenting a lack of diversity in a group as normal or traditional naturalizes the privileges of belonging to that group (Spaaij et al. 2020). Justification or rationalization of environmentally-harmful behaviours is another aspect of naturalization of privilege. Those with environmental privilege justify their "selective entitlement" to flying to conferences based on their perception "of having the capacity and power to solve environmental problems" (Argüelles 2021:655). Academics and others with economic privilege often either justify their flying behaviour as important or rationalize it as being offset by other environmentally-friendly behaviours (Nevins 2014:305; Argüelles 2021:655).

Denial on the part of those with environmental privilege is involved in this naturalization of privilege (Norgaard 2012:86; Argüelles 2021:654). Rather than worrying about climate change on a daily basis, the residents of Bygdaby, Norway "spent their days thinking about more local, manageable topics" (Norgaard 2012:87). Applying Swidler's (1986) concept of a cultural "tool kit," Norgaard (2012:87) found that residents engaged in cognitive dissonance using "tools of order" around acceptable topics of conversation and "tools of innocence … to create distance from

responsibility and assert the rightness or goodness of actions." These tools included myths of Norwegians being close to nature and shifting blame to the United States.

Going beyond cognitive dissonance, Szerszynski (2007) coined the term, "ecological irony," as a tool or trait of organizations, individuals, or situations. To be ironic, there must be: 1) multiple meanings in a phenomenon; 2) a contradiction between meanings; 3) a presentation of innocence, either by pretending or through confident unawareness, and 4) an observer who understands the irony (Szerszynski 2007:345). Szerszynski (2007) credits environmental movements with using ecological irony to expose contradictions in society, noting that irony is a tool of the elite, which again suggests environmental privilege within the movement. Irony can, however, also be used to deflect culpability from oneself or one's organization (Szerszynski 2007).

A fourth aspect of environmental privilege builds more directly on Freudenburg's (2005) concept of the double diversion of both resources and attention, as it relates to climate change. Economic privilege includes disproportionate capacity for consumption. Park and Pellow (2011:24), referencing Veblen ([1899] 1994), note that "nativist environmentalists … refuse to target the role that elite conspicuous consumption plays in ecological degradation." Their book draws attention to vacation resorts and second homes as places of conspicuous leisure and exclusion. In such places, "unfettered market capitalism is just fine as long as we give some of our profits to a charity for the downtrodden or to a fund for greening the city" (Park and Pellow 2011:61). Similarly, the people of Bygdaby assuaged the guilt of their national wealth by donating to charities and engaging in humanitarian service (Norgaard 2011:157; Norgaard 2012). These are examples of the diversion of resources to privileged consumption as well as the diversion of attention through donations. Diverting attention away from consumption, and capitalism more

generally, or ignoring climate change through cognitive dissonance, enables those with economic privilege to continue exacerbating the problem of climate change.

While the urban enclave aspect of environmental privilege is not relevant to NRNPs in Ontario, other aspects of environmental privilege are. Although there have been a number of studies on the Whiteness of the environmental movement in Canada, none have tied that to the concept of environmental privilege, nor has the analysis been extended to movement-adjacent groups. My findings explicitly connect Whiteness in some conservation organizations and nature-oriented recreation groups with environmental privilege through privileged access to environmental goods, representation, and identity, the naturalization of that privilege, and diversion of attention away from climate change.

3.4 ACTOR-NETWORK THEORY (ANT)

Actor-network theory (ANT) provides a very different lens from other approaches. All of the approaches described thus far place the individual human or the human-constituted organization or group of organizations at the centre. ANT, in contrast, not only considers non-humans, but flattens the difference between humans and non-humans, enabling surprising relationships to be revealed (Latour 2005; Law 2008:147). "[T]he actor-network position is to always start out with an even playing field in which the human and the nonhuman are initially (and only initially) considered as equal and indeterminate entities" (Jackson 2015:39). Law (1999:3) clarifies that divisions, such as between human and non-human, are not predetermined but may be outcomes. In my interviews, I was struck by frequent mentions of non-human beings and knew that my dissertation would be unsatisfying without including an ANT approach.

A goal of ANT is to reveal the actor-networks at work for a given phenomenon or situation. That requires defining "actor" and "network." "[A]n actor does things, … makes a difference"

(Mol 2010:255). That doing or making a difference does not have to be intentional or conscious (Jackson 2015:31). For that reason, the term "actant" is often used in place of "actor" (Latour 2005:54; Jackson 2015:31). Actants may be human or non-human, living or inanimate. The important point is that actants require a network in which to act (Mol 2010:258).

A network is a set of relationships that gives an actor the ability to act (Law 2008:141; Mol 2010:258). A network is similar to but not the same as Tsing's "assemblage," which she asserts does not require an "interactional structure" (Tsing 2021: footnote 8). An actant must interact; it cannot act on its own (Mol 2010:258). When it acts, it affects things. Those things are part of the network. A network may be stable or more fluid (Law 2008; Mol 2010), with "actors … mutually adjust[ing] themselves to one another" (Mol 2010:265). Rather than ascribing agency solely to humans, agency is collectively generated within networks (Jackson 2015: 31). Networks may be multiple, overlapping, interdependent, and in tension (Mol 1999; 2010:259).

Networks include not just actants, but also mediators and intermediaries (Latour 2005). "Mediators transform, translate, distort, and modify … all the contradictory accounts attributed to [their] role" (Latour:2005:39). That is, mediators are actants within the network. Intermediaries, in contrast, are more straightforward and do not change with the circumstances (Latour 2005:39). Intermediaries may be treated as black boxes in the analysis, whereas it may be fruitful to unpack the actions of mediators (Latour 2005:39). For example, in the case of the tick network in Chapter 5, white-tailed deer may be considered mediators as transportation for ticks, whereas the tools used to monitor the spread of ticks may be considered intermediaries.

A final important concept is translation (Callon 1984; Latour 1996, 2005; Jackson 2015). Callon (1984) discusses the four-stage process of translation: 1) problematization, 2) interessement, 3) enrolment, and 4) mobilization. In the problematization stage, actors define a

problem and relevant relationships. This includes identifying "obligatory passage points" that bring the actants together. Interessement is where the actors try to interest others in their definition of the situation. In the enrolment stage, the definitions and roles shared by the actors are accepted by others — humans and/or non-humans — who then become part of the network. Finally, mobilization is the stage of putting the role assignments and definitions into terms that may convince a broader audience. This process of translation is illustrated by the two case studies in Chapter 5.

The translation may or may not be accepted by others in the network (Callon 1984; Jackson 2015). Humans and non-humans might exhibit agency in not conforming to their assigned roles (Callon 1984; Jackson 2015). Power relationships are revealed through the acceptance or rejection, but those relationships are a consequence of the series of actions, not an *a priori* state (Jackson 2015:34).

Numerous ANT researchers claim that ANT is not a theory (Callon 1999; Law 2008:141; Mol 2010). Mol (2010:265) describes it as "[a] list of terms; [a] set of sensitivities." Latour (1999:19) describes it as an ontology. ANT is flexible and adaptable, treating each new case study on its own terms. Law (2008:141,148) asserts that ANT is descriptive rather than explanatory. "[I]t is better understood as a toolkit for telling interesting stories about, and interfering in ... relations" (Law 2008:141-142). As such the method of analysis in ANT is different from other approaches.

The ANT approach turns research on its head, demanding that the researcher "not start with a *thing* 'to be explained', but instead," trace the threads among humans and non-humans (Franklin 2006:555). ANT "follows the actors" and accepts their explanations (Callon 1984:222; Latour 2005). Because doing so may be an unending process of adding actants to the network, for practical purposes it may be necessary to "punctualize" an actor-network and consider a particular actant as

a black-box (Jackson 2015:39). The black-box may later be reopened if something seems missing from the actor-network (Jackson 2015:40).

In reporting on this process, the researcher follows three principles: 1) generalized agnosticism, or refraining from judgment or attribution of social explanations; 2) generalized symmetry, maintaining the same vocabulary whether discussing human or non-human actants; and 3) free association, or following the actants regardless of whether they are human or non-human and allowing for relationships to fluctuate over time (Callon 1984).

> ANT asks not where the activities of actors come from, but rather where they go: effects are crucial. Not goals, not ends, but all kinds of effects. (Mol 2010:255).

In considering all actors in a situation and tracing their effects, ANT enables the researcher to understand the situation differently and exposes otherwise unseen relationships (Mol 2010).

ANT lends itself to studying evolving situations (Latour 2005). It is, therefore, well situated to address the evolving situation of climate change and biodiversity loss. ANT is non-hierarchical, giving micro and macro forces equal consideration (Latour 2005; Law 2008:147). Thus, not only local conditions of nature but also global negotiations on climate change may be included in the actor-networks.

Franklin (2006:555) asks a general research question: what is "to be gained by taking seriously a posthumanist analysis of the relationship between humanity and the natural world." In studying the eucalyptus trees in Australia, Franklin's (2006) posthumanist approach is very similar to an ANT approach: not starting with a thing to be explained but instead with the action; treating humans and non-humans symmetrically; and acknowledging that agency is not attributed *a priori*. Following his lead, I ask the question: what can we learn about NRNPs and climate change by taking an ANT approach? As ANT "is grounded in empirical case studies" (Law 2008:141), I am contributing two case studies to the ANT corpus. In one of the cases, I respond to a call from

Bouchard et al. (2019) at the Public Health Agency of Canada for sociological studies on the spread of black-legged ticks and Lyme disease due to climate change. The other is a parallel study of the spread of the emerald ash borer.

3.5 BRINGING THE THEORETICAL STRANDS TOGETHER

The task of this concluding section is to bring the disparate theoretical strands together. I have chosen to focus on: 1) framing theory as my core interest in how NRNPs communicate about climate change, 2) the sociology of organizations and non-profit studies because of my background in the non-profit sector and my understanding of the obstacles therein, 3) Whiteness studies and environmental privilege because of the overwhelming Whiteness of my participants, and 4) ANT because of its ability to incorporate nature into this nature-oriented dissertation.

Most of these threads come together in Chapters 6 and 7. In Chapter 6, I analyze whether and how NRNPs communicate about climate change. The *whether* aspect references the literature on organizational responses to societal changes (Minkoff and Powell 2006; Brulle and Norgaard 2019). The *how* aspect brings in the copious literature on framing climate change (Bäckstrand and Lövbrand 2006; Nisbet 2009; Hoffman 2011; Stoddart and Tindall 2015; Bolsen and Shapiro 2018; Bäckstrand and Lövbrand 2019; Badullovich et al. 2020; Wetts 2020; Vu et al. 2021; Graham and Robinson 2025) and NbCS (Woroniecki et al. 2020; Osaka et al. 2021; Seddon et al. 2021; Melanidis and Hagerman 2022).

In Chapter 7, I analyze the challenges experienced by NRNPs at the level of the field, the organization, and the individual. At the level of the field, challenges include: 1) the focus of the organization, or subfield within the larger field, which raises the issue of free-ridership (Munck af Rosenschöld et al. 2014); 2) funding and institutional constraints, which draw on the literature on organizational inertia (Hannan and Freeman 1984; Munck af Rosenschöld et al. 2014; Brulle and

Norgaard 2019) and the sociology of organizations, more generally (DiMaggio and Powell 1983; Bourdieu 1990; Bourdieu and Wacquant 1992; Emirbayer and Johnson 2008; Fligstein and McAdam 2012); and 3) conservative constituencies, which draw on the literature related to framing climate change for skeptical audiences (Houser 2018; Davidson et al. 2019; Love-Nichols 2020; Gislason et al. 2021; Nowatzke and Arbuckle 2025). At the organizational level, challenges include: 1) the age of the organization and its mission, and 2) the size and capacity of the organization, both of which draw on the non-profit literature (Martinelli 1998; Rochester 2003; Akingbola 2006; Minkoff and Powell 2006; Eisenberg and Eschenfelder 2009). Also at the field and organizational levels is the challenge of environmental privilege (Park and Pellow 2011; Norgaard 2012; Argüelles 2021). Finally, NRNPs are affected at the individual level by the unique compositions of their leadership teams, which again draws on the non-profit (Martinelli 1998; Rochester 2003; Ostrower and Stone 2006; Fredette and Bernstein 2019) and field theory literatures (Emirbayer and Johnson 2008).To set the stage for these two long chapters, the shorter Chapter 5 draws on ANT to paint a picture of the field of NRNPs through two case studies. ANT researchers claim that ANT is more descriptive than explanatory (Law 2008). As such, ANT is built on case studies (Law 2008:141). The case studies reveal the complexities of the fields in which NRNPs are situated, providing hints as to factors that might affect their behaviour.

In summary, I have laid the groundwork in this chapter for seeing NRNPs as predominantly White organizations whose various challenges result in organizational inertia regarding communicating about climate change. Having discussed the theoretical bases, the next chapter describes my methodological approach.

CHAPTER 4 – METHODOLOGY

In their review of the study of climate change communications, Agin and Karlsson (2021:431) describe the field as "theoretically narrow, and methodologically limited." The field is dominated by quantitative framing analyses of Western news media (Agin and Karlsson 2021). Studies involving triangulation of data sources, such as this dissertation, comprise less than 10 percent of studies (Agin and Karlsson 2021:441) and studies of framing by NGOs are even rarer (Agin and Karlsson 2021:441). This dissertation reaches in novel directions for its object of study, theoretical perspectives, and methodology.

The overarching question of this research is whether NRNPs communicate with their constituents about climate change and, if so, in what terms and due to what influences. I use multiple triangulation (Denzin 2015:2) to answer that, including methodological triangulation, data triangulation, and theory triangulation. Theory triangulation involves the use of multiple theoretical perspectives (Denzin 2015:3), as presented in the previous chapter. Data triangulation is involved when using the same method on multiple data sources (Denzin 2015:3). Methodological triangulation entails using multiple methods to collect data, which allows "different pictures … to emerge" (Denzin 2015:3). Each method provides a different view, leading to a richer study.

My initial intention was to review the Twitter[38] feeds of NRNPs to answer the first two parts of the question (whether and in what terms) and then contextualize the findings and learn about the influences through interviews with communications personnel at a selection of those organizations. I followed that plan, but Twitter was not as useful as hoped, which meant that I had

[38] Twitter was rebranded to "X" in July 2023 (https://www.cbsnews.com/news/twitter-rebrand-x-name-change-elon-musk-what-it-means/). The rebranding was completed in May 2024 (https://www.cbsnews.com/colorado/news/elon-musk-confirms-twitters-transformation-complete-its-now-x-com/). Throughout the interview period, it went by both names. I use "Twitter" throughout this document since the Twitter data was collected prior to the rebranding.

to rely more on other data sources. Studying multiple communications channels gives a more complete picture of the communications of NGOs (Dumitrica 2021).

I created a mixed methods sequential design (Neuman and Robson 2018), engaging first in computer-assisted content analysis (Silge and Robinson 2017) of the Twitter feeds of NRNPs in Ontario. The Twitter analysis acted as the exploratory phase of the research and informed the selection of NRNPs for individual interviews (Day Ashley 2017:118-119). The subsequent interviews with communications personnel from the NRNPs (Dumitrica 2021) followed a semi-structured format (Salant and Dillman 1994; Ornstein 2013; Dillman 2014). I also seized an opportunity to further triangulate my findings (Denzin 2015) via a survey through an event scheduled to take place partway through the interview process which was attended by individuals within the target population. The survey was informed by early interview responses. I followed up the survey with additional interviews using a modified guide based on the survey findings. Thus, there were multiple steps in the sequential design. To compensate for the lack of useful Twitter data, I also analyzed a selection of other textual data associated with the organizations interviewed (Markham and van Koppen 2014; Arora-Jonsson and Ågren 2019; Dumitrica 2021). One purpose of triangulation is to "reduce deficiencies" in other approaches (Aurini, Heath, and Howells 2016:52). The collection of textual data occurred throughout the process and analysis was concurrent with the analysis of interview data. The sequence is illustrated in Figure 4.1.

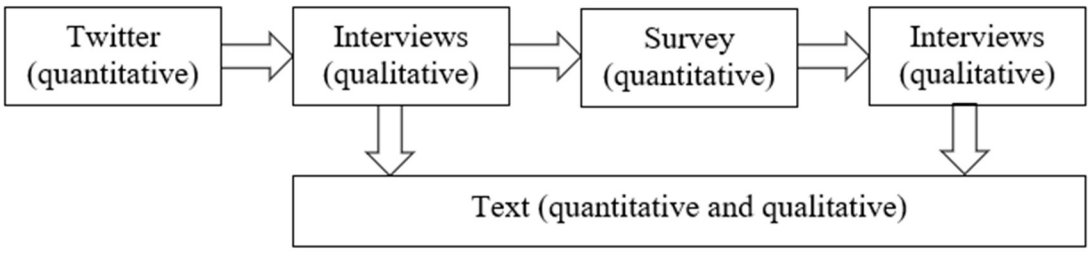


***Figure 4.1**. Sequence of data collection and analysis.*

This chapter describes the methodology. I start by detailing the methodology used with the Twitter feeds. To streamline the chapter, I then skip to the survey. The third section focuses on the interviewing process, both before and after the survey. The fourth section describes the textual analysis process. Within each of these sections, I present, in order, the sampling process, the data collection process, and the analytical methodology. I conclude with brief sections on triangulation, case studies, and ethics. Numerous methodological appendices are included. Appendix B is a lengthy reflection on my timelines, methodology, and challenges.

Before beginning, I return to the definition of NRNPs. In chapter 2, I gave a broad overview of NRNPs. NRNPs include membership associations that conduct their activities in the natural environmental, such as hiking clubs, cross-country skiing clubs, and naturalist clubs. There are many other such types of organizations, but I consciously chose these particular types of groups for their relatively low barrier to entry: the activities could be performed locally and with little cost outlay. Conservation and preservation organizations are also part of the definition. I include "Friends of" organizations, which I initially understood to be similar to conservation groups but dedicated to stewardship of a particular site. Finally, Ontario's provincially-mandated conservation authorities (CAs) are included for their similar activities and frequent intersections with other NRNPs. NRNPs span the range from small, local, unstaffed organizations to regional, provincial, and national organizations with a paid staff.

4.1 TWITTER FEEDS

Operationalizing framing analysis includes calculating the amount of discursive space devoted to a particular topic (Snow, Vliegenthart, and Ketelaars 2019:398). The amount of space indicates how salient an organization intends the topic to be (Snow et al. 2019:398). Computer-assisted quantitative analysis of Twitter feeds provides an efficient way to perform that calculation.

Ter-Mkrtchyan and Taylor (2024) used computer-assisted topic modelling to determine the proportion of climate tweets in the feeds of 120 U.S. ENGOs. I collected and analyzed the Twitter feeds of 104 NRNPs, as described in this section, to provide an overview of how much NRNPs communicate about climate change.

4.1.1 Data

The collection of Twitter data took place in November 2022, less than a month after Elon Musk's takeover of Twitter.[39] There was significant popular concern over the impending demise of the social media platform, so I sped up my data gathering process to ensure that I had data to work with. I ran into obstacles when I tried again in January 2023, so I decided to work with the November data. The most significant effect of this was that it committed me to a definition and set of NRNPs. I do not believe that that had any adverse effects on the dissertation.[40]

4.1.1.1 Sampling

My first step was to construct a sampling frame by identifying as many NRNPs in Ontario as possible. There is no list of NPOs in Canada (Haluza-DeLay and Fernhout 2011:730; Yoreh and King 2025:243). There are only scattered, partial lists. I started with the Ontario Nature membership list of 157 organizations and the Conservation Ontario membership list of 36 CAs.[41] I categorized the lists by region, using Ontario Nature's seven regions within Ontario plus province-wide organizations. I also categorized the lists by type, based on the name and the description of each organization on their website. Within the Ontario Nature list were 61 naturalist clubs and 27 Friends groups. The others were reform environmental groups, science-oriented organizations, hiking groups, wildlife groups, and a large remainder of land trusts and other

[39] https://www.cnn.com/2023/10/27/tech/elon-musk-twitter-x-one-year-changes/index.html
[40] Further information is included in the methodological reflection in Appendix B.
[41] I received permission from both organizations to contact their members.

conservation-oriented NPOs. Although this categorization did not match exactly with my definition of NRNPs, it was a good starting point and basis for comparison. There were differences within the conservation-oriented group reflecting the historical conservation and preservation branches of the environmental movement, but I decided to group them together as conservation organizations due to fuzziness in the distinctions.

To those lists, I added others from various sources. Jones (2016) listed the top seven environmental charities in Canada, all of which were NRNPs, some national, others with Ontario chapters. Some organizations on that and the Ontario Nature list had member groups listed on their websites. For each type of organization in my definition of NRNPs, I identified an umbrella organization and listed its member groups. I wanted to get as close as possible to organizations conducting activities with their members outdoors in nature. I excluded wildlife clubs and cross-country skiing clubs that appeared to be more facility-focused than member-focused. This might have introduced selection bias. In total, the sampling frame included 258 organizations.

The next step was to identify which organizations had Twitter accounts. That was determined by visiting the website of every organization on the list and recording the Twitter handle. A total of 127 Twitter accounts were identified – about half of the organizations in the sampling frame.

4.1.1.2 Data Collection

Using previous coursework to guide me, I wrote a program in R (R Core Team n.d.) to download the Twitter data using the Twitter API. Out of concern over losing access because of the evolving situation with Elon Musk, I ran a trial download with the sampling frame described above. Timelines were downloaded for 124 accounts on November 16, 2022, with an additional 3 timelines downloaded on November 18, 2022. The 3,200-tweet limit was more than sufficient to cover the entire timeline for the majority of accounts. The earliest tweets dated back to 2009. For

one organization, however, 3,200 tweets did not even reach back to the start of 2022. In total, 239,985 tweets were downloaded — an average of almost 1,900 tweets per account.

In early 2023, I set about to run the actual download, to capture data to the end of 2022. Changes to Twitter in the interim precluded that, so my trial download became my working dataset. A clean-up was necessary. Inactive accounts, international organizations, and climate justice organizations were removed to better align with the definition of NRNP. The remaining 104 accounts contained 219,123 tweets — a loss of 19 percent of the originally identified accounts but only 8.7 percent of the tweets. That dataset formed the basis for the computer-assisted analysis.

4.1.2 Computer-assisted content analysis

Computer-assisted content analysis is very helpful for analyzing large amounts of textual data, such as Twitter feeds (Silge and Robinson 2017). Ter-Mkrtchyan and Taylor (2024) undertook a study very similar to this dissertation, using the Twitter feeds of 120 U.S.-based regional, national, and international conservation and preservation organizations. With 1.3 million tweets, they used topic modelling to determine: 1) the topics tweeted, 2) the relative proportion of climate tweets versus other tweets, and 3) changes in the proportion of climate tweets over time. They combined that information with publicly available organizational characteristics to analyze the effects of those characteristics on Twitter messaging. I, too, saw value in calculating the relative proportion of climate tweets to determine the degree of salience of climate change (Snow, Vliegenthart, and Ketelaars 2019:398), and identifying organizational characteristics that could affect communications, but my approaches were different.[42] Rather than topic modelling, I used a

[42] I posed questions to Ter-Mkrtchyan and Taylor about the methods and results that went unanswered. Their conclusion that 44 percent of tweets between 2008 and 2021 by U.S. conservation organizations were related to climate change seems out-of-line with other studies (e.g., Johnson et al. 2023; Tosun and Saad 2023; DiRago, Lee, and Paxton 2026) and my own Twitter analysis that pre-dated their article. I, therefore, cite them only to disclose that I am aware of their study and its similarities to this dissertation, and to acknowledge their methods, but I do not use their findings.

simpler, lexicon-based approach to determine the proportion of climate change tweets.[43] For understanding the effect of organizational characteristics, I used quantitative variables but relied heavily on qualitative interview data for explanations, knowing that organizations with similar characteristics could display very different behaviours.

A natural assumption would be that NRNPs would be more interested in nature than in climate change. I, therefore, chose to compare the relative proportions of their nature tweets versus their climate tweets to see whether that was borne out in the data. The analysis used R. The next stage grouped the analysis by organizational focus to start distinguishing among the different types of NRNPs. Later in the process, I added an analysis of the proportion of social justice tweets, based on emerging themes in the interview data. The R code used to analyze the data is stored and publicly accessible in the Open Science Framework (COS n.d.).[44]

4.1.2.1 Defining climate, nature, and justice tweets

The first step to comparing NRNPs regarding their climate and nature tweets was to define what constitutes both types of tweets. Defining a climate tweet seemed easier than defining a nature tweet. Since climate change has only been a public issue since the 1980s (Ungar 1998), there is a relatively limited number of commonly-used terms that signal climate change discourse. In contrast, concern about nature started in the 19th century, if not before, and many terms have been used in conjunction with that.

The process of identifying climate change and nature tweets on the full dataset was iterative. The first step involved identifying tweets containing the word "climate" and tweets containing

[43] My preliminary attempts at topic modelling using latent Dirichlet allocation (LDA) were unfruitful. I had only 17 percent as many tweets as Ter-Mkrtchyan and Taylor (2024), despite having a similar number of organizations. Because of my discomfort with generative artificial intelligence (AI), I did not move on to machine-learning approaches. See Appendix B for my methodological reflection.
[44] The R code is accessible under Academic Free License (AFL) 3.0 at doi:10.17605/osf.io/7d9pu.

either “nature” or “biodiversity.” That turned out to be very simplistic and captured less than 15 percent of tweets as either climate or nature tweets,[45] but it was useful for testing and refining the subsequent programming.

The next step was to expand the criteria for identifying climate and nature tweets to capture more of the corpus. Adding to the definition of climate tweets involved reviewing the literature on climate change discourse. Johnson et al. (2023) developed a list of terms to identify NGOs with an interest in climate change from their 2016 government filing information. Referring to that list, I added “carbon,” “CO2,” and “warming” to my list. Johnson et al. (2023) identified single words as well as two-word combinations, many of which contained “climate” or one of the other words noted. Single words initially sufficed in my dataset and allowed other possible combinations.

In the final analysis, I found that too many climate tweets remained uncategorized. I added a limited number of two-word phrases, such as “fossil fuel,” “fossil gas,” and “greenhouse gas,” where “fossil” and “greenhouse” caused possible misidentification because they were also nature terms,[46] as well as “clean electricity,” “clean energy,” and “electric vehicle.” The resulting lexicon reflects a more current climate change discourse than Johnson et al. (2023), while also trying to avoid misidentification as nature tweets.

For nature tweets, terms were added from the literature on nature (Mace 2014) plus generic terms related to plants and animals. This brought the percentage of nature tweets up dramatically. Nature discourse has evolved over the years (Mace 2014). Terms that I added included “species,” “habitat,” “wildlife,” “ecolog,”[47] and “ecosystem.” I did not include “conservation” because it was

[45] 4.4 percent were climate tweets and 10.1 percent were nature tweets, with a 0.6 percent overlap.
[46] That was also true of “oil,” which could be part of “soil;” “gas” was part of the names of some flora and fauna; “coal” was part of “coalition.”
[47] Complete words were not necessary. The program simply matched strings of letters. Including “ecolog” enabled words like “ecology,” “ecological,” and “ecologically” to be identified.

often used simply in organization and place names, nor did I include "protect" because it was often used to refer to source water protection — one of the mandates of CAs — which I deemed to not be a nature tweet.[48] These additions still left more than half of all tweets as neither nature nor climate change tweets.

What do NRNPs tweet about if not nature? In addition to providing additional selection criteria, a deep dive into the data turned up many answers: events, job postings, fund raising calls, heart-warming stories, political updates, and specific species not captured by my original criteria. A large portion referred to outdoor activities. I was faced with a decision. Did notice of an outdoor event, such as a hike, constitute a nature tweet by virtue of it being outdoors or was it simply a tweet about a recreational activity? I decided on the latter. To be a nature tweet as I defined it, a tweet had to include some reference to flora or fauna or nature-oriented discourse, such as wilderness or ecology. That meant that a large number of tweets remained uncategorized.

The final stage required another deep dive into the data to find uncategorized tweets and identify words that could be added to the criteria. It was impossible to catch every species of plant and animal mentioned; I decided to capture mostly generic categories, such as "bird," "fish," and "tree," adding only a few more specific categories that seemed to be common in the tweets, such as "turtle," "wolves," and "waterfowl." I added "invasive," finding that it could be followed by many different words, all relating to plants and animals, and "bioblitz," a popular nature inventory activity. For every term added, I checked the raw data to ensure that there would be minimal miscategorization.[49]

[48] Similarly, "preserv" and "restor" turned up a variety of contexts, not all related to nature, so they were omitted.
[49] I considered cutting "nature" back to "natur," in an effort to pick up "natural" and other related words. That meant that tweets containing "natural gas" were misidentified as nature tweets, so I retained "nature" instead, and added "naturali," which allowed "naturalist" and "naturalization."

In the final analysis, I added identification of social justice tweets. Starting with Johnson et al.'s (2023) U.S.-based list and the literature cited in Section 3.3.2, I selected words applicable to the current Canadian context. That included DEDI terminology as well as the addition of "bipoc," "blacklivesmatter," "idlenomore," "lgbt," and "just transition." Reading through uncategorized tweets added "global north," "global south," "rich countries," "rich nations," and "wealthy." Again, words like "Black" or "diversity" could not be added due to the potential for misidentification with plant names or "biodiversity." Words or phrases were not added if only a handful of tweets were found.

The end result was a capture of 41.3 percent of the tweets as nature tweets, 5.7 percent as climate tweets, and 2.8 percent as justice tweets.[50] Although there were some limitations to the criteria and likely researcher bias, they did capture 46.9 percent of the data and allowed me to move forward. The final sets of climate, nature, and justice search terms are included in Appendix C. As a check on the validity of the results, tests of precision and recall were performed, with average F_1 scores of 0.875, 0.756, and 0.819 for climate, justice, and nature tweets, respectively.[51] To give an idea of the flavour of the discourse, Table 4.1 lists the top words and two-word combinations within each category of tweet. What is most noticeable in comparison to other countries (e.g., Johnson et al. 2023) is the strong Indigenous focus within the justice segments.

4.1.2.2 Descriptive analysis of climate, justice, and nature tweets

The ability to identify tweets as referring to climate, justice, nature, some combination, or none enabled a quantitative analysis by organization. This process identified, for instance, the

[50] There was a crossover of 1.7 percent as both climate and nature tweets, 0.5 percent as both climate and justice tweets, and 0.8 percent as both nature and justice tweets, with 0.1 percent as all three.
[51] See Appendix C for details. These are fairly good results on a scale from 0 to 1, where 1 is a perfect score.

NRNP with the most or least climate or nature tweets as a percentage of their total tweets. This process informed my selection of interview candidates (Section 4.3.1.1).

Table 4.1. *Top 10 words and bigrams within each topic, in decreasing order of frequency.*

TOPIC	TOP 10 WORDS OR HASHTAGS	TOP 10 BIGRAMS
Climate only	Climate, change, climatechange, Canada, action, emissions, carbon, fossil, cdnpoli, gas	Climate change, climate action, fossil fuel, climate crisis, fossil fuels, greenhouse gas, climate emergency, climate resilient, gas emissions, global warming
Nature only	Nature, conservation, species, birds, learn, wildlife, bird, trees, Ontario, day	Invasive species, injured birds, stepintonature healthyhikes, tree planting, birds check, native plants, endangered species, conservation authorities, native plant, watershed conditions
Justice only	Indigenous, conservation, learn, day, nations, Canada, land, rights, reconciliation, nation	Indigenous peoples, Indigenous led, Indigenous communities, National Day, led conservation, Indigenous protected, residential schools, Indigenous people, National Indigenous, Indigenous youth
Climate and nature only	Climate, change, nature, carbon, climatechange, biodiversity, wetlands, trees, forests, conservation	Climate change, nature based, biodiversity loss, climate solutions, climate crisis, climate action, based solutions, based climate, boreal forest, carbon dioxide
Climate and justice only	Climate, Indigenous, change, justice, rights, climatejustice, Canada, fossil, action, communities	Climate change, climate justice, fossil fuel, climate crisis, climate action, Indigenous rights, fossil fuels, Indigenous peoples, human rights, youth climate
Nature and justice only	Indigenous, nature, conservation, nations, accessible, learn, communities, Canada, nation, people	Indigenous peoples, Indigenous led, Indigenous communities, led conservation, stepintonature healthyhikes, Indigenous protected, Indigenous tree, Indigenous rights, Indigenous knowledge, boreal forest
Climate, nature, and justice	Climate, Indigenous, nature, change, biodiversity, conservation, Canada, carbon, protected, protect	Climate change, Indigenous led, nature based, led conservation, climate solutions, based climate, environmental justice, Indigenous peoples, Indigenous protected, climate biodiversity
None of the above	Conservation, water, day, Ontario, learn, trail, trails, join, check, time	Drinking water, conservation authorities, Ontario trails, [name withheld], conservation authority, water sources, water levels, [name withheld], [name withheld], source protection

I then grouped the NRNPs by organizational category (e.g., naturalist clubs, hiking clubs, CAs), in order to see whether tweeting about climate change varied by category. Figure 4.2 shows the proportion of climate, justice, and nature tweets for the 104 organizations in the Twitter sample by organizational category. As the left-most graph shows, reform environmental groups were much more likely to tweet about climate change than were any other group. They were also more likely to tweet about justice issues (centre graph). Reform environmental groups were included in this Twitter sample as a point of comparison. They are not part of the definition of NRNPs.

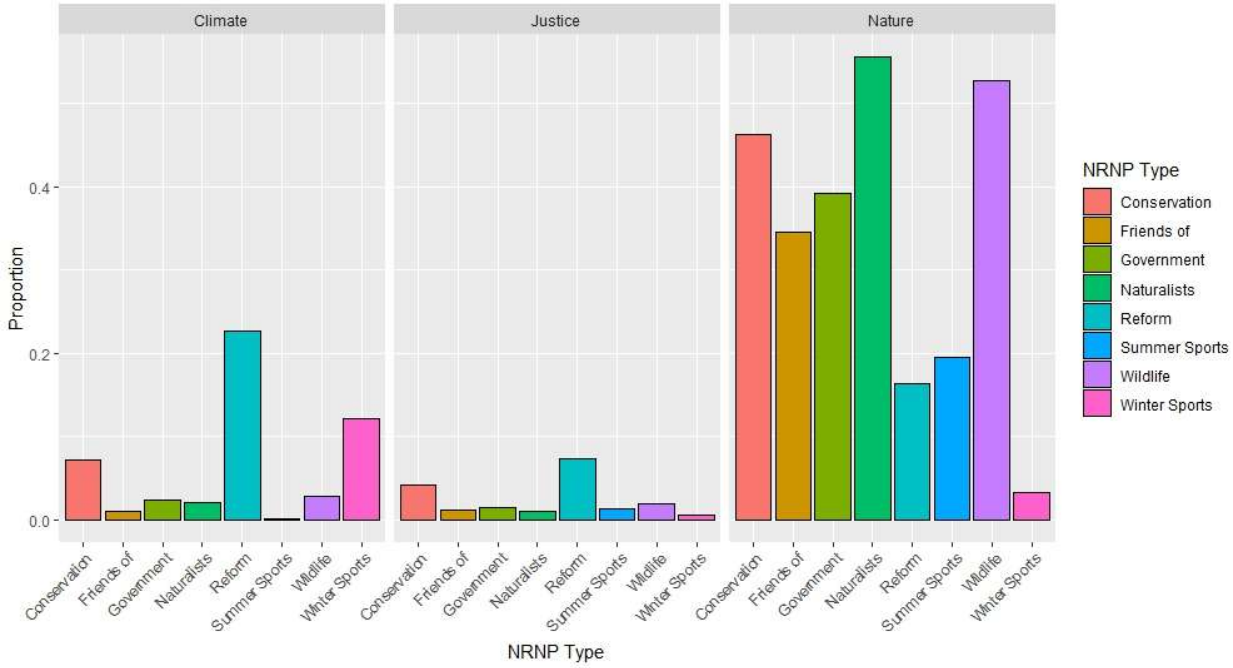


***Figure 4.2**. Proportion of tweets that are climate tweets (left), justice tweets (centre), and nature tweets (right) by type of NRNP. n=104 organizations.*

Only reform environmental groups and winter sports groups tweeted more about climate change than nature, on average. Those results could be expected: reform environmental groups are by definition more interested in climate change than nature conservation; winter sports groups[52] are less exposed to nature than other groups and more exposed to deteriorating snow conditions

[52] There were only four winter sports groups in the Twitter sample and one was particularly concerned about climate change, whereas the other three were almost silent on climate change. Thus, that result was an anomaly.

due to climate change (Vatovec 2022; Seiler 2024). Conservation groups were third most likely to tweet about climate change (about 7 percent, on average) and second most likely to tweet about justice issues (about 5 percent, on average). For all other types of groups, their climate change tweets comprised less than 3 percent of their tweets, on average, and their justice tweets were even fewer for most types of groups. That is, climate change and social justice were not popular tweeting topics for most types of NRNPs. In contrast, the groups that were mostly likely to tweet about nature were naturalist clubs, wildlife organizations, and conservation organizations; winter sports groups tweeted least about nature.

The results have face validity. The primary purposes of this analysis are to provide a high-level overview of the communications priorities of NRNPs and to identify characteristics of individual NRNPs before their selection as interview candidates.

4.2 SURVEY

The Latornell Conservation Symposium (commonly referred to as simply "Latornell") is an annual two-day gathering of my target population. The symposium is organized by CAs in Ontario, for CAs and other nature-related organizations. There are approximately 300 attendees annually, including most of the 36 CAs in Ontario. I proposed to do a survey of attendees of the October 2023 symposium and was accepted. The survey would allow me to capture data from a much larger proportion of the CAs than I could reach in interviews, providing another method of triangulation (Denzin 2015) and increasing the reliability of the findings (Neuman and Robson 2017:112). In addition, it would inform adjustments to the interview guide for subsequent interviews.

4.2.1 Data

This section covers the construction of the questionnaire, sampling, and the data collection process. The survey required a minor revision to the ethics protocol since a survey was not part of

my original dissertation proposal. Ethics approval to include the survey was received in July 2023. The survey was open for the last half of September 2023. All 103 respondents were part of the broader field in which NRNPs are situated, including conservation professionals working for government, non-profit, or for-profit organizations and a small number of academics.

4.2.1.1 Questionnaire

The questionnaire for the Latornell survey was initially extracted from my interview guide (see Appendix D and Section 4.3.1.2) in April 2023, prior to any interviews taking place. The questions were mostly multiple-choice or rating scales to determine the importance of communicating about climate change and obstacles to doing so. Based on feedback from symposium organizers, I added multiple-choice and open-ended questions about the effectiveness of various mechanisms for engaging constituents on climate change and biodiversity loss. I also added a qualitative question at the end for the benefit of organizers, referring to the theme of the symposium. A branching question was added at the beginning so that respondents not representing an organization could avoid the organization-related questions and only respond to the personal opinion and demographic questions. The final questionnaire is in Appendix E.

4.2.1.2 Sampling

The sample was non-representative. As an internet-based survey sent by email to a convenience sample consisting of all people who registered for the symposium by a certain date, it was only representative of those who responded within that timeframe. As a sample of NRNPs in Ontario, the sampling frame was not a perfect match for the population. Over half of respondents would be considered as representing NRNPs: 47.6 percent worked for CAs, and another 11.7 percent were with non-profit environmental organizations. The 40.7 percent remainder were mainly outside of my target population but within the same broad field, including 19.4 percent

working for for-profit environmental organizations or consulting firms, 10.7 percent government employees, and 8.7 percent in academia (mostly students). All had an interest in conservation matters.

4.2.1.3 Data Collection

The survey was conducted using York University's MachForm platform. According to York's Machform Usage Guideline[53], MachForm is well-suited to registration forms and simple surveys. The guidelines note that the data is sent by email, which is not a secure medium, so confidential information should not be collected. Since this was an anonymous and not overly complicated survey without any particularly sensitive questions, the platform was appropriate for the task and provided an appearance of credibility as a university-based platform.

The survey link was sent by email by symposium organizers to 204 symposium registrants on September 19, 2023. The timing and wording of the invitation were out of my hands, although I did provide suggestions for both. Follow-up emails were sent on the mornings of September 26 and September 29. All three emails are included in Appendix F.

The survey was supposed to close on September 30, but I left it open for a few days to accommodate stragglers. I closed the survey on October 5 after submissions ceased. In total 103 submissions were received out of 204 sent, for a response rate of 50.5 percent.

The number sent was significantly lower than hoped. Attendance at the event was projected to be 280 people. My contact at Latornell confessed that many invited guests had reserved but not registered, so organizers could not contact them for the survey.

> I received the emails in a contact list, so didn't realize that we were still waiting for ~76 people to register and submit contact information. People with saved spots but hadn't registered yet were a combination of presenters and grant recipients. (email from organizer, October 12).

[53] https://infosec.yorku.ca/machform-usage-guideline/

The omission of presenters and grant recipients might have skewed the results. In addition, the results were already skewed by disproportionate attendance from organizations in the vicinity of the event, which was held that year in the west end of the Greater Toronto and Hamilton Area (GTHA). Three-quarters of respondents were either from the GTHA or west of the GTHA, with much fewer from the north or east of the province. In any case, as a convenience sample, the results were not generalizable.

4.2.2 Survey Analysis

The survey data was downloaded from MachForms and consolidated into a single spreadsheet. I wrote a short program in R to produce univariate and bivariate tables and graphs for the multiple choice and rating scale questions. A complete report on survey responses was provided to the conference organizers.[54] For this dissertation, the information of most relevance are the demographics and the importance of communicating about climate change. Descriptive statistics of the latter appear in Figure 6.2b in Chapter 6 and of the former appear in Figures 7.2a-b and Table 7.1 in Chapter 7.

4.3 INTERVIEWS

Interviews are my main data source. While publicly available textual data could demonstrate whether NRNPs communicated about climate change, they would be unable to reveal any obstacles to doing so. Surveys might reveal obstacles but not put them in context. To get a more complete picture, it was necessary to engage in triangulation by interviewing communications personnel at NRNPs (Denzin 2015; Dumitrica 2021).

Twenty-two of the 39 NRNPs interviewed are included in the Twitter analysis. In some cases, the interviewees were the communications director on the board, the president, or another

[54] The report was posted to the Latornell website but has since been taken down, as the organization does not retain documents on its website for longer than a year.

board member fulfilling multiple roles including communications. In other cases, they were a communications professional at a NRNP with paid staff: some were directors with oversight but not much hands-on responsibility; others did some or all of the communications work. All had at least some understanding of and involvement with communications.

4.3.1 Data

Preparation for the interviews involved selecting a sample of NRNPs and writing an interview guide. The interviews spanned the period from May 2023 to January 2024, straddling the period of survey data collection and analysis in September and October 2023. The following subsections describe the sampling, construction of the pre-interview questionnaire and interview guide, and the data collection process. This section includes a table and graph quantifying the categorization of the interview sample and their identification with the environmental movement, respectively.

4.3.1.1 Sampling

In the original sampling frame described in Section 4.1.1.1, about half of the 258 organizations had Twitter accounts. The plan was to split interviews between organizations that had Twitter accounts and those that did not. My reasoning was that organizations using and not using Twitter might somehow differ. As the interviews proceeded, it became apparent that the presence or absence of a Twitter account was irrelevant. Some organizations with Twitter feeds had already abandoned Twitter; others were in the process of doing so; others used it, but for only limited purposes. Use of Twitter was related more to the availability of someone with the skills and interest to do so (Dumitrica 2021). Thus, being conscious of selecting a variety of sizes and types of organizations served a similar purpose. The 104 organizations on the pared down Twitter list became my main sampling frame. I gradually added to the list as organizations were

recommended to me by interviewees and as gaps in the list necessitated referring to the larger sampling frame.

As an exploratory study, my approach to sampling organizations for interviews was to engage in maximum variation sampling (Fossey et al. 2002:726). I did that by populating the cells in Table 4.2, constructed of eight columns (seven regions plus a national/provincial/multiregional column) and seven organizational types for the rows. I knew that filling every cell would not be possible, due to a limited amount of time for a dissertation, a lack of organizations in some cells, and non-response. I aimed for five organizations in each column and row, to provide a range of perspectives on each type of organization. Such purposive sampling can help to reduce researcher bias (Fossey et al. 2002:726). Some categories provided little variation and were cut short, while others displayed more variation, so sampling was extended in those categories. My goal was 40 to 50 interviews overall, spread across the table. I finished with 41 interviews with 43 individuals representing 39 organizations.[55]

To provide guidelines for the sampling and to increase the variation, I turned to the Twitter analysis described in Section 4.1.2.2 to identify organizations for the interview phase. Computer-assisted analyses produced statistics by organization to show the proportion of climate and nature tweets. Organizations were ranked within their organizational type based on those statistics in order to partially engage in extreme case sampling (Fossey et al. 2002:726).

The first set of approaches to six organizations resulted in three interviews and one "talk to our member groups."[56] Of the three interviews, two were amongst the bottom ten in the proportion of both climate and nature tweets and the third had the most nature tweets. One was a local cross-

[55] Twice I interviewed two people from the same organization at the same time. Two other times, I interviewed someone at an organization who then recommended that I talk with a second person at the organization.
[56] That was a heartening response.

country ski club, one was a local hiking club, and the third was a wildlife-focused organization. I continued to reach out to organizations with the most and least climate tweets and most and least nature tweets within each organizational type, while also trying to cover a cross-section of Ontario. The objective was to obtain as wide a range of interviews as possible. I was very organized in my process, as detailed in Appendix B. I reviewed the progress on Table 4.2 regularly and eventually ignored the climate and nature tweet counts in favour of filling gaps in the table, as some cells had very few possibilities.

Table 4.2*. Distribution of organizations in the interview sample.*

ORGANIZATION TYPE	**REGION**[57]								
	Great Lakes West	**Carolinian West**	**Carolinian East**	**Lake Ontario North**	**Huronia**	**Eastern Ontario**	**Northern Ontario**	**National/ Provincial/ Multiregional**	**TOTAL**
Conservation authorities (CAs)	1	2	1	*	1	1	1	-	**7**
Conservation organizations	1	1	-	1	1	2	1	2	**9**[58]
Friends of Provincial Parks	-	1	-	-	1	1	-	-	**3**
Wildlife organizations	-	-	-	-	-	-	-	5	**5**
Naturalist clubs	1	-	1	1	-	-	1	-	**4**
Hiking/trails organizations	1	1	1	1	2	-	-	1	**7**
Cross-country ski clubs	-	-	-	1	1	-	1	1	**4**
TOTAL	**4**	**5**	**3**	**4**	**6**	**4**	**4**	**9**[59]	**39**

** partially covered by another CA*

[57] The categorization by region approximates and uses the same labels as the categorization used by Ontario Nature.
[58] Category imbalances resulted, in part, from recategorizing organizations after-the-fact. I originally did not realize that there was a difference between Friends of provincial parks and Friends of other nature sites. When the differences became clear in the interviews, I grouped the latter in with other conservation organizations.
[59] Four multiregional organizations were originally categorized by the location of their head office. The recategorization again resulted in less balance.

The only omission from the sampling process was CAs, which I treated separately. I knew that many of the Latornell attendees, who would be taking the survey, work for CAs. The questionnaire for the surveys was a modified version of the interview guide. To avoid tainting the survey, I decided to wait until after the symposium to interview CA employees and use the interviews as a follow-up to the information gleaned through the surveys.

Sampling the CAs was handled using statistical randomization. I divided the 36 CAs into the seven geographic regions labelled by Ontario Nature and used a random number generator to select a CA within each region. I received a positive response in all but two regions, where I had to redo the random selection. Encountering hesitation again in one of the regions, I looked at my overall distribution of CAs and redid the random selection once again with a group of CAs that was missing from the sample and was successful in obtaining another interview.

My response rate was very good. The response for non-CAs hovered around 50 percent from the start of the project to the end. Sixty non-CAs were contacted resulting in interviews with 32 organizations, for a response rate of 53 percent. Including CAs, the overall response rate for the project was 56 percent.

Table 4.2 contains a total of 56 cells, of which 31 cells (55 percent) are populated. Given the non-response particularly from hunting and fishing groups and cross-country skiing clubs, representing 11 missing cells or close to half of the missing, I am satisfied with the distribution. In lieu of local groups, I defaulted to more regional or provincial umbrella organizations.[60] My aim was not precision in filling boxes but rather gaining a wide range of perspectives within a reasonable amount of time. The allocation to cells is a somewhat fuzzy exercise, as some groups straddle the arbitrary geographical boundaries set by Ontario Nature.

[60] All umbrella groups in the interview sample had a strong connection to the outdoor activities of their member groups.

4.3.1.2 Pre-interview Questionnaire and Interview Guide

A pre-interview questionnaire was sent to each interviewee at the time of booking the interview, to facilitate the collection of quantitative data that might take a bit of time to assemble. The questionnaire included information on the organization (whether or not a branch or chapter of a larger organization, whether or not incorporated and/or charitable, number of employees), size of catchment area, number of members, and communications (platforms used, number of social media followers). The final pre-interview questionnaire is in Appendix G.

The interview guide (Appendix D) contained five sections, predominated by open-ended questions. The design of the guide followed survey design principles (Salant and Dillman 1994; Ornstein 2013; Dillman 2014), since there is little difference between a semi-structured interview and an interviewer-led survey. Open-ended questions are useful when exploring a little-studied topic (Salant and Dillman 1994:81), as is the case with this understudied population. Closed-ended questions were used at intervals to give the interviewee a break from talking, in cases where there was a group of similar questions that could be answered using a Likert scale or where the response options were suggested by the literature. In both cases, open-ended questions were used as follow-ups to the closed-ended questions, to give respondents a chance to expand on their answers and add other response options, if appropriate (Salant and Dillman 1994:81). Adding response options and otherwise modifying the interview guide over time reflect a primarily interpretive approach (Fossey et al. 2002), despite the inclusion of closed-ended questions.

The order of the questionnaire also followed survey design principles (Dillman 2014). The survey should start with questions that are salient to the interview but not overly challenging, to engage the interviewee (Dillman 2014:244). The first section in the guide asked about the organization and its constituency. It was important to understand who the target of the

organization's communications was and how the organization communicated with them, in order to provide clarity in later responses.

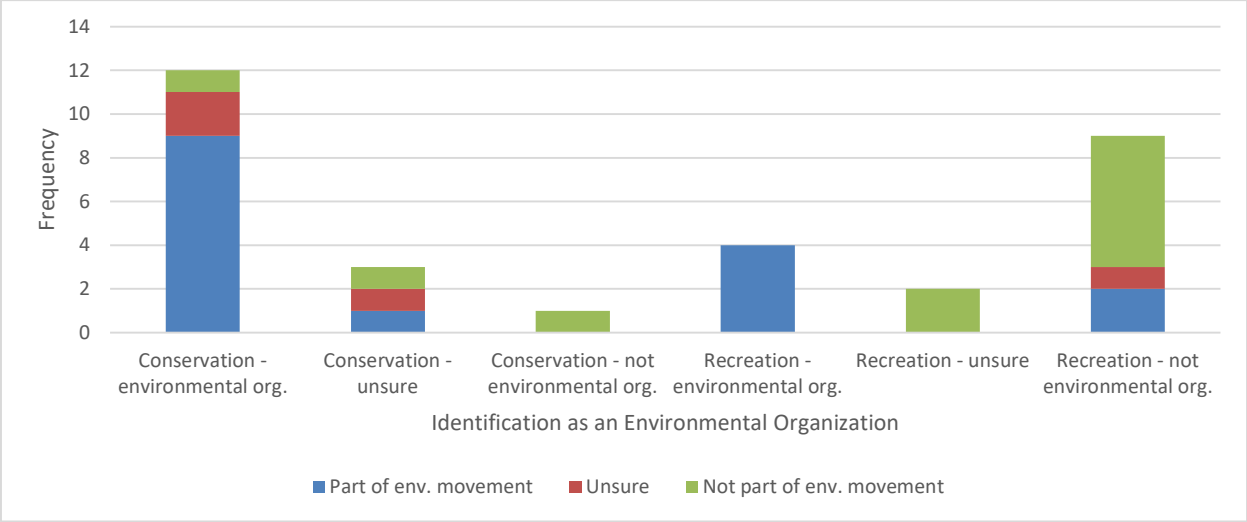


***Figure 4.3**. Identification of NRNPs interviewed as an environmental organization and/or part of the environmental movement. n=31. Excludes CAs.*

The second section aimed to understand the field in which NRNPs were situated (Bourdieu 1990; Bourdieu and Wacquant 1992). It started with questions probing the organization's affinity with the environmental movement and/or any other social movements. This follows assertions that conservation organizations might not be part of the environmental movement (Saunders 2007; Johnson et al. 2023:966). Figure 4.3 shows a split between conservation and recreation organizations regarding their identification as an environmental organization or part of the environmental movement. Most conservation organizations (the three left-hand columns) identified as both, although three were less committal. The one that did not identify as an environmental organization was a wildlife-oriented umbrella organization. As for recreation organizations (the three right-hand columns), all four naturalist clubs identified as both environmental organizations and part of the movement. The rest placed their organization outside the movement or were less committal about being environmental. These responses align with my categorization of conservation organizations as instrumental, recreation organizations as

expressive, and naturalist clubs as straddling the two categories. CAs were not asked this set of questions because their quasi-governmental status might confuse the environmental movement question; they are all instrumental environmental organizations.

The second section continued with questions about relationships with other organizations, following Saunders (2007). Saunders (2007) used counts of network ties disclosed in survey data to determine the intensity of relationships between conservationist, reformist, and radical ENGOs. My approach was to ask within the interview who were the environmental and non-environmental organizations with which the NRNP worked most closely. The responses were not limited to NGOs, which enabled the broader field (Bourdieu 1990; Bourdieu and Wacquant 1992) to be revealed. The second section also involved soliciting opinions on a label for the sample as a whole, finally landing on "nature-related non-profits."

The third set of questions in the interviews was the longest, addressing the bulk of the research questions, which dealt with framing and obstacles. The interview guide first asked whether the interviewee had seen any changes due to climate change or biodiversity loss. Nature conservation was then discussed, followed by climate change. For each, there was a scale question asking how important the issue was for their organization to communicate, a question about frames used, and a question about how much the organization talked about the issue internally.

For climate change, the framing question was open-ended, to provide space for interviewees to express a wide range of frames and justifications. As the main research question exploring how NRNPs communicate about climate change, it would have been inappropriate to provide a closed-ended list of options (Salant and Dillman 1994:81). That was followed by a question specifically asking about the use of the nature-based climate solutions (NbCS) frame. Question order is important (Ornstein 2013:22-23); asking about NbCS earlier might have primed the interviewee

to think about climate change in that way and occluded other climate change frames (Dillman 2014:247-248). Reflecting on the interviews as they proceeded (Fossey et al. 2002), I noticed that many NRNPs did not communicate about climate change as urgently or directly as their concern about it might have suggested. I, therefore, added a scale question partway through the interview period asking how implicit or explicit the NRNP's messaging was about climate change. Finally, a closed-ended question posed a series of potential organizational obstacles to communicating about climate change, reflecting Munck af Rosenschöld et al.'s (2014) research. Again, additions were made to this list over the course of the interview period.

The fourth section of the interviews asked whether the COVID-19 pandemic had caused any problems for the organization. This short section was added because it seemed to be a theme during many of the early interviews.

The final section posed a number of closed-ended questions to gather personal information, as in a typical survey. Dillman (2014:245) recommends placing potentially sensitive information near the end of the questionnaire, after a rapport has been built, so that respondents are more likely to answer honestly. Demographic information was collected as well as attitudes related to climate change and biodiversity loss. The attitude questions referred to *Global Warming's Six Americas* (Leiserowitz et al. 2021; Leiserowitz et al. 2025). Descriptive statistics of the demographic information are included in Chapter 7 as Figures 7.1a-b and 7.4.

The interview guide was modified for CAs after Latornell. Given that CAs are staffed, professional organizations with at least one communications person and a significant internet presence, some questions were trimmed out as unnecessary. Closed-ended questions on obstacles to communication were converted into open-ended questions as a follow-up to the Latornell survey responses. Questions about the pandemic and how the organization identified itself were

eliminated, although some interviewees still brought up the pandemic. Being cognizant of the time constraints of these employees and likely isomorphism within their network, I was trying to shorten the time commitment for the interviews. The revised interview guide is in Appendix H. The CA interviews hovered around an hour in length.

4.3.1.3 Data Collection

For the most part, potential interviewees were initially contacted by email. In many cases, there was only a generic email address or an online contact form for the organization, in which case I requested that the email be forwarded to the most appropriate person, "either the person in charge of your social media presence or someone on your leadership team who guides communications." Occasionally, when a phone number was available, I called first, but that usually resulted in leaving a voicemail message saying that I would follow up by email. The email invitation is included as Appendix I. Once an interview time was set, I sent out a link to the pre-interview questionnaire (Appendix G) and consent form (Appendix J). Both forms were collected through York's MachForms platform. On receipt of the forms, I sent a Zoom link. In addition, a reminder with the Zoom link was sent generally a day before the interview.

The process of booking interviews for CAs was the same except that I always called first, using the website to find a direct line to the most likely person or the main number if names and/or extensions were not public. Again, that mostly resulted in leaving a voicemail and follow-up email (Appendix K). Once we agreed on a date, I sent a calendar evite with the consent form link, pre-interview questionnaire link, and Zoom link in addition to the process outlined above.

Most of the interviews were held on Zoom, using automatic transcription, and lasted one to two hours. There were a few exceptions. Two people were in rural areas with poor internet connection. The first of those interviews was done entirely by phone while I tried to take notes on

my computer. That was not overly successful and only lasted 45 minutes, after a lengthy delay in starting. The second was done by Zoom on my end with the interviewee calling in. The sound quality was very poor and cut out frequently. One additional partial interview was conducted by phone when I reached a very busy person who did not want to book an interview but offered to answer a few questions. No consent form was completed in that case, but I very briefly went over the confidentiality provisions and received verbal consent. I took notes from that 20-minute interview on my computer, as I had for the first phone interview.

The interviews were semi-structured, more or less following the interview guide (Appendix D). I began the interviews by reviewing the consent form, then turned on the recording when I launched into the questions. It is important to start a telephone interview with an easy but engaging question to bring the interviewee into the interview (Salant and Dillman 1994:129; Dillman 2014:243). My ice breaker question was asking them how they came to be in their current position, which was very successful in getting most people to open up. After that, I tried to obtain responses to most of the questions in the interview guide, occasionally changing the question order to pursue a line of conversation. I fed back information to interviewees during the interviews to ensure that I was grasping their meaning (Fossey et al. 2002:729). Taking an interpretive approach, questions were modified over time based on previous interviews (Fossey et al. 2002).

4.3.2 Qualitative Analysis

NVivo (Lumivero 2022) was my main tool for organizing the qualitative data. For each interview, I reviewed and edited the Zoom-generated transcript as soon as possible after the interview, rewatching the Zoom video as I did so to ensure as much accuracy as possible. I then uploaded the edited transcript to NVivo, autocoded to each speaker, and manually coded concepts.

After each interview, I wrote a quick reflection memo in NVivo on the interview and interviewee. Procedural and analytical memos were written occasionally.

Part of setting up NVivo for the project involved entering a list of codes derived from the interview guide and the related literature. Because of the volume and variety of interview questions, descriptive codes (nouns) were used in the first pass to help organize the data (Saldaña 2020:895). The codes were organized into 103 categories and subcategories. As transcripts were added to NVivo, more codes were added. In many cases, multiple codes were applied to a given sentence. After the first phase, 242 codes and subcodes were listed in NVivo. Some of those were concepts. For instance, under the category of *climate change* initially were subcategories of *actions*, *attitudes*, *effects*, *frames*, and *obstacles to action*. The subcategory of *organizational responses* was not added until much later.[61] Adding, grouping, and organizing codes was an ongoing process.

My second pass through the data involved rereading very small code categories and reassigning them, as well as rereading very large code categories and subdividing them. For instance, the category for *climate change -> obstacles to action* had 142 fragments after the first pass. The second pass broke that into subcodes, including things like *mission*, *capacity*, *politicization*, and *cognitive dissonance*. On a later pass, I grouped the codes into the individual, organizational, institutional, and societal realms. I used a large sheet of paper for each chapter to help visualize and organize the themes in the data. My ultimate dataset included 402 codes and subcodes.

[61] Avoidance was originally coded as an alternative to diagnostic, prognostic, and motivational frames. In later analysis, it became clear that a subcategory for organizational responses, including avoidance, was necessary to answer the first research question: whether NRNPs communicate about climate change. That required a review and recoding of the interviews to populate the new category for each NRNP.

My approach to the qualitative analysis could be described as a generic discourse analysis approach (Bischoping and Gazso 2016). An interpretive approach was taken to develop the categories of *organizational responses to climate change* (Section 6.3.4) and *obstacles to communicating about climate change* (Chapter 7) when the existing literature did not match the data well.[62] For this, I took an assertion development approach (Erickson 1986; Saldaña 2020:903-905).

> Assertions are declarative statements of summative synthesis, supported by confirming evidence from the data and revised when disconfirming evidence or discrepant cases require modification of the assertions. These summative statements are generated from an interpretive review of the data corpus and then supported and illustrated through narrative vignettes. (Saldaña 2020:903).

Direct quotes from interviewees and memos are alternative sources of support and illustration (Erickson 1986:150-151). "Particular descriptions," including the illustration and associated analytical discussion, are accompanied by "general descriptions," outlining how prevalent the instance is in the data (Erickson 1986:149-152). Although this method, like grounded theory (Corbin and Strauss 1990), is intended for field studies, it fits with the collection of multiple data sources in this dissertation and the development of assertions using the multiple sources. This approach required reading and rereading the responses to the interview questions on climate change and the open-ended question at the end of the interview, in conjunction with analyzing the textual data, as outlined in the next section.

Coding the climate change *frames* used by NRNPs (Section 6.4) followed the frames identified in the literature. Identifying frames in an interview context is also somewhat interpretive, as some interviewees would say "We would say such-and-such," whereas others would express the flavour of how they might communicate something. Supporting statements from the data, just

[62] For instance, the mission statement and lack of capacity were two obstacles that appeared from the first interview and were not in the climate change literature.

as in the assertion development approach, were required. I returned to the full transcripts as needed to contextualize code fragments.

4.4 TEXTUAL DATA

4.4.1 Data

In addition to Twitter feeds, two types of textual data were gathered from the organizations interviewed. One was website content; the other was annual reports. Websites are a primary method by which NRNPs communicate with members, potential supporters, and the general public (Boscarino 2015:102; Tosun and Saad 2023:922). George, a board member of Small City Hiking Club, expressed the multiple purposes of websites:

> It's not just for consumption of our own organization, our own membership. It's for consumption of [our city], right? Because that is a part of our strategy, to increase our branding in [our city].

Websites potentially give up-to-date information about an organization's events and other news in addition to static content about its mission, governance, and ongoing programs.

Annual reports are a more formal, often glossy, public-facing publication, complete with photos, stories, statistics, and financial information (Souder 2016:2725-26). Annual reports are year-by-year summaries of an organization's key activities (Anheier and List 2005:9; Markham and van Koppen 2014:252). Clark, an employee of Farm-to-Lake Conservation Authority, motioned to the rack of publications behind his desk and said:

> We have an annual report [leaning down to pick up a report]. And here again, I have a print copy for myself, but we don't print the annual report anymore in large number of copies. If people want the full report, they can get it online. But we do print a few copies of a summary document of the annual report each year [picking up another report from the rack].

Since they require some capacity to produce, I did not expect all of the NRNPs in the study to have an annual report. Before the internet, annual reports might have been the primary way that NPOs

could publicly convey the breadth of their operations and attract donations; today, there are online alternatives (Anheier and List 2005:9-10).

4.4.1.1 Sampling

To respect ethical considerations and for practical reasons, textual data was only gathered from the organizations in the interview sample. The consent form requested permission to analyze the organization's website, annual reports, and membership newsletters. Permission was received from 36 out of 39 organizations regarding the website, 25 regarding annual reports, and 32 regarding membership newsletters. Most of those denying access checked "N/A," implying that their organization did not use that communications channel.

4.4.1.2 Data Collection

Website data for 30 organizations was collected shortly before the corresponding interview, in preparation for the interview. Noticing gaps during the analysis phase, website data was collected from the remainder of the organizations in November 2024. For each of the 36 organizations, I visited the website, manually copied pages from their website, and pasted the information into a Word document. A purposive sampling approach was used, focusing on the "about us" page containing the organization's mission and any webpages relating to climate change and/or nature. Webpages were omitted if they related entirely to operational issues, such as membership sign-up or a calendar. For large websites, the most relevant and representative pages were copied.

I asked for an annual report for 2023 and was able to obtain some semblance of a report from 24 NRNPs out of the 25 that gave permission. Fourteen were professional-looking multipage booklets covering the calendar year or the fiscal year that included the summer of 2023.[63] Two

[63] One of those was from 2022. The organization did not produce an annual report in 2023.

were two-page summaries, also professionally produced. The others were in other formats, such as financial statements, reports for the AGM, newsletters, or webpages. Of those organizations that produced a professional-looking report for 2023, all but one had a paid staff. That one was one of only two local-level organizations that produced an annual report; the rest were at the regional level or higher. That is, annual reports were produced by organizations with the resources to do so. My analysis is limited to those 16 documents.

I did not collect membership newsletters. Membership newsletters are an important vehicle for communication between NRNPs and their members (Reber and Berger 2005), but they are often not publicly available, which raises additional ethical considerations regarding the expectation of privacy. I decided to exclude them due to ethical concerns as well as the large volume of data already being collected.

4.4.2 Analysis

Analysis of the textual data included both quantitative and qualitative content analysis. Programs were written in R to analyze sets of data quantitatively. Because it is important to consider the salience of the text, rather than simply engage in a mathematical exercise (Entman 1993:57), I also read through and coded the reports and website extracts quantitatively and qualitatively.

This section describes the methodology used to analyze the mission statements, website content, and annual reports of the NRNPs. The first subsection includes a full analysis of the mission statements, continuing to build a picture of NRNPs. The second subsection discusses the method of analysis of websites and annual reports together, which is used in Chapters 6 and 7.

4.4.2.1 Mission statements

The website excerpts enabled the analysis of mission statements (Partelow et al. 2020; Tosun and Saad 2023; Yoreh and King 2025), for those NRNPs that had one.[64] Mission statements are a concise public-facing expression of the narrative that an organization wants to "sell" (Yoreh and King 2025:242) and often, in their creation, involve much deliberation over every word (Yoreh and King 2025:243). Nonetheless, Yoreh and King (2025:243) caution that a mission statement may state what the organization wants the public to hear but may not reflect the organization's internal reality.

The methodology developed by Partelow et al. (2020) to analyze the mission statements of international ENGOs seemed applicable. That methodology identified 15 key words or phrases for each of four discourses, arranged as opposite ends of two dimensions: environmental management versus climate politics and ecological modernization versus environmental justice.[65] I compiled the mission statements into a spreadsheet and uploaded it to R, where I had written a program to match the key words identified by Partelow et al. (2020) with my corpus. I ran the program, but the results were unusable. The methodology failed to identify any environmental management aspect in most of the organizations in the sample, including six of the seven CAs, which are quintessential environmental management organizations. I suspect that the methodology undercounts the environmental management dimension.[66] The most common categorization it

[64] Thirty-two out of 39 NRNPs had a mission statement or slogan on their website and gave permission to analyze their website. Of those, 21 were conservation-oriented organizations and 11 were member-oriented recreation organizations.

[65] Partelow et al. (2020) determined the two dimensions using principal component analysis (PCA). That paper provides little theorization. The "discourse labeling [was] a process of 'inference to the best explanation'" (Partelow et al. 2020:10).

[66] The article mentions that environmental management was the most popular discourse (Partelow et al. 2020:10) but the graph presented in the article is skewed in the opposite direction (Partelow et al. 2020:11). The authors are aware of this contradiction, as a justification is provided for the findings (Partelow et al. 2020:11). There is no indication of how much of the discourse is identified by the 15 top terms chosen.

gave for my sample was environmental justice, mostly on the strength of one or two words — "people" and/or "nature" — with no reading on the other dimension. Yoreh and King (2025:249) found in both ENGOs and religious organizations a "language of 'people,' 'life,' and 'community,' … indicat[ing] a shared understanding of the reciprocal relationship between human and environmental wellbeing, and perhaps an anthropocentric bent to environmental activism." Partelow et al. (2020) included people, life, and community in the environmental justice discourse. The resulting false categorizations in my data give credence to Yoreh and King's (2025) interpretation that focusing on people, life, and community is often an anthropocentric discourse rather than one of environmental justice. I abandoned that version of the analysis.

Ritter and Thaler (2023) recognized potential weaknesses with Partelow et al.'s (2020) methodology and undertook a qualitative textual analysis of extreme cases within the same dataset, resulting in a revision of the categories. Yoreh and King (2025) also started with a quantitative analysis and followed up with a qualitative approach, combining frame analysis and rhetorical analysis to compare the mission statements of ENGOs and religious environmental organizations. They identified the top 15 words used in the mission statements in each category of organization, then used the word lists as a starting point for a deeper reading of each mission statement, to determine how each of the words was used. They identified six discourses and linked them to one type of organization or the other or both. With less than 40 mission statements, I adopted their methodology, attempting to differentiate between conservation-based and recreation-based NRNPs. A quantitative listing revealed too few words for a credible analysis,[67] so I focused on a close reading.

[67] The most common term was "protect," with 12 appearances, followed by "conserve" and "educate" with 11 each. All three terms were shared between conservation-based and recreation-based NRNPs.

Combining the above three studies, I settled on the following labels for the various discourses: 1) nature preservation and appreciation, 2) environmental management, 3) sustainability and balance, and 4) member and partner services.[68] These labels reflect Yoreh and King (2025) fairly closely but with some differences. The derivation of these labels is presented visually in Figure 4.4.

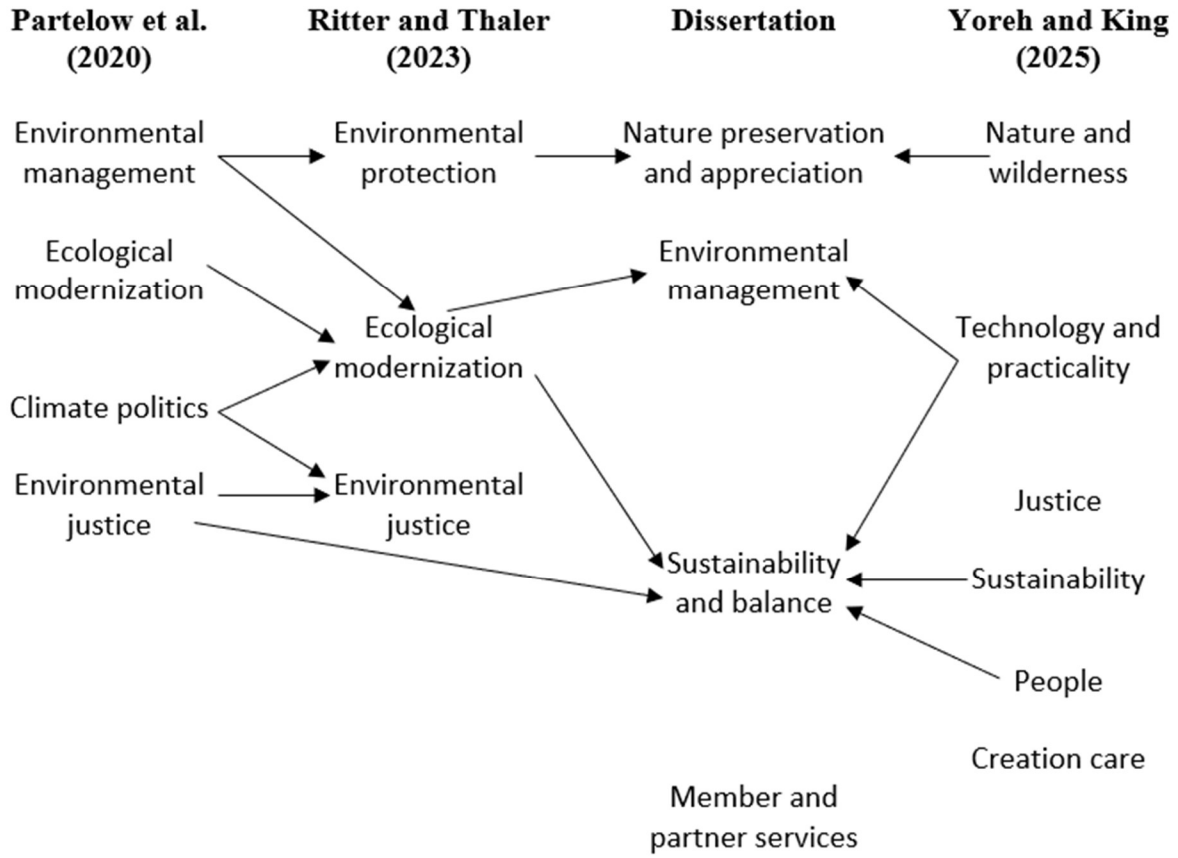


Figure 4.4*: Derivation of categorization of discourses in the mission statements of NRNPs*

Partelow et al. (2020:10) explicitly included both preservation and conservation under environmental management, as well as such environmental issues as air quality and energy management. Ritter and Thaler (2023) recategorized environmental management, moving most of the category to ecological modernization. They used the preservation/conservation distinction

[68] DiRago et al.'s (2026) more fine-grained study was not available at the time of analysis. Future research could work with the topics and clusters found in that study that analyzed a large corpus using computer-assisted tools.

between seeing nature for its intrinsic value versus its economic value to humans to establish the category of "environmental protection" for the preservation component. Yoreh and King (2025:245) labelled the preservation discourse "nature and wilderness," recognizing a spiritual aspect to this approach to nature, as well as a separation between humans and nature. I relabel it "nature preservation and appreciation," to indicate some intentionality while clearly denoting a less interventionist approach than environmental management. The label also enables the inclusion of recreation-oriented groups adjacent to the environmental movement. Six NRNPs in my interview sample shared this discourse in their mission statements.

Ritter and Thaler's (2023) ecological modernization is a broad category encompassing the post-political discourse of technocratic solutions to environmental challenges, including nature conservation, sustainable development, and climate change. Yoreh and King's (2025) "technology and practicality" is similar, involving rational solutions to both nature conservation and broader societal issues, such as energy systems. In my categorization, I distinguish between nature and societal components, retaining the label of "environmental management" for the nature conservation component of this broad category, which more clearly indicates a post-political approach than the term "conservation." Seventeen NRNPs shared this discourse in their mission statements.

Yoreh and King (2025) separated sustainability from technology and practicality, although sustainability was part of ecological modernization in Ritter and Thaler (2023). Sustainability was a stated goal in the mission statements of some ENGOs in Yoreh and King (2025) and, as such, had a forward-looking orientation within the post-political discourse. Three NRNPs in my dataset focused more on working toward a balance between human activity and nature than on conservation, one of them specifically mentioning sustainability. For those three, I added a

category of "sustainability and balance." The human part of these missions earned them a questionable association with environmental justice in Partelow et al. (2020), as previously mentioned.

Finally, "member and partner services" was necessitated by the non-environmental member- and partner-focused organizations in my sample, which were not a feature of the other studies. In this category were the two Friends of provincial parks organizations and the two cross-country skiing organizations that had mission statements as well as two member-oriented umbrella organizations. While Ritter and Thaler (2023) refined Partelow et al. (2020) by combining climate justice and environmental justice into a "counter-hegemonic environmental justice" discourse, and Yoreh and King (2025) identified a justice discourse, there was no mention of justice or rights in the mission statements in my dataset. In addition, there was only one mention of climate change, two mentions of advocacy as part of other discourses, and no other references to any political action. A discourse mainly in religious communities in Yoreh and King (2025) was "creation care," emphasizing moral responsibility, which was also absent in my data.

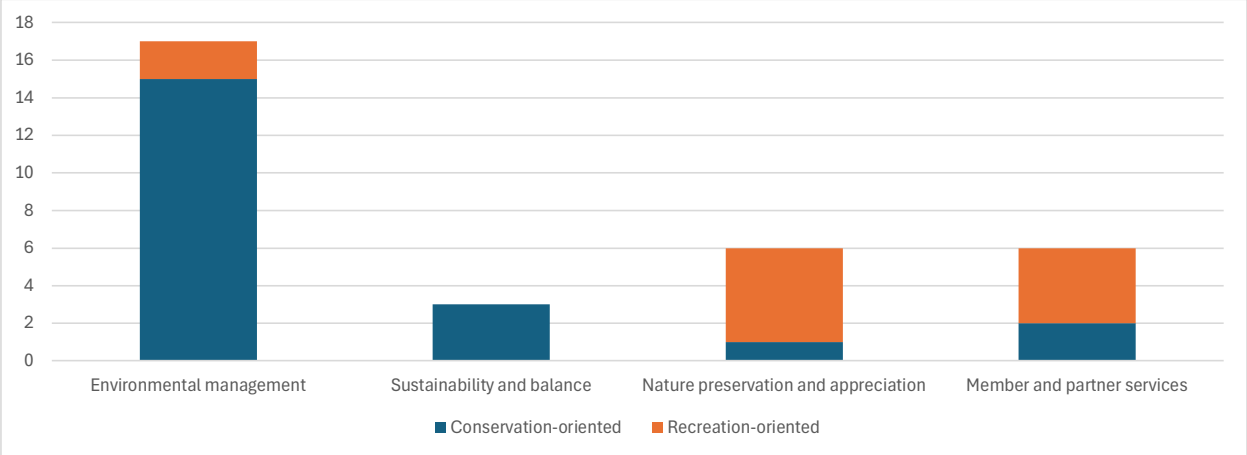


Figure 4.5. *Frequency of discourses in the mission statements of NRNPs in the interview sample. n=32.*

As shown in Figure 4.5, most conservation-oriented NRNPs in my interview sample had a mission of environmental management, whereas most membership-oriented NRNPs had a mission

of nature preservation and appreciation or were focused on their members.[69] This confirms a fairly clear public-facing divide between instrumental, conservation-oriented NRNPs and recreational, member-oriented NRNPs.

4.4.2.2 Websites and annual reports

Whereas mission statements are generally limited to one sentence, websites and annual reports form much larger corpuses. Analysis needs to consider that these sources include multiple types of information for multiple purposes. Markham and van Koppen (2014) manually analyzed both sources of data as well as member magazines for ten national-level ENGOs. In this dissertation, the analysis of both annual reports and websites is included in Chapter 6 regarding the framing of climate change and in Chapter 7 regarding the incorporation of decolonization, equity, diversity, and inclusion (DEDI). I describe the general approach here.

Tosun and Saad (2023) analyzed the websites of ENGOs operating in the Americas to determine the degree to which the organizations identified climate change as a priority issue. They used a scale from 0 to 3, where 0 indicates no mention of climate change, 1 indicates limited engagement with climate change, 2 indicates a dedicated program on climate change, and 3 indicates that climate change is included in the mission or vision statement. Markham and van Koppen (2014) engaged in a similar process using a scale from 0 to 2. In Chapter 6, I use Tosun and Saad's (2023) scale (Table 4.3) to perform an analysis of the websites and annual reports in my dataset. I first search for the term "climate" in the data, then do a close reading of the context of that mention. The resulting "climate change scores" are presented in Section 6.3.3.

I perform a similar analysis regarding NRNPs' engagement with DEDI. Agyeman's (2005) Just Sustainability Index (JSI) estimates the degree of commitment to just sustainability by

[69] Of the seven organizations not included in this analysis, six are member-oriented NRNPs.

ENGOs. The JSI is also a scale from 0 to 3, where 0 indicates no engagement and 3 indicates that equity and justice are part of the mission statement. Haluza-DeLay and Fernhout (2011) used the JSI as a measure of social inclusion as reflected in the websites and mission statements of a sample of Canadian ENGOs. In Chapter 7, I use a modified version of the JSI (Table 4.3) as a measure of DEDI in the websites and annual reports in my dataset. The details and resulting "DEDI scores" are presented in Section 7.2.2.

***Table 4.3**. Criteria for climate change score and DEDI score. Adapted from Agyeman (2005:108) and Tosun and Saad (2023:923).*

SCORE	CRITERIA
0	No mention of climate change/DEDI in mission statement, annual report, or website.
1	Limited mention of climate change/DEDI in annual report and website.
2	Climate change/DEDI program, with a dedicated webpage or page in annual report.
3	Climate change/DEDI (including justice and/or equity) in mission statement.

Analyzing both websites and annual reports, conflicts between the two data sources can be expected (Denzin 2015:3). Markham and van Koppen (2014) averaged the ratings from the different data sources if there were conflicts. Annual reports are complete documents for those organizations that produce them. The website extracts were not complete in all cases, since I sampled longer websites and could have missed relevant information. I resolved conflicts between the two data sources by doing a closer reading of the annual reports, website extracts, and live websites.[70] Climate change and DEDI scores reflect whichever data source included more on the given topic.

A final pass through the textual data was performed after the first draft of the dissertation was complete, to ensure consistency. This involved reading the annual reports in their entirety and reviewing the website extracts. Statistics in the dissertation are based on the final scores.

[70] At the time of data analysis, no discernable changes in the websites were identified for most of these organizations compared to the website extracts. Reviewing the actual websites provided a better understanding of the placement of the extracts.

4.5 TRIANGULATION

Undertaking a mixed methods study provides a variety of data in order to triangulate and corroborate findings (Fossey et al. 2002; Denzin 2015). Calculating the amount of discursive space devoted to climate change in the Twitter data, websites, and annual reports indicates how salient climate change was for an organization (Snow, Vliegenthart, and Ketelaars 2019). This could either support or conflict with information shared in an interview. Surveys provide quantitative data, for instance on demographics, to undergird a qualitative exploration of Whiteness in NRNPs. These multiple sources of data then increase the credibility of the study (Denzin 2015). Denzin rails against the concept of absolute validation:

> Objective reality will never be captured. In-depth understanding, the use of multiple validities, not a single validity, and a commitment to dialogue and strong objectivity are sought in any interpretive study. (Denzin 2015:5)

The various data sources, methods, and theoretical perspectives bring in different information from which to be able to draw a variety of conclusions relevant to this study (Denzin 2015:3).

Markham and van Koppen (2014) used data triangulation in studying the websites, member magazines, and annual reports of ENGOs to determine how they communicated about climate change. Boscarino (2015) used methodological triangulation involving interviews and website data to study whether the prioritization of climate change by major U.S. ENGOs crowded out other issues. Dumitrica (2021) engaged in triangulation by interviewing communications personnel at ten Dutch NGOs and combining that with an independent review of the organizations' websites and social media. The comparison between the two data sources was able to provide "a more nuanced picture" of the uptake of social media in NGOs (Dumitrica 2021:85). Arora-Jonsson and Ågren (2019) engaged in both data triangulation and methodological triangulation to understand approaches to diversity in a large Swedish ENGO. They reviewed annual reports and a variety of

other organizational documents, attended a workshop, and conducted three interviews with employees. The interviews were able to contextualize the findings from the textual data.

Thus, various researchers have used triangulation to understand how and why NGOs do what they do. Data triangulation using different communications channels provides a fuller picture of NGO communications (Dumitrica 2021). Documents provide frames and statistics, but methodological triangulation including interviews helps to contextualize the findings and draw fuller conclusions. This dissertation is unusual in combining five data sources: interviews, surveys, and three types of textual data. Each piece opens an additional window into NRNPs.

4.6 CASE STUDIES

In presenting the data, I opted for a case study approach for two chapters. "[C]ase study research is most appropriate to answer (a) *how* and *why* research questions that (b) focus on *contemporary phenomena within real-life contexts* and (c) over which the research has *little control*" (Day Ashley 2017:114, emphasis in original). This dissertation meets all of those conditions.

A multiple case study involves a set of cases, each with their own context (Day Ashley 2017:115). "Case studies are structured around context rather than individuals" (Aurini et al. 2016:48). Using multiple methods and sources of data increases construct validity (Day Ashley 2017:116). In Chapter 5, I present two contrasting case studies, each one considering the context surrounding a specific insect and its relationships with NRNPs in Ontario. The data sources are the interviews, tweets, academic journal articles, and external websites. In Chapter 7, I treat each subfield of NRNPs as a case study and consider the specific context within which the NRNPs in that subfield are situated. The data sources in Chapter 7 are the interviews, websites, and annual reports of my interview sample. The case study approach enabled me to find commonalities and

differences among the subfields. In both chapters, this approach sheds light on the various obstacles faced by NRNPs in communicating about climate change.

4.7 ETHICS

Ethics approval was received from York's Office of Research Ethics on February 7, 2023. The ethics application included the interviews and the collection of textual data and Twitter data. The consent form for the interviews and associated data is in Appendix J. A copy of the certificate of approval is in Appendix L. The project was deemed minimal risk and received delegated review. The addition of the anonymous survey required an amendment, which was approved on July 7, 2023. The consent form for the Latornell survey is part of the questionnaire in Appendix E. Data collection was completed within the one-year window.[71]

Representing an organization carries added risks. To ensure that the interviewee was permitted to participate in an interview, the consent form included a section at the end to be signed by a supervisor, if required. This was added at the request of the ethics review committee. To guard against any discomfort about saying something with which the organization might disagree or take issue, interviewees were assured that their name and the organization's name would be kept out of any reports. From the consent form: "The pool of participating organizations is relatively small in any given area. The greater the danger of inadvertently identifying an organization, the more general my description will be of the organization."

Ethical issues surrounding the survey were minimal since the survey was conducted anonymously online. Invitations to participate in the survey were sent by Latornell, but no coercion was involved, as Latornell was not involved in the data collection and the survey was entirely

[71] To be safe, ethics approval was renewed on February 6, 2024, and again on January 28, 2025.

voluntary. The questionnaire is in Appendix E and the email invitations to participate are in Appendix F.

Collection of social media data is a grey area for ethics, but ethical concerns regarding the collection of publicly-accessible textual and Twitter data are minimal. As organizations, NRNPs' websites and tweets are intended for public consumption (Beninger 2018:59). Annual reports are handled with a little more care, since they generally require downloading but, nonetheless, are public-facing documents. Membership newsletters are handled with even more care, since they are often accessible only by members and might not even be posted online. Interviewees expressed their consent to analyze their website, annual reports, and membership newsletters through the informed consent form (Appendix J). I opted not to gather membership newsletters, as noted in Section 4.4.1.2, because of their more sensitive nature. Following the principle of minimizing any harm from identifying an organization through an online search (Beninger 2018:59), direct quotations from their websites, annual reports, and Twitter feeds were massaged and combined if shared in this dissertation.[72] In digital-age research, this is a method of managing informational risk (Salganik 2017:6.6.2). Further details on ethical issues, including secure data storage, are included in Appendix B.

4.8 SUMMARY OF THE METHODOLOGY

Data collection for this dissertation began in a rush in November 2022. With Elon Musk's takeover of Twitter in October 2022, things were changing quickly on that platform, and I sensed that I had to download data right away or miss the opportunity. I am happy that I was able to do so, although it slightly constrained the remainder of the research. The Twitter analysis continued

[72] Some interviewees refused permission to link their Twitter account with their interview data, so that analysis was not undertaken. Tweets were only analyzed for content and not associated with any particular account, except for the initial process of selecting interview candidates based on climate and nature tweets as a percentage of all tweets.

until April 2023. Interviewing commenced the following month and continued until January 2024. In the midst of interviewing, I conducted and analyzed a survey of a portion of my target population through an external event. These three overlapping sources of data, along with websites and annual reports of the organizations in the interview sample, form the entirety of my data, with the interviews being my primary data source.

Triangulation did, indeed, allow different pictures to emerge (Denzin 2015:3). The Twitter analysis revealed very low volumes of climate change tweets, which was later explained in the interviews. Websites and annual reports provided textual evidence of the communications priorities for NRNPs, which the Twitter data was unable to do (Aurini et al. 2016:52). The Latornell survey and interviews confirmed the lower priority given to climate change than its importance would suggest. The survey also provided corroborating evidence of the Whiteness of NRNPs, first noticed in the interviews. All five data sources agreed that NRNPs tended not to communicate about climate change.

CHAPTER 5 – INSECTS, TREES, AND NRNPS

> Our biggest concern is a loss of biodiversity because of, you know, the invasive species which are now able to live here because they, you know, they couldn't before. It was too cold. The summer was too short. Like ticks. I guess they're not invasive. They're from the south. But, you know, there were no ticks up there over ten years ago, and now it's filled with ticks. We have trees, elm trees and ash trees and butternut trees, all dying or dead because of the diseases. (Veronica, board member of Save Our Trails Conservation Organization)

Having covered the theory behind ANT at the end of Chapter 3, this chapter tells the story of two insects and their effects on NRNPs in Ontario and their communications, or lack thereof, on climate change. One of those insects is the emerald ash borer (EAB). The other is the black-legged tick. Veronica expressed concern about the presence of both insects, the tick directly and EAB through its effect on ash trees. She did not mention climate change explicitly but referred to longer summers as a cause of their spread.

Although black-legged ticks have been in Ontario a little longer, I start with EAB as a somewhat simpler case. I apply the methodological approach of Michel Callon (1984) in his ANT analysis of attempts to domesticate scallops in France, including visual aids. Taking an ANT approach requires general agnosticism, generalized symmetry, and free association (Callon 1984:221-222), that is, not prioritizing human relationships. Callon (1984) distinguished among four moments of translation: 1) problematization, 2) interessement, 3) enrolment, and 4) mobilization. The case studies presented here provide two quite different views of NRNPs. The first involves conservation authorities (CAs) more than other NRNPs. The second involves all NRNPs somewhat equally.

5.1 THE STORY OF THE EMERALD ASH BORER

EAB is a small green beetle that was first identified in Detroit, Michigan and Windsor, Ontario in 2002 and has spread throughout much of the province and the northeastern United States (Herms and McCullough 2014; Hope et al. 2020; Grayson 2021; ISC 2024). The insect is only

about 1 cm long but has had devastating impacts in North America (Grayson 2021; ISC 2024; CFIA 2025).

In ANT terms, EAB is an actant that enrols ash trees into the feeding cycle of its larvae. The larvae bore under the bark of an ash tree and disrupt the supply of nutrients and water up and down the tree (Herms and McCullough 2014:15). North American ash tree species have no defences, the result being almost certain death for the trees within a few years (Herms and McCullough 2014:16; CFIA 2025). The enrolment of the trees by EAB is the obligatory passage point in this case study. The problem for humans is the loss of ash trees. If EAB get through the passage, trees die. That action is symbolized in Figure 5.1. In response, humans attempt to block the passage through various means.

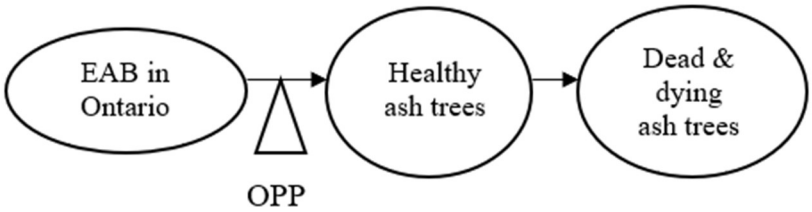


Figure 5.1*. Simplified illustration of the action of EAB on ash trees. OPP = obligatory passage point.*

EAB is considered an invasive species. "Invasive species" is defined by the Canadian Council on Invasive Species (CCIS) as follows:

> *Introduced species* are plants, animals and micro-organisms that have been accidentally or deliberately introduced into areas beyond their native range. *Invasive species* are introduced species whose introduction or spread negatively impacts the environment, economy, and/or society including human health. (CCIS n.d., emphasis added).

The implication of the definition is that human agency, whether accidental or deliberate, is involved in introducing the species; the species did not appear on its own without assistance. Whether the species is producing a negative impact and, hence, "invasive" and requiring action is, to a large extent, a value judgment determined by humans.

The presence of an invasive species invites explanation and attribution of blame. EAB is native to Asia. The popular story is that EAB in Asia recruited wood products, possibly ash packing crates, as hosts. When the wood products were shipped to Detroit, EAB caught a ride, becoming EAB in North America (Herms and McCullough 2014:15; ISC 2024). The airplane was an intermediary in the process. The import/export business was a mediator: it could have used different wood or been more vigilant about checking for tag-alongs. It is, however, necessary to punctualize that portion of the story. Once in Detroit, it was a simple matter for EAB to cross the river to Canada, either on its own or recruiting another ride. EAB can fly several kilometres (Grayson 2021; CFIA 2025; ISC 2024). From there, the tiny insect went off in search of new breeding grounds — Canadian ash trees.

Regardless of what brought EAB to Ontario, once humans discovered its impacts, they tried to block the obligatory passage point through aggressive intervention (CFIA 2004; Hope et al. 2020:3). Windsor is in Essex County in the southwestern corner of the province. The county is surrounded on three sides by water, so initial efforts were targeted at keeping the insect from spreading beyond the county line (Herms and McCullough 2014:20; Hope et al. 2020:3). Those efforts were described by Monica, an employee of Sunshine Conservation Authority:

> We had, you know, pretty broad scale communications effort about not transporting firewood. But there were also, like, they tried to cut actual fire breaks, where, you know, kilometers of area where they would actually actively cut down all the ash trees to try and prevent it from continuing to move, you know, towards the rest of Canada. And there were, you know, different things. There was a insecticide that was tried. You know, for 3 or 4 years there was really, really active pilot projects attempted to control the spread. And none of them proved particularly effective.

As Monica described, efforts included: 1) insecticide, aimed at killing EAB before enrolment could happen; 2) cutting fire breaks, to contain EAB and the population of trees that it could enrol; and 3) regulations and communications on the transportation of firewood, also to contain EAB and limit enrolment.

Numerous government agencies from the United States and the federal, provincial, and local levels in Canada were involved in actions to control the spread (CFIA 2004). One can imagine the efforts at interessement as scientists and other authorities tried to convince others that their solution to block EAB's passage would work. Recruited and mobilized into this network by the authorities were the pesticide industry for the insecticide and the manufacturing industry for the tree clearing equipment, in addition to control personnel. Communications personnel and technologies were mobilized, as noted by Monica, to present the facts about EAB and to control the spread.

Campers and others were also recruited by authorities through control measures to stop the transportation of firewood, in case the insect might be hiding again (CFIA 2004). Anyone who enters Ontario parks to this day sees warnings not to bring in firewood from outside. For the parks and the government, this is a money-maker: the parks offer approved firewood for sale (Friends of Algonquin Park n.d.), while the federal government issues heavy fines for contravention of the transportation ban (CFIA 2024). Figure 5.2 depicts the initial EAB network.

EAB breached the borders of the county and started spreading across Ontario even before initial containment efforts (Herms and McCullough 2014:20; Hope et al. 2020:3), as it did in the United States (Vanderbilt University n.d.). The spread has led to the loss of many ash trees, to the point where the black ash has been given the label of "endangered species" by Ontario government officials (ISC 2024). EAB apparently found this exclusively North American species to their liking (ISC 2024). Like "invasive species," "endangered species" is a human evaluation, in the latter case evaluating the future viability of the species. The Canadian definition of endangered species is "a wildlife species that is facing imminent extirpation or extinction," where an extirpated species "no longer exists in the wild in Canada, but exists elsewhere in the wild" (ECCC 2014). Figure 5.3 shows the spread of EAB from 2002 to 2013.

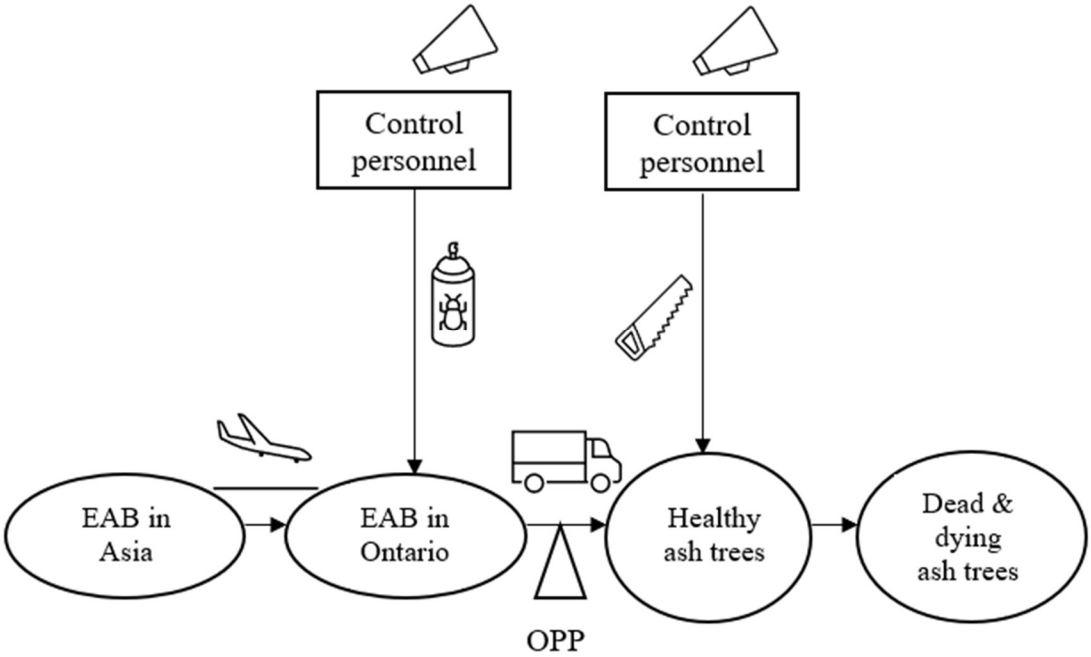


Figure 5.2. *Simplified illustration of the network related to the spread and initial control measures in the EAB network in Ontario. OPP = obligatory passage point. [Icon credit: Microsoft Word]*

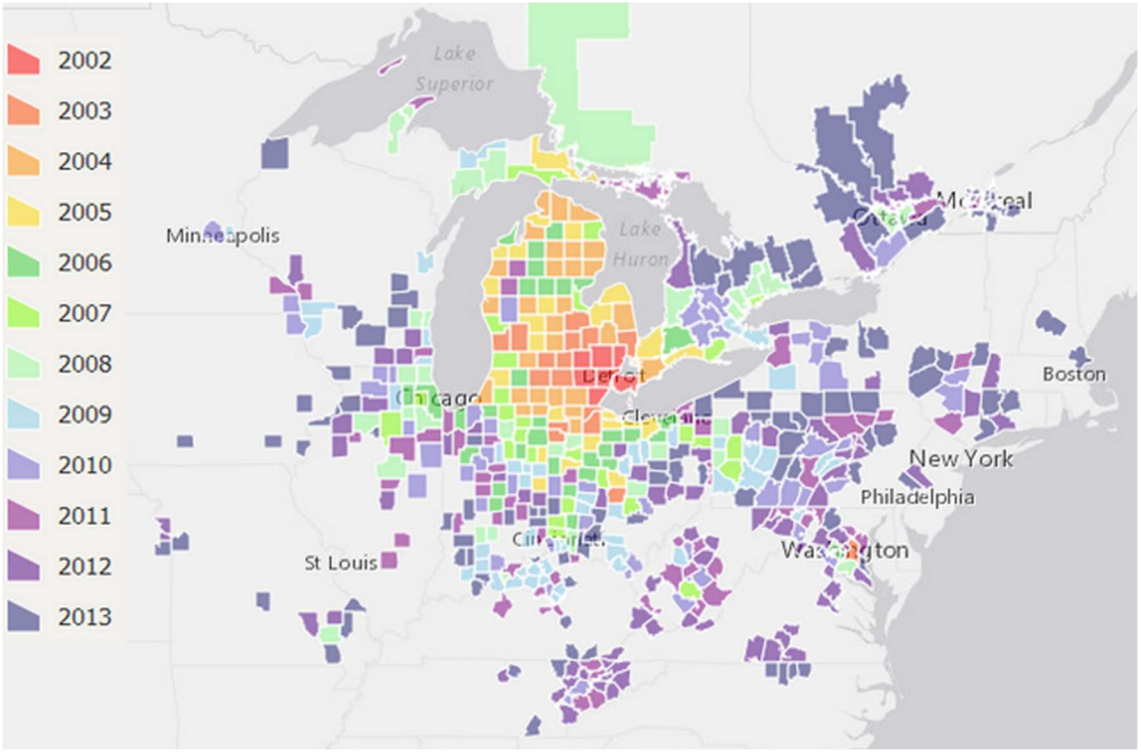


Figure 5.3. *EAB detection by year, 2002-2013. [Source Vanderbilt University (n.d.) Map credit: EAB.info. Used with permission.]*

Although EAB has killed many trees, those trees would generally have remained standing for, possibly, years were it not for the actions of control personnel.[73] Claire, an employee at Riverbank CA, shared their struggles with EAB management:

> It's very, very costly to remove trees. … We have a property where ash just line our trail network. So we're currently managing those because they are hazardous because they're dead. So emerald ash borer, not only is the tree loss an issue, but also financially as well.

Oriented towards the reduction of risk,[74] authorities have opted to remove dead trees that might become a hazard. Risk management has included pre-emptively felling trees that have been deemed to be beyond saving, to help stop the spread (NRCan 2015). According to NRCan (2015), that point is reached at 40 percent dieback in an individual tree. Again, this is a human evaluation of what is considered a healthy tree and what should be sacrificed. Iowa State University Extension and Outreach presents a tree benefit calculator that monetizes the value of a residential-area tree and turns the decision into a cost-benefit analysis (ISU 2016).

The loss of trees — healthy, dead, or debatable — is a loss of habitat for birds, mammals, and other beings that depend on those trees (Herms and McCullough 2014:17). On the other hand, the increase in sunlight is a boon for other species, including "invasive plants" (Herms and McCullough 2014:17). Eleanor, a board member of Forest Trail Hiking Club, described the dramatic change:

> The other thing that's obviously noticeable all over is the emerald ash borer, which affects the ash trees. So, last year in the fall, the park did a huge cull of ash trees that were in the park. … I live on a trail. … It's a town trail. And the town's taken out all of the ash trees that are on the trail and left huge gaps. Like, I mean, now, I'm getting so much sunlight that it's a real difference. And you can notice the different species that are coming. Like, this summer, … we've been infested with blue jays. Like, I mean, it's huge that the difference of, you know, habitat and more sun will affect species.

[73] This generic term is being used because the management of emerald ash borer has involved multiple levels of government, private contractors, and CAs, which are quasi-governmental organizations.
[74] The first responsibility in the mandate of CAs is "to protect people and property from flooding and other natural hazards" (Conservation Ontario n.d.).

Eleanor described the results of the aggressive work that government employees were doing because of EAB. She also noted that a result of the human removal of ash trees was that other species had exercised agency by moving into the vacated spaces.

Other actants have enrolled themselves in the network to interrupt the EAB-to-ash-tree-death process. One of those intervening before the obligatory passage point is the woodpecker. Woodpeckers exercise agency in finding and feeding on EAB, but their intervention is too inconsistent and late to avoid tree death (Herms and McCullough 2014:21; EAB Network n.d.). Their telltale holes alert humans to the presence of EAB, as do EAB holes, which are much smaller (Wilson and Rebek 2005), providing interessement in another process of translation. Having been alerted to the presence of EAB, control personnel are recruited and mobilized to identify and treat trees. The most effective treatment of EAB, other than removing trees, has been to inject them with a systemic insecticide, which provides protection for one or more years but must be repeated (Herms and McCullough 2014:22; ISU 2016). With cans of orange and green spray paint as intermediaries, personnel mark trees to be removed with an orange X and healthy trees with a green dot. Other control personnel come along with chain saws or insecticides to play their part.

Another translation prior to the obligatory passage point has been the recruitment of wasps as biological control agents (Herms and McCullough 2014:21; Grayson 2021; CFIA 2025; EAB Network n.d.). Scientists learned that, in Asia, certain species of wasps naturally feed on EAB, maintaining an equilibrium (Herms and McCullough 2014:21; Grayson 2021). In the North American translation, it took considerable time to get to the stage of mobilizing wasps (Grayson 2021). One can again imagine challenges at the interessement stage to the suggestion of bringing in wasps from Asia, that is, “invasive species” with the potential for unintended consequences (Grayson 2021). Wasps lay their eggs within or next to EAB larvae and then feed on the larvae

(EAB Network n.d.). “Parasitoids are great candidates for biocontrol because they typically exploit a single host species” (Grayson 2021), meaning that the wasps are not overly likely to exercise agency in attacking other species. Starting in 2013, Asian wasps were invited to join the EAB network in Ontario (CFIA 2025), more than ten years after EAB was first detected and long after chemical treatments were attempted (NRCan 2015). Scientists have done extensive testing and monitoring in Canada and the United States to ensure that the wasps would accept the invitation to enrol (Grayson 2021; EAB Network n.d.). Control personnel are now monitoring not just EAB and ash trees but also the new wasp species (CFIA 2025).

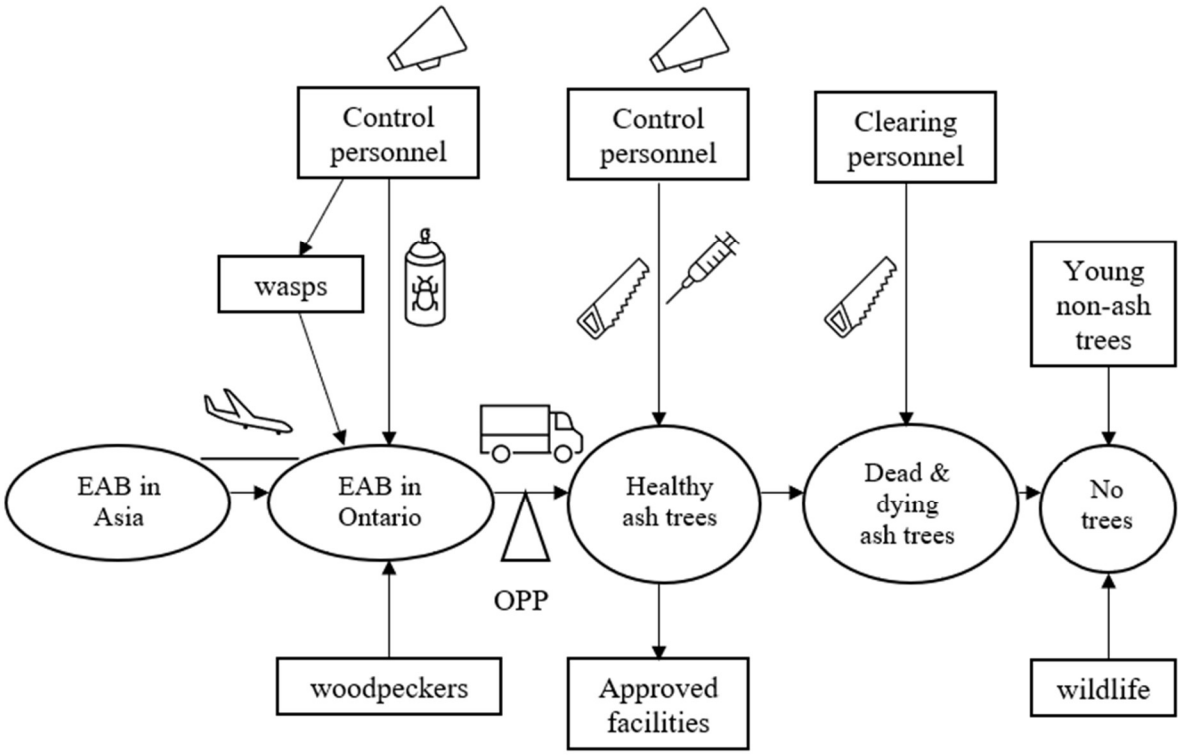


Figure 5.4*. Simplified illustration of the ultimate EAB network in Ontario. OPP = obligatory passage point. [Icon credit: Microsoft Word]*

Figure 5.4 illustrates the human and non-human actants (ovals), mediators (rectangles), and intermediaries (icons) in the EAB network. Most of the human interventions in trying to limit the spread of EAB have been relatively unsuccessful. Ash trees constitute a multi-billion-dollar

industry in the United States (Grayson 2021). Authorities have identified EAB as "a major economic and environmental threat to urban and forested areas" (CFIA 2004). While the timber value of tree loss in Canada is low, the greater concern is the loss of municipal street trees, which are expected to cost well over a billion dollars in total by 2035 to remove and replace (Hope et al. 2020). Other consequences of EAB presence, such as the loss of backyard and park trees and the negative effects on ecosystem services, were noted but not quantified (Hope et al. 2020). The Canadian and U.S. governments eventually abandoned attempts at eradicating EAB in favour of focusing on control, primarily through wasps (Herms and McCullough 2014; Grayson 2021; EAB Network. n.d.).

Adaptations after the obligatory passage point have also occurred. One of those has been in the firewood and lumber industries. To handle the problem for humans of EAB catching a ride in wood products, the federal government has provided interessement to businesses to obtain labelling as approved facilities (Hope et al. 2020:4; CFIA 2024). Businesses that enrol in the program are listed on a government website (CFIA 2024). Consumers then need to be enrolled and mobilized by government (e.g., CFIA 2025) or wood product suppliers (e.g., Friends of Algonquin Park n.d.) to use the approved facilities and, thereby, help them cover the costs of compliance.

Flora and fauna have also been adapting. As Eleanor observed, blue jays and other species have taken advantage of the newly open spaces. Ash trees have started to recover, as noted by Monica when she described why Ontario was so vulnerable to EAB:

> Because ash was a very fast-growing species, in the early days of conservation authorities, in trying to do reforestation works, because ash was, like, hardy and it grew fast, they would plant, like, huge stands of ash trees. And so, you know, woodlots seemed to be decimated. But now, you know, years later, they're naturally regenerating. Right? So … it doesn't look like a decimated forest any longer.

Sunshine CA experienced EAB early on and was starting to see the trees recover, whereas others, such as Riverbank CA, were still fighting.

Monica revealed yet another set of translations. When southern Ontario was settled by British immigrants in the 19th century, they cleared much of the land for farming (Bowley 2015). Wind and water soon eroded the productive soil. That interested scientists who, starting in the early 20th century, advocated reforestation as one solution (Bowley 2015). As Monica noted, ash trees were mobilized extensively in reforestation since they grew quickly. That also made ash trees popular in municipal settings, as residential trees and street trees (Herms and McCullough 2014:17-18; Greene and Millward 2016). After Dutch elm disease severely reduced the population of urban elm trees across North America in the mid-20th century, municipal employees mobilized a small number of types of trees to replace them, including ash trees, thereby limiting biodiversity (Greene and Millward 2016). Lack of biodiversity, however, has vulnerabilities, as this case study has shown.

Human actions, likely unintentional, brought EAB to North America. EAB has exercised its agency in finding ash trees across Ontario as hosts. CA employees and others have removed ash trees, both pre-emptively and after EAB found them. The removal of ash trees has provided space for other species to move in. Thus, EAB have led a correction to the human-caused near-monoculture of ash trees in Ontario, opening it up to more biodiversity. The Invasive Species Centre (ISC), however, asserts that those spaces are vulnerable "to invasive plant species" (ISC 2024:1). Thus, once again, human judgment is dictating what should or should not be allowed to have agency.

The story of EAB is the story of an invasive species in Ontario, only indirectly associated with climate change.[75] As an invasive species, EAB has been defined as a threat. The story of black-legged ticks, which have been linked more directly with climate change, is quite different.

[75] Although not explicitly linked with climate change, one noted effect of EAB is that the "[l]oss of wetland ash alters … greenhouse gas emissions" (ISC 2024:1).

5.2 THE STORY OF BLACK-LEGGED TICKS[76]

Black-legged ticks are even tinier than EAB. Although I title this section in honour of the insect, it is really about the bacterium, *Borrelia burgdorferi*. The concern for humans is not the ticks themselves but their potential to spread disease. The black-legged tick is the vector that transmits *B. burgdorferi* to humans in eastern North America, potentially resulting in Lyme disease (Tilly, Rosa, and Stewart 2008; Gilbert 2021:374, 381). Lyme disease is the most common of the seven identified, serious, tick-borne diseases to which humans are susceptible (Eisen and Eisen 2018).

This story has two obligatory passage points: 1) the transmission of *B. burgdorferi* to ticks, and 2) the transmission of *B. burgdorferi* from ticks to humans. This section is structured around the identification, spread, and control of *B. burgdorferi*. For simplicity, I label the network that has built up around the bacterium the "tick network."

5.2.1 Identification of B. burgdorferi

An unusual arthritis was first reported in children in Lyme, Connecticut, in 1975 (Steere et al. 1986; Eisen and Eisen 2018:299). Medical professionals, in their original problematization, used the label "Lyme arthritis," after the town (Steere et al. 1986). As patients developed other symptoms, they changed the problematization to "Lyme disease" (Steere et al. 1986). It took a couple of years of interessement and mobilization of medical professionals and others to trace the source to black-legged tick bites, and to find that those ticks were common on white-footed mice and white-tailed deer in the area (Steere et al. 1986). The bacterium, *B. burgdorferi*, was finally identified in 1982 and named after one of the scientists involved (Steere et al. 1986; Eisen and Eisen 2018:299).

[76] An earlier version of this story was presented at the 2025 Congress in a joint session between the Canadian Sociological Association and the Environmental Studies Association of Canada (Seiler 2025).

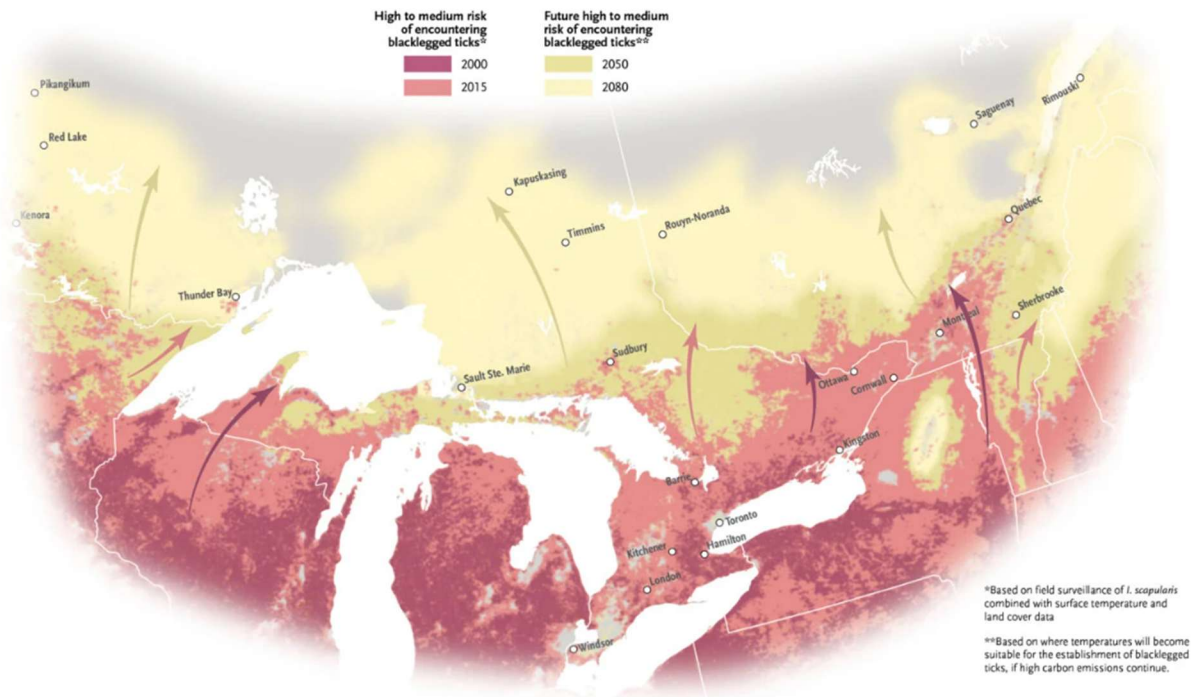


***Figure 5.5**. Spread of black-legged ticks in central Canada, 2000-2080. [Source: Hayward/ Canadian Geographic (2023). Map credit: Chris Brackley. Data credits: current risk, www.arcgis.com/apps/dashboards/447f0300dab344049ddc19a5ba53bfe9; Eastern Canada Risk 2000-2015, earthobservatory.nasa.gov/images/148482/mapping-the-spread-of-lyme-disease; future scenario, climateatlas.ca/lyme-disease-under-climate-change. Map used with permission.]*

5.2.2 Spread of B. burgdorferi

At the time of identification of Lyme disease, the only place in Ontario that had black-legged ticks was Long Point, on Lake Erie (CBC Archives 2023; Hayward 2023). Since then, the range of both ticks and the associated diseases have expanded throughout much of the United States (Eisen and Eisen 2018; Gilbert 2021) and southern parts of Canada, including southern Ontario (Gilbert 2021; Hayward 2023), as shown in Figure 5.5.[77] *B. burgdorferi* is currently the most common vector-borne pathogen in the United States and continues to spread (Eisen and Eisen 2018:295; Bobe et al. 2021:13; Gilbert 2021:374). There were 89,000 cases of Lyme disease

[77] Originating in Connecticut, the pathogen has taken several routes into Canada, arriving in Ontario not long before EAB.

reported to the U.S. Centers for Disease Control (CDC) in 2023; it is estimated that five times that many cases may have been active that year (CDC 2025). Almost 4,800 cases were reported in Canada in 2023 (PHAC n.d.).

Ticks enrol humans as blood meals only incidentally (Embers and Narasimhan 2013:6; Eisen and Eisen 2018:295; Hayward 2023). Black-legged ticks tend to spend most of their life away from their hosts (Gilbert 2021:376). They hang on to the edge of grasses, waiting to grab onto passersby for their next meal (CBC Archives 2023; Hayward 2023). Tick saliva possesses substances "that defuse host immune responses … that are recruited to the feeding site," thereby enabling pathogens to enter the host undetected during feeding (Embers and Narasimhan 2013:7). Similarly, *B. burgdorferi* possesses cloaking devices that protect it from antibodies (Embers and Narasimhan 2013:10). Unfortunately for humans, a tick bite containing *B. burgdorferi* may result in Lyme disease, although other hosts are immune to the disease (Tilly et al. 2008).

White-footed mice are a primary reservoir for *B. burgdorferi* (Tilly et al. 2008; Eisen and Eisen 2018:299; Bouchard et al. 2019; Hayward 2023). Immature ticks recruit mice and other small animals and birds as meal sites (Eisen and Eisen 2018:295; Bouchard et al. 2019; Hayward 2023). If one of those creatures hosts *B. burgdorferi*, then the bacterium might enter the tick and subsequently be passed on in future feedings. Mature ticks feed only on large mammals, including white-tailed deer, which the ticks require as blood meals for reproduction (Eisen and Eisen 2018:295; Bouchard et at. 2019:82). Although the deer cannot become reservoirs for *B. burgdorferi* (Embers and Narasimhan 2013:6), they provide transportation for the ticks, thus spreading the bacterium geographically (Bouchard et al. 2019:82; Hayward 2023).

The black-legged tick is also known as the deer tick (Bouchard et al. 2019). Deer populations in North America exploded in the 20th century due to a decrease in hunting compared to earlier

settler times and an increase in reforestation (Eisen and Eisen 2018:296-298; Bouchard et al. 2019:83; Hayward 2023). More recently, white-tailed deer have been spreading northward due to the warming climate and bringing *B. burgdorferi* and Lyme disease through ticks travelling on the deer (Bouchard et al. 2019; Hayward 2023). The range and abundance of rodents is also increasing due to climate change (Bouchard et al. 2019). A report from the Public Health Agency of Canada (PHAC) explicitly attributes the increase in tick populations and Lyme disease in Canada in part to climate change:

> Climate warming and other environmental changes have contributed to the expansion of the range of several tick species into higher latitudes in North America. As temperatures increase in Canada, the environment becomes more suitable for ticks and the season suitable for tick activity lengthens, so tick-borne diseases are likely to become more common in Canada. (Bouchard et al. 2019:81)

Gilbert (2021:375, 381) suggests that the black-legged tick's wide geographic range and generalist feeding tendencies make its spread due to climate change likely.

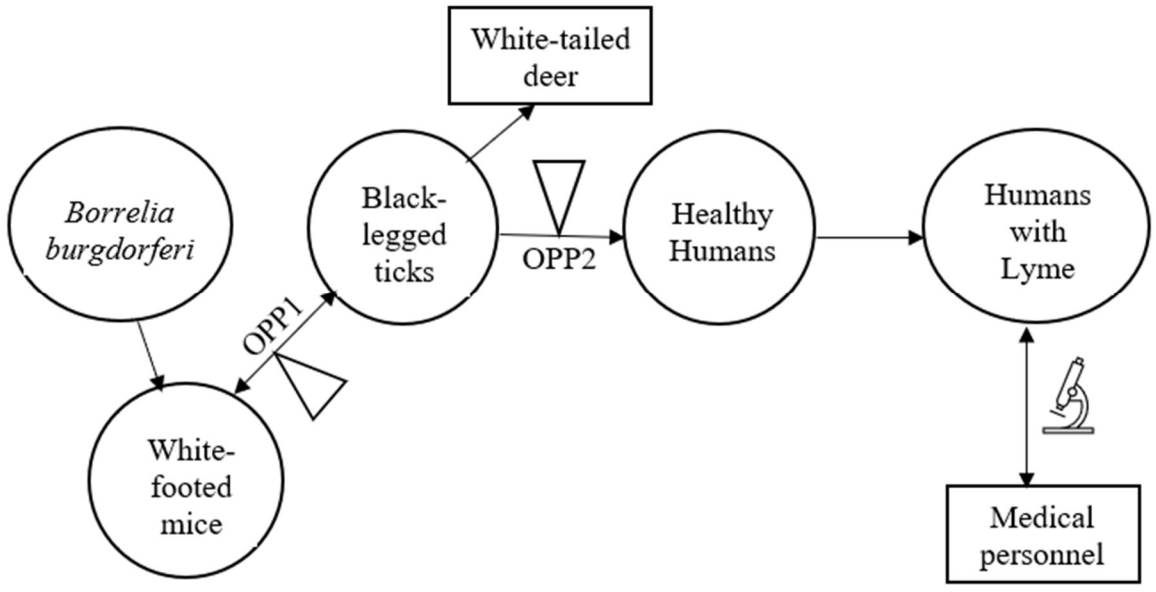


Figure 5.6*. Simplified illustration of the initial network related to the spread of* B. burgdorferi *in Ontario. OPP = obligatory passage point. [Icon credit: Microsoft Word]*

Figure 5.6 visualizes the tick network, illustrating how *B. burgdorferi* spreads back and forth between rodents and ticks, and eventually to humans, with white-tailed deer as a mediator, as a host for tick reproduction and transport. The obligatory passage points are: 1) the transmission of *B. burgdorferi* from rodents to ticks, and 2) the transmission of *B. burgdorferi* from ticks to humans. The humans recruited into the network, unwittingly in the early days, include members of NRNPs, due to their outdoor activities and potential exposure to ticks. Members of NRNPs are prime candidates for tick-borne diseases (Bouchard et al. 2019:83).

5.2.3 Control of B. burgdorferi

Humans have taken measures to try to control *B. burgdorferi* at various points in the network and with varying degrees of success. These efforts include: 1) monitoring and tracking, 2) reducing the spread of *B. burgdorferi* in non-humans, 3) preventing *B. burgdorferi* infection in humans, 4) treating *B. burgdorferi* infection in humans, and 5) education and awareness. As with EAB, natural predators have also joined in the control.

Monitoring and tracking are major human activities in connection with a disease outbreak (CDC n.d.). Once past the problematization and interessement stages of identifying the source of the disease and how it spreads, humans are recruited and mobilized on an ongoing basis in surveillance and the use of informatics to present the data collected (CDC n.d.; Bouchard et al. 2019:85). An example is the map displayed in Figure 5.5.

The pharmaceutical industry has been mobilized in multiple ways to control the spread of *B. burgdorferi.* One intervention is to reduce the spread in non-humans and interrupt the first obligatory passage point by focusing on measures to protect mice, which are reservoirs for the bacterium (Embers and Narasimhan 2013). Vaccines have been developed that either protect mice from tick bites or provide immunity to the bacteria if bitten (Embers and Narasimhan 2013:4-5).

Due to the impracticalities of vaccinating whole mouse populations, oral bait has also been developed. Because of the "impressive array of molecules" mobilized by ticks to neutralize immune responses in hosts, finding pharmaceutical solutions that address enough of the array has been difficult (Embers and Narasimhan 2013:7).

Another pharmaceutical intervention to limit the spread of *B. burgdorferi* is to reduce tick populations either before or after the first obligatory passage point. These measures target tick reproduction or survival (Embers and Narasimhan 2013; Eisen and Eisen 2018:304). One way to do so through is through vaccinating or laying bait for mice or deer populations, as a practical way to reach ticks (Embers and Narasimhan 2013; Eisen and Eisen 2018:304). This requires the enrolment and co-operation of the mice or deer as mediators. The amount of treatment that would be required is unknown (Eisen and Eisen 2018:304). Another solution is to spray residential areas to control ticks, although that has not led to a decrease in human infection where tested (Eisen and Eisen 2018:304). There are potential environmental costs to either method, as other organisms may be inadvertently and detrimentally recruited.

A non-pharmaceutical intervention to control the spread of ticks is culling deer, since mature ticks require deer as reproduction hosts (Eisen and Eisen 2018:304; Bouchard et at. 2019:82). Deer, however, might not accept this particular translation, so the effectiveness of this approach has been questioned (Eisen and Eisen 2018:304; Bobe et al. 2021:13). A deer cull in Ontario in the 1980s was cancelled due to the risk that hunters might take ticks with them when they left the area (CBC Archives 2023). Bobe et al. (2021:13) suggest that a cull is only effective in confined areas, such as an island.

Another intervention by scientists in academia and the pharmaceutical industry is to block the second passage point through the development of vaccines for humans (Embers and

Narasimhan 2013; Bobe et al. 2021:14). A human vaccine came on the market in 1998 and was effective but was withdrawn after four years because the public failed to accept the translation (Embers and Narasimhan 2013; Eisen and Eisen 2018:302; Bobe et al. 2021:14). One problem was that immunity to *B. burgdorferi* was short-lived, so repeated treatments were required in order to maintain immunity (Embers and Narasimhan 2013:1-2). Although new vaccines that can protect against multiple tick-borne pathogens are being developed, no effective vaccine for humans is as yet commercially available (Eisen and Eisen 2018; Bobe et al. 2021:14).

The clothing industry has also invited itself into the tick network to help interrupt the second obligatory passage point. The industry has engaged in interessement through advertising to the public to wear insecticide-treated clothing or use tick repellent (Eisen and Eisen 2018:303-304). On the internet, one can find tick-resistant pants with elasticized cuffs. Tick pants are "mundane technologies," that assist humans in experiencing the outdoors (Michael 2000; Stoddart 2012:70). Hiking boots are another example of mundane technologies, as are backpacks, binoculars, and water bottles — all staples for hikers and naturalists. The manufacturing and, later, discarding of such items produce GHG emissions that contribute to climate change (Brice and Thorpe 2021). The effectiveness of the insecticide treatments is unknown (Eisen and Eisen 2018:304). The presence of ticks has enabled capitalist corporations to increase their mediation of hiking and outdoor recreation activities, bringing the global clothing industry into the tick network (Michael 2000; Stoddart 2012:73) and hastening climate change.

After the second obligatory passage point, diagnosing humans with Lyme disease has been difficult because of the vague array of symptoms (Bouchard et al. 2019:83; Bobe et al. 2021). Even with tests, *B. burgdorferi* has been hard to diagnose (Embers and Narasimhan 2013:2; Bobe et al. 2021:3). Eleanor, who previously noted the influx of blue jays, told a story about the troubles faced

by a member who had been bitten by a tick and developed Lyme disease before medical professionals in the area were diagnosing Lyme disease:

> We had a member who had a bite. … At the time, we knew that the black-legged tick was moving north. So, he got this bite. He didn't know what it was, but he was very ill with it. He had to go to emerge, I don't know, three times. They didn't know what it was. … But he's been sick for two years. … It's been a huge, huge thing. … We haven't had any more incidences of bites, but that was enough to make everybody sit up and take notice.

Eleanor conveyed the seriousness of tick-borne illness as well as the mobilization of medical professionals in detection and treatment, and the difficulties in disseminating knowledge and awareness as the bacterium has entered new areas.

Post-bite treatments for humans initially involve antibiotics but are dependent on the symptoms experienced and the stage at which they are reported (Eisen and Eisen 2018:302; Bobe et al. 2021:4). "[T]icks are stealth biters" and not all who have been bitten develop the tell-tale "bull's-eye rash," so bites may go undiagnosed for months (Bobe et al. 2021:3).

In the absence of viable and effective alternatives, education has been the preferred way to prevent infection by *B. burgdorferi* in humans. Education and awareness-raising are public health strategies that follow from monitoring and tracking activities (Bouchard et al. 2019:85). Government agencies, such as PHAC, recruit medical professionals and media outlets to communicate the risks of tick bites to their constituencies (Bouchard et al. 2019:85). As early as 1989, Canadians were advised to guard against tick bites by tucking their pants into their socks before heading out into a wooded area and doing a tick check[78] on their return (CBC Archives 2023). The health incident described by Eleanor recruited park staff into the tick network. Their response was to erect "Beware of ticks" signs, again reflecting an orientation towards reducing risk, as in the case of EAB.

[78] A tick check involves thoroughly examining one's body after an outdoor adventure and carefully removing any ticks.

NRNPs have enrolled themselves in the network as well, using their social media and other communications tools as interessement for their constituents to be vigilant about ticks. NRNPs send out tweets like:

Avoid tick bites! Do the tick check! #Lymedisease[79]

or

Protect yourself from ticks! Tuck your pants in your socks!

These tweets often include a link to information and instructions. The spread of ticks in Ontario has, therefore, changed the activities of some NRNPs and their members.

The interessement by NRNPs and others has put the onus on NRNP members to decide whether to join the network in reducing their exposure to ticks and Lyme disease. There has been a shift in interest from control to post-bite treatment, as earlier review articles focused on the former (Embers and Narasimhan 2013; Eisen and Eisen 2018) while a more recent article focused on the latter (Bobe et al. 2021). Research suggests that tick checks are ineffective because immature ticks are so small (Bobe et al. 2021:13) and because of the degree of vigilance required (Eisen and Eisen 2018:304). Similarly, directions to keep one's lawn cut short require effort (Eisen and Eisen 2018:304). Eisen and Eisen (2018:305) assert that the control of ticks is dependent on a cost-benefit analysis by homeowners. They complain that, despite "detailed knowledge of when and where humans are most at risk for exposure to infected ticks, we remain unable to control [tick]-borne diseases" (Eisen and Eisen 2018:302). The interessement has failed to produce significant mobilization, as Lyme disease continues to spread.

The arrival of ticks has increased awareness in NRNPs not just of the risk of tick-borne diseases but also of climate change, as demonstrated by Veronica at the start of the chapter.

[79] The data for this chapter included the Twitter timelines of 104 NRNPs in Ontario. All tweets have been modified to protect the identity of the organization.

Veronica's offhand language as to whether ticks were invasive shows that "invasive species" could be a shorthand expression for undesirable flora or fauna, as she rolled ticks and ash trees into the same bundle of problems. While she showed knowledge of climate change by mentioning temperature changes, Veronica preferred to refer to tangible effects of climate change, such as ticks, in her communications with members, rather than climate change directly:

> By and large, we're trying to come at it with, you know, talking about drought or flood and, you know, temperature extremes and invasive species without using the word climate change, and just trying to get people to think of it as something that's happening. Because, again, I think climate change is one of those loaded terms that can turn people off.

Because of their new prevalence, Veronica's interessement presented ticks as a reason to be concerned about climate change, while not actually mentioning climate change.

A final, surprising member of the tick network was revealed in one interview and then found in NRNPs' tweets. That was the opossum, mentioned by Eileen, a board member of Connect-the-Trail:

> We are seeing some more — I don't know if you want to call them hazards — but there are more ticks along the trails that can cause Lyme disease. There are more opossums that eat the ticks, so they're a welcoming sight. [chuckling]

Eileen did not seem to be bothered about ticks because opossums had come along to take care of the problem. The chuckle might have been partly because opossums are not the prettiest of animals (Duggan 2020). Consistent with Eileen's comment, tweets conveyed NRNPs' interessement of opossums as something of a saviour:

> #DYK One opossum can eat thousands of ticks in a season!

While the capacity of opossums varied from tweet to tweet, it was apparent that NRNPs had embraced the arrival of opossums in the tick network and were encouraging others to look at these creatures in a positive light.

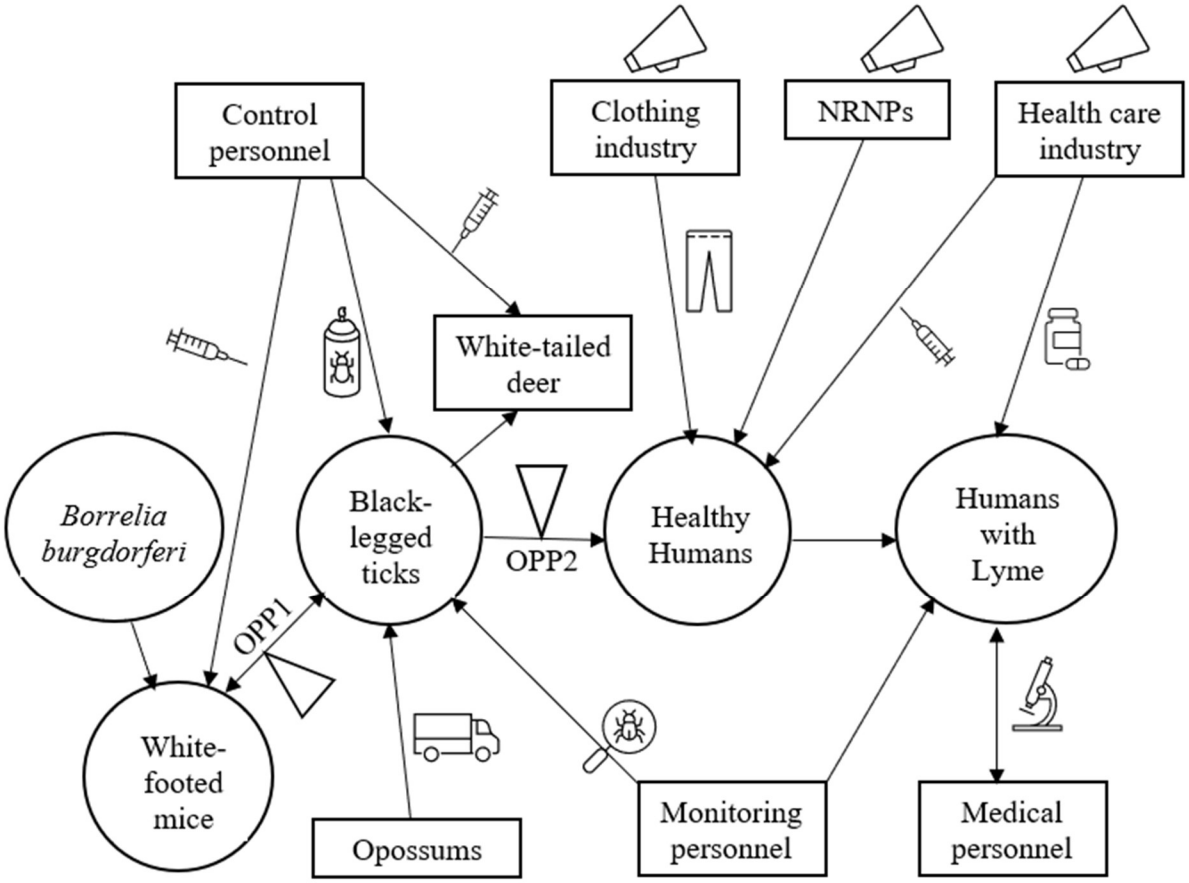


Figure 5.7*. Simplified illustration of the ultimate* B. burgdorferi *network in Ontario. OPP = obligatory passage point. [Icon credit: Microsoft Word]*

It is unclear how opossums have spread across Ontario and what role climate change has played in that. Opossums are not particularly well-suited to the southern Ontario climate to date because their ears, tails, and paws are hairless and susceptible to frostbite in cold weather (Duggan 2020), but they nonetheless have been increasing in numbers (Duggan 2020; McIlveen 2023). Opossums have, likely unintentionally, used trucks and trains as intermediaries to travel from the United States to Canada (Rosatte et al. 2007). Like EAB, they were initially, perhaps, accidental arrivals. Unlike EAB, however, humans now see them as relatively helpful because they eat not just ticks, but carcasses and other creatures that are considered pests (Duggan 2020). Perhaps for

that reason, there is little concern about their migration into and around Ontario. In fact, Ontario residents have been encouraged to take steps to help opossums in trouble in winter (Duggan 2020).

Figure 5.7 illustrates the complete tick network with its two obligatory passage points, main actants in circles, mediators in boxes, and intermediaries as icons.

5.3 DISCUSSION AND CONCLUSION

In this chapter, I applied the ANT principles of general agnosticism, generalized symmetry, and free association (Callon 1984) in constructing networks around the spread of EAB and *B. burgdorferi* and its vector, the black-legged tick. I chose these two cases because of the similarities and differences in their actor-networks. EAB has little to do with the theme of this dissertation — climate change — whereas the spread of the black-legged tick has been widely attributed to climate change, yet the visible response to EAB by humans and their institutions has been much more vigorous. It is in the juxtaposition of these two case studies that the differences are best revealed.

The stories of EAB and black-legged ticks show two insects that have amassed large networks around them, including other flora and fauna, humans in various capacities, organizations from governments to for-profit and non-profit and their communications technologies, and various human-made products (e.g., chainsaws, clothing, insecticides). Despite their small size, both insects have been able to enrol animal and human-made vehicles into the network to transport them from their original homes to Ontario. Once in Ontario, they successfully established themselves, with the help of local hosts. The large amount of human-made infrastructure built to keep society running smoothly and handle problems such as EAB and ticks has been unable to stop their spread. While the role of climate change may be unclear, the warmer climate has certainly not been a deterrent to these opportunistic insects.

In the case of EAB, dubbed “invasive” and a “threat” to the economy and environment, massive, coordinated measures were taken to try to eradicate it. Ash trees are important to the lumber industry and also to municipalities as street trees. CAs have been mobilized to help with control efforts, including treating ash trees with insecticides, removing both healthy and dying ash trees, and bringing in wasps from Asia. The continued existence of EAB in Ontario despite that effort has been a testament to its resilience. The tiny insect, like the mosquito in Egypt (Mitchell 2002), has proven to be a powerful actant, defeating human ingenuity. Humans have had to downgrade their expectations and focus on control in order to save the ash trees.

In the case of black-legged ticks, no such labels were applied. Ticks are not listed on the CCIS website as an invasive species, nor are they defined as such in the PHAC definition or report. Ticks are a danger to individual humans, but only if they are carrying disease. A series of translations were revealed. *B. burgdorferi* was able to mobilize white-footed mice as hosts and black-legged ticks as vectors to perpetuate its existence. The ticks were able to mobilize white-tailed deer to carry them to new places, spreading *B. burgdorferi* and other pathogens in the process. Control efforts have found limited success. Ticks have recruited members of NRNPs as meal hosts, sometimes passing on Lyme or other serious diseases, but the number of humans reporting Lyme disease each year has been relatively small. NRNPs have responded by issuing advice. NRNP members are left to decide whether they want to accept invitations to protect themselves by keeping their lawns cut short, wearing protective clothing, and doing tick checks.

Unlike with EAB, I heard no action to fight the increase in ticks in any of the interviews or tweets. As Veronica said, they were “just trying to get people to think of it as something that's happening.” The only recommended actions were adaptation measures: clothing, repellant, and vigilance. *This response was typical of how NRNPs were framing climate change: in terms of its*

local effects and the personal benefits of taking individual action. This is further illustrated in Chapter 6. It places the responsibility on individuals to adapt to climate change and view adaptation as a personal trouble rather than a public issue, to paraphrase C. Wright Mills (1959).

Other actants have benefitted from the arrival of these insects. NRNPs have embraced the arrival of opossums in Ontario. Opossums appeared to be accidental residents, like EAB, but because they eat things that humans find unappealing, they have been welcomed rather than labelled "invasive." Opossums have multiplied and enjoyed meals of black-legged ticks in Ontario. Similarly, Asian wasps have found new EAB meals in Ontario. Blue jays and other flora and fauna have benefitted from the spread of EAB through the newly open spaces where ash trees once stood. In some cases, humans have warned that those spaces may invite invasive species. Throughout these cases, humans have been making decisions about which species should be treated, introduced, or eliminated. There has been little discussion of what other species might have been harmed through either of these networks.

Societal shifts have led to and link the current situations with EAB and Lyme disease. Pioneers cleared the land in the 19th century, decreasing the tree cover. Coupled with a lack of hunting regulations, the deer population decreased. Soil erosion and the birth of agricultural science led to an interest in increasing tree cover. Fast growing species, such as ash trees, were planted *en masse*. With more forests and more hunting regulations, the deer population rebounded. That, in turn, assisted the spread of black-legged ticks and, consequently, *B. burgdorferi*. The abundance of ash trees also provided ample feeding grounds for EAB when it arrived in the area. The spread of black-legged ticks predates the spread of EAB, but only by a few years. If EAB had arrived ten or twenty years earlier and the forests had already been decimated, would that have limited the deer populations and, therefore, the spread of *B. burgdorferi*? That thought experiment

is beyond the scope of this dissertation. There is no doubt, however, that the composition of the forests and the behaviour of deer are changing as a result of EAB (Attea et al. 2025).

It is also interesting to note the role of the human-manufactured transportation system in *directly* contributing to the spread of EAB and possibly *B. burgdorferi*, as well as *indirectly* contributing to the spread of *B. burgdorferi* by increasing GHG emissions and adding to climate change. EAB first came to North America by plane. *B. burgdorferi* spreads mainly through recruiting black-legged ticks who then hitch rides on deer, but one can imagine that the transportation system might also facilitate the spread through rodents hidden in the system. Conversely, opossums are believed to have spread via trucks and trains, providing something of a counterbalance. Despite the multiple roles of the transportation system as a vector for transmission as well as a contributor to climate change, I did not detect any attempt by NRNPs to address the transportation system other than limiting the transportation of wood and wood products.

This is a short chapter, but it is presented in part to provide a window into the world of NRNPs, to situate this constructed population before launching into more traditionally sociological chapters. It reveals the very different worlds of the CAs versus other NRNPs. As quasi-governmental organizations, the former have been heavily involved in monitoring and management activities, taking actions in the face of EAB to increase public safety and reduce their corporate exposure to risk. In contrast, members of NRNPs have been out in nature experiencing the changing conditions brought about by the arrival of EAB and black-legged ticks. The involvement of non-CA NRNPs has been mainly through communications.

Taking an ANT approach has shed some light on the political ecologies and political economies in which NRNPs are situated. While Rose and Carr (2018) advocate the study of "critical leisures" using a "First World political ecology" perspective, I suggest that ANT excels

at illuminating the relationships involved. I set aside the political ecology approach more generally as beyond the scope of this dissertation, although it could be an avenue for future research.

Ticks have had an impact on awareness of climate change, especially in NRNPs, but the concepts of climate change and invasive species have remained somewhat muddy. EAB first arrived by airplane, earning it the label of "invasive species." Ticks arrived in Canada through northward migration without human mediation, so they are not considered invasive species. Nonetheless, the arrival of both has compounded worry about climate change in the minds of some, such as Veronica.

NRNPs have been invited to communicate with their constituents regarding whether to interpret newcomers, such as black-legged ticks, EAB, and opossums, as beneficial or harmful and how to respond to their presence. NRNPs have exercised agency in their responses to the invitation, as illustrated in the next two chapters. Chapter 6 analyzes the range of responses and the frames used by NRNPs. Many of those frames avoid explicitly mentioning climate change. By doing so, the muddiness of the connection to climate change continues. Chapter 7 analyzes the obstacles to communicating more explicitly about climate change.

CHAPTER 6: COMMUNICATING ABOUT CLIMATE CHANGE

> We're trying to frame things in terms that people can relate to, and climate change and sustainable development, to be honest, turn people off. They're buzzwords. Don't mean anything. Or they don't agree with it. (Bruce, employee of Farmland CA)

Framing climate change is a challenge for many NRNPs because their members are not necessarily environmentalists. Bruce is a committed environmentalist but has dealt with his rural constituency long enough to know that climate change is a controversial issue.[80] This chapter looks at how NRNPs frame climate change and, alternatively, their avoidance of the issue. The chapter addresses the following research questions: 1) Do NRNPs communicate about climate change? 2) If so, what terms are used? 3) Do NRNPs prefer diagnostic, prognostic, or motivational frames regarding climate change?

The data reveal that many NRNPs avoided communicating about climate change. I find a continuum of engagement on climate change communications: 1) ignoring climate change, 2) deliberately avoiding the issue, 3) avoiding the term "climate change," 4) only including "climate change" in certain situations, 5) downplaying the seriousness of climate change, or 6) addressing the seriousness of climate change. Instrumental, conservation-focused organizations were more likely than member-focused, recreational organizations to communicate about climate change, which is not surprising. The three most common frames were the effects of climate change as a diagnostic frame, NbCS as a prognostic frame, and the benefits of action as a motivational frame. What these frames have in common is a post-political or apolitical approach to climate change. These findings align to some degree with findings on large conservation-oriented ENGOs (Boscarino 2015; Cherry 2019; Johnson et al. 2023; Tosun and Saad 2023; Graham and Robinson 2025) but are in contrast to findings of more political frames used by climate change ENGOs

[80] In the email invitations to the interviews, I mentioned my interest in both biodiversity loss and climate change in an attempt to lessen any reluctance to engage in an interview purely on climate change.

(Graham and Robinson 2025). The findings reveal two splits regarding climate change: 1) between organizations active in conservation versus passively enjoying nature, and 3) between conservation-oriented organizations and climate change organizations.

In this chapter, I start with a review of the literature on the framing of climate change by ENGOs and in the media. I then present a quantitative analysis of NRNP communications and engagement on climate change, followed by a discussion of the continuum of engagement. The second half of the chapter explores the frames used by NRNPs when communicating about climate change.

6.1 FRAMING CLIMATE CHANGE

Chapter 3 addressed general framing theory, including distinguishing among convinced and skeptical communications (Hoffman 2011), political and post-political discourse (Kenis and Lievens 2014), and diagnostic, prognostic, and motivational framing (Snow and Benford 1988). It also described climate change frames within those categories. In this section, I focus on the delivery of those frames.

Because climate change is complex and often distant in its effects (Schäfer and Schlichting 2014:142-143), people rely on communicators like the news media and social movement organizations to interpret what is happening (Entman 1993; Benford and Snow 2000; Boykoff and Boykoff 2007:1192; Schäfer and Schlichting 2014). NRNPs are situated both within the environmental movement and outside the movement. For the most part, those of my interviewees who were with conservation organizations or naturalist clubs considered the organization to be part of the environmental movement, whereas those who were with other types of organizations did not (Figure 4.3). The literature review for this dissertation, therefore, needs to reflect both framing by conservation organizations and framing that would reach recreational groups. The

former is addressed by the literature on framing climate change by large ENGOs, specifically nature conservation organizations. The latter is best addressed through the literature on the framing of climate change in the news media.

6.1.1 Framing of Climate Change by ENGOs

Setting aside the literature on the climate movement itself, in which my target population is not or only peripherally involved, the majority of the literature on framing climate change by environmental organizations is focused on large national and international ENGOs, such as World Wildlife Fund and the Sierra Club (e.g., Markham and van Koppen 2014; Boscarino 2015; Partelow et al. 2020; Vu et al. 2021; Johnson et al. 2023; Graham and Robinson 2025). This section reviews the literature on: 1) how the focus of an organization affects behaviour on climate change, 2) climate change framing by conservation ENGOs, and, more specifically, 3) framing climate change for skeptical constituencies. I note that the issue of climate change is continually evolving, so what are identified as the most salient frames change over time.

Addressing the focus of the organization, I draw the distinction between conservation ENGOs and climate change ENGOs. Boscarino (2015) found that eight major U.S. ENGOs, including conservation ENGOs, all had climate change campaigns by 2007. Organizations felt that it was "the inherent responsibility of green groups to change minds regarding climate change" (Boscarino 2015:107). Markham and van Koppen (2014:261), however, found that such efforts by conservation organizations in the United States and Europe were "limited" and "selective." The reluctance continues. In a more recent study of almost 300 "traditional" conservation ENGOs operating in the Americas, 77 percent had some mention of climate change on their website but only 15 percent "identified climate change as a priority issue" (Tosun and Saad 2023:923). My research finds the same reluctance among conservation ENGOs and asks why.

Within the category of conservation ENGOs, a characteristic that could affect behaviour on climate change is specialization versus generalization. Some large ENGOs have always focused strongly on nature conservation and continue to do so, while others, such as the Sierra Club, have expanded to include concern about climate change and/or social justice, becoming generalist ENGOs (Markham and van Koppen 2014; Boscarino 2015; Partelow et al. 2020; Johnson et al. 2023). Generalist organizations, and specialist organizations whose missions align with climate change, are more likely than other specialist organizations to address climate change (Johnson et al. 2023; Tosun and Saad 2023). For example, the Sierra Club was more engaged in political climate action than were other U.S.-based conservation ENGOs (Markham and van Koppen 2014:253). Tosun and Saad (2023:921) explain that generalist organizations are more flexible than specialist organizations in incorporating new issues because of their broader existing issue portfolio. Wildlife ENGOs, which tend to attract hunters as members, are particularly unlikely to address climate change (Boscarino 2015; Johnson et al. 2023; Tosun and Saad 2023).

The second issue is to categorize the framing of climate change by conservation ENGOs using Snow and Benford's (1988) three core framing tasks. Looking first at climate change ENGOs, Vu et al. (2021) found that diagnostic frames were used in about 35 percent of Facebook posts on climate change in 2017 and 2018, while prognostic and motivational frames were each used in about 27 percent of posts. More recently, Graham and Robinson (2025) also found more diagnostic than prognostic frames. They studied a mix of climate-focused, conservation-focused, and generalist Canadian ENGOs and found that the most common diagnostic frames were critiques of government and industry, market-based climate solutions were popular prognostic frames, and a popular motivational frame was the climate emergency frame (Graham and Robinson 2025). The

impact of climate change ENGOs in that study can be felt through a critical urgency that is absent in my study.

For conservation ENGOs, a common diagnostic frame is that climate change impacts nature (Markham and van Koppen 2014:261; Boscarino 2015:105; Yoreh and King 2025:245). Threats to wildlife from climate change are a justification for wildlife organizations to address climate change (Northrup 2012:60; Boscarino 2015:107). Nature conservation and NbCS are popular prognostic frames for conservation ENGOs (Graham and Robinson 2025; Yoreh and King 2025:245). Mitigation has been a much more frequent prognostic frame for conservation ENGOs than adaptation (Markham and van Koppen 2014:257). Sustainability was somewhat popular as a prognostic or motivational frame in a recent study, but justice was not (Yoreh and King 2025). Yoreh and King (2025:248) also found a surprising anthropocentric focus on people, "surpassing even 'nature' and 'wilderness.'" I find a similar anthropocentric focus, including the impacts of climate change as a diagnostic frame (not necessarily impacts to nature) and benefits (often to humans) as a motivational frame.

The third issue is how conservation ENGOs approach framing when they believe that their target audience might reject climate change messaging. As this dissertation covered all of Ontario, including conservative-leaning rural areas and constituencies, climate skepticism was salient to some NRNPs. Hunters, anglers, and farmers were among those constituencies that tend towards politically conservative views (Houser 2018; Love-Nichols 2020; Nowatzke and Arbuckle 2025). Studies in Iowa (Houser 2018; Nowatzke and Arbuckle 2025) and Alberta (Davidson et al. 2019) found that farmers tend to see climate change as due to natural cycles rather than primarily human causes, as do hunters and anglers (Love-Nichols 2020). On the other hand, all three populations have a strong connection to and experiential knowledge about the land (Love-Nichols 2020).

Hunters and anglers have a vested interest in conservation of the wildlife that are the object of their activities (Manore and Miner 2011; Love-Nichols 2020). Farmers, despite being skeptical of climate change, have been implementing climate mitigation practices because those practices have other benefits (Houser 2018; Davidson et al. 2019). Adaptation is a normal practice in farming (Houser 2018:54). Another challenging population is northern residents, who also have a strong connection to the land (Gislason et al. 2021).

Various strategies have been used to communicate with skeptical audiences, all of them post-political or apolitical. In framing climate change, groups preferred frames that aligned with their identity and mission, such as threats to wildlife (Boscarino 2015:107). Gislason et al. (2021) found that place-based, practical communications about climate change resonated best with residents of northern Ontario and northern British Columbia. People who are relatively unengaged with climate change tend to be influenced by personal experience of climate change, so communications that make that link could be helpful (Myers et al. 2013; Bolsen and Shapiro 2018:159; Ballew et al. 2019:13-15). While most other U.S. ENGOs were reframing existing messages to include climate change, wildlife organizations suggested that reframing would be "counterproductive" to receiving member donations, due to skepticism about climate change (Boscarino 2015:106). Johnson et al. (2023:966) question whether such groups are even part of the environmental movement, given their distinctiveness. Bird protection organizations "were completely silent" on the international aspects of climate change (Markham and van Koppen 2014:255) and unlikely to discuss political aspects of climate change (Markham and van Koppen 2014:260). The National Audubon Society, whose membership was split between progressives on one side and moderates or conservatives on the other, engaged in "strategic centrism" (Cherry 2019). The strategy focuses on finding a middle ground and staying away from polarizing issues in their framing (Cherry 2019), climate change

being such a polarizing issue. Davidson et al. (2019:8) advocate the use of "strategic ambiguity" when communicating with skeptical audiences, to create space for multiple interpretations. I heard all of these strategies in my research and bring them together in one study: highlighting threats to nature, using practical communications, reframing, avoiding, and using strategic centrism or strategic ambiguity.

The above literature provides an impression of large conservation organizations as addressing climate change to the degree that it aligns with their mission, and often in post-political or apolitical terms. Wildlife-focused organizations lag behind. In this chapter, I address calls for more research in national contexts outside of the United States (Markham and van Koppen 2014; Boscarino 2015) and in smaller organizations (Johnson et al. 2023). I find substantial avoidance of communicating about climate change. In addition, I respond to Vu et al.'s (2021) call for more study on the use of diagnostic, prognostic, and motivational frames for climate change. I find that prognostic frames were used most often.

6.1.2 Framing of Climate Change in the News Media

Representations of climate change in the news media have been a main source of information on climate change for many people (Schäfer and Schlichting 2014; Stoddart and Tindall 2015). Although the rise in use of social media has decreased interest in traditional news media, many people continue to use traditional media (Stoddart and Tindall 2015:402; Carman et al. 2025), in part through increasing use of news websites (Carman et al. 2025). Social movement organizations communicate both directly to their constituents and through the news media.

Previous research on the framing of climate change in the media points to the popularity of market-based climate solutions (Young and Dugas 2011:19; Stoddart and Tindall 2015:415; Graham and Robinson 2025) and the post-political frame (Wetts 2020). Wetts (2020:1364) notes

that the post-political discourse discourages public engagement due to framing climate change as a problem to be addressed by technocratic elites.

Prognostic frames have been more popular than diagnostic or motivational frames in the media (Stoddart et al. 2016:226), which is the opposite of findings for ENGOs, where diagnostic frames were more popular (Vu et al. 2021; Graham and Robinson 2025). Within the prognostic frame, Stoddart et al. (2016:226) found that mitigation was addressed much more often than adaptation. Hoffman (2011) also found a prevalence of prognostic frames for articles categorized as convinced about climate change.

In the United States, journalistic norms in the past balanced scientific certainty on climate change with the very small degree of scientific uncertainty (Boykoff and Boykoff 2007; McCright and Dunlap 2010:123-124). Although that practice has changed, the balance principle strengthened the voices of skeptics (Bolsen and Shapiro 2018:152). Journalistic norms are different in Canada, but the influence of the U.S. media is felt in Canada nonetheless (Young and Dugas 2011:17). As noted, some NRNPs in the current study had skeptical individuals within their constituencies.

In a very different media study, Burke, Welch-Devine, and Gustafson (2015) analyzed the environmental coverage in a popular Appalachian newspaper. They found that the primary discourse was natural history, "oriented toward enjoyment of nature" (Burke et al. 2015:190). The role of humans in relation to nature was limited to passive observation and admiration (Burke et al. 2015:190). Weather anomalies were reported in terms of their effects on human use and enjoyment, not linked to climate change (Burke et al. 2015:191). Environmental politics were "largely absent" (Burke et al. 2015:190). With a naturalist for an editor, this newspaper is not unlike the communications of naturalist clubs. Burke et al. (2015:190) noted a "bifurcation of American environmentalism into a more activist camp seeking to protect nature and a more

conservative camp promoting appreciation and enjoyment of nature," which supports my decision to treat naturalist clubs as member-oriented rather than conservation-oriented NRNPs.

6.2 METHODOLOGY

Five data sources were used for this chapter: interviews, surveys, and textual data (Twitter feeds, websites, and annual reports). My first research question is whether NRNPs communicate about climate change. That was answered in general terms by looking at their tweets (Figure 4.2). The websites and annual reports provide a deeper view of how much each organization communicated about climate change and the terminology used. The interviews provide insights into the importance and explicitness of communicating about climate change from the people who do the communications, and why certain frames were used rather than others. The surveys triangulate the data on the importance and explicitness of communicating about climate change using a larger dataset to reinforce the findings from the interviews.

6.3 ENGAGING ON CLIMATE CHANGE

In this section, I provide information on communications in NRNPs, in general and related to climate change, in order to ground a later discussion of framing climate change. I first present findings on the communications channels used by organizations in my interview sample. Next, I describe their target audiences as they relate to different communications channels. I follow that by answering the question: Do NRNPs communicate about climate change? I do that in two ways. First, I use a variety of data sources to quantify NRNP engagement on climate change. I conclude the section with a qualitative analysis of the degrees of organizational engagement with climate change in their communications. I find a continuum from ignoring climate change to embracing the topic, with most organizations at the lower end of the continuum.

6.3.1 Communications Channels and Capacity

The use of various communications channels is related, in part, to the capacity of the organization (Dumitrica 2021:83). To set the stage on framing, I present statistics (Figure 6.1) and comments on the use of various communications channels by the organizations in my interview sample. The sources of data for this section are the pre-interview questionnaire, which provided a checklist of possible communications channels, and the interviews. The interviews started with a set of questions to establish who the target audience(s) for the NRNP were and how the NRNP communicated with them.

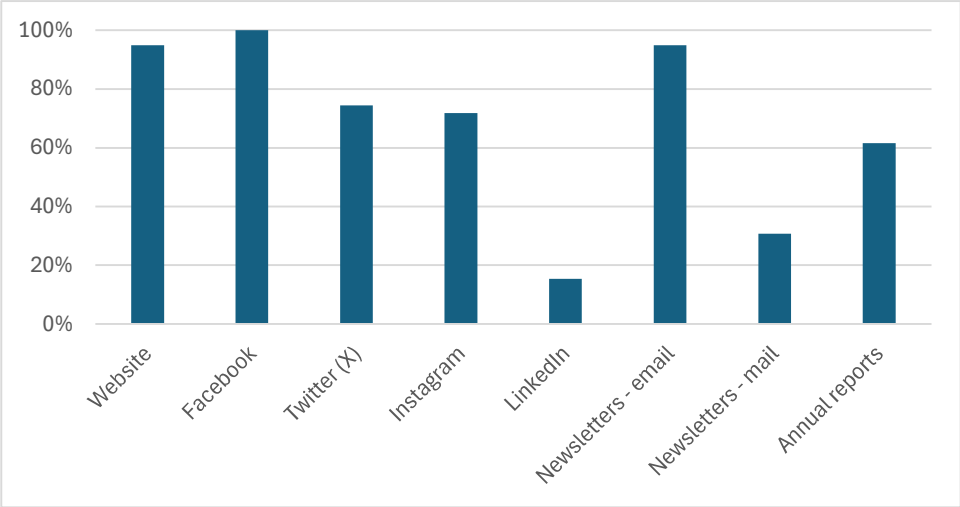


***Figure 6.1**. Communication channels used by NRNPs in the interview sample. n=39*

All but two of the NRNPs in the interview sample had their own website. Of the two that did not, both were chapters of a larger organization and relied on the larger organization's website. Every NRNP used Facebook. Twenty-nine of 39 (74 percent) used Twitter (X) and 28 used Instagram (72 percent). Only six (15 percent) used neither Twitter nor Instagram and they were all entirely volunteer-run organizations. Six NRNPs mentioned starting to use LinkedIn; all were staffed organizations and they all used Facebook, Twitter, and Instagram. Other platforms (Mastodon, TikTok) were only mentioned by one NRNP each.

Social media is an invaluable tool for NPOs because it is "low-cost yet impactful" (Dumitrica 2021:73). On the other hand, Souder (2016:2724) notes that NPOs "rarely have the resources or expertise to adopt the latest technology. … Nonprofits make poor use of Facebook because they usually lack the resources and time to attend to their Facebook pages. In the best cases, they use college interns and volunteers to manage their Facebook pages." Jessica, an employee of Stream Rescue Conservation Organization, noted that the organization used interns for communications. Carolyn, a board member of Spruceland Naturalists' Club, described a challenge of posting to social media for volunteer-run NRNPs:

> That is a bit of— Wouldn't say it was a problem. But when we have a walk or talk, there's really no summary. If there is a summary on the event, it has to be somebody who's attending, who has also a couple of photos.

For Spruceland NC and other groups, posting to social media was shared amongst volunteers and inconsistent as a result.

Other communication channels used by NRNPs were newsletters and annual reports. Only two did not send out newsletters to their membership; both were very small, local, volunteer-run organizations. All of the newsletters were sent by email; only twelve NRNPs also sent a newsletter by mail.[81] Some of the twelve were staffed organizations with a large membership and large budget; some were catering to an older audience.

Annual reports were the most variable type of communication, ranging from a glossy multi-page booklet available on the website to a less polished report for the annual general meeting (AGM) to no report. An annual report is "a document that provides a wide range of summarized and relevant information for all stakeholders to comprehensively understand an organization's objectives and performance in both financial and non-financial terms" (Souder 2016:2725-26).

[81] Like social media, emailed newsletters are inexpensive (Souder 2016:2723). Surface mail, on the other hand, requires printing, envelopes, and stamps.

Annual reports are public-facing documents used for both accountability and self-promotion (Souder 2016:2726). Sixteen of 39 NRNPs (41 percent) produced a professional-looking report.[82] Only one of those was from a volunteer-run organization, which confirms the need for capacity to produce such a report.

6.3.2 Communications Channels and Target Audiences

Some NRNPs were very clear about their target audiences, making efforts to use different messages for different audiences, some even sharing that they did significant research on their target audiences. This was particularly true of CAs. CAs described two sides to their operations: a regulatory side that dealt with watershed management and flood monitoring, and a recreational side that managed parks. Matt, an employee of Wolfland CA, joked:

> You either know about a conservation authority because we told you you couldn't build where you wanted to build, or you know about a conservation authority because you like coming out to our trails and hiking.

The target audiences for CAs were some combination of the municipal governments in their catchment, farmers, rural non-agricultural residents, and shoreline homeowners on the regulatory side, and general residents on the recreational side, who might be park users and/or volunteers.

Trish, an employee of Lakeview CA, was very descriptive about the array of social media channels used by her CA and the associated target audiences:

> LinkedIn, we would use to target more of those municipal staff and partners, you know, professionals. The messaging might be more about some accomplishments. You know, if we've had any of our staff members published in a journal, we would put that kind of thing out on LinkedIn. … Twitter would be different, you know, but likely also targeting practitioners and municipal staff and … people that would engage with us around what our business is. Not necessarily, you know, a general resident who's interested in our conservation areas or interested in events that we might be running; they would be following us on Facebook. And then people who are just generally interested in [the area], you know,

[82] Since most of the interviews were conducted in 2023, I received permission and sought out the annual reports for that year. One of the 16 organizations did not produce a 2023 report but sent their 2022 report. See also Section 4.4.1.

> want to see those beautiful sunset photos, and maybe see, you know, pictures of [the area] from time to time, … they're on Instagram.

Matt went into more detail on the difference between Facebook and Instagram.

> Instagram is more of a … good news, happy, fun place, sharing cool pictures. … Instagram primarily is a much more, shall we say, wholesome and positive arena of interactions, where Facebook can be more of the contentious or belligerent, or, you know, … there's a little bit more of a negative experience with social media on Facebook. It's pretty good with us. But there are those instances where, you know, the experts will come out of the woodwork and share their opinions, whether they're invited to or not.

Matt hinted at the political polarization that might limit what NRNPs said on social media.

The comments about the value of various social media platforms generally applied to both CAs and non-CAs. Use of LinkedIn was ramping up for a couple of non-CAs. Several interviewees noted that the use of Twitter was on its way out, as a result of Elon Musk's takeover of Twitter and the associated decline of that platform for some purposes.[83] Others shared that Twitter was only used for specific messages, such as trail conditions:

> Our Twitter account is almost entirely about skiing conditions. That's really all we use it for. (Rick, board member of Big Pines Cross Country Ski Club)

> It's mainly for field trips or the talks. Just kind of like a reminder, or just a quick blurb … giving the particulars. And just, again, very club based, but mainly for walks and talks. (Carolyn, board member of Spruceville Naturalists' Club)

Other interviewees shared that Twitter was not very effective for reaching their target audience. The usefulness of Twitter for this dissertation is discussed in the next section.

While some NRNPs used different messaging on different platforms, others, both CAs and non-CAs, sent the same messages out on all channels and did not distinguish between target audiences. This was explained by Theresa, a board member of Rural Routes Hiking Club:

> We're trying to use the social media in a sense of, like, consistency in the content that it's promoted on the Instagram, Facebook, and the Twitter. You know, the format is a little bit different and there is a certain limitations of the different social media platforms. But we are trying to keep the, you know, communication consistent and on the point if there is a topic

[83] https://www.cnn.com/2023/10/27/tech/elon-musk-twitter-x-one-year-changes/index.html

> that we want our audience to be informed and engaged and, you know, enabled or educated about certain things.

Theresa referred to the practice in terms of consistency in messaging. Others described it as being more efficient, which is helpful if there is limited capacity. Several NRNPs had one volunteer focusing on Twitter while other volunteers used Facebook, which was a way of targeting different audiences, although that practice would be less coordinated than the practices of CAs and other staffed organizations.

6.3.3 Quantifying Climate Change Engagement

To answer the question of whether NRNPs communicate about climate change, I first review the Twitter analysis from Chapter 4. I then analyze the websites and annual reports of my interview sample. I follow that up by examining the interview and survey data on how important respondents felt it was to communicate about climate change, and how implicitly or explicitly they did so.

Climate change was not a common topic to discuss on Twitter for many NRNPs and much less common than tweeting about nature for most (Figure 4.2). Twitter was not necessarily representative of an organization's communications, however. The comment that "Twitter has never been our main channel" (Peter, board member of Meadowland Naturalists' Club) was fairly representative of NRNPs. Other interviewees mentioned that Twitter was only used for certain purposes, as noted in the previous section. Interviewees also described the inconsistency of personnel assigned to Twitter. Thus, the results in Figure 4.2 probably underrepresent NRNPs' communications about climate change if considering all communications channels. Nonetheless, the comparison between climate and nature tweets has face validity and shows that most NRNPs tweeted much more about nature than climate change.

The analysis of websites and annual reports uses the methodology described in Section 4.4.2.2 regarding calculating a climate change score between 0 and 3, based on Tosun and Saad

(2023). Table 6.1 specifies the criteria for each level. Table 6.2 summarizes the degree of engagement in climate change by the NRNPs interviewed.

Table 6.1. *Criteria for climate change score. Adapted from Tosun and Saad (2023).*

SCORE	CRITERIA
0	No mention of climate change in mission statement, website, or annual report
1	Limited reference to climate change in website or annual report
2	Ongoing climate change program, with a dedicated webpage or page in annual report
3	Climate change in mission statement

Table 6.2. *Percentage (frequency) of climate change scores by organizational type, based on websites and annual reports of the NRNPs interviewed. n=36. 0 is lowest score; 3 is highest score.*

ORGANIZATIONAL TYPE (SUBFIELD)	CLIMATE CHANGE SCORE				
	0	1	2	3	TOTAL
Conservation authorities (CA)	-	14%	86%	-	100% (7)
Conservation organizations	-	67%	22%	11%	100% (9)
Wildlife organizations	20%	60%	20%	-	100% (5)
Friends of Provincial Parks	100%	-	-	-	100% (2)
Naturalist clubs	75%	25%	-	-	100% (4)
Hiking and trails clubs	80%	20%	-	-	100% (5)
Cross-country skiing clubs	100%	-	-	-	100% (4)
TOTAL	39%	33%	25%	3%	100%
n	14	12	9	1	36

Of the 36 organizations that gave permission to analyze their website and/or annual report, 14 (39 percent) had no mention of climate change. This included all of the cross-country skiing groups,[84] all of the Friends of provincial parks groups, and all but one each of the naturalist clubs and hiking clubs. In contrast, all of the CAs and conservation organizations communicated about climate change. The wildlife organizations were split, but four out of five at least mentioned climate change. This is a strong indication that the member-oriented, expressive organizations were less interested in communicating about climate change than the more instrumental

[84] This contradicts the Twitter findings for the winter sports groups, but there was one particularly activist winter sports organization in the Twitter sample that was not in the website sample.

conservation-focused organizations.[85] Furthermore, only 10 of 36 (28 percent) NRNPs had a webpage dedicated to climate change or a program aimed at addressing climate change, including six of the seven CAs, three conservation organizations, and one wildlife organization. One of those three conservation organizations was the only organization to mention climate change in their mission statement.

How interviewees and survey respondents rated the importance and explicitness of communicating about climate change were probed in two scale questions with response options ranging from 1 (not at all important; totally implicit) to 10 (extremely important; totally explicit). The responses are in Figures 6.2a and b for the interviews and survey, respectively. In both figures, the importance of communicating about climate change (darker red bars) was rated as highly or more highly than the explicitness of doing so (lighter red bars). Thus, NRNPs were likely to use somewhat implicit terms when communicating about climate change.

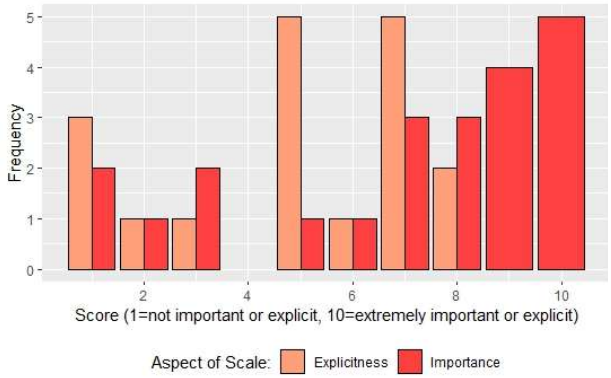


Figure 6.2a. *Interviewees. n=22.*

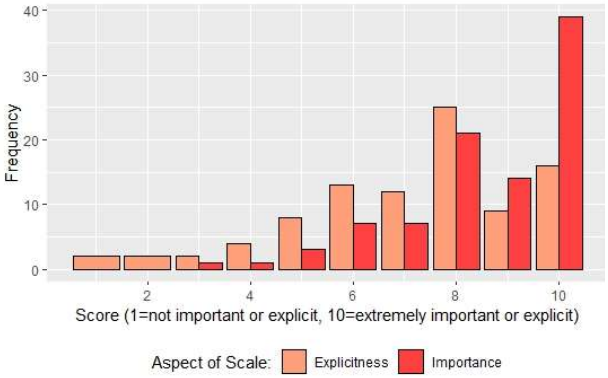


Figure 6.2b. *Latornell survey. n=93.*

Figure 6.2. *Importance of communicating about climate change compared to the explicitness of doing so.*

Interviewees from conservation-based organizations rated climate change much higher in terms of importance (mean = 8.3 out of 10) than did interviewees from recreation-based groups

[85] A Goodman-Kruskal gamma test found a very strong relationship (γ=.-86) between overarching type of organization (conservation/wildlife/recreation) and climate change score. See Table N.1 in Appendix N.

(mean = 4.8), on average. In the survey, respondents from CAs rated climate change higher in importance (mean = 9.0) than did other respondents (mean = 8.1), on average.[86] In both cases, the explicitness of communicating about climate change rated well below the importance of doing so for most respondents.[87]

Triangulation of the data from the five sources — Twitter, websites, annual reports, interviews, and a survey — told a consistent story. The majority of NRNPs did communicate about climate change, although it was only a very small proportion of their communications. Instrumental, conservation-oriented NRNPs were more likely to communicate about climate change than recreation-focused NRNPs. Even then, NRNPs were likely to communicate about climate change somewhat implicitly.

6.3.4 Continuum of Engagement on Climate Change

Continuing to answer the question of whether NRNPs communicate about climate change, Figure 6.2a and b show some hesitation. The range of organizational responses to a global shift such as climate change are: 1) ignoring the problem, 2) actively resisting change, 3) making conservative, incremental changes, or 4) embracing the opportunity to address the problem (Minkoff and Powell 2006; Brulle and Norgaard 2019). With the exception of actively resisting change, this range was seen in the climate change scores of the interview sample (Table 6.2). Those NRNPs with a score of 0 appeared to be ignoring climate change, while the NRNP with a score of 3 appeared to be actively embracing the opportunity to address it. In between was a continuum of responses to climate change.

[86] The overall average for interviewees was 6.8 and the overall average for survey respondents was 8.6. The higher results for survey respondents than for interviewees reflect the fact that all survey respondents were involved in conservation rather than recreational organizations.

[87] The overall average rating for explicitness in the survey was 7.2. Interestingly, it was lower for CA employees (mean = 7.1) than for non-CA employees (mean = 7.4). The question about explicitness was added partway through the interview period, as a pattern seemed to be emerging from the interviews. Only 22 of 43 interviewees had a chance to respond to both questions, so averages are not comparable.

A qualitative analysis of the interview data enables triangulation of organizational climate change responses with the climate change score. The interviews uncovered hidden nuances in the climate change score. Interviewees from 14 NRNPs (39 percent) had a climate change score of 0 (Table 6.2), but the interviews revealed a mix of communications behaviours amongst those and the other NRNPs. For the NRNPs in the interview sample as a whole, the range of communications behaviours was: 1) ignoring climate change, 2) deliberately avoiding the issue, 3) not avoiding the issue but avoiding the term "climate change," 4) selectively including "climate change,", 5) downplaying the seriousness of climate change, or 6) addressing the seriousness of climate change. For each NRNP, one behaviour predominated. In total, 23 NRNPs (59 percent) engaged in one of the first four avoidance behaviours. Only five NRNPs (13 percent) seemed to communicate about climate change as a serious problem. The following subsections describe each of these six types of responses. Obstacles to communicating about climate change other than framing issues are covered in Chapter 7.

6.3.4.1 Ignoring Climate Change

Interviewees from five organizations suggested that climate change was not salient to their organization. George, a board member of Small City Hiking Club, explained:

> I mean, it doesn't come up, and, you know, it's not a topic of our agenda items. There's nobody on our committee that's saying, "We should be doing something about this." And yet, you know, these aren't skeptics.

Responses from George and others suggested that the board had simply not addressed climate change. While questions about how they framed climate change were, therefore, irrelevant, interviews with these organizations were still able to proceed with the majority of the questions.

In this group were hiking clubs, a cross-country skiing group, a very small conservation organization, and a Friends group. It is curious, then, why these groups ignored climate change

while others in their respective subfields did not. Donna, a board member of Seniors-Will-Travel Cross Country Ski Club, verbalized a possible reason:

> Until you approached me about the whole concept of … talking about climate change or environmental change, etc. within our club, it had never even occurred to me that this would be a venue to discuss climate change.

Donna's response had more substance than the more common response, "it doesn't come up." In the case of these five organizations, there did not seem to be any strategic effort involved in ignoring climate change.

For three of these interviewees, the lack of salience could be because they had not noticed climate change effects in the course of their organization's activities, or had not attributed changes to climate change, whereas most of the other interviewees had (Seiler 2024). Experiencing climate change affects people's concern about climate change, but only if that experience is cognitively linked to climate change (Ballew et al. 2022; Ayers et al. 2024). Two of the three were not overly worried about climate change. For them, not putting a priority on communicating about climate change would be cognitively consistent.[88]

6.3.4.2 Actively Avoiding the Issue

Interviewees from seven organizations acknowledged that climate change was happening but actively avoided communicating about it with their membership. The difference between these NRNPs and the first group was in recognizing the connection between climate change and their organization's activities. A naturalist club and six trail-related clubs, including the remainder of the cross-country skiing organizations, were in this category.

Rick, at the very start of this dissertation, provided an example of avoiding communicating about climate change when he said, "you don't want to do that to people, right?" Rick clearly felt

[88] Thank you to Dr. Muyang Li, who pointed out the link between individual cognition and their communicative actions.

that it was the mission of Big Pines Cross Country Ski Club to facilitate cognitive dissonance (Norgaard 2011) in its membership.

Carolyn, a board member of Spruceland Naturalists' Club, provided a different justification when she said:

> We really haven't talked a lot about emissions or— I think we're more in grassroots just to *promoting* nature, if I ever had to say about our club. We don't bring it back to, you know, environmental impacts as well.

Carolyn's avoidance of the topic recalls the strategic centrism used in communications by the Audubon Society to sidestep criticism from the right or left side of the political spectrum, both of which were included within their target audiences (Cherry 2019). Naturalist clubs have a historical connection to the Audubon Society, so this commonality in strategies is not surprising.

Carolyn also mentioned organizational reasons for avoiding climate change, which are discussed further in Chapter 7. Two other interviewees in this category were somewhat skeptical about climate change and not overly worried. None of the websites mentioned climate change.

6.3.4.3 Actively Avoiding the Term

The remainder of the NRNPs did communicate about climate change, although often without specifically mentioning "climate change." Figures 6.2a and b show that respondents tended to think that climate change was a fairly important topic to communicate, but they often did so less explicitly than the importance would suggest. Six interviewees talked about avoiding using the term. For two conservation organizations and a naturalist club, that was due to "fatigue" around climate change. Peter, with Meadowland Naturalists' Club, articulated this:

> I mean, it's even things like climate change. You know, there is sort of a messaging fatigue around that, and a negativity where, you know, that can come up against a desire to … inspire people to connect with nature, you know. … I think sometimes people, like, "Let's not speak the name," kind of thing. "Let's just talk about the positive side of it."

Peter felt that climate change invoked negativity, so he wanted to stay away from it. Meadowland NC's website had no mention of climate change.

The other three NRNPs were wildlife organizations. All three interviewees noted that they had climate skeptics and deniers in their membership. Hailey, an employee of Hunt and Fish with Us, likened climate change to the COVID-19 pandemic:

> The moment you came out and said anything about [COVID-19], they're, like, "Ugh!" They got all up in arms. So it's kind of having the, like, happy medium ground. [laughing] It's focusing on the issue without directly saying it. Right? So it's the same thing for climate change.

Hailey felt that she needed to frame climate change in implicit rather than explicit terms. In doing so, she was using strategic ambiguity (Davidson et al. 2019). Due to political polarization, climate skeptics had crossover with the anti-vaccination movement (Gounaridis and Newell 2024). Jeff, an employee of Hunting and Fishing United, also drew a connection to the pandemic. He was trying to avoid being perceived as "telling people what they have to do" or taking away their individual freedoms. The interviews took place about a year and a half after the Freedom Convoy in Ottawa against COVID-19 vaccine mandates,[89] and the demand for respecting individual freedoms was "a fairly common feeling" in certain communities. Jeff acknowledged that the membership skewed "to the right a little bit," but asserted that the interest in freedom came "not just on the right side of the political spectrum." Neither Jeff's nor Hailey's organization's website mentioned climate change.

6.3.4.4 Selective Use

Five NRNPs talked about climate change as a lens that they could add or remove depending on the target or the topic of their messaging. All five were large organizations, four of them CAs,

[89] See footnote 9 in Section 1.1.3.

and they all had a variety of programs and stakeholders. For example, Paula, with Cliffside CA, said:

> I think it's just a different lens on, you know, activities that we've been doing, like I said, for decades. … I mean, anytime you're communicating to someone, the first rule is always, "Know your audience." So you need to be able to connect the specific attributes of your project that, you know, that audience will relate to the most. So, I think we've done the same thing with climate change a little bit.

Paula communicated the benefits of using different messaging for different audiences, to maximize frame resonance (Snow and Benford 1988). Climate change was a frame that they could now use it if seemed appropriate for the particular publication or audience.

Reframing existing messages to highlight connections to climate change was a communications strategy adopted by large U.S. ENGOs as the issue of climate change rose in importance (Boscarino 2015). All five NRNPs in this category engaged in selective reframing. Claire, with Riverbank CA, said:

> The messaging's always been there. Just working in that spin of climate change doesn't always happen, I suppose. It seems like we add it in there depending.

Claire's comment implies that climate change was an additive lens, whereas the default was to not mention climate change.

6.3.4.5 Downplaying Climate Change

Downplaying the climate change connection was the most common communications response, used by 11 NRNPs (28 percent). Four interviewees with conservation-oriented NRNPs explained that climate change was part of everything they did, but not the main thing. Brian, with Preservation in Partnership, said:

> So yeah, [climate change is] in the background. And it's a foundational thing. It's maybe not front and centre, but it's the bedrock in which we're basing a lot of our messaging.

For Brian and the other three, climate change was an overarching background issue that did not necessarily need to be explicitly included in all communications.

Others talked more directly about downplaying climate change. Trish, with Lakeview CA, was quoted at the beginning of Chapter 1 as saying that people had "started to tune out" because climate change was a scary concept. She added:

> You know, a group of residents who are interested in doing a tree planting project, well, they already get the environmental benefits of doing that tree planting project. So we don't have to hit them over the head with it. It's already— That's implied. They know.

In crafting less explicit messaging, Trish was using the strategic ambiguity approach to communications (Davidson et al. 2019), which gives space for alternative interpretations. The difference between Trish's strategic ambiguity and Hailey's, in Section 6.3.4.3, was that Trish was expecting some constituents to understand the implication, whereas Hailey was hoping that her wildlife-oriented constituents did not. The cultural cognition theory posits that individuals interpret the same phenomenon differently depending on their pre-existing perceptions (Kahan et al. 2011).[90] Providing ambiguous or implicit messaging on climate change, such as referring to tree plantings or risks to wildlife, enables those who are culturally attuned to the climate change message to make the connection, while others focus on the actual message or make other connections.

6.3.4.6 Addressing the Seriousness

The remaining five interviewees indicated that climate change was very important for their organization to communicate about. Interestingly, their communications available for analysis did not match that importance. Perhaps their comments were aspirational. Frames for all of the NRNPs, with the exception of those that ignored climate change, are the subject of the next section.

In summary, answering the question of whether NRNPs communicated about climate change revealed a continuum of approaches. NRNPs tended to downplay climate change in their

[90] Thank you to Dr. Joanna Robinson for making this connection.

communications. Avoiding the topic was unintentional for some interviewees who had not made a cognitive connection between their organization and climate change and intentional for others who chose to perpetuate cognitive dissonance within their membership. Some NRNPs were concerned about avoiding negativity associated with the term "climate change." The responses to that were avoiding the issue, avoiding using the term, or only using it with certain constituencies or under certain circumstances. Other NRNPs were more interested in climate change, yet some used implicit language hoping that people would make the connection. Finally, a small handful of NRNPs felt that communicating about climate change was important. Organizational reasons for the differences are explored in Chapter 7. This chapter is focused on communications. In the remainder of the chapter, I analyze the frames used by NRNPs.

6.4 CLIMATE CHANGE FRAMES

This section answers the question: What frames do NRNPs use to communicate about climate change? The interviews provided a wealth of information on how NRNPs frame climate change. The categorization of frames as diagnostic, prognostic, or motivational (Snow and Benford 1988) is relevant to NRNPs, as it shows whether they communicated about climate change in terms of problems, solutions, or rationales for action. I use that categorization as an overarching framework, nesting other frames and discourses within those three core framing tasks (Snow and Benford 1988). In the first subsection, I present an overview and quantification of the frames discussed by interviewees. The subsequent subsections describe and analyze the diagnostic, prognostic, and motivational frames identified, respectively. Skeptical framing was not used by any of the NRNPs in the interview sample.

Table 6.3. *Climate change frames mentioned in interviews, with number of interviews in which that frame was mentioned. n=41.*

DIAGNOSTIC	28	PROGNOSTIC	32	MOTIVATIONAL	25
POST-POLITICAL FRAMES					
Total	24	Total	26	Total	24
Environmental effects: ·biodiversity changes ·extreme weather ·flooding, erosion Science Economic impacts	20 13 10 6 4 2	NbCS, NbS Mitigation Adaptation Science Sustainable development	19 16 14 5 3	Efficacy: ·self-efficacy ·response efficacy Benefits: ·to community ·personal ·global ·to nature Urgency Catastrophism	17 13 7 20 14 10 7 6 4 1
APOLITICAL FRAMES					
Total	4	Total	7	Total	1
Environmental effects	4	Nature conservation	7	Community benefits	1
POLITICAL FRAMES					
Total	5	Total	6	Total	2
Blame	5	Grassroots solutions Climate justice Climate advocacy	4 2 2	Moral responsibility	2

6.4.1 Overview of Frames Used

In this subsection, I present a first look at the frames used by interviewees and how many NRNPs used those frames. The frames were gleaned from the interviews and recorded and coded in NVivo. Table 6.3 provides a summary of the climate change frames, categorized as to whether

they were diagnostic, prognostic, or motivational (Snow and Benford 1988). Within each category, the frames are subcategorized as post-political, apolitical, or political. The frames are listed in approximate order from most to least popular in each category. A more detailed summary is in Appendix M.

The codes in NVivo, or frames (Table 6.3), were grouped and tallied to create Figure 6.3, which shows the distribution of types of frames used by overarching organizational category. Eighty-three percent of conservation-focused NRNPs used diagnostic and/or prognostic frames, 75 percent used motivational frames, and only 50 percent mentioned avoiding communicating about climate change in some way.[91] In contrast, only 47 percent of recreation-focused NRNPs used diagnostic frames, 73 percent used prognostic frames, and 40 percent used motivational frames, while 73 percent used avoidance. Overall, conservation-focused NRNPs communicated more about climate change than recreation-focused NRNPs, and recreation-focused NRNPs were more likely to engage in avoidance. Both conclusions are consistent with the climate change scores (Table 6.2).

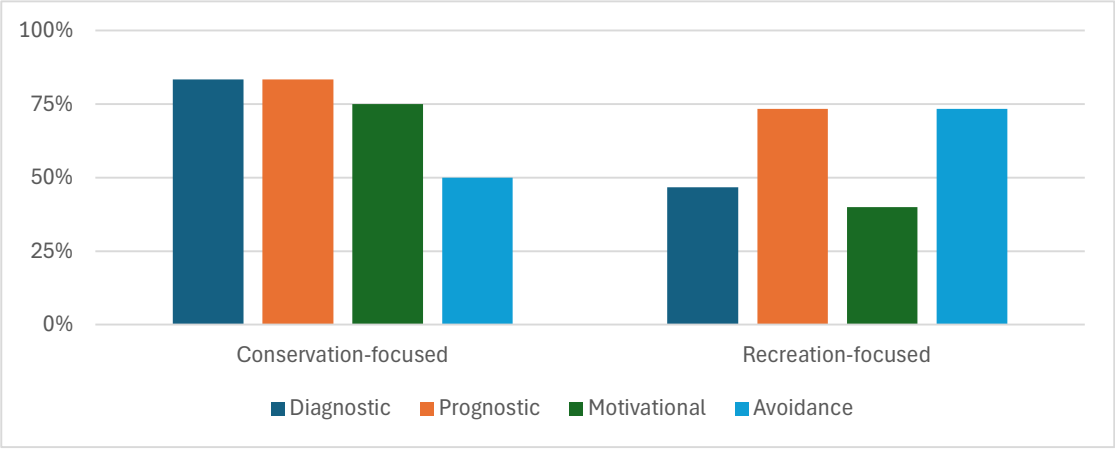


Figure 6.3. *Percentage of NRNPs using diagnostic, prognostic, and motivational frames plus avoidance, by overarching organizational category. n=39.*

[91] For Figures 6.3 and 6.4, my definition of avoidance is being in one of the first four categories outlined in Section 6.3.4.

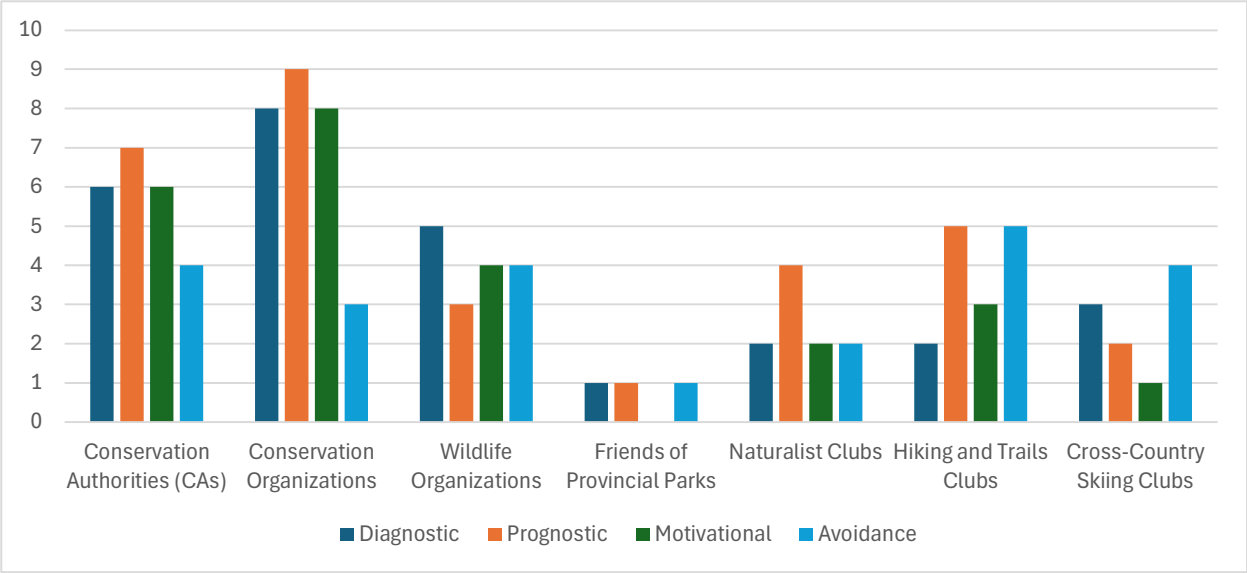


Figure 6.4. *Frequency of use of diagnostic, prognostic, and motivational frames plus avoidance, by type of NRNP interviewed. n=39.*

Breaking down the statistics in Figure 6.3, Figure 6.4 shows the relative popularity of diagnostic, prognostic, motivational frames, and avoidance, by type of organization. All nine conservation organizations used the prognostic frame; all but one used all three core framing tasks; only three also engaged in avoidance. The seven CAs showed the same pattern as the conservation organizations with slightly more engagement in avoidance, situationally. All five wildlife organizations used a diagnostic frame, three used a prognostic frame, and four used a motivational frame; all but one avoided the term "climate change" at least situationally. The three Friends of provincial parks groups each only used one type of frame or avoidance.[92] The four naturalist clubs were mixed in their use of frames; two avoided talk of climate change but all four used a prognostic frame, such as planting trees. The seven hiking and trails organizations were very mixed, using none, one, two, or all three types of frames; five ignored or avoided climate change. All four cross-country skiing clubs avoided or ignored the topic of climate change; three of the four used a

[92] In this dissertation, these three groups were considered conservation-focused due to their instrumental mandate.

diagnostic frame referring to weather and skiing conditions; otherwise, their use of frames was mixed. Thus, the use of frames did appear to vary by type of organization.

Overall, prognostic framing was most common, described in 32 interviews (78 percent). Diagnostic framing was next, at 28 interviews (68 percent). Motivational framing was described in 25 interviews (61 percent). Bernice, a young communications professional with a regional chapter of Nationwide Preservation, commented on what she saw as a general shift in climate change messaging by ENGOs:

> I've also realized that a lot of places, kind of, not use climate change anymore. I'm not sure what term they're trying to use. A little bit more climate mitigation. … So, climate change is, you know, all of the things that are happening. Right? So, we have the flooding, and then, you know, the loss of biodiversity. But climate mitigation would be, like, the responses that people are trying to do.

Bernice sensed a shift from diagnostic to prognostic framing, specifically, mitigation.

Finally, the frames (Table 6.3), were grouped and tallied by political, post-political, or apolitical climate change discourse to create Figure 6.5, which shows the distribution of discourses used by overarching organizational category. Those NRNPs that did not communicate about climate change were included with the apolitical discourse.

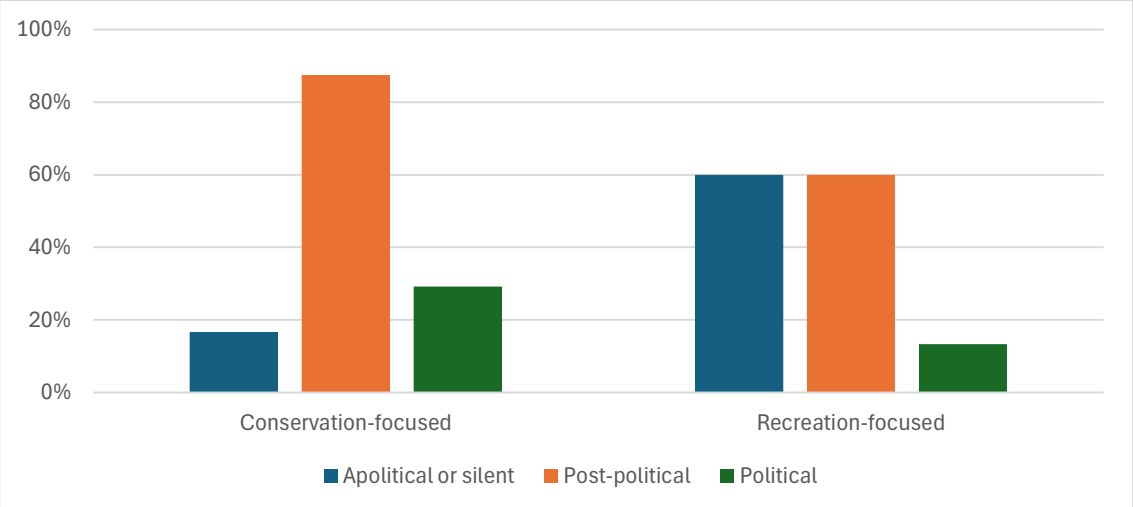


Figure 6.5. *Percentage of NRNPs using apolitical, post-political, or political climate change discourse, by overarching organizational category. n=39.*

Figure 6.5 shows a distinct difference between conservation-focused and recreation-focused NRNPs regarding discourse. Eighty-eight percent of conservation-focused NRNPs used post-political discourse, demonstrating that conservation organizations work within the system. The other 12 percent used only apolitical discourse or were silent, and one wildlife organization used both. Twenty-nine percent used both post-political and political discourse. No wildlife organizations used political discourse. In contrast, recreation-oriented NRNPs were much more likely to use apolitical discourse. Sixty percent used either or both apolitical or post-political discourse, while two were silent. Only 13 percent of recreation-oriented NRNPs used political discourse, and that was through sharing the messages of other organizations.

6.4.2 Diagnostic Frames

Diagnostic frames mentioned in the interviews included science, environmental effects, and economic impacts as post-political frames and blame as the only political frame.

6.4.2.1 Post-political and apolitical diagnostic frames

Science framing can be diagnostic if it explains the current state and past impacts or prognostic if it predicts future climate change or provides solutions. The technical, measurement-oriented nature of these frames situates them as post-political (Swyngedouw 2010; Kenis and Lievens 2014). Climate science was discussed by four interviewees as a diagnostic frame, using science to explain impacts. All but one were cautious or defensive about it. For instance, Cheryl, an employee of Spirit Region Conservation Organization, explained:

> Climate science is there. We have a lot of evidence of climate emissions rise, global temperature rise, regional impacts, for example, from the science perspective. As soon as we move that science conversation to the public domain, it fuels the idea that the science is still under debate. So, it plays into all of the powers that have helped to throw that climate science into question and to fuel climate skepticism and worse, misinformation. So, by investing our time and energy in climate science, we're unintentionally and in many ways playing into that discourse that we want to leave behind. So we've made some choices about where we'll use

> the science and with whom — in what publications and with what grade levels. But mostly we're moving on. … Therefore, our focus is on climate action.

Cheryl's response shows that earnest attempts to explain the science behind climate change can attract skeptical responses. As a result, Cheryl's organization focused much more on prognostic and motivational framing.

Environmental effects frames were discussed in 20 interviews (49 percent). Effects of climate change included extreme weather, changes in flora and fauna, and flooding and erosion. Hailey, at Hunt and Fish with Us, was one of those who used a diagnostic frame of simply pointing out the effects of climate change. She shared that an effects-based frame was helpful for communicating with hunters and anglers:

> We usually try to focus on, like, the impacts of climate change, and less so climate change. … It's basically, like, if you say all the impacts, like, if you focus on the weather, the fire, the floods, or whatever that they visually see and experience, then you could still get that message across without them really realizing that it's climate change. [laughing] So, it's some trickery, but it works.

With climate skeptics in the membership, Hailey tried to avoid controversy by avoiding the term "climate change." Similarly, CA employees preferred tangible, local, effects-based frames when communicating with farmers.

Effects-based frames were also used by other NRNPs with a more urban or mixed catchment. Peter, with Meadowland Naturalist Club, used a frame of impacts on biodiversity:

> We don't talk about adaptation a lot. We don't talk about mitigation. For us … it's more nature-focused in that true sense of the word, but versus sort of managing climate change. It's … more in context of biodiversity loss, because obviously … as … a naturalist-based organization, that's our core interest.

Meadowland NC was another NRNP that avoided the term "climate change" and had no mention of climate change on their website.

In total, 13 interviewees used a frame of impacts on biodiversity in general or a specific species, 10 used an extreme weather frame, and six communicated about flooding and erosion

from a diagnostic perspective. Brian, with Preservation in Partnership, provided an example of the extreme weather frame for his more urban catchment:

> We also connect [our motivational slogan] to the message of, "It's like, you can see that we are dealing with the climate change through the wildfires, through these extra hot days, through the unstable weather."

In contrast to the previous examples, Brian made the explicit link from impacts to climate change.

Most of these environmental effects frames could be considered post-political, as the NRNPs that used these frames recognized and were taking a managerial approach to climate change and biodiversity loss but did not engage in political discourse. All discussed local rather than global effects. Somewhat related, two interviewees appealed to their business constituents by pointing out the economic impacts of losses to their businesses due to climate change. Another four NRNPs discussed environmental effects without linking them to climate change; I categorize them as apolitical frames that could be mobilized if a connection to climate change were made.

6.4.2.2 Political diagnostic frames

Blame was the only political diagnostic frame used, and that blame was directed at human civilization and lifestyles for their part in causing or contributing to climate change. Bruce, with Farmland CA, was not afraid to use this frame, saying:

> We gotta get them beyond climate change. Like, that's a symptom of the bigger issue. It's, you know, "Guys, we're overconsuming, you know, the capital of the Earth, both the biological capital and the physical. And we need to live a lot more lightly. How are we gonna do that? And consume a lot less."

Bruce was quoted at the start of this chapter as avoiding the term, "climate change," but he was prepared to talk about the issue in other terms. His strategy for motivating action was to start by identifying overconsumption as one of the causes of the problem, as a more actionable frame. I heard no criticism of the fossil fuel industry or government, unlike framing by climate change ENGOs (Graham and Robinson 2025).

Jim, a board member of Trees-R-Us Conservation Organization, was one of four others that specifically discussed avoiding a political frame of blame. For Jim, blame was complicated:

> When we talk about climate change, what people can do, [the board doesn't] want us to suggest what people can do, because it suggests that the people are, individuals are the problem. If you tell people they should eat less meat, they're saying, "Oh, yeah, but you're telling people that they're the problem."

Jim and Corinne were on the board of a conservation organization that they had hoped would become more activist, but they described feeling limited in their advocacy by other board members. They had created a brochure with tips for fighting climate change and biodiversity loss and were experiencing pushback. Corinne mentioned that one person who complained about the brochure was "a very committed environmentalist," which illustrates a split between conservation and climate action. While the brochure was intended as a prognostic or motivational communication, it was interpreted by some as a diagnostic frame of blame.

Summing up diagnostic frames, post-political effects-based frames were mentioned in almost half of the interviews, including effects on biodiversity, extreme weather, flooding, and erosion. Communicating about local effects was felt to be more relatable than using less tangible frames (Myers et al. 2013; Gislason et al. 2021) and avoided pushback. A post-political science frame was used by a few NRNPs, but most of those were cautious or defensive, particularly due to pushback from climate skeptics and deniers. While diagnostic framing includes both frames identifying a problem and frames pointing to causes (Snow and Benford 1988:199), the vast majority of NRNPs stuck to the former, with only a handful placing blame. The target of this blame was our consumptive lifestyle and society more generally. Not one interviewee placed blame on the fossil fuel industry or on government climate policy, which were the primary diagnostic frames for Canadian ENGOs in Graham and Robinson's (2025:200) study. Most NRNPs were invested in staying away from controversy.

6.4.3 Prognostic Frames

Prognostic frames present solutions (Snow and Benford 1988:199). Prognostic climate change frames mentioned in the interviews could be categorized as post-political (NbCS, mitigation, adaptation, science, and sustainable development), apolitical referring simply to nature conservation, or political. Post-political frames were mentioned in 26 interviews (63 percent). Six discussed more political solutions in addition to post-political frames. Most of the seven NRNPs that I characterized as using an apolitical prognostic frame did not use other prognostic frames.

6.4.3.1 Post-political and apolitical prognostic frames

Post-political frames are a basket of frames that present technocratic and managerial solutions to climate change that fail to challenge the status quo (Swyngedouw 2010; Brulle and Dunlap 2015:12). This includes the IPCC's frames of mitigation, adaptation, and sustainable development (IPCC 2023) and the frame of NbCS (Woroniecki et al. 2020; Osaka et al. 2021; Seddon et al. 2021; Melanidis and Hagerman 2022). I include nature conservation in this section for its managerial approach and silence on societal structures (Swyngedouw 2010; Graham and Robinson 2025:198) but suggest that it could be considered an apolitical frame.

6.4.3.1.1 Nature-based climate solutions (NbCS). NbCS were the most popular climate solution. Nineteen interviewees were involved in some way in NbCS. All of the CAs plus 11 non-CAs — nine of them conservation-oriented — made the connection between their conservation activities and climate change. The other two non-CA were naturalist clubs that assisted other conservation organizations. The involvement included tree plantings, watercourse and shoreline restorations, and land preservation. However, if I had not asked about NbCS, the term might not have come up at all. Cheryl described challenges with using the frame:

> There isn't a really consensus-based framework around how to define that work and what it would look like, in terms of implementation. It is a concept that's been pushed nationally

> through funding programs and so forth. But it's also one of the "flavours of the month," in the sense that, you know, right now, we're being asked to do natural asset inventory. However, just a few years ago, that was also ecological goods and services frameworks. And so, for small organizations … sometimes these frameworks … are hard to keep up with and hard to translate into implementation.

Cheryl and others expressed some frustration with the constantly changing labels applied to NbCS, especially for small ENGOs with limited capacity. She also mentioned a lack of clarity in the frame. As a result, interviewees used a basket of terms.

The CAs and two large wildlife organizations were very interested in this frame, but most preferred the term "nature-based solutions" (NbS) rather than NbCS. This aligns with the practice of downplaying or avoiding the term "climate change." Monica, an employee of Sunshine CA, said that NbCS were:

> interwoven into so much that we do. I'd say much of what we've done, much of what we do includes nature-based climate solutions, although we don't always frame them as that from the get to go. Right?

Monica implied that NbCS was a recent frame that could be applied to the same work that CAs had been doing since their inception. The CAs were established in Ontario as regional, watershed-based offices partly as a result of Hurricane Hazel, which hit Toronto in 1954 (Conservation Ontario n.d.d). Their main role throughout time has been preventing flooding.

NbCS seemed to be a popular activity, and therefore frame, for many NRNPs. The lack of use of the term, however, aligns with Graham and Robinson (2025), who found that nature conservation was the primary prognostic frame for ENGOs, with the NbCS frame used much less. Demonstrating its fit with post-political discourse, there was no talk of any downside to NbCS, other than some frustration about continual rebranding of the concept.

6.4.3.1.2 Mitigation. Turning to mitigation and adaptation frames, mitigation was voiced by 16 interviewees and adaptation by 14. In the context of NRNPs, mitigation and adaptation are often intertwined with NbCS. Environment and Climate Change Canada (ECCC) established a Nature

Smart Climate Solutions Fund (NSCSF) in 2021 to fund NbCS, whose goal "is to reduce Canada's net GHG emissions using natural climate solutions, while benefitting biodiversity and human well-being" (ECCC 2025). That mitigation goal of GHG reductions is accompanied by a range of other benefits, including "mitigat[ing] the impacts of climate change [and] build[ing] resilience" (ECCC 2025), or climate change adaptation, in other words. Thus, there is some fuzziness in the use of the terms "mitigation" and "adaptation" (Bruine de Bruin et al. 2021:8).

Mitigation includes both decreasing GHG emissions and increasing carbon sinks. Nine interviewees talked about carbon sinks, all of them referring to NbCS, in function if not in name. Three of them communicated about carbon sinks in terms of carbon offsets, not as market-based solutions but as fundraisers for the organization. Two conservation-oriented organizations offered carbon offsetting through land conservation or tree planting as a way for their members to contribute to the organization while reducing their carbon footprint. Another NRNP had previously offered carbon offsets but had ended the program "because we want people thinking bigger." Carbon offsetting is a market-based solution with questionable efficacy due to lack of incentive to reduce emissions (Bäckstrand and Lövbrand 2006:64; Seddon et al. 2021).

Jim, with Trees-R-Us Conservation Organization, was one of the other six communicating about carbon sinks. He shared their framing:

> We do sometimes just say, you know, "planting trees to fight climate change." That's why we do it. We're not planting trees, for, you know, a lot of reasons to plant trees. But one of our big ones is that, you know, trees sequester carbon.

Most of the six used the language of "carbon sequestration" when talking about NbCS; one used "carbon sinks."

Nine interviewees spoke about decreasing GHG emissions. Six of them promoted individual actions and five promoted technological solutions. Promoting individual actions involved encouraging their members to reduce their environmental footprint. When asked what terms Rural

Routes Hiking Club used when communicating about climate change, board member Theresa replied:

> We are sharing the collective impact. We're, like, encouraging meaningful, you know, actions to, you know, the minimize the impact. … You know, we try to embrace the current moment and conserve. … It's just like, you know, what we can do on the *individual* level, on the *club* level, on the *community* level, on the *regional* level, *province* level.

Theresa combined diagnostic and prognostic frames in her messaging. While "minimize the impact" was somewhat confusing, other interviewees were more explicit about providing tips on reducing GHG emissions. Some expressed pushback in doing so, as expressed by Jim previously, in section 6.4.2.2.

The technological solutions included renewable energy and EVs. Three of the five mentioning technological frames promoted EVs as a climate solution. Three interviewees talked about the opposition in their area to wind turbines, as previously found in Ontario (Christidis et al. 2017). These post-political solutions, although intended to depoliticize climate change (Swyngedouw 2010; Brulle and Dunlap 2015:12), were not without opposition or criticism. Cheryl, with Spirit Region Conservation Organization, was critical of EVs:

> There are a lot of very challenging, very difficult conversations around climate justice, equity, and how some of the high-profile solutions, like electric vehicles, are totally exclusive of certain household income levels. Totally unrealistic.

Cheryl was unusual in her concern for climate justice. Despite that, she noted that the organization did promote EVs as a climate solution, saying, "When we do an electric vehicle promotion campaign, we get comments about child labour." Cheryl's comment is indicative of the challenges NRNPs faced on social media. Cheryl previously noted problems with political polarization in relation to using a science frame.

In summary, NbCS were the most popular mitigation solution, aimed at increasing carbon sinks. That included carbon offsets, but only as organizational fundraisers. Increasing carbon sinks

was not seen as controversial, but the term "climate change" might be avoided, referring simply to NbS. Most of the mitigation frames for decreasing GHG emissions were targeted at individuals, urging them to decrease their carbon footprint and/or drive an EV. In contrast to increasing carbon sinks, NRNPs were conscious of opposition to all proposed solutions for decreasing emissions.

6.4.3.1.3 Adaptation. Adaptation for NRNPs includes shoreline, wetlands, and riverbank restoration, which are intended to reduce potential damage from climate change in addition to their mitigation role of carbon sequestration, again, also qualifying as NbCS. Fourteen interviewees discussed communicating about adaptation, but only three of them used the term "adapt." Frames included adapting to extreme weather, flood forecasting, and species selection.

Five interviewees communicated about being ready for extreme weather or having emergency plans. Brian, with Preservation in Partnership, shared an example of a communication from his organization:

> It's an El Niño year, and it's going to be one of the hottest years on record. This is what you need to do in order to stay hydrated and avoid heat stroke.

Brian and others who were involved in hikes and nature walks wanted to ensure that participants were prepared for weather extremes, without overtly mentioning climate change. Adaptation for NRNPs meant adapting personal preparedness practices.

Three CAs discussed flood forecasting in relation to climate change. Like NbCS, flood forecasting has been an integral part of the work of CAs, as noted by Brenda, an employee of Farmland CA:

> I guess maybe I would just, you know, make the point that a lot of our interest and focus on climate change does stem or come from our role in flood forecasting. …. Our role in flood forecasting is to deliver information to our municipalities in a timely manner. So again, they're such a big audience for us. … Flood forecasting is a big piece of the sort of climate change discussion in certainly this office, or, you know, I think, probably in general, amongst conservation authorities.

Brenda's response reveals that flood forecasting has become a climate change adaptation frame over time. Due to climate change, there has been increasing interest in and need for flood forecasting. The CAs have been historically positioned to undertake that work and disseminate the results. That dissemination, however, remained somewhat silent on climate change, as shared by Suzanne, at Cliffside CA:

> I think of, like, our flood forecasting messaging and communications. We wouldn't call that out specifically as climate change … but we would still do the messaging.

As it was for adapting to extreme weather, the terms "climate change" and "adaptation" tended to be avoided in reference to flood forecasting, even though CA employees fully understood the connection.

In addition to flood forecasting by CAs, five conservation organizations and CAs talked about "mitigating the impact" of flooding. Despite use of the term "mitigation," these five were at least partially referring to adaptation. This imprecision in language could stem from the ECCC (2025), as noted above. Finally, two NRNPs discussed potential future adaptations in altering the particular species selected for tree plantings or fish stocking.

6.4.3.1.4 Science. Science as a prognostic frame was shared by five interviewees, all conservation-oriented. Three were referring to climate science, while the other two were referring to ecology. There was crossover between the climate science frame and some of the mitigation frames requiring quantification of GHG emission reductions. As with science as a diagnostic frame, some were more hesitant than others in communicating about science. CAs, with their mandate of environmental management, are heavily science-based, such as with flood forecasting. Bruce, at Farmland CA, noted a challenge with that:

> We've come from an upbringing of, "If we just show people the science and tell them to do something, they'll do it." And that's not how people learn or change or do anything.

Bruce was aware of popular rejection of science. He was cited at the opening of this chapter noting how his constituents rejected "buzzwords" like climate change. Matt, at Wolfland CA, expressed frustration in communicating the science when faced with science denial.

Heather, a communications professional at Preservation Forever, was also hesitant about using a science frame, but for a different reason. She shared that the conservation team would:

> … know more about that sort of science behind that than I do. But we don't often communicate carbon sequestration, which is … a tricky one to communicate about, I find. So we do mention it in our appeals, and it's often in our posts. … But it's not always something that's necessarily easy to communicate, as easy as it is to show that we planted [a quantity of] trees. [laughing]

Heather was not a scientist. She used simplified science to explain the value of trees and identify them as a solution to climate change. Science was not the primary frame for Preservation Forever.

The two interviewees using an ecology frame were both employees of wildlife organizations. Neither expressed hesitation to using a science frame. Tina, an employee of the Ontario chapter of Wildlife First, was one:

> We're science-based. Everything is based on science. That's everything we say, what goes into our communications is based on science. … … We're about impact on the landscape, and we're sharing the science behind what we know, what our research has shown us.

Tina's comments would be both diagnostic in discussing impacts and prognostic in delivering science-based solutions to climate change through conservation.[93]

6.4.3.1.5 Sustainable development. Sustainable development is another frame used by the IPCC (2023) and other international agencies but so co-opted in modern discourse that it has lost much of its meaning, as noted by Bruce at the start of this chapter. Nonetheless, Bruce's organization communicated about the UN's sustainable development goals (SDGs). Two other

[93] Despite repeated prompting, it was impossible to get Tina to reveal anything further than this. It was an extremely guarded interview, which I can only assume was a due to a mandate to stick to organizational messaging.

interviewees used a sustainable development frame in a prognostic or solutions-oriented way. Cheryl, with Spirit Region Conservation Organization, described sustainable development as:

> recognizing that these are working landscapes, and that to do this sustainably we have to find ways to have livelihoods, and, you know, economies of different scales.

Again, Spirit Region's concern for climate justice included a transformative interpretation of sustainable development. Cheryl noted that:

> one of the things we value so much is expanding the conversation about sustainable development to conservationists and expanding the values of conservation of biodiversity to developers.

Cheryl's comment implies that conservationists are not normally amenable to development, but a sustainability frame might sway them.

6.4.3.2 Apolitical prognostic frames

Seven non-CAs used a simpler prognostic frame of nature conservation, without drawing a connection to climate change. Conservation addresses climate change through carbon sequestration. The actual terms used were "protection," "restoration," "preservation," "stewardship," and simply, "tree planting." Four referred to being involved with projects led by another organization. For instance, when asked whether Forest Trail Hiking Club was involved with NbCS, Eleanor, a board member, responded:

> I think the conservation authority … actually, this fall, they've been running a tree planting project on the [local] riverbanks, to stop erosion on the riverbanks. That might qualify. ... We've done invasive species removal – phragmites. We've done that. I mean, I think that's probably a nature-based climate solution.

Eleanor's tentative statements show that she understood the link between conservation and climate change but was not confident enough to make that connection in communications. Lydia, an employee at the very small Phragmites Fighters Conservation Organization, was another of the seven. She was surprised to learn from a larger NRNP that the wetland restoration work they were doing was considered a NbCS. She had not made the connection between the organization's

restoration work and climate change. I assert that these frames could be considered apolitical for their lack of connection to climate change. Again, these actions could be mobilized if the connection were made.

6.4.3.2 Political prognostic frames

The final set of prognostic frames could be characterized as political, interpreting political discourse as addressing power relationships in society (Kenis and Lievens 2014). Four interviewees used frames that tackled power by taking a participatory, collaborative approach. Two of those took the approach of asking the community what they wanted and then providing supports to do so. Two were helping with community gardens. Cheryl, who previously mentioned climate justice, was working on decolonization. These bottom-up approaches stand in contrast to the top-down, post-political, climate science, mitigation, adaptation, and NbCS frames. In addition, two other interviewees mentioned sharing the climate advocacy messages of local activist organizations, but no specific frames were discussed.

Summarizing prognostic frames mentioned in the interviews, most could be classified as post-political (Swyngedouw 2010; Brulle and Dunlap 2015:12; Wetts 2020). NbCS were the most popular frame within that, providing climate change mitigation and adaptation through planting trees and restoring watercourses, although often the link to climate change was not communicated. Unlike Graham and Robinson (2025), there was little talk of government or business solutions to climate change, nor Indigenous leadership in conservation. Quite a few NRNPs mentioned existing, developing, or aspirational relationships with First Nations, but not as a concrete prognostic frame. After NbCS, popular prognostic frames encouraged individuals to reduce their carbon footprint, purchase EVs, or adapt to changing weather patterns. Bottom-up social solutions

stood in contrast to the post-political solutions by operating through community engagement and community-generated solutions.

6.4.4 Motivational Frames

Motivational framing provides a rationale for undertaking climate action and/or encourages mobilization (Snow and Benford 1988:199). Most conservation-oriented NRNPs used motivational frames, whereas most recreation-oriented NRNPs did not (Figures 6.3 and 6.4). Motivational frames may also be characterized as political, post-political, or apolitical. Of the 25 interviews (61 percent) that mentioned motivational frames, 24 used post-political frames and only two used a political frame.

6.4.4.1 Post-political motivational frames

Post-political frames used by NRNPs in the interview sample included: 1) self-efficacy and response efficacy; 2) benefits to self, community, nature, or, globally; and 3) urgency and catastrophism.

6.4.4.1.1 Efficacy. Efficacy implies that taking an action makes a difference (Hart and Feldman 2016:2; Bolsen and Shapiro 2018:150; Bostrom et al. 2019). Appeals to efficacy were the most overt calls to action and were mentioned by 17 interviewees. One way it was expressed was in this statement by Brian, at Preservation in Partnership:

> One of the things we talk about is, by supporting [our organization], you are working to fight climate change globally and build climate resiliency at home. So … we say, "This is a way that you could take a small step here locally to have a global impact." Because, I mean, those are the sorts of things that individuals can do. If they want to change the world, they start by doing what they can do around them.

Brian's frame blends personal self-efficacy in supporting the organization with collective response efficacy in preserving parcels of land. This combination, used by three interviewees, is known to increase support for climate mitigation (Bostrom et al. 2019:816). The framing is motivational in

providing a rationale for why a general audience would financially support the actions of the organization.

Personal self-efficacy through more direct climate action, rather than simply supporting an organization, was mentioned by eight interviewees, combining prognostic solutions with motivational framing. Two provided tips on extreme weather preparedness, which is an adaptation action. Others provided tips to help people take individual action to mitigate climate change. Save Our Trails Conservation Organization's message, according to Veronica, was:

> Here's all the little actions that you can take to make a difference, and that your individual action, when collectively seen with everybody else's individual actions, *will* make a difference.

Veronica, like many others, was trying to deliver a positive message, not mentioning climate change. This message also combined personal self-efficacy with collective response efficacy, which, again, should be an effective communications strategy (Bostrom et al. 2019:816).

Collective self-efficacy was promoted by employees at two CAs who encouraged portions of their constituency to work together to develop climate solutions. Brenda, with Farmland CA, described one approach:

> The idea was to get these representatives from these businesses and organizations together and do some educational messaging with them about what's happening locally in terms of climate impacts. And to get them to look at their own operations and to see, were there ways that they could reduce their carbon footprint.

In getting people to work together, Farmland CA was providing motivation through collective empowerment. As another collective approach, some CAs provided opportunities for peer-to-peer mentoring within their agricultural communities, to increase personal efficacy. A benefit of peer-to-peer mentoring is that hearing trusted others voice climate change concern helps to change opinions on climate change (Ballew et al. 2022).

Collective response efficacy was mentioned by four interviewees without reference to another type of efficacy. Barry, at Bridgetown Naturalists' Club, was one:

> Like, just suggestions for, you know, conserving natural areas, you know, would help to prevent climate change getting worse, prevent climate change from worsening.

Barry used a collective efficacy frame in asserting that conserving natural areas is an effective climate solution.

Efficacy frames are not a call to action but a rationale for action: "If you do this, it will work." In suggesting that post-political solutions will solve the problem of climate change, efficacy frames are also post-political. Personal self-efficacy and collective response efficacy were the most common efficacy frames used, which should be an effective combination (Bostrom et al. 2019). Some efficacy frames by NRNPs referred to adaptation rather than mitigation.

6.4.4.2 Benefits

Very much related to efficacy is a benefits frame: response efficacy in the context of climate change implies that the response will benefit the fight against climate change globally or locally. I include the benefits frame as a separate motivational frame because rationales from a number of NRNPs included other benefits of action. To collect the different types of benefits together under a benefits frame has analytical appeal and is a unique contribution of this dissertation. Benefits frames are rationales for action rather than calls to action. A benefits frame suggests an appeal to values (Schwartz 2012; Bouman et al. 2021). Of the 20 interviewees who used a benefits frame, seven stated global benefits, 14 referred to community benefits, 10 suggested personal benefits, and six added benefits to nature. While some researchers have identified an economics frame (Hoffman 2011; Bolsen and Shapiro 2018; Badullovich et al. 2020), I place the motivational version of that frame within the larger frame of benefits.

6.4.4.2.1 Global benefits. Given its crossover with collective response efficacy, I do not expand here except to note that a global benefits frame is other-centred (Schwartz 2012) and appeals to the universalist aspect of altruism as well as biospheric values, which are generally associated with support for climate action (Bouman et al. 2021:102). Seven NRNPs used a global benefits frame through the goal of mitigating climate change, with two of those adding the goal of sustainability.

6.4.4.2.2 Community benefits. A community benefits frame is also, to some degree, other-centred by appealing to the benevolent aspect of altruism (Schwartz 2012), although all frames expressed as community benefits also had a self-serving aspect. The community benefits frame was split between ecosystem services, local resilience, economic benefits, and non-environmental community benefits. Whereas "ecosystem services" refers to the functions of a system, "resilience" refers to the ability of the system to continue to provide those services (Biggs et al. 2012:423).

Thirteen of the 14 promoting community benefits did so in terms of ecosystem services. Only one used that term; others did not but referred to the same functions. Interviewees were split among the climate change mitigation work that ecosystems do as carbon sinks, the adaptation work that ecosystems do to absorb damage due to climate change, and other ecosystem services. Heather, at Preservation Forever, referred to mitigation work:

> Those systems, like we were talking about, they have those functions to us that maybe, like, your average Joe wouldn't recognize, like the fact that they keep our land cool, they store carbon, they have all of these other functions for, like, filtration and keeping our water clean. And so, for us, protecting land is how we're doing a nature-based climate solution — protecting those services that nature provides to us.

Presuming that she uses that frame in communications, Heather gives a rationale for protecting parcels of land. Five interviewees mentioned the mitigation services of ecosystems.

Ten interviewees referred to the adaptation side of ecosystem services. Peter, at Meadowland Naturalist Club, used this frame regarding a proposed wetland redevelopment:

> Let's protect this for the species that we've got in the area. And also, you know, let's plan ahead for climate challenges where we're going to get severe rain events and that kind of thing, and to manage flood plains and all that, or manage flooding and all that.

Peter referred to both benefits to nature and to the community through enabling the wetland to continue to provide ecosystem services in the case of future extreme weather events. Without using the term "resilience," Peter was talking about climate resilience. Four of the ten specifically used that term.

As a final ecosystem services frame, seven interviewees mentioned other benefits of ecosystems. Frames included community well-being, health, wellness, and recreational opportunities. Bernice, at Nationwide Preservation, shared a version of this frame:

> It's usually, "Well, you know, we had a hike in the greenbelt, and we need to protect this area because it provides food for [our] region."

Bernice and one other interviewee appealed to the need to grow food locally.

Finally, five interviewees used a frame of economic benefits to the community. Three of the five were CAs, referring to the agricultural community and/or their constituent municipalities. The frames were phrased in terms of fairness and sharing costs and benefits.

One additional interviewee used a community benefits frame unrelated to climate change. George, with Small City Hiking Club, admitted that the club's involvement in a recent tree planting event had little to do with fighting climate change:

> The motivations are community — getting the community involved in something, making the grand opening a big event. You know what I mean? … And improving the *look* of the whole thing, right? Like, it's much more that than it is, "Okay, this is a little offer to climate change."

George knew that tree plantings help with climate change, but they had other benefits as well that this group, which was not too concerned about climate change, could adopt. Again, I label this as apolitical, in that it was not intended to reference climate change but could be mobilized to do so.

6.4.4.2.3 Personal benefits. Frames noting personal benefits of climate action referred to economic benefits, risk management, health, and enjoyment of nature. Seven of the ten interviewees mentioning personal benefits adopted an economic rationale. Trish, at Lakeview CA, was one:

> If … we want residents to … start to install rain gardens on their properties, we know that we can't come at that messaging … by telling them that, "Hey, folks. This is going to actually reduce your impact. And it will, you know, create more, a more sustainable, you know, balanced future. You're offsetting some of the impacts of climate change." People don't want to hear that. People want to hear, "This is going to make my property beautiful. This is going to improve my curb appeal. This is going to increase the amount of money that I might make when I sell my home." That's what people are interested in.

Trish was appealing to egoistic and hedonic values. According to her, residents within the Lakeview CA catchment, in general, were more interested in personal benefits than global ones.

Three interviewees used a risk frame, including Jennifer, an employee of Lake and Shore Keepers United, who said:

> We spend a lot of time talking about emergency preparedness as our weather has gotten dramatic. And the highs are higher, and the lows are lower. And you need to be prepared to be without power for days at a time. Trees come down.

Jennifer was making the appeal to her constituency regarding the benefits of personal preparedness, as did the other two.

6.4.4.2.4 Benefits to nature. The fourth type of benefit presented as a motivator was the benefits-to-nature frame, which appeals to biospheric values. Brenda, at Farmland CA, provided a frame that combined a number of benefits, including benefits to nature:

> So there's a real economic benefit for having that kind of natural channel design. And at the same time your water quality is improved. You create fisheries habitat. The streams are

> colder, which is so important for stream life and water quality, because you've got more shading in there. So it's a real win-win.

Brenda's frame included personal economic benefits, community benefits regarding water quality, and benefits to fish and wildlife. Peter, the naturalist quoted above regarding the community adaptation benefits to saving a wetland, included a benefits-to-nature frame. All six mentioning a benefits-to-nature frame did so in conjunction with other benefits.

6.4.4.3 Urgency and catastrophism

Four NRNPs appealed to a sense of urgency, and one to a sense of catastrophism. Brian shared Preservation in Partnership's urgency frame:

> We do try to convey a sense of urgency about, sort of, how our people's quality of life is going to be in the, you know, present and near future if we do not protect these lands.

Brian referred to an urgency for land preservation. Tina, at Wildlife First, conveyed "a sense of urgency [about] biodiversity loss, flooding, you know, climate resiliency." In all four cases, this appeal to urgency as a motivator was locally-focused.

Interviewees at five NRNPs talked about a catastrophism frame, but only one of those organizations used that frame. Corinne, with Trees-R-Us Conservation Organization, noted that the organization had recently shifted from "climate change" to "climate emergency" or "climate crisis." This comment demonstrates the social construction of crises (Gigliotti 2020): climate change becomes perceived as a crisis when communicators label it as such. The other four interviewees expressed concern about a "doom and gloom" frame being demotivating, which is the opposite of what would be intended.

6.4.4.2 Political motivational frames

The only political motivational frame expressed by interviewees was related to justice and moral responsibility. The two interviewees who used this frame combined it with an urgency frame. One shared only a vague sense of justice. The other to combine these frames was Cheryl,

at Spirit Region Conservation Organization. Cheryl mentioned social justice and climate justice throughout her interview, but indicated that her frames were situational:

> We have found that using moral arguments that developed nations' emissions, and communities like ours in Canada have a responsibility, are not always accepted by certain audiences, including certain governments.

Spirit Region was the closest to climate activism of any organization in the interview sample. Nonetheless, there was no appeal to mobilization for climate action. The organization walked a political tightrope trying to appeal to multiple stakeholders. This is reminiscent of the Audubon Society's strategic centrism (Cherry 2019).

Summarizing motivational frames, benefits frames were most popular. NRNPs were hoping that appealing to different values would increase support for their actions. Benefits were split among: 1) personal benefits, appealing to self-centred, egoistic and hedonic values; 2) community benefits, appealing to both self-centred and other-centred, benevolent values; 3) global benefits, appealing to universalist altruistic values; and 4) benefits to nature, appealing to biospheric values (Schwartz 2012; Bouman et al. 2021). Community benefits were the most common benefit frame and included benefits from NbCS to both mitigate and adapt to climate change and increase local resilience, as well as economic and social benefits to the community. Personal benefits were next most common and, for the most part, focused on economic benefits or avoiding economic risks. Benefits to nature was the least popular benefits frame. Other frames, used much less, included urgency and catastrophism, the latter of which was shunned by all except one NRNP.

Consistent with Vu et al. (2021) regarding global climate change NGOs, I also found substantial use of an efficacy frame. Three NRNPs presented their motivational frame in terms of financially supporting the organization in their efforts to protect parcels of land. Other NRNPs likely used similar appeals that were not captured in the interviews. According to Bostrom et al. (2019), these should be effective approaches, in that promoting feelings of personal self-efficacy

("you can take action by supporting us") and collective response efficacy ("the solution will work") are most likely to lead to support for climate action. Other efficacy frames appealed to the personal self-efficacy of individual actions and resulting collective response efficacy.

6.5 DISCUSSION AND CONCLUSION

Over 70 percent of the NRNPs in the interview sample said nothing or very little about climate change in their websites and annual reports. Only one organization had climate change in their mission statement. Similarly, the Twitter feeds of NRNPs contained very little climate change content, which the interview data later attributed in part to the niche role of Twitter for many of these organizations. Other, more internal communications, however, such as newsletters to the membership, could contain material or frames that more public-facing communications might not (Benford and Snow 2000:630). For those reasons, the direction chosen for the bulk of this analysis was to glean the frames used by NRNPs from interviews with their communications personnel. That analysis revealed that most of the organizations did communicate about climate change, but often only minimally or in somewhat implicit terms. This is the main finding of this chapter. This aligns with Tosun and Saad (2023), who found that the majority of conservation-oriented ENGOs had some mention of climate change on their website but only 15 percent put a priority on climate change, and expands the findings to adjacent recreational groups. In my interview sample, the portion putting a priority on climate change was only three percent, which I would expect to be smaller, since my sample included both ENGOs and recreation-based organizations.

The data showed marked overall differences between recreation-based organizations and conservation-based organizations regarding communications about climate change. Figures 6.3, 6.4, and 6.5 illustrated differences in the use of diagnostic, prognostic, and motivational frames and the use of political, post-political, and apolitical discourse between the two groups in their

websites and annual reports. From the websites, it appeared that all cross-country skiing organizations and most of the naturalist and hiking clubs avoided communicating about climate change. The interviews further illuminated differences in approach to climate change and in frames used. It became apparent that some of the naturalist and hiking clubs were just downplaying climate change and/or avoiding use of the term. How recreational groups communicate about climate change is an understudied area, with the exception of naturalist clubs. The National Audubon Society has engaged in strategic centrism to avoid alienating their politically wide-ranging constituency (Cherry 2019). That strategic centrism was part of what I call avoidance of climate change in this dissertation. An environmental column by a naturalist in a popular Appalachian newspaper avoided environmental politics, focusing instead on enjoyment of nature (Burke et al. 2015). My findings support Burke et al.'s (2015) assertion of a split in the environmental movement between actively protecting nature and passively appreciating nature.

The interviews revealed a continuum of engagement on climate change, including: 1) ignoring climate change, 2) deliberately avoiding the issue, 3) not avoiding the issue but avoiding the term "climate change," 4) selectively reframing messages to include "climate change" only in certain situations, 5) downplaying the seriousness of climate change, or 6) addressing the seriousness of climate change. This provides some nuance to the more general ignoring/resisting/incremental change/embracing change responses in the literature (Minkoff and Powell 2006; Brulle and Norgaard 2019). Interviewees were fairly evenly split across this six-stage spectrum, with the exception that more than one-quarter of NRNPs fell into the category of downplaying climate change.

The most common frames used were the effects of climate change as a diagnostic frame, NbCS or nature conservation as a prognostic frame, and the benefits of action as a motivational

frame. All of these frames could be considered post-political (Swyngedouw 2010; Kenis and Lievens 2014) or apolitical for their lack of challenge to existing systems. These frames often addressed climate change only indirectly, as some NRNPs felt that they did not need to specifically mention climate change and some were concerned about pushback. Blame for climate change and calls to action were generally avoided. This engagement in strategic centrism (Cherry 2019) and strategic ambiguity (Davidson et al. 2019) in framing contrasts with the political frames of the climate movement, which engaged strongly in blaming the fossil fuel industry and called people to action through a "climate emergency" frame (Graham and Robinson 2025).

Prognostic frames were more popular than diagnostic frames, and both were more popular than motivational frames in the interview sample. Previous researchers found that diagnostic frames were more popular for large NRNPs (Markham and van Koppen 2014) and climate change ENGOs (Vu et al. 2021). My findings reflect the inclusion of recreation-based groups that were more comfortable talking about planting trees than why that might be a good idea. Additionally, it could be evidence of a general shift in the discourse towards solutions, as noticed by one interviewee.

For diagnostic frames, interviewees tended to discuss the tangible effects of climate change, including effects on flora and fauna, extreme weather, and flooding and erosion. The effects of climate change on nature would be expected for NRNPs (Markham and van Koppen 2014). Only conservation-based NRNPs used the political frame of blame and, even then, refrained from blaming government or industry for failing to address climate change, in contrast to climate change ENGOs (Graham and Robinson 2025). Graham and Robinson (2025) did find that one conservation ENGO in their sample avoided a frame of blame. Only conservation-based NRNPs

in my interview sample used a science frame, and only recreation-based NRNPs used an apolitical effects frame without a connection to climate change.

Prognostic messaging tended to use a post-political frame in communicating about climate change, which included mitigation, adaptation, NbCS, and a more apolitical nature conservation frame. This aligns with previous findings in the United States (Wetts 2020) and Canada (Stoddart et al. 2016; Graham and Robinson 2025). Mitigation was referenced a little more frequently than adaptation, as found by Markham and van Koppen (2014:257) and Stoddart et al. (2016:226). This could be partly due to a preference for mitigation projects by funders (e.g., ECCC 2025).

For motivational frames, NRNPs preferred to provide a rationale for action rather than encourage mobilization. Benefits and efficacy frames were each used by about half of the NRNPs, often in combination. Putting these frames together amounts to saying, "You can do it, and these are the benefits." This combination applies Bostrom et al.'s (2019:816) finding that self-efficacy and collective response efficacy both increase support for climate mitigation. The benefits frames appealed to different sets of values depending on the target audience, bringing in benefits other than global benefits if they were felt to resonate more with the target audience. Those benefits were most commonly benefits to the community or individual. One interviewee expressed the opinion, likely shared by others, that a global benefits frame was unnecessary because their target audience either already embraced that frame or was not motivated by that message. Community benefits were often expressed in terms of ecosystem services, primarily the value of nature in absorbing the effects of climate change. Surprisingly, given NRNPs' focus on nature, benefits to nature were least mentioned.

Common ground amongst almost all of these frames — diagnostic, prognostic, and motivational — was the focus on the tangible and the local by NRNPs. This recalls C. Wright

Mills's (1959) distinction between public issues and personal troubles. Very few NRNPs made the link from the local to the societal issue of climate change by communicating about it using a global lens, such as GHG emissions, international climate negotiations, climate justice, or the urgency of the problem. By not making that link explicit, NRNPs essentially treated the effects of climate change as personal troubles. This is a contribution of this dissertation. Other research has recommended strategic ambiguity (Davidson et al. 2019) or tangible, practical framing for farmers (Houser 2018; Nowatzke and Arbuckle 2025), hunters and anglers (Love-Nichols 2020), and northern residents (Gislason et al. 2021). This dissertation brings together framing for those constituencies and adds framing for nature-based recreational groups and conservation organizations.

My findings support Tosun and Saad (2023), in that generalist organizations were more likely than specialist organizations to address climate change. While most of my sample was specialist organizations, CAs could be considered generalist organizations and they all communicated about climate change, albeit not always explicitly. One specialist organization had climate change in its mission statement, which also supports Tosun and Saad (2023:932).

My research provides nuance to Johnson et al.'s (2023) finding that wildlife organizations were less likely than other conservation organizations to focus on climate change. All five wildlife organizations did communicate about climate change, but four of them avoided use of the term "climate change" some or all of the time. Although wildlife organizations were more likely than other NRNPs to have vocal climate change deniers within their membership, they were also more likely than the majority of member-oriented organizations to communicate about climate change. This is likely due to their strong interest in wildlife conservation (Manore and Miner 2011; Love-Nichols 2020) and the increasing effects of climate change on that wildlife. None of the wildlife

organizations, however, engaged in political framing, unlike some of the conservation organizations. Although Johnson et al. (2023) questioned whether wildlife organizations were part of the environmental movement, four out of five of my interviewees agreed that their organizations were environmental organizations and/or part of the movement. The split, therefore, between wildlife organizations and conservation organizations was not as distinct as expected. On the other hand, none of the wildlife organizations in my interview sample were at the local level. Organizations at a provincial or national level have an interest in appealing to a wide audience. One could expect more variation among locally-based wildlife organizations, such as hunting and angling clubs.

Returning to the summary of frames use by different types of NRNP (Figure 6.4), all conservation organizations and CAs used prognostic frames and most also used diagnostic and motivational frames. Snow and Benford (1988:199) posited that all three framing tasks should be present in order to produce successful mobilization. The fact that they were not for most other NRNPs in the interview sample suggests that those organizations were not interested in mobilization related to climate change. The next chapter addresses obstacles to communications on climate change.

CHAPTER 7: OBSTACLES TO COMMUNICATING ABOUT CLIMATE CHANGE[94]

> The biodiversity loss, the climate change, those are the big words, and they're front center in our brains. But … those words are not always coming out of our mouths in that way. … Sometimes it is just about, I wanna just go see this really cool bird, or I just wanna, you know, have this really beautiful wildflower garden. And that's okay, too. (Peter, board member of Meadowland Naturalists' Club)

> I had somebody that was doing the website for me — a member that was volunteering — but then they stepped away. … Things get lost in the shuffle, I guess. … That's just what happens when someone's not doing it. It falls on me. Sometimes there's too many things. Right? (Josh, President of Friends of Duckland Provincial Park)

Both Peter and Josh managed the websites at their volunteer-run NRNPs, and neither website mentioned climate change. Peter embodied the reluctance to communicate about climate change discussed in Chapter 6; Josh presented a more concrete challenge. This chapter analyzes obstacles faced by NRNPs. Whereas Chapter 6 is organized by type of frame, this chapter takes each subfield[95] as a case study, in order to clarify the contexts around various obstacles to communicating about climate change.

The theoretical bases for this chapter are the sociology of organizations (DiMaggio and Powell 1983; Bourdieu 1990; Bourdieu and Wacquant 1992; Fligstein and McAdam 2012) and environmental privilege (Park and Pellow 2011; Norgaard 2012; Argüelles 2021), as outlined in Chapter 3. I find that obstacles to communicating about climate change exist at the external, organizational, and individual levels. External obstacles are a function of the field in which NRNPs are situated and include: 1) the subfield of the organization within the larger field, 2) funding and institutional constraints, and 3) conservative constituencies. Organizational obstacles are related to organizational habitus and include: 1) the age of the organization and its mission, 2) size and

[94] Parts of this chapter that are focused on organizational inertia and the mission share commonalities with a recently published chapter in *Research in the Sociology of Organizations* (Seiler 2026). The analysis in that chapter is organized by obstacle, whereas the analysis in this chapter is organized by subfield.

[95] "Subfield" is used in the Bourdieusian sense of smaller fields nested within the larger field of NRNPs and related organizations and contacts (Bourdieu and Wacquant 1992:104).

organizational capacity, and 3) environmental privilege. Individual obstacles relate to the composition of the leadership. These same obstacles apply to NRNPs' approaches to decolonization, equity, diversity, and inclusion (DEDI).

I start with a short review of the literature, in which I discuss organizational inertia and environmental privilege in the environmental movement. I then present a descriptive analysis of the demographics of NRNPs revealed in the survey and interviews, to establish the basis for the application of the concepts of Whiteness and environmental privilege. I add a quantitative analysis of the climate change and justice discourses on the websites and in the annual statements of the NRNPs in my interview sample, as a complement to the quantitative analysis in the previous chapter regarding climate change. I also provide a quantitative evaluation of organizational obstacles identified in the literature. The bulk of the chapter comprises nine case studies to illustrate the findings.

7.1 ORGANIZATIONAL OBSTACLES AND ENVIRONMENTAL PRIVILEGE IN ENGOS

The theoretical bases for this chapter were presented in Section 3.2 on organizational inertia and the sociology of organizations and Section 3.3 on Whiteness and environmental privilege. I assert that obstacles at the level of the field, organization, and individual have contributed to inertia in NRNPs in responding to the issues of climate change and DEDI. By inertia, I mean a slowness to change, rather than a refusal (Hannan and Freeman 1984), which preserves hope for the future.

In Section 3.2, I built towards the concept of organizational inertia. To summarize, in the institutional literature, Munck af Rosenschöld et al. (2014) identify five causes of institutional inertia in the face of climate change: 1) legitimacy, 2) power, 3) uncertainty, 4) costs, and 5) path dependence. Resource dependency theory and non-profit studies theorize additional general challenges for NPOs, including funding and capacity constraints (Pfeffer and Salancik 1978;

Martinelli 1998; Rochester 2003; Akingbola 2006; Eisenberg and Eschenfelder 2009; Hillman et al. 2009). In Section 3.3, I reviewed various concepts related to Whiteness in building towards the concept of environmental privilege. In the leisure studies literature, Spaaij et al. (2020) identify obstacles for sports clubs to being more diverse, including: 1) speech acts, 2) essentialism, and 3) self-victimization. Argüelles (2021:652) identifies three dimensions of environmental privilege: 1) access to environmental amenities, 2) environmental representation and identity, and 3) naturalization of privilege. I add a fourth dimension based on Freudenburg (2005): diverting attention away from climate change. The remainder of this subsection reviews empirical studies of organizational inertia and environmental privilege in environmental groups.

Organizational characteristics such as age and size of catchment area affect the behaviour of NPOs. While Hannan and Freeman (1984) posited that older and larger organizations would be slower to change than newer and smaller organizations, Minkoff and Powell (2006:607) suggested that the opposite might be true for NPOs. In a study focusing on 1970 to 2000, Johnson (2006:149) noted the tendency of older, "typically larger conservation" ENGOs to stick with their traditional issues, while the "relatively smaller," newer reform ENGOs took on new environmental issues. Relating to climate change, researchers have found that newer, larger (Johnson et al. 2023; DiRago et al. 2026), more urban (DiRago et al. 2026), and national or international (Johnson et al. 2023; Tosun and Saad 2023:928) ENGOs were more likely to focus on climate change than older, smaller, more rural, or subnational ENGOs, respectively. The same results regarding newer, larger, and national organizations held for social justice issues, including climate justice (Johnson et al. 2023). In contrast and specifically focusing on conservation ENGOs, Tosun and Saad (2023:928) found that older organizations were more likely to address climate change than were newer ones.

The size of paid staff had unclear effects in Johnson et al. (2023:965). The organizations in my sample span a range of ages, sizes, and catchments.

Board composition and board effectiveness are two significant areas of research in the non-profit literature (Ostrower and Stone 2006; Fredette and Bernstein 2019). Fredette and Bernstein (2019:934) explored the effect of board composition on board performance, positing that greater diversity leads to "constructive conflict" which "afford[s] opportunities to discuss taken-for-granted practices and informal norms" and "improve[s] problem-solving." Ostrower and Stone (2006:614) noted that the board membership of large NPOs in the United States tended to be largely White, upper-middle to upper class, with more males than females, but there was little information on the boards of smaller NPOs. Fredette and Bernstein's (2019:938) more recent survey of NPOs in the Greater Toronto Area — an area with a visible minority population exceeding 50 percent — found that 84 percent of board members were White. That survey included 247 NPOs of various sizes, including some environmental organizations. While almost half of the organizations in their study had at least one visible minority board member, only one-quarter had three or more such board members. They found that reaping the benefits of increased diversity on the board first required a critical mass (at least 35 percent) of visible minority board members. The province of Ontario is becoming more and more racially diverse (Government of Ontario 2023). I extend Fredette and Bernstein's (2019) research by exploring the composition of the boards of NRNPs across Ontario.

Making a case for environmental privilege in NRNPs requires tying together: 1) a lack of board diversity (Fredette and Bernstein 2019) and turnover (Martinelli 1998; Rochester 2003), which tend to perpetuate insular decision-making; 2) historical "racism and elitism" in the North American environmental movement (Pezzullo and Sandler 2007:4); and 3) a lack of attention to

climate change and DEDI. It should be reiterated that environmental privilege, like White privilege, is often unrecognized by those with privilege and, hence, does not require malintent (Doane 2003; Park and Pellow 2011; Pulido 2015).

A small number of Ontario studies have focused on attempts by environmental organizations to reach diverse audiences (e.g., Jafri 2009; Gibson-Wood and Wakefield 2013; Teelucksingh et al. 2016). Jafri (2009:229) found that the environmental movement in Toronto was "a site for the reinforcement and maintenance of relations of power." Three of the larger NRNPs had embraced multiculturalism in trying to attract diverse communities, but their delivery was not anti-racist (Jafri 2009). Different conceptions of environmental issues led Hispanics in Toronto to feel excluded from the environmental movement (Gibson-Wood and Wakefield 2013). Teelucksingh et al. (2016) found that 19 of 28 ENGOs in Toronto addressing energy issues had no environmental justice focus. Barriers to participation include lack of accessibility and lack of attention to issues that resonate with new audiences (Jafri 2009; Gibson-Wood and Wakefield 2013). Funding was often a determining factor regarding programming for diverse communities (Jafri 2009; Teelucksingh et al. 2016; Patterson and Edge 2025), although some funders were starting to require a DEDI component (Patterson and Edge 2025)

Johnson et al.'s (2023) study of large U.S. ENGOs had a particular interest in how many were addressing the intersecting issue of climate justice. They found that only 16 percent addressed climate change and/or social justice; less than 2 percent addressed both. Wildlife-focused groups were particularly unlikely to focus on either climate change or justice issues. Haluza-DeLay and Fernhout (2011) studied 49 ENGOs from across Canada to determine their adoption of a social inclusion frame and found that very few had more than a cursory reference. While the previous

chapter discussed approaches by NRNPs to communicating about climate change, this chapter adds and compares the treatment of social justice issues by NRNPs.

In the remainder of this chapter, the characteristics and behaviours of ENGOs are applied to the study of NRNPs in Ontario. I find similar patterns, including homogeneity in board membership and a lack of focus on climate change and justice issues. In addition, I find evidence consistent with the broader literature on environmental privilege and organizational inertia on climate change.

7.2 DESCRIPTIVE STATISTICS

Throughout my interviews, the near uniformity of responses to certain questions struck me. One of these sets of questions was around (lack of) diversity within each organization. The other was around (lack of) environmental justice and climate justice in communications. This section provides quantitative statistics on whether the two findings relate to each other. The sources of data are the surveys and interviews, as well as the websites and annual reports of the organizations in the interview sample. I also return to the Twitter data to illustrate the degree of use of justice discourse.

7.2.1 Demographics of NRNPs

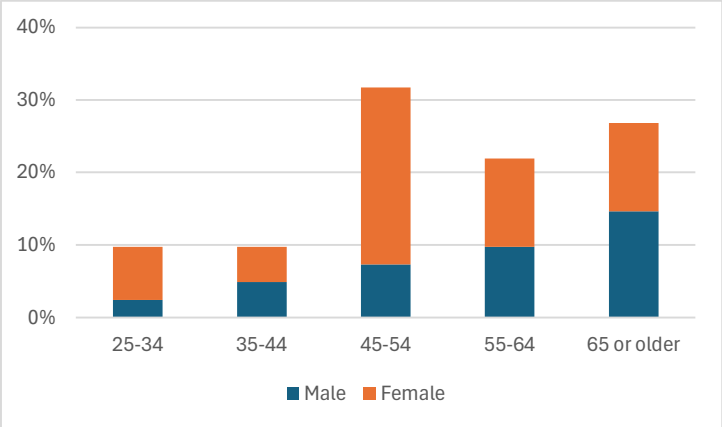
To set the stage for a discussion of organizational obstacles and environmental privilege, I start with a descriptive analysis of the demographics of my target population. I present a multifaceted analysis of demographics from 102 surveys and 41 interviewees.[96] The survey asked respondents for basic demographic data. The questions in the interviews that addressed demographic issues included the basic demographics of the interviewees themselves and the

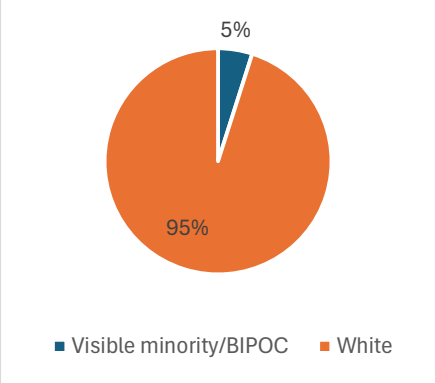
[96] I did not obtain demographic data from two of the 43 interviewees, and one survey respondent chose not to respond to the demographic questions.

demographics of their board and membership. In the following subsections are quantitative analyses of the demographics of my participants, their organizations, and Ontario as a whole.

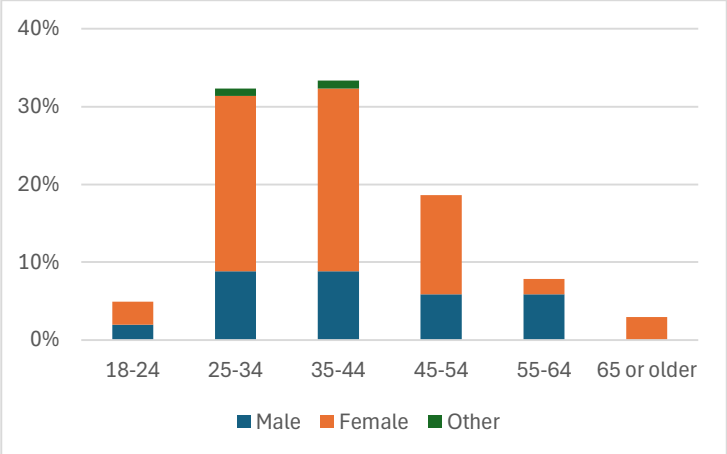
7.2.1.1. Demographics of my participants

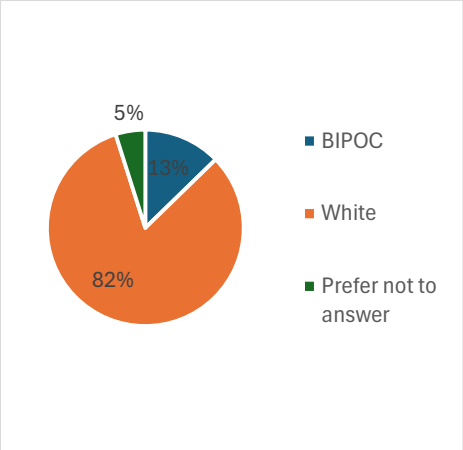
Both the interview script and the Latornell questionnaire asked for basic demographic data — age, gender identity, and racial identity. The questions were very simple because it was expected that my target population would be largely White and gender-binary. I felt that any further nuance would run the risk of breaching confidentiality rather than being illuminating. In Figures 7.1 to 7.3, I compare the demographics of my participants with the demographics of Ontario.



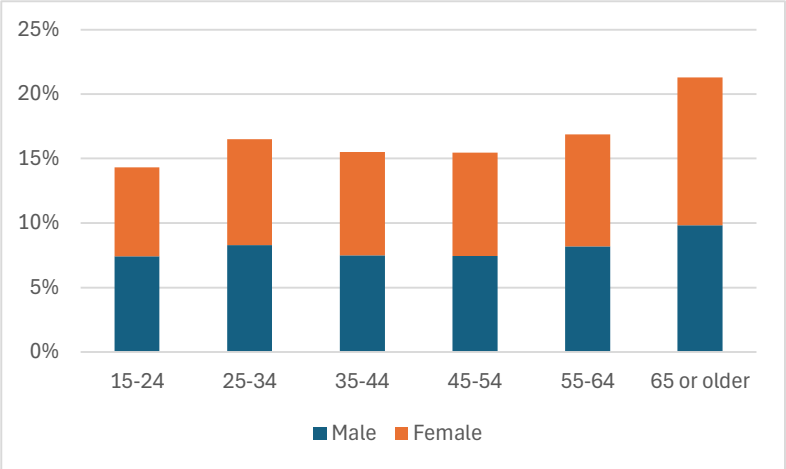


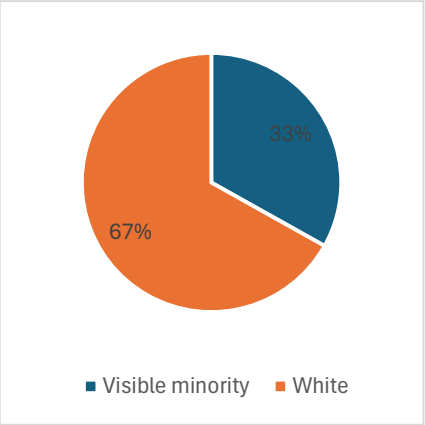
Figures 7.1a-b. *Demographics of interviewees. n=41.*
Figure 7.1a. *Gender by age range.* ***Figure 7.1b.*** *Visible minority/BIPOC identity.*





Figures 7.2a-b. *Demographics of Latornell survey respondents. n=102.*
Figure 7.2a. *Gender by age range.* ***Figure 7.2b.*** *BIPOC identity.*





Figures 7.3a-b. *Demographics of Ontario residents age 15 and older, 2021 census data. N=11,782,820. [Generated from StatsCan (2024b)]*

Figure 7.3a. *Gender by age range.*

Figure 7.3b. *Racialized identity.*

The majority of interviewees identified as White (95 percent), female (61 percent), and/or age 45 or older (80 percent) (Figures 7.1a-b). Survey respondents also identified primarily as White (82 percent) and/or female (66 percent), but they were much younger on average: 65 percent were between the ages of 25 and 44 (Figures 7.2a-b). In comparison, province-wide statistics for Ontario for 2021 for residents age 15 and older (StatsCan 2024b) were more evenly divided by gender and age range (Figure 7.3a), and racialized individuals[97] accounted for 33 percent (Figure 7.3b). While these statistics conflate racialized and BIPOC[98] individuals, by any measure, my interviewees and survey respondents were disproportionately White compared to the population of Ontario.

A finer look at the racial demographics of Ontario by the Rural Ontario Institute (ROI) reveals that 40 percent of urban[99] residents but only 4 percent of rural residents were racialized in

[97] "Racialized populations" is the term used by Statistics Canada (StatsCan) to refer to non-Whites, other than Indigenous peoples. In 2021, StatsCan changed the label from "visible minorities" to "racialized populations." (StatsCan 2024b).

[98] Black, Indigenous, people of colour (BIPOC) differs from the above definition of visible minorities in the inclusion of Indigenous individuals. In the interviews, I started with the term "visible minority" and later switched to BIPOC.

[99] The definition of urban follows the StatsCan definition of living within a Census Metropolitan Area (ROI 2023a). A Census Metropolitan Area has a population of 100,000 or more with a core of 50,000 or more (StatsCan 2022).

2021 (ROI 2023a). Thirty-nine percent of the organizations in my interview sample were located in or dealt mainly with rural areas. Another third were located in and drew most of their following from urban areas, and the remaining 28 percent had a mixed urban/rural constituency. With only 5 percent of my interviewees being BIPOC, it can be concluded that my interviewees[100] were still disproportionately White.[101]

Another way to look at the demographics is to compare board members versus employees. In the interview sample, there were 21 employees and 20 board members. Eighty percent of board members (orange in Figure 7.4) were age 55 or older, while 81 percent of employees (blue in Figure 7.4) were under age 55.

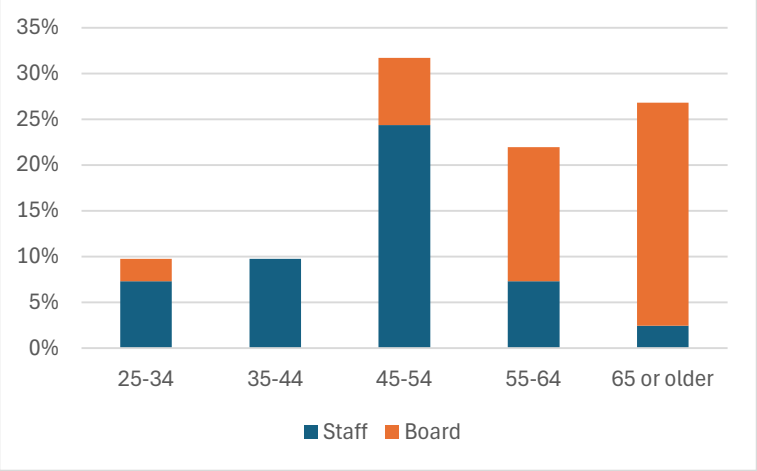


Figure 7.4. *Percentage of board vs. staff position of interviewees by age range. n=41.*

The vast majority of survey respondents were employees.[102] Almost half (48 percent) were employees of conservation authorities (CAs). Comparing survey respondents by age (Figure 7.2a) with the interviewees who were employees (blue portion of Figure 7.4), we can see that both were distributed along a working-age curve, but the median age was at least ten years higher for the

[100] I did not collect urban/rural data for the survey respondents.
[101] A weighted average would expect approximately 9 racialized interviewees in my interview sample, not including Indigenous individuals. My sample included one racialized and one Indigenous individual.
[102] Type of organization, but not employment status, was a question on the survey. A few students completed the survey in addition to representatives of governments, for-profits, non-profits, and CAs.

interviewees. This makes sense, since my interviewees were selected as mainly senior communications personnel, whereas Latornell attracts a mix of experience levels.

In both the survey and interviews, BIPOC respondents tended to be in the younger age ranges. Both BIPOC interviewees were employees rather than board members and in the 25-34 age range. All board members were White. For the survey, the percentage of White respondents increased with increasing age range (Table 7.1).

Table 7.1. *Percentage of racial identity by age range for survey respondents. n=102.*

	Age Range					
	18-24	25-34	35-44	45-54	55-64	65+
BIPOC	40%	18%	9%	11%	0%	0%
White	60%	76%	85%	89%	88%	100%
Prefer not to answer	0%	6%	6%	0%	12%	0%
TOTAL	100%	100%	100%	100%	100%	100%
n	5	33	34	19	8	3

As a convenience sample, these results are not statistically representative of the population of NRNPs. Nonetheless, the statistics in this section are an indication that NRNPs in Ontario, and especially their boards, are disproportionately White relative to the population of Ontario. They also suggest that BIPOC employees are entering the field at younger ages in greater numbers, which could potentially carry through to older ages over time. These Canadian findings align with Taylor (2014), who found that racial and ethnic minorities were severely underrepresented in U.S. mainstream environmental organizations and tended to be concentrated in the lower ranks of the organizations.

7.2.1.2 Demographics of the board and membership

The above statistics describe my direct participants. This subsection describes their boards of directors and the wider membership of their organizations, from responses in the interviews to two questions: “What is the composition of your membership in terms of gender, age, race, and

ethnicity?" and the same question about the board. Jennifer, an employee of Lake and Shore Keepers United, described the composition of the board this way:

> There's a thing that happens in most people's lives where, between, you know, 25 and 50, you're raising a family, and you don't have a lot of extra time to volunteer in an organization. So, the presidents and secretaries and treasurers of these groups tend to be senior, they tend to be well-educated, and they tend to be White.

Jennifer and others confirmed a largely White, older population on the boards and sometimes a more diverse general membership.

For non-profits, the board is a volunteer board typically elected from within the membership, although larger organizations may recruit outsiders to provide specific expertise. At least 60 percent[103] of the non-CA NRNPs interviewed had no BIPOC board members. Of the remainder of non-CAs, most had just one BIPOC member; one had two and one had three BIPOC members on their board. The most common identifier was Indigenous: two NRNPs had one Indigenous board member, one had three, and one had "some people with some Indigenous heritage." The size of boards varied greatly, with many in the 5- to 15-member range.[104] As a rough approximation, three percent of the board members of the non-CAs interviewed might have been BIPOC. This falls an order of magnitude below the provincial average of 33 percent (Figure 7.3b). The BIPOC members were split among organizations with urban, rural, and mixed constituencies, with half of them sitting on rural boards. This contrasts with Ontario's demographics and suggests that the boards of urban NRNPs were even more disproportionately White. The unique circumstances of CAs are discussed in the following subsection.

Turning to general membership, there are two overarching types of NRNPs: member-oriented and conservation-oriented. While the former should have a fairly good idea of who their

[103] Some responses were vague.
[104] There was a low of three in a transitional situation to a high of over 40. Again, some responses were vague.

members are, the definition of membership in the latter is more variable. They might have paying supporters (sometimes referred to as members) drawn from whatever they consider their catchment to be, but they might not know anything about those supporters other than their names and addresses for issuing tax receipts. They might have volunteers, on whom they might or might not keep demographic statistics. If they own or manage property,[105] people visiting their property might be unknown members of the general public, which again, they might or might not track. Even though my interviews were with communications people, who should understand their target audiences, the demographic information they were able to give was limited. Some were able to provide rough gender and age information from their social media analytics, but social media is only one set of tools used to reach their constituencies and gives an incomplete picture.

In some cases, interviewees suggested that the general membership reflected the general population, whether that was predominantly White or more mixed. Preservation in Partnership was in a relatively urban area and did not have a membership, *per se*. Brian, an employee, said about their constituency, "I think we have a pretty good— It follows the make-up of the community." Lakeland Naturalists' Club was membership-based and located in a somewhat more rural, mostly White community. Roberta, a board member, explained:

> [This city] isn't a hugely diverse community. So although we do have some people who aren't White Anglo Saxon, certainly White Anglo Saxons are the majority [of the membership].

Some activity-based NRNPs intentionally target a specific demographic, such as seniors. In many cases, however, interviewees acknowledged that their membership did not match Ontario's changing demographics, as expressed by Damian, a board member of Big City Hiking Club:

[105] I use the term "property" with some hesitation to refer to parcels of land, recognizing that private ownership of land is a settler concept but describes the relationship that these organizations have to the land.

> Our visible minorities are really low and an area that the club really wants to try to diversify and bring more interest to.

Although this analysis of membership composition as often largely White is based on qualitative perceptions, it is consistent with the literature on participation in outdoor recreation (Lee et al. 2001; Lee and Scott 2011; Powers et al. 2020; Spaaij et al. 2020) and membership in environmental organizations (Pezzullo and Sandler 2007; Jafri 2009; Gibson-Wood and Wakefield 2013).

7.2.1.3 Affluence in NRNPs

I did not ask about socioeconomic status, but some interviewees pointed to NRNPs having a relatively affluent membership. For example, Jim, a board member of Trees-R-Us Conservation Organization, said that the local population was, "generally speaking, reasonably well-to-do people who've retired in this area." Brian, an employee of Preservation in Partnership, noted that board members, in particular, tend to be relatively affluent:

> The board members tend to be older. They tend to be more affluent. And, I mean, it's a non-paying position, so they— You need to have time and resources in order to be this active on something like this.

Interviewees also mentioned that board members tend to be university-educated.

One NRNP took a benevolent approach to marginalized groups that implied a more well-off membership within the club, as described by George, a board member of Small City Hiking Club:

> I think we want to be more inclusive. I think we want to offer people [non-members] things that they can do where those don't cost them any money. So there's a lot of hurdles for lower income groups and stuff, and new immigrants.

George conflated new immigrants and low-income populations. His comment supports the findings of Jafri (2009) and Gibson-Wood and Wakefield (2013) that environmental groups made efforts towards inclusion but did not otherwise change the focus of their activities. His attitude of benevolence aligns with Darnell's (2007) finding on the international sports organization, Right to Play, where volunteers "characterized [Whiteness] as benevolent, rational and expert … in

opposition to bodies of colour, recognized as marginalized and unsophisticated, yet simultaneously and continuously grateful."

Bernice, who worked for a regional chapter of Nationwide Preservation, was a racialized immigrant. She suggested that immigrants might not have the time, money, or interest in participating in a NRNP, saying:

> A lot of [immigrants] come [to a large city] for, like, a specific purpose. Right? They would be there either for school or for work, and it's kind of difficult to tell someone who just landed, "Hey, let's go for a hike," or, "Come donate $10 for this cause." Right? Because they have a different type of vision.

Bernice provided an awareness not shared by non-racialized interviewees that the work done and activities organized by NRNPs might not resonate with immigrants. This suggests a class privilege of members of preservation organizations.

While these comments came from a small number of interviewees, extrapolations can be made based on the uniformity of their criteria — availability of time, money, and resources — to suggest that the NRNPs largely consisted of well-enough resourced community members. That was especially true for board members.

7.2.1.4 Constituencies of conservation authorities (CAs)

CAs are in a somewhat different position than most other NRNPs because they are a creation of the province. As currently constituted, their boards are comprised of councillors appointed by their member municipalities. The diversity of the board reflects the municipal politics of the region. Perusing websites shows similar board demographics to non-CAs: all or mostly White, often older, with more males than females.[106]

[106] Most non-CA boards were relatively gender balanced. For that reason, I chose to place gender outside the scope of this dissertation. Those that were more heavily male-dominated were the wildlife-focused organizations. The CA boards that were most heavily male tended to be the more rural CAs.

The primary role of CAs is to prevent flooding in their watershed, as currently mandated by the provincial government (Conservation Ontario n.d.a.). Thus, they work with property owners throughout the geographic area of their watershed. The degree of diversity of their constituency varies with the degree of diversity in the community. Many CAs do not offer public memberships.

As quasi-governmental bodies, CAs were more concerned with sectors or occupations than demographics. Clark, an employee of Farm-to-Lake CA, shared this viewpoint:

> We probably are, when we identify people, probably identifying people more in terms of occupation and what they're doing and land uses and those types of things than, you know, always looking through the lens of, you know, "Is this, you know, reflective of this audience or that audience?" But we, over the whole organization, I would say we try to work with everybody.

Clark described a colour-blind approach, which ignores the potential need for additional resources for marginalized populations (Doane 2003; McDermott and Ferguson 2022).

In varying proportions, the sectors addressed by CAs are the local municipalities, agricultural landowners (farmers), waterfront communities, and recreational visitors. Although CAs collectively own hundreds of conservation areas, many are not publicly accessible (Conservation Ontario n.d.c). Some CAs have very little in the way of recreational opportunities and, hence, recreational visitors, whereas others split their focus between the recreational side and the regulatory side. The regulatory side is the part of the organization that is mandated by the government to handle watershed management.

The changing demographics of Ontario were noted by one CA for which volunteers were a big focus. Monica, an employee of Sunshine CA, saw an increase in diversity at events:

> When it comes to volunteer participants, so, people who would come out to an Earth Day tree planting event or whatnot, we're seeing a growing number of new Canadians who are really wanting to have that experience. So, lots of new Canadian families will participate in these types of events.

Like other NRNPs, however, a CA's audience might not reflect that changing diversity. Clark described how the demographics varied with the project:

> We would deal with, you know, probably a more diverse population in the villages or the towns. … We do so much in the countryside, because that's so important to what we do, that, you know, that may, you know, quite unintentionally skew the demographics a little bit. … For instance, if we're doing a community watershed planning project, then we're working with the people in the community. And the makeup of that audience is reflected by that particular project. If we're doing stewardship work with either agricultural producers or other rural landowners, then, you know, that would reflect that community.

One implication was that farmers tended to be older, White males, although other interviewees suggested that the demographics of the farming community were changing.

Summarizing the demographics section, the boards of NRNPs in Ontario were largely White, older, and relatively affluent. Their employees and membership base were more diverse, especially at the younger ages, but the proportion of Whites was higher than the Ontario average and their socioeconomic status was probably also higher, on average, than the Ontario average. Approaches to marginalized communities included colour-blindness and benevolence. Immigrants showed increasing interest in volunteer tree planting activities but less interest in donating to land preservation initiatives.

7.2.2 Justice Discourse in NRNPs

Agyeman (2005:107-108) created a Just Sustainability Index (JSI) as a heuristic to determine the degree of commitment to just sustainability by a range of U.S.-based "environmental and sustainability membership organizations," many of which would be considered conservation organizations. The JSI is a scale from 0 to 3, where 0 is no mention in the mission statement or program information on their website and 3 indicates that equity and justice are core to the organization and included in the mission statement, similar to the climate change code developed by Tosun and Saad (2023) and used in Chapter 6. Haluza-DeLay and Fernhout (2011) used the JSI

to perform a content analysis of the websites and mission statements of a sample of Canadian ENGOs.

I use a version of the JSI to perform an analysis of the websites (including mission statements) and annual reports in my dataset. Agyeman's (2005:107) search terms were "equity," "justice," "sustainability," and variations on those terms. Since "sustainability" seemed to be secondary to the focus on equity and justice (Agyeman 2005:107-108) and because of its ambiguity, I exclude it as a search term. Given that it is 15 to 20 years after these earlier studies, I expand the search terms to reflect the current DEDI concepts of diversity, inclusion, decolonization, Indigenous, acknowledgement, and accessibility.[107] I modified the categorization criteria slightly to align with Tosun and Saad (2023) regarding climate change, which I used in Chapter 6. Table 7.2 summarizes the criteria for each level.

Table 7.2. *Criteria for DEDI score, adapted from Just Sustainability Index (Agyeman 2005).*

DEDI SCORE	CRITERIA
0	No mention of DEDI concepts in mission statement, website, or annual report
1	Only an Indigenous land acknowledgement or limited reference to DEDI concepts in website or annual report
2	Ongoing program related to DEDI, with a dedicated webpage or page in annual report
3	DEDI in mission, vision, or values, including mention of equity, justice, and/or reconciliation

To assign scores, I did a close reading of the mission statements as well as the context of every mention of the target terms in both the website extracts and annual reports. Conflicts between

[107] Searches used the word stems "equit," "just," "divers," "inclus," "decol," "indig," "acknowl," and "access." While the searches were computer-assisted, each occurrence was read for context. Most occurrences of "just" were irrelevant, and many occurrences of "divers" referred to biodiversity. The concept of accessibility was added because of its similar usage and relevance to DEDI. The *Accessibility for Ontarians with Disabilities Act, 2005* (AODA), places requirements regarding accessibility on all organizations with employees in Ontario; those requirements are less stringent for organizations with less than 20 employees (Government of Ontario [2015] 2025). Some of the CAs had a webpage for accessibility, which I included as evidence of a DEDI program.

the two data sources were resolved by doing a closer reading, including the live websites.[108] Table 7.3 shows the results by organizational category.

Of the 36 NRNPs that gave permission to analyze their website and/or annual report, 12 (33 percent) had no mention of DEDI concepts and another 14 (39 percent) had only limited mention. Only two NRNPs (6 percent) achieved a score of 3. These results align with the findings of Agyeman (2005:109) and Haluza-DeLay and Fernhout (2011:733), that no more than 10 percent of the organizations in either study achieved a JSI of 3 and the vast majority had a JSI of either 0 or 1. Like the results in Chapter 6 (Table 6.2), CAs and conservation organizations were more likely to communicate about the issues than other NRNPs, although the distinction was not as clear in the case of DEDI issues.[109]

Table 7.3. *Percentage (frequency) of DEDI score by organizational type, based on websites and annual reports of the NRNPs interviewed. n=36. 0 is lowest score; 3 is highest score.*

ORGANIZATIONAL TYPE (SUBFIELD)	DEDI SCORE				
	0	1	2	3	TOTAL
Conservation authorities (CA)	14%	71%	14%	-	100% (7)
Conservation organizations	11%	33%	33%	22%	100% (9)
Wildlife organizations	60%	20%	20%	-	100% (5)
Friends of Provincial Parks	50%	-	50%	-	100% (2)
Naturalist clubs	50%	25%	25%	-	100% (4)
Hiking and trails clubs	20%	80%	-	-	100% (5)
Cross-country skiing clubs	75%	-	25%	-	100% (4)
TOTAL	33%	39%	22%	6%	100%
n	12	14	8	2	36

Some totals do not add properly due to rounding.

[108] Reviewing the actual websites provided a better understanding of the placement of the extracts. I found a couple of Indigenous land acknowledgements on the live websites that were not in my website extracts, so I am uncertain as to whether I missed them at first or they were not there. In such cases, I deferred to the annual report, if any, to resolve conflicts. This was particularly true for CAs, which have lengthy websites out of which I extracted only limited portions.

[109] A Goodman-Kruskal gamma test found a very strong relationship (γ=.-86) between overarching type of organization (conservation/wildlife/recreation) and climate change score (Table N.1 in Appendix N) and a fairly strong relationship (γ=.-46) between overarching type of organization and DEDI score (Table O.1 in Appendix O).

7.2.3 Justice Discourse Compared to Climate Change Discourse in NRNPs

Given the commonalities between the climate change score in Chapter 6 and the DEDI score in this chapter, an analysis of the two in conjunction is enlightening. Table 7.4 is bivariate table of the DEDI and climate change scores. The table shows that 26 of 36 organizations (72 percent) communicated little to none about climate change and the same amount communicated little to none about DEDI. There was a fair degree of overlap: 18 organizations (50 percent) demonstrated little to no engagement with both issues, as both scores were 0 or 1. Only two (6 percent) showed more than minimal engagement with both topics.

The degree of engagement with climate change was at the same level as the degree of engagement with DEDI for 39 percent of the NRNPs, reading down the diagonal. In only six cases (17 percent) were the two scores two or more steps apart. This included a CA and conservation organization that had a climate change focus but no mention of DEDI and a mix of organizations that had the reverse.

It was slightly more common for NRNPs to communicate about DEDI more than climate change (33 percent) than the other way round (29 percent). A Goodman-Kruskal gamma test showed a moderately positive relationship (γ=.27). This provides some evidence that communication about climate change and DEDI tend to be related.

Table 7.4. *Percentage (frequency) of climate change score by DEDI score, based on websites and annual reports of the NRNPs interviewed. n=36. 0 is lowest score; 3 is highest score.*

CLIMATE CHANGE SCORE	DEDI SCORE				
	0	1	2	3	TOTAL
0	22%	8%	8%	-	39% (14)
1	6%	14%	11%	3%	33% (12)
2	3%	17%	3%	3%	25% (9)
3	3%	-	-	-	3% (1)
TOTAL	33% (12)	39% (14)	22% (8)	6% (2)	100% (36)

Some totals do not add properly due to rounding.

Taking a deeper dive requires comparing Table 7.3 with Table 6.2. CAs and wildlife organizations were the only types of groups to communicate more, on average, about climate change than DEDI. Of the remainder of the organizations, the DEDI score was the same or higher than the climate change score for all except two conservation organizations.

7.2.4 Obstacles to Communicating about DEDI and Climate Change

The above quantitative analyses prompt questions as to whether the patterns could be due to other causes than the organization's subfield. A number of causes of organizational inertia have been identified in the literature, including size and age of organization (Hannan and Freeman 1984; Minkoff and Powell 2006; Johnson et al. 2023; DiRago et al. 2026) and geographical scope of organization (Johnson et al. 2023; Tosun and Saad 2023). In this subsection, I test these relationships statistically.

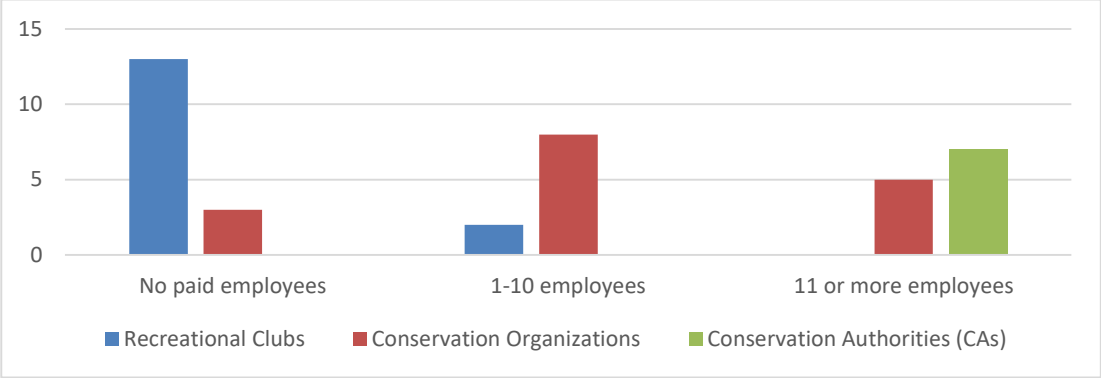


***Figure 7.5**. Frequency of size of staff complement by overarching organizational category, based on the pre-interview questionnaire for the NRNPs interviewed. n=38.*[110]

Size of staff complement has been used as a heuristic for size of organization (Johnson et al. 2023). One difference between conservation-oriented NRNPs and recreation-oriented NRNPs is that the former tend to have paid employees whereas the latter often do not. This was true of the interview sample, as shown in Figure 7.5, which provides a breakdown of the size of the paid staff

[110] One organization did not complete a pre-interview questionnaire.

complement by overarching type of organization. All of the CAs and some of the conservation organizations with larger catchment areas (e.g., provincial) had more than 10 employees. The rest of the NRNPs had fewer or no paid staff members.

Performing the Goodman-Kruskal gamma test by size of staff complement rather than organizational type shows a moderately positive relationship for DEDI score and a strongly positive relationship for climate change score.[111] Thus, NRNPs with more employees tended to communicate more about DEDI issues and climate change than NRNPs with few or no paid employees. This suggests that knowledge and capacity are important factors in communicating about climate change, in particular.

The size of the catchment area was moderately related to climate change score but only weakly to DEDI score in the interview sample, in that NRNPs at a higher level of geography had higher scores on average than more local organizations.[112] The findings were similar in the Twitter sample. Figure 7.6 gives an analysis of the Twitter sample by region, which shows that organizations at the national level were more likely to tweet about climate, justice, and nature than organizations at lower levels of geography. Organizations at the provincial level were next most likely to tweet about climate change and justice issues. These finding support Johnson et al. (2023:964), who found significant positive relationships between scope of catchment and both climate change and justice focuses.

[111] A Goodman-Kruskal gamma test shows that both relationships by size of staff complement were slightly weaker than for overarching type of organization. For DEDI score, the relationship was moderate (γ=.39). See Table O.2 in Appendix O. For climate change score, it was strong (γ=.73). See Table N.2 in Appendix N.

[112] The interview sample split fairly evenly into three categories: local, regional, and multiregional/provincial/ national, the last group being the smallest at 25 percent. Goodman-Kruskal gamma tests show the relationship for DEDI score was weak (γ=.17) and for climate change score it was moderate (γ=.29). See Table O.3 in Appendix O and Table N.3 in Appendix N, respectively.

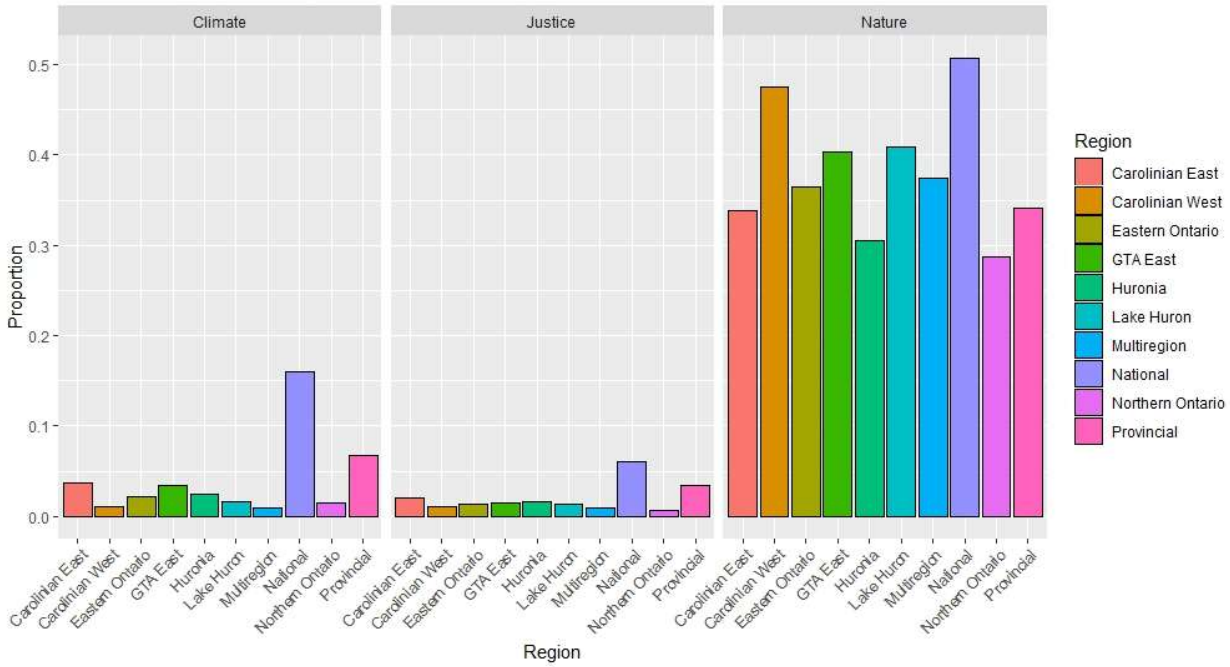


***Figure 7.6**. Proportion of tweets that are climate tweets (left), justice tweets (centre), and nature tweets (right) by region. n=104 organizations.*

The relatively weak relevance of size of catchment in the interview sample prompted another analysis based on whether the catchment was urban or rural. I found a stronger relationship for DEDI but no relationship for climate change score.[113] NRNPs with an urban catchment were moderately more likely to communicate about DEDI issues than NRNPs with a mixed or rural catchment. This aligns with the much larger racialized population in Ontario's urban centres compared to rural areas (ROI 2023a). The lack of association for climate change contrasts with DiRago et al. (2026). The age of the organization bore little relationship to communicating about either climate change or DEDI issues,[114] in contrast to other studies (Johnson et al. 2023; Tosun

[113] The sample split quite evenly into urban, mixed, and rural catchments. I defined urban and rural in section 7.2.1.1. Goodman-Kruskal gamma tests show the relationship for DEDI score was moderate (γ=-.36) and for climate change score it was very weak (γ=-.04). See Table O.4 in Appendix O and Table N.4 in Appendix N, respectively.
[114] Goodman-Kruskal gamma tests show the relationship for DEDI score was very weakly positive (γ=.09) and for climate change score it was weakly negative (γ=-.10). That is, newer organizations were slightly more likely to address DEDI than older organizations, and older organizations were slightly more likely to address climate change than newer organizations. See Table O.5 in Appendix O and N.5 in Appendix N, respectively.

and Saad 2023; DiRago et al. 2026) but in line with the multiple factors present by Minkoff and Powell (2006).

Overall, the subfield of the organization and, secondarily, size of staff complement had the greatest influence on communications by NRNPs about climate change and DEDI. Urban NRNPs were also more likely than rural NRNPs to include DEDI issues, while national, provincial, and multiregional NRNPs were somewhat more likely than local NRNPs to communicate about climate change. The primacy of the subfield supports the finding that alignment with the mission is an important factor in the likelihood of adapting to changing circumstances (Minkoff and Powell 2006:607; Johnson et al. 2023). The remainder of this chapter presents case studies of various subfields. Context around the findings raised above are addressed within the case studies.

7.3 CASE STUDIES: SUBFIELDS OF NRNPS

From the interviews, I gleaned stories that help to convey the challenges faced by NRNPs in communicating about climate change and DEDI, focusing primarily on climate change. I present a case study for each of the seven types of NRNPs and then two geographically-specific case studies. Although most challenges are common to a number of subfields, as shown in Table 7.5, the details may be subfield-specific. The strength of case studies is their ability to ground cases within their context (Aurini et al. 2016:48; Day Ashley 2017), so I start most of the case studies by describing the context of the subfield. I begin with the case of cross-country skiing, that highlights many of the challenges for recreation-oriented NRNPs. While most of the other case studies are relatively short and focused, the case of conservation organizations is another longer one since that category was the largest in the interview sample and is the only case to address issues around charitable status.

Table 7.5. *Summary of case studies. Numbers refer to number of organizations to which that challenge was applicable. Bolded numbers are the aspects highlighted in the case studies.*

	Field Level			Organizational Level			Individ-ual Level
CASE STUDY (number of organizations)	Subfield	Funding and institutional constraints	Conservative constituencies	Age and mission	Size and capacity	Environmental privilege	Leadership
Cross-country skiing clubs (4)	**2**	1	3	**3**	**1**	**4**	3
Hiking clubs (7)	2	1	4	**4**	**3**	**4**	**3**
Naturalist clubs (4)	**4**	1	2	**3**	**4**	**2**	**2**
Friends of Provincial Parks (3)	1	**3**		**2**	**2**		**1**
Conservation authorities (CAs) (7)		**5**	**3**	**3**	**2**	1	**3**
Conservation organizations (9)	4	**2**	5	**6**	**6**	**2**	**5**
Wildlife organizations (5)	2	**2**	**3**	3	1	1	**1**
NRNPs in northern Ontario (4)	**3**	**4**	**3**			**2**	**2**
NRNPs in rural southern Ontario (10)	**4**	**4**	**6**			4	**5**
Percentage of NRNPs (*n*=39)	54%	36%	54%	62%	49%	41%	46%

7.3.1 Cross-country Skiing Organizations: Essential service or escape from reality?

Cross-country skiing has historically been seen as a wholesome activity and authentic connection to nature, brought to North America by Norwegian immigrants (Stoddart 2012:17-18). Gordon, a board member of Northern Lights Cross Country Ski Club, described the joy of the activity at a northern Ontario club:

> People come here to be alone, to see animal footprints and sometimes animals. If they don't see animals, there's the chance they will. You could have 15 cars in the parking lot, and they won't see each other once they're on the trails. People come because there are trees. Without trees, it would be awful!

Gordon's response portrays cross-country skiing as a spiritual experience and an escape from everyday life (Stoddart 2012:48). As Stoddart (2012:49) notes in reference to downhill skiing, "the landscape is an important part of skiers' experience."

Cross-country skiing is at risk in Ontario and the northeastern United States because of the progressively shorter winters and poorer ski conditions (Vatovec 2022). When asked about whether climate change was affecting the organization's activities, Donna, a board member of Seniors-Will-Travel Cross Country Ski Club in southern Ontario, said:

> It definitely is affected. … With cross-country skiing, it's not economical to make snow along the trails. So if it doesn't snow naturally, then we're not going to be able to ski. So that's number one. And number two is for the last two years we've had to cancel our first two or three trips in January, because there isn't enough snow. Which is a big change. And then before that was COVID, so we don't have any data for those years. But, yeah, before that, we'd start the very first week of January.

Seniors-Will-Travel organized bus trips to venues around southern and central Ontario, up to two hours away. The lack of snow in the whole region was a concern.

In comparison to downhill skiing (Stoddart 2012), cross-country skiing has much less of an environmental footprint as a sport, but it still involves trail establishment and maintenance in the off-season and trail grooming during the winter. Rick, a board member of Big Pines Cross Country Ski Club, described an aspect of this:

> One of the things that our organization decided … was we were going to do what in our kind of world we call hardening our trails, so, make our trails so that we need less snow to ski on them and that we recover quicker from, especially, big rain events. So we do a *lot* of off-season work. … We probably put down 5 full loads of gravel on a trail system every summer. It's about drainage.

Although the impression of cross-country skiing is that it is undertaken in pristine landscapes, in reality those landscapes are often constructed (Macnaghten and Urry 1998; Stoddart 2012:27-28), as shown by Rick's comment.

Despite Donna's assertion above about the impracticality of snow making, the risk of climate change had some in the sport considering an even more constructed future. Adrienne, with Racers Cross Country Skiing Association, described this undercurrent:

> There's an awful lot of push right now for snow making and snow-making equipment. … There are going to be environmental impacts of the snow making. Because … there's an awful lot of diesel that gets consumed when snow making. So, there's always that, you know, that catch-22 between the two. … But if our sport is at risk because we don't have snow, there will be snow making. … I mean, when you compare it, like, all the downhill ski centres, they've been snowmaking for years. [laughing]

Adrienne's laugh was a recognition of the ecological irony involved in snow making (Szerszynski 2007; Stoddart 2012). Snow making for cross-country skiing could be seen as a maladaptive climate solution (Schipper 2020), as it would enable the sport to continue to exist but, in doing so, would create additional GHG emissions and contribute to increasing climate change. Adrienne's comments that "[t]here's an awful lot of push" and "there will be snow making" displayed the environmental privilege of the cross-country skiing community in the assertion of continued access to the sport regardless of the environmental consequences (Argüelles 2021). Comparing cross-country skiing to the much more polluting sport of downhill skiing was a "tool of innocence" (Norgaard 2012) used by the cross-country skiing community to divert blame.

Much like Stoddart (2012) found with downhill skiers, Adrienne presented cross-country skiers as models of environmentally-friendly behaviour:

> We are a demographic that, you know, carpools, [laughing] tries to walk everywhere, rides your bike. You know, we're already, as a demographic, that group of people. You know? So, we're probably possibly as a demographic more engaged in doing the little day-to-day things that we can do.

Argüelles (2021:654-655) notes that, often, the same groups of people who have environmental privilege are the ones who establish norms of green living. Adrienne attributed cross-country skiers with a generally environmentally-friendly approach to life, constructing themselves as innocent in comparison to an unidentified remainder of the population (Norgaard 2012). That ethos was shared

by the other skiers in my sample. The green identity was used by Adrienne in conjunction with escorting her son around the province to ski races. The air travel required cognitive dissonance but was justified through offsetting, pro-environmental behaviours (Nevins 2014:305; Argüelles 2021:654).

Every one of the four cross-country skiers interviewed admitted that the vast majority of their organization's membership was White. Adrienne used a discourse of essentialism (Spaaij et al. 2020) or naturalization of privilege (Argüelles 2021:654-655), saying:

> It's tough, you know. It's one of those sports that it's got a cultural Scandinavian, sort of like, traditional Canadian, [laughing] you know, kind of look and feel to it that's gonna, would take years to change, will take years to change.

Adrienne equated Scandinavians with "traditional Canadians," which is a questionable linkage,[115] as she revealed through her laugh. The point was that cross-country skiing was a White sport, and she expected it to remain so. Adrienne did share that Racers XCSA was making efforts to increase diversity, but maintained that it was difficult, saying:

> We have one … person of colour. … And so, I'm very reluctant to use his photo every single time we want to show we're diverse, 'cause we're not.

Adrienne wanted to give the perception of diversity by including a photo of a BIPOC member (Ahmed 2006:119) but recognized that that was misleading.

Despite the existential threat to their sport from climate change, all of the interviewees from cross-country skiing organizations conveyed that communicating about climate change was not part of their mission. Donna put it this way:

> We have never discussed climate change in our meetings or anything 'cause it's not our mandate. Like, it's not part of our mandate. Like, we're affected by it as a club. But it's not part of our mandate up till now, like.

[115] According to the 2011 National Household Survey, Canadian residents identifying their ethnic origin as Norwegian ranked 17th on the list of identities, well behind other European and Indigenous identities (Satzewich and Liodakis 2017:86).

Donna's comment illustrates the cognitive dissonance associated with cross-country skiing under conditions affected by climate change (Norgaard 2011, 2012; Brulle and Norgaard 2019:900). In Norway, where cross-country skiing is a national activity, residents carried on their activities and chose not to talk about the link between the lack of snow and climate change (Norgaard 2011, 2012).

Like Norway, Canada is an oil-rich country. Those of its residents with means enjoy environmental privilege in having easy access to nature not far from urban centres. Cross-country skiing for members of Seniors-Will-Travel required various forms of capital (Bourdieu 1990; Bourdieu and Wacquant 1992), including the time and financial capital to buy or rent equipment, pay for a tour bus and admission fee, and spend a day in the country, the cultural capital to undertake the sport of cross-country skiing, and the social capital to spend a day with a group of club members. Constructed landscapes like cross-country skiing venues are exclusionary (Macnaghten and Urry 1998; Stoddart 2012:26) and are an example of environmental privilege.

Rick was more concerned about the changing climate than the other interviewees. He noted the difference between internal and external communications about climate change:

> We actually talk about it a fair bit internally … at the board level. We talk about the way that it's going to affect our organization and … how we need to be potentially pivoting or changing. … It's interesting. It's a much larger discussion kind of internally than it is to the membership.

Rick also admitted that they talked with other similar organizations about the challenges caused by climate change:

> We're in communication with other kind of like-minded ski organizations, you know, which would be small community kind of ski organizations, and, you know, we chat with them a fair bit about what their approach is going to be, and, you know, what they're doing, in terms of, not just trails, but also providing those opportunities to people.

Collaboration with other clubs in their subfield was a way of increasing capacity by sharing knowledge and strategies (Guo and Acar 2005; Proulx et al. 2014).

Despite known risks, however, Big Pines was reluctant to discuss their concerns with their membership. Rick was the one who noted, at the opening of Chapter 1, that "you don't want to do that to people, right?" When asked what the obstacles were, Rick listed a few:

> For us, it's really more about the capacity and the resiliency of the organization and our ability to do, you know, what we perceive as our job in the community, which is to provide, you know, recreational opportunities, and, you know, kind of, wellness activities to the population. … Capacity, and what we see as our mandate. Like I say, as an organization, we're very conscious of the fact that there are lots of other places, lots of organizations that are doing a great job of communicating these issues, and that people come to us for a little bit of an escape.

Rick led with lack of capacity, which is a challenge for small, volunteer-run NPOs due to shortages of personnel, time, and skills (Martinelli 1998; Rochester 2003). Donna's comment in Section 6.3.4.1 that "it had never even occurred to [her] that [the club] would be a venue to discuss climate change" could be a symptom of lack of capacity on the part of the board.

Big Pines was obviously very aware of climate change and its effects on cross-country skiing. Yet, the continuance of that recreational activity was put forth by Rick as essential, both as a wellness activity and an escape from reality. If cross-country skiing is an essential service and that service is threatened by climate change, then it makes sense to communicate about the problem. However, if cross-country skiing is an escape from reality, then suggesting that that escape might be in danger conflicts with the mission of the organization and risks alienating members.

Rick noted that other organizations were in a better position to communicate about climate change. He listed the other types of organizations in the field:

> I think one of the reasons that we don't do it is, we feel like our membership is getting it from other places. … Things like the land trust, national organizations. Pretty much every level of government is pretty active in terms of education. Yeah, general media.

When Rick said "national organizations," he would likely have been referring to the environmental movement as well as organizations with greater capacity than a local club. Many of the large

ENGOs have taken on the role of communicating about climate change (Boscarino 2015; Graham and Robinson 2025). This has provided the opportunity for NRNPs in subfields like cross-country skiing to act as free-riders in the fight against climate change (Munck af Rosenschöld et al. 2014:641). I assert that free-ridership, like White privilege or environmental privilege, need not be conscious or with malintent if it is structural.[116]

This case study highlights the mission and lack of capacity of small NRNPs as stated obstacles to communicating about climate change, reflecting general challenges for NPOs. It also highlights the environmental privilege associated with cross-country skiing in Ontario, including access to amenities, environmental identity, and naturalization of privilege (Argüelles 2021). The sport has a largely White constituency and requires various forms of capital (Bourdieu 1990; Bourdieu and Wacquant 1992) to participate. Organizational leaders engaged in cognitive dissonance (Norgaard 2011, 2012; Brulle and Norgaard 2019:900), justification (Nevins 2014; Argüelles 2021), and ecological irony (Szerszynski 2007) to rationalize the continuation of their sport under threat from climate change, while shielding their members from the seriousness of the issue, thus encouraging them to engage in cognitive dissonance as well.

7.3.2 Hiking Clubs: Following their European heritage

Like cross-country skiing clubs, hiking clubs were largely White, volunteer-run organizations. Eleanor, a board member of Forest Trail Hiking Club, shared the essentialism argument for her organization's Whiteness (Spaaij et al. 2020):

> When I joined, there were a lot of Europeans. … Like, for example, the Germans, the Austrians, the Dutch, the Danish are big hikers, as cultural, you know, as a cultural thing. And so, they were the original founders of the club. … That diversity is, as they got older, is generally getting less and less. And mostly, now, it's like, yeah, so, native Canadians of, you know, Caucasian descent, I would say, at the moment, overwhelming majority.

[116] Thank you to Dr. Glenn Stalker for pressing this point.

The essentialism discourse justifies the status quo and deflects any responsibility to address barriers to participation for racialized populations (Spaaij et al. 2020). Eleanor's comment, echoed by others, reflected an evolution in hiking clubs from ethnic Europeans to a broader, mostly White membership. Her reference to Whites as "native Canadians" failed to recognize that Indigenous peoples lived on the land before the arrival of White settlers.

Most of the hiking clubs in the interview sample were making efforts towards DEDI, which reflects a recognition of a changing society, but those efforts were often limited. One organization led a Black history hike that was criticized for competing with a Black-led initiative. Another was interested in benefits to the club from engaging in DEDI initiatives. George, who was quoted previously in reference to benevolence to immigrants, discussed at length the win-win of supporting target populations for instrumental reasons:

> I mean, it's a service thing, really. … Well, we do feel the responsibility to the community, and it also helps us as well, from a self-serving standpoint. … If we're demonstrating how hard we're working to be inclusive, and bring the whole of the city into things, that's a selling point. Right? We're much more likely to get money to advance our [programs]. You know, it's a winner.

Small City Hiking Club understood DEDI as an altruistic effort, as evidenced by George's references to "service" and "responsibility." The win-win aspect was the simultaneity of other-centred and organization-centred benefits. George noted that the organization had not yet been successful at making connections even though they were "right there."

The above stories paint a picture of hiking clubs that may have been well-intentioned but were having difficulty fully considering the needs of and, therefore, attracting racialized populations. That is not to say that all hiking clubs would have this outlook. Eileen, President of Connect-the-Trail, offered that the previous president might have brought issues to the board that Eileen was not interested in raising. The volunteer nature of the board limits the pool of potential

board members and, thus, the interests and capacities of the board to direct the organization (Martinelli 1998; Rochester 2003).

Lack of capacity was a challenge for these volunteer-run organizations. Damian, President of Big City Hiking Club, described the situation faced by volunteer-run NGOs in general:

> The challenges of a volunteer organization, I think, are common across all volunteer-run organizations, is this is people's free time in what they commit. So, they have varying levels of interest and as well as ability to participate. And the diversity in skill set you get, or skill level you get in, sort of, doing that can at times pose a challenge. Because people don't know what they don't know. … I think one of the biggest challenges that always needs to be top of mind when you're leading a non-profit or a volunteer-run, is you just have to be thankful for everything that everyone does, even if you're seeing me going, "I wish we could do more."

Damian expressed a bit of ambivalence about needing to show gratefulness even though volunteers might not be performing to the level desired. His comments illustrate well the capacity challenges faced by small NPOs (Martinelli 1998; Rochester 2003).

There was even less engagement on climate change than DEDI from the seven hiking clubs, despite the fact that most of the hikers interviewed acknowledged changes in the weather and insect populations affecting their outings. Three of the seven interviewees were not overly worried about climate change[117] and, consequently, did not feel a need to communicate about it. One was Eileen, who suggested in Chapter 5 that ticks were not a problem because opossums were eating them. These three interviewees are examples of obstacles to communications at the individual level.

Five of the seven ignored or avoided the topic of climate change in their communications. The other two said that they treated it more seriously but had no mention of climate change on their website. Marianne, a board member of Mountain's Edge Hiking Club, explained the lack of

[117] In total, six interviewees were not overly worried about climate change. Half were in this subfield.

communication about climate change on social media as a deliberate effort to keep the messaging positive:

> Our social media feeds are not being used as a place to discuss, you know, serious climate disasters and things like that. Our Facebook feed is really about, "We had a great time hiking." And, you know, "Aren't these great pictures?" And also, which I think, as a hiking club, that's really what we're trying to promote.

Like the cross-country skiing clubs, Marianne's comment portrays the hiking club's purpose as giving people an escape.

The impacts of driving came up, since the activities of hiking clubs tend to involve travel to parks and trails. Marianne shared this challenge:

> I call out some of them, as, you know, if we're such an environmentally-friendly group, why are we all driving everywhere? [laughing]… Because it's hard to promote how environmentally-friendly we are if everybody's showing up in trucks.

Marianne's laugh was an indication of her recognition of the ecological irony (Szerszynski 2007) in the poor environmental behaviour of club members. She mentioned that other hiking clubs arranged carpools or rented buses. Group transportation was not described in terms of increasing accessibility, but rather in the context of optics regarding the environmental footprint of the club.

Concluding on hiking clubs, the majority of interviewees recognized a need to expand from their European roots and engage with other populations, but the organizations' efforts were flawed, resulting in continuing environmental privilege. Leadership and capacity issues were presented as obstacles to embracing new issues, such as climate change or DEDI. Hiking clubs tended to avoid communicating about climate change, either to keep communications light, in line with the mission of the organization, or because of the influence of individuals on the leadership team who had not connected any local changes with climate change and were not concerned about it.

7.3.3 Naturalist Clubs: Chasing lifers

Naturalist clubs in Ontario are volunteer-run, charitable organizations that tend to be predominantly comprised of older, White birders. Naturalist clubs probably have the oldest average membership age of all the NRNPs. Compared to cross-country skiing and hiking clubs, their activities are relatively sedentary: doing birding trips, some of which simply involve driving then sitting and watching, as well as regular indoor meetings to share information and experiences. The charitable aspect of these organizations is primarily educational. Indoor meetings often involve well-travelled guest speakers who share nature photos from their travels. The pace of naturalist hikes is slow, in order to be able to spot and identify species of interest.

Serious birders have a bird checklist, whether on paper or through online reporting apps, such as eBird.[118] Some will travel across continents to view a rare bird or otherwise add to their list. Probably the biggest contributor to the environmental footprint of the naturalist subfield is travelling to nature sites. Peter, with Meadowland Naturalists' Club, described the quest and the moral struggle:

> Should we be getting on a frigging plane all the time? Or should I be, you know, twitching after a bird that's a 3-hour drive away, and then turning around and coming back after I put it on my life list? Like, you know, these are not easy questions.

Peter was well aware of the environmental cost of being a serious naturalist, and justified it through trade-offs:

> I need to see that stuff is still out there, right? And I need to appreciate it. … If I go to [a noted birding site], I want to see all these birds come across. I mean, sure, might be, like, a fraction of what they were, but it still makes me feel like there's lots around. [laughing] So, like, do we, as naturalists, put our head in the sand sometimes? I think we have to all admit that we do. Right? Like, to a point. But I think it also inspires actions, inspires like, I just saw something absolutely spectacular, or that we have to protect this forest, because look at all these beautiful plants I didn't even know were here in my own backyard. … You have to

[118] https://ebird.org/home

> hope … that that outweighs itself in the long run, by teaching the kids something different or inspiring someone to do something. So there's the double-edged sword there, I guess.

Peter's "double-edged sword" suggested that cognitive dissonance was required (Norgaard 2011, 2012; Brulle and Norgaard 2019:900). He acknowledged a "head in the sand" willful ignorance of climate change and biodiversity loss by naturalists as a group ("we have to all admit that we do. Right?") in order to continue to see beauty in the world and take comfort in it. Like Adrienne, the skier, Peter used a "tool of innocence" to render birders blameless in the pursuit of their activity (Norgaard 2012; Nevins 2014:305; Argüelles 2021:655). The tool of innocence was the broader benefit of the travel: the resulting photo displays from far-off places shown at indoor meetings or in newsletters were intended to translate into inspiration for environmental action in others. Without a call to action, however, that translation might not be made and, instead, inspire more travel.

Not all naturalists were as willing to ignore the effects of their travel. Roberta, with Lakeland NC, noted that, during the pandemic:

> we had to eliminate carpooling, which really hurt because an environmental organization, you know, you don't want ten cars going somewhere. But it affected the outings we even offered because … you can't, with a clear conscience, have ten cars all driving to one place.

Roberta described herself as a lifelong environmentalist. Lakeland NC was the only one of the four naturalist clubs to mention climate change on their website.

Not only were naturalists on the older side as individuals, but their average organizational age was also older than any other type of NRNP.[119] This gave naturalist clubs a very long-standing mission and many years to build up an organizational habitus (Bourdieu 1990:62). When asked about obstacles to communicating about climate change, Peter replied:

[119] The National Audubon Society, a leader in birding and a forerunner of Birds Canada, was incorporated in New York in 1905 (https://www.audubon.org/about/history). All four naturalist clubs in the interview sample were formed before 1955.

> I just think if it came at the expense of building a wonder and appreciation of nature and helping people connect to nature, maybe we would have to sort of assess that, you know, because it would be a small step to go from, you know, inspiring people to connect with nature as an education-based kind of organization, to almost push it into more of an advocacy focus, arguably. Right? I mean, advocacy is part of what we do, but not everything.

Peter described the mission of Meadowland NC in this response, asserting that any change to it would require an assessment. The mission is core to an organization's identity and, therefore, difficult to change (Hannan and Freeman 1984:156; Rangan 2004). Local naturalist clubs are organized into regional sections that meet regularly through their umbrella organization, both online and in person. This type of structure encourages institutional isomorphism and creates obstacles to change (DiMaggio and Powell 1983; Barman 2016:449).

When asked about whether the club communicated about climate change, Carolyn, a board member of Spruceville NC, replied:

> We don't really address issues like that. I think, one thing is, okay, the dynamics of our club is, each person has a portfolio, and they kind of lead it. They don't really get any direction on what's happening. So the person that does the field trips, she picks the field trips. The person that does the talks, he identifies the speakers.

Carolyn's comment revealed the effect of individual board members on the activities of the organization.

All four naturalists interviewed deflected responsibility for communicating about climate change. Peter said:

> I think everyone felt that there's good work being done [elsewhere] in terms of that advocacy work, and we can continue to specialize at what we do and still pull that sort of messaging into what we do. But it's not going to be our focus.

Peter was willing to borrow the work of others on climate change, if it fit. The structure of the field was such that climate groups were expected to deal with climate change, but naturalist groups were not. This enabled naturalist clubs to engage in free-ridership on climate change (Munck af Rosenschöld et al. 2014:641).

Relying on other organizations was also attributed to lack of capacity. In relation to nature-based climate solutions, Barry, a board member of Bridgetown NC, shared that:

> … it's a big task, as, you know, the number of members that we have. I mean, again, we will offer in-kind support when it's asked of us to do with climate change.

By in-kind support, Barry meant volunteers. As volunteer-run organizations with a limited membership, these naturalist clubs did not feel that they had the capacity to initiate projects on climate change or DEDI. The best they could offer was to support the initiatives of other organizations. Just like Bridgetown NC assisted other organizations with climate change projects, Meadowland NC assisted another organization in offering programming for immigrants. Spaaij et al. (2020) label the claim of lack of capacity to address diversity as self-victimization, arguing that DEDI should be an integral part of a membership-based organization.

Two of the four naturalist clubs had no reference to DEDI on their website. One of them was Spruceville NC, which simply indicated that their meetings were open to the public. Carolyn noted the recent increase in international students in their community, but a lack of corresponding change in the club's membership:

> You see a lotta ethnic people coming out [to the parks] — the young students — but they haven't joined the [club].

The generic phrasing of "open to all" without any other action is a speech act (Ahmed 2006; Spaaij et al. 2020) indicating a colour-blind ideology, in which additional accommodations are seen as unnecessary (Doane 2003:14; Spaaij et al. 2020; McDermott and Ferguson 2022:260).

In conclusion, naturalist clubs exhibited environmental privilege through access to environmental goods. Serious naturalists engaged in cognitive dissonance on climate change so that they could travel to see rare species. Naturalist clubs supported this behaviour by regularly inviting travelling naturalists as guest speakers. In doing so, they hoped to provide a public benefit through education and inspiration. Whether guest speakers were invited to speak about climate

change depended on the particular individual assigned to the task of booking speakers. The interviewees deflected responsibility for communicating about climate change to organizations in other subfields, such as the climate movement, thereby engaging in free-ridership on climate change. Naturalist clubs provided assistance to other organizations in addressing climate change or DEDI but claimed lack of capacity to address the issues on their own.

7.3.4 Friends of Provincial Parks: Relationships take priority

At the provincial level, the environment and climate change were not priorities for the conservative majority government (Syed 2021; Stone 2023). The provincial government was accused of burying a report on the impacts of climate change for eight months in 2023 and then releasing it without any announcement of doing so (Stone 2023). The approach of the provincial government to climate change and environmental issues had an effect on any NRNP directly connected to it.

In the case of the Friends of Provincial Parks groups, their relationship with the provincial government was a strong factor in their operations. The mission of such groups is to support their associated provincial park. Phillip, President of Friends of Marram Provincial Park, put a priority on that relationship, saying, "We don't want to get into areas where there could be conflict." Phillip displayed an interest in maintaining social capital (Bourdieu 1990; Bourdieu and Wacquant 1992). He argued that the relationship is symbiotic, in that Friends groups raise funds for the parks and receive privileged information in return. It would betray that trust to raise issues, such as climate change, that would not be priorities for the government.

While Phillip was concerned about relationships at the organizational level, Josh, President of Friends of Duckland Provincial Park, was more concerned about maintaining relationships on an individual level with park staff:

> We've had a really good working relationship in my time, and I hope it continues like that. We did have some issues previously with specific members of our board. … Those members are no longer with us, but sometimes that relationship takes a while to heal.

In both cases, relationships were top-of-mind for Friends groups.

Friends of Duckland was one of the NRNPs that ignored climate change, as Josh admitted that climate change did not "come up" at board meetings. He also admitted that he was not overly worried about climate change because he had too many other worries. Josh was quoted at the beginning of this chapter noting that the website volunteer had stepped down and the task of updating now fell to him, and climate change was getting "lost in the shuffle." Josh had no time or motivation to think about it. This demonstrates both lack of capacity as well as the effect of individuals as obstacles to communications on climate change in small NPOs.

Phillip noted that "Friends groups … work together. We do a lot of Zoom together." This comment, echoed by the other two interviewees, suggests that strong bonds were formed through regular online meetings of the leadership of the groups, providing sources for mutual support and mimetic isomorphism within the subfield (DiMaggio and Powell 1983; Barman 2016:450). Margaret, with Friends of Campsite Provincial Park, noted that their mission was limited to the physical boundaries of the park, which would limit their ability to address the issue of global climate change. The relationship with the provincial government provided a source of coercive isomorphism (DiMaggio and Powell 1983; Minkoff and Powell 2006:593; Barman 2016:449), which included staying away from controversy.

Regarding DEDI, none of the Friends of Provincial Parks interviewed had an Indigenous land acknowledgement or any other mention of Indigenous peoples on their websites. This could be a symptom of the complicated history of the Province with Indigenous peoples and the implications that recognition of land claims might have for the Province. Nonetheless, Friends of

Duckland and their associated park had been working with local Indigenous communities to rebuild relationships. Josh shared that:

> [Duckland PP] itself has a rich Indigenous heritage in the park, and they've been working tremendous, tremendous effort to restore some of that relationship with the Indigenous people in our communities, and we've tried to help in any way that we can to repair that relationship and work with them. So, we've partnered on a few projects: bringing Indigenous art into the park visitor centre, bringing Indigenous dancers and Indigenous cultural storytellers to the park to share their view of the environment, too.

Josh's description of repairing relationships sounded like it could be deeper than performative multiculturalism. The only other mention of DEDI in Friends groups was in reference to accessibility in the parks. Provincial parks are subject to AODA regulations. One Friends group chose to advertise the accessibility features of its associated park on its website.

Overall, maintaining good relationships with their associated park was a top priority for the Friends groups, overriding a focus on climate change. DEDI engagement also tended to follow the lead of the provincial government, with some local agency.

7.3.5 Conservation Authorities (CAs): Constrained by the Province

The obstruction of the provincial government on climate action extended to CAs. The Latornell survey, in which almost half of respondents were CA employees, indicated that the top three obstacles to communicating about climate change for CAs, in decreasing order, were: 1) cost, 2) lack of capacity, and 3) government regulations.

The mandate of CAs previously included connecting local residents with nature, but the mandate was limited with the passage of Ontario Bill 23, the *More Homes Built Faster Act, 2022* (Syed 2021; Conservation Ontario n.d.b). Matt, an employee of Wolfland CA, described the constraints of the new legislation:

> With the recent changes to the Conservation Authorities Act, the Province made very clear three categories of programming. So there's Category 1 which is mandatory programming. Category 2, which is non-mandatory at the request of a member municipality. And then Category 3 is just non-mandatory, or *we* want to do the programming but it's technically not

> "mandatory" under the provincial guidelines. And so, things like climate change, biodiversity, and just environmental education in general … is strictly a Category 3. We do it with zero funds from the Province and zero funds from our municipalities. We find outside sources to do it. And that's where a lot of the, you know, climate change communications and some of the biodiversity and wildlife communications is falling in that "non-mandatory." You know, to us it's very important, and it should be mandatory, but legally and officially, it has to live in that silo.

Matt described the Category 1, 2, and 3 levels of programming and expressed frustration that climate change education fell under the unfunded Category 3. Thus, the obstacles of cost and lack of capacity could be a result of government regulations limiting the amount of funding for climate change work. Matt admitted that Wolfland CA did have some special funding to communicate about climate change.

The provincial mandate, itself, was a coercive constraint on CAs regarding communicating about climate change, as stated by Claire, an employee of Riverbank CA:

> We, as a conservation authority, need to stick to our mandate. And as I'm sure you know, we're being looked at very closely right now, politically, and so, yeah, we need to stick to our lane and the work that's approved.

The primary provincial mandate was "to protect people and property from flooding, and other natural hazards" (Conservation Ontario n.d.a). With no official mandate to address climate change, both Claire and Matt were aware of the lines drawn by the provincial government.[120]

Matt noted that climate change "lives within" the other work that CAs do. Communicating about it depended on circumstances. Claire stated in Chapter 6 that "working in the spin of climate change doesn't always happen." Climate change was a lens that could be added or removed depending on the circumstances and target audience, which could lead to implicit rather than explicit reference to climate change.

[120] The Provincial Policy Statement (PPS), 2020 (Province of Ontario 2020) applied to CAs at the time of the interviews. The PPS referenced the requirement to address "the risks that may be associated with the impacts of a changing climate" (Province of Ontario 2020:32). This mandated a role for CAs in climate change adaptation, but mitigation was only mentioned in reference to mitigating risks. Thank you to Dr. Laura Taylor for pointing out the applicability of the PPS.

Trish, at Lakeview CA, and Anita, at Farm-to-Lake CA, talked about obstacles to communicating about climate change. Trish was quoted at the beginning of Chapter 1 as saying that there was "fatigue" around climate change. Climate change fatigue is related to skepticism (Pidgeon 2012) and could produce negative backlash (Lu 2022). I include fatigue under the label of "conservative constituencies," along with more overt skepticism and denial. For Anita, however, obstacles were a phenomenon in the past. One of those obstacles was internal staff:

> There's scientists here who did not, yeah, believe that, like, "There's so much climate variability, how are we ever gonna work this out?" So, there was definitely, like, a manager here that was—. And now that person has gone.

As described by Anita, individuals with sufficient symbolic capital could sway decision-making (Emirbayer and Johnson 2008:24-25), and the resulting internal conflict could lead to organizational inertia (Hannan and Freeman 1984; Brulle and Norgaard 2019:902).

CAs needed to find funding if they wanted to engage in projects outside their mandate. This constraint extended to the ability of CAs to address DEDI issues, as expressed by Clark, at Farm-to-Lake CA:

> It may depend on year-to-year what funding envelope you have and what the deliverables are of that project.

Clark described having been previously funded for an outreach project that involved outdoor education opportunities for diverse youth. An inclusive approach was shared by Claire:

> You know, we certainly we feel as though we're an inclusive conservation authority. Everyone's welcome, of course. And although our signage can't cover every single language, we are making more effort.

Claire's comment reveals inclusion as intending to address structural barriers but still involving inclusion into the dominant society (Haluza-DeLay and Fernhout 2011:729; Andreotti et al. 2015:26).

Only one of the CAs had a strong focus on climate change. That one was the most urban of the CAs in the interview sample, with a multifaceted approach to both climate change and DEDI. Work by CAs on climate change and DEDI issues was limited based on the availability of supplementary funding. This was, perhaps, easier for urban CAs to find, given their larger catchments and greater engagement with the public through recreational opportunities.

In conclusion, coercive isomorphism limited the climate change communications of most CAs as a result of the provincial mandate (DiMaggio and Powell 1983:151; Minkoff and Powell 2006:593; Barman 2016:450) and also limited capacity by removing sources of funding. In addition to the provincial government, individual members of a CA's leadership team sometimes caused barriers to communicating about climate change. Nonetheless, climate change was a lens that all could add to their communications when they felt that it was appropriate and did not contravene their restrictions.

7.3.6 Conservation Organizations: Funding challenges

Because conserving nature is considered a charitable purpose in Canada, most nature conservation organizations have charitable status. Charitable status provides opportunities for greater funding, which increases the ability to hire staff. Only two of the nine conservation organizations in the interview sample did not have charitable status and the same two were the only ones that were entirely volunteer-run. Both had been formed within ten years of the interview, which suggests that they might not yet have arrived at the stage of seeking charitable status.

NRNPs obtain funding from grants, sponsorships, membership fees, and donations (Sager 2010:1539). Cheryl, an employee of Spirit Region Conservation Organization, shared the importance of charitable status:

> One of my biggest goals for the financial health and just the organizational sustainability over time was to achieve charitable status. … Feast and famine. The idea of this financial

> management so that you can carry the organization when grants are low or the government of the day changes. … We're just aware that the dependency on grants can be extremely devastating to a lot of non-profits, and that having a charitable donor base can help you become more resilient.

Cheryl described how charitable status provided an advantage to organizations that had it, in opening the organization to additional sources of funding and, therefore, more stability.

Charitable status simultaneously comes with obligations attached to maintaining that status through regular reporting and constraints on activities. In the past, advocacy was limited to a maximum of 10 percent of the activities of a charitable organization (Cameron and Kwiecien 2019), which resulted in coercive isomorphism within the field of NGOs (DiMaggio and Powell 1983; Barman 2016:450). Environmental charities were particularly targeted for compliance under Prime Minister Stephen Harper (Patterson 2014; Cameron and Kwiecien 2019), as noted by Cheryl:

> That was a big scare during Harper's time, when environmental organizations were targeted, audited, and made to suffer.

Because of the structure of the field, organizations without charitable status were free to advocate for climate action, whereas charitable conservation organizations and those aspiring to become charitable organizations were very limited in their advocacy. Even though the federal government removed the limits on advocacy for charities under Prime Minister Justin Trudeau, many NGOs, including Spirit Region, continued to maintain a non-advocacy stance (Cameron and Kwiecien 2019; Seiler 2026). This demonstrates the path dependence of previous legislation (Hall and Taylor 1996:941; Munck af Rosenschöld et al. 2014:642), in that some organizations found it difficult to adapt when legislation became more permissive (Seiler 2026).

Constraints may also be imposed by funders and through relationships with other stakeholders, resulting in a degree of coercion imposed on NRNPs (DiMaggio and Powell 1983:151; Minkoff and Powell 2006:593; Eisenberg and Eschenfelder 2009:364; Barman

2016:450). Jessica, an employee of Stream Rescue Conservation Organization, implied this sort of coercion:

> The board of directors, I know they've been really hesitant on being activists and that we work more at, like, collaborating with stakeholders to fix issues that arise instead of, like, pointing the finger. Or we don't do any lobbying or, like, petitions or anything like that. Yeah, we focus on remediation efforts.

Jessica's description of Stream Rescue's approach is similar to Spirit Region's in staying away from advocacy. In both organizations, that was not only due to prior government restrictions but also due to the desire to maintain relationships with stakeholders and in the community.

Jessica's reference to focusing on remediation points to another obstacle to communicating about climate change: the mission. Sticking to the mission was a defence for some NRNPs for not communicating more explicitly about climate change, as explained by Lydia, an employee of Phragmites Fighters Conservation Organization:

> There's some groups that just have specific, like, programming related to climate change. We've never had that. Right? Because our focus is just to bring people down and to appreciate the areas that we have. And I guess, appreciating the areas that we have and not getting rid of them also helps climate change because we're protecting the green infrastructure that we have as well. Right?

Phragmites Fighters had only two brief mentions of climate change on its website, focusing instead on conservation, restoration, and nature appreciation.

NRNPs were often more concerned about climate change internally than their communications would show. Heather, an employee of Preservation Forever, shared this after having been primed about *Global Warming's Six Americas* (Leiserowitz et al. 2021; Leiserowitz et al. 2025):

> I think, internally, I would say, we're alarmed [about climate change]. But externally, I would say, we communicate it as concerned.

Heather suggested that the mission was involved in this discrepancy between internal and external concern. Internally, Preservation Forever's focus had changed to consider climate change "an

overarching concern," but that had not yet made its way to their communications. The website and annual report barely mentioned climate change.

Funding is a challenge for small NRNPs not just because of external relationships but also internally. Lack of adequate funding can have a number of consequences that affect communications. One is the lack of ability to hire and retain competent staff (Akingbola 2006:1709-1710; Eisenberg and Eschenfelder 2009:370). Jessica was struggling with the alternatives of finding more funding to support employees or reverting to the use of unpaid labour, illustrating the precarious position of employees in NRNPs. Jessica noted that Stream Rescue's communications person was an intern:

> That intern, like, it's always changing 'cause it's only a one-year wage subsidy internship. … [D]uring the summer, we give the opportunity for some summer staff and students to develop some content and share information.

The use of interns and students is a reality for budget-conscious NGOs, as an adaptive strategy to exercise some internal control over the continuation of the organization in the face of funding challenges (Pfeffer and Salancik 1978; Hillman et al. 2009:1408). Using temporary staff as communications personnel, however, affects the ability of the organization to communicate consistently about issues like climate change.

Limited funding also limits the breadth of knowledge of NRNP personnel. This is a challenge in any small NGO (Rochester 2003) but particularly so in science-based conservation organizations. Temporary staff might not have the knowledge or vocabulary to communicate about climate change if they were hired for a different strength. Permanent staff might also face challenges. Phragmites Fighters was a very small conservation organization, and Lydia admitted that she had not heard of nature-based climate solutions because she did not have the time to keep up with everything. Heather, in Chapter 6, suggested that climate science was tricky to communicate about. It is possible that lack of vocabulary was also a constraint for her. With

research always evolving, it is difficult to communicate intelligently about climate change without having the time to understand new developments. Personnel limitations extend to boards of small NRNPs, in that board members might not have the background and personal capacity to hire the best staff or otherwise offer effective direction (Martinelli 1998; Rochester 2003).

At the volunteer-run Save Our Trails Conservation Organization, Veronica, the President, was feeling in need of volunteer assistance:

> I need help with the communication. I'm hoping to get somebody … because the burden is falling on me. And I just, you know, I need more people. I need people who have a different viewpoint or different way of expressing themselves.

Veronica expressed the pressure of leading a small NRNP and recognized limitations in her own time and ability. She noted the difficulty of attracting competent volunteers (Rochester 2003). As with Stream Rescue's use of students and interns for communications, a volunteer with limited time may be less effective than the ideal on topics like climate change.

The same sorts of challenges for NRNPs in communicating about climate change extend to addressing DEDI issues. Small NGOs may suffer from a lack of redundancy, as expressed by Bernice, at Nationwide Preservation:

> We did have [a targeted outreach] program in mind. Unfortunately, the team member who was supposed to be in charge of that has been on sick leave. So we haven't really started that.

Bernice's comment illustrates that a small staff complement may lead to instability in DEDI or other programming because of the added dependence on each member of the team.

Despite the foregoing, five of the ten NRNPs most engaged with DEDI were conservation organizations. As Brian, at Preservation in Partnership, put it, "if you're not woke, you're asleep at the switch." Another of the five — Spirit Region Conservation Organization — defied the norm of having all White board members by having three Indigenous members on its board. It was also

the only organization that used a climate justice frame in its communications. Cheryl gave an example:

> [A recent wildfire] has started the conversation around, you know, warming shelters when power goes out and cooling areas for drought and severe heat.

Preservation in Partnership was the only other organizations in the entire interview sample to work on social justice issues. Brian noted that the organization was involved with food security:

> We have [a farm], which runs a number of community gardens, which we divvy up by application and also by social need. For many of these people, they have no access to a garden themselves. And so it's important for building food security in [the area]. And so, we work with the [local] Food Bank. … We work with the various groups within the community that want the same sort of just and sustainable world and a world where there is food security and that sort of thing.

Both Preservation in Partnership and Spirit Region formed partnerships locally with organizations outside the environmental movement. Neither talked about being part of a regional or provincial network of environmental organizations. Instead of engaging in institutional isomorphism within a subfield (Meyer and Rowan 1977; DiMaggio and Powell 1983; Barman 2016:449), both organizations were creating their own local subfields, leading to interesting and progressive social actions. In strategic action fields (Fligstein and McAdam 2012), these two organizers would be "challengers" to the existing fields. The lack of action on climate change and social justice creates opportunities for challengers to step in and innovate (Fligstein and McAdam 2012:22). Preservation in Partnership had taken on social justice but had no mention of climate change on its website, whereas Spirit Region had taken on both issues. Both organizations were less than 30 years old at the time of the interviews. Whether they were purpose-built to take on new challenges or simply faced fewer obstacles than older organizations with built-up practices and legitimacy (Hannan and Freeman 1984:157-158), they were successful at eschewing institutional norms.

In contrast, the environmental privilege of conservation groups appeared in two interviews. Corinne, a board member with Trees-R-Us Conservation Organization, lamented:

> We had a little rack card, and on one side it said, "10 things you can do to fight the climate crisis." … And then one person said — who is, I mean, a very committed environmentalist, but one of the tips was to fly and drive less — and he said, "Well, it's not really fair to say 'fly,' because how else do people get together with their families, you know, and you don't want to, sort of, in a sense, blame the victims." … Which is fair. I mean, I agree with that.

Corinne described a discussion at the board level about whether Trees-R-Us should be disseminating messaging that pointed a finger at individuals for flying or eating meat. This backstage discussion belies the affluence of the board. This naturalization of privilege is an aspect of environmental privilege (Argüelles 2021).

The other discussion of environmental privilege addressed the issue of representation, in who has the right to decide on land use. Bernice, with Nationwide Preservation, raised the concern:

> I always have that thought at the back of my head, while we're protecting this area, what about the people who work there? What's going to happen to them? … I don't go at it with, like, this aggressive nature that, "Yeah, we have to protect the environment. All the developers can go away." I'm like, "Well, if they go away, where are they gonna go? You're not telling them where to go." … So there's that balance that I feel like is not really there when it comes to environmental non-profits.

Bernice's perspective as a BIPOC immigrant may have given her the ability to see the class privilege involved in designating land for preservation that was atypical of employees of preservation organizations (Jafri 2009:222-223; Gibson-Wood and Wakefield 2013).

Summing up the case of conservation-oriented NRNPs, the path dependence and coercive pressure of previous legislation limited the interest of charitable NRNPs in communicating about climate change (Hall and Taylor 1996:941; Munck af Rosenschöld et al. 2014:642; Cameron and Kwiecien 2019). Coercive pressures through funding arrangements or relationships with stakeholders (DiMaggio and Powell 1983:151; Minkoff and Powell 2006:593; Barman 2016:450) also reduced the desire of NRNPs to communicate about climate change. Internally, lack of funding resulted in unstable employment relationships and understaffing (Akingbola 2006:1709-1710; Eisenberg and Eschenfelder 2009:370), contributing to lack of effective communication on

climate change. Evolving to considering climate change as an overarching issue was slow to filter down to communications for one organization. Individual board members also influenced the ability to communicate about climate change.

Conservation organizations were relatively engaged in DEDI, as all but one — volunteer-run — had at least some mention of diversity or inclusion on their website and in their annual report. Two of the nine conservation organizations addressed social justice through active partnerships with local organizations. Nonetheless, environmental privilege was suggested in the practice of nature preservation without concern for existing local uses and also in avoiding blaming individuals for their role in climate change.

7.3.7 Wildlife Organizations: Skepticism and backroom dealings

Hunting and angling in Ontario are being affected by climate change through shifts in the ranges of various species. Jeff, an employee at Hunting and Fishing United, explained the impact of climate change on deer and moose:

> Climate change, for instance, is going to allow for a northward expansion of white-tailed deer populations into areas where they don't really currently exist at any great densities. And what we know from scientific evidence is that where, in Ontario at least, because of white-tailed deer carrying brainworm, that affects moose. … [B]rainworm … [is] a parasite of the brain that is carried by deer but doesn't affect them. So, as a result, where they move into moose habitat, … you'll see a gradual decline in moose populations, because it is lethal to moose.

Jeff added that Hunting and Fishing United's climate change messaging to hunters was to "tell them that they're going to have to travel further and further north to hunt moose than they usually do."

A similar situation existed regarding fish populations, as described by Jennifer, at Lake and Shore Keepers United:

> [Climate change] affects the temperatures of the waters, which affects which species can live there. So, trout, which are cold-water lake species, are affected by these changes, and it affects the species that our folks see in these ranges.

Several interviewees noted the impact of warmer water temperatures on the viability of cold-water fish species and, therefore, anglers. The provincial government assists anglers by raising fish species preferred by anglers and releasing them into Ontario waterways. "[A]pproximately 8 million fish [are] released into Ontario waters each year" (MNRF [2021] 2023). Comments from interviewees suggested that the fish hatcheries were considering changing the species that they were raising, due to the changing conditions.

Promoting "social, cultural and economic well-being" is the language used in the provincial fish strategy and hunting regulations (MNRF [2019] 2024; MNRF 2025:2). Interviewees from wildlife-focused organizations revealed that the provincial government catered to the hunting and angling community, quite in contrast to the frustration other interviewees expressed with the provincial government.[121]

All of the wildlife-focused organizations in the interview sample were at the multiregional, provincial or national level.[122] Most of the NRNPs in the interview sample at those levels, regardless of focus, engaged in lobbying the provincial and/or federal government. The difference in expected outcomes between types of organizations was noticeable. Hailey, an employee of Hunt and Fish with Us, outlined the process:

> [Our organization] usually gets looped into some of the consultation periods and stuff. So, a lot of the times, either the government or the company that's responsible for the forestry activity … will contact us to have us share information with our members, like, public consultation periods and that kind of stuff. … We all sit down. We all voice our concerns, the pros and cons, and all that stuff, and then we just kind of work together to find solutions.

Hailey described a collaborative, consultative effort. Bernice, at Nationwide Preservation (not a wildlife organization), shared a somewhat different process for preservation issues:

[121] Sixteen of 43 interviewees expressed some degree of political frustration with the current provincial government.
[122] I tried but was unsuccessful in obtaining interviews with local hunting and angling clubs. Most of the wildlife organizations that were in my interview sample had close connections to hunters and anglers on the ground, three of them as umbrella organizations.

> They'll have people from communities ask the government for an audience, and then people will just kind of show up from everywhere, and then they'll have this big conversation, and then they'll decide whether they will start … a committee. … And, like, that committee will kind of be guiding what will be happening, or if something will be happening, if they'll just drop the entire matter.

Where Hailey expected solutions to be reached for the wildlife community through consultation, Bernice was less optimistic that this process would result in action on preservation concerns. One difference was that the preservation concerns seemed to be raised by Nationwide rather than the government. In the field of NRNPs, government bodies possess various forms of capital and, thus, have the power to legitimize certain topics for discussion and delegitimize others (Pfeffer and Salancik 1978; Bourdieu 1990; Bourdieu and Wacquant 1992; Emirbayer and Johnson 2008). Again, with the conservative provincial government, environmental concerns were not the top priority.

Most of the interviewees that dealt in some way with hunters and anglers expressed some degree of opposition to climate change messaging from within their board or broader membership. For example, Jeff noted:

> There are still denialists out there. And their opinions can carry quite a bit of weight and be influential on the thinking of some people. … And thankfully, those people aren't on our board anymore. But it did create a barrier to establishing a position on climate change.

Both Jeff and Hailey shared that their membership tended to be comprised of older, White males, as found by Love-Nichols (2020), although that was changing. Previous research has demonstrated that this demographic is the most susceptible to climate change skepticism and denial (McCright and Dunlap 2011; McCright 2016; Love-Nichols 2020; Leiserowitz et al. 2021).

Wildlife organizations needed to consider the interest of their members in protecting their individual freedoms. Hailey noted the similarity between climate change deniers and the anti-vaccine sentiment during the COVID-19 pandemic. Jeff touched on the issue of individual freedoms:

> We don't want people in our community, the hunting and fishing community, because of their general political slant, we don't want them to think that we are or the government is telling them what they have to do because of the individual sort of liberty mentality that many people possess, and not just anglers and hunters, and not just on the right side of the political spectrum. But we do know that that is a fairly common feeling in the angling and hunting community in Ontario.

These sentiments made it difficult for wildlife-focused organizations to explicitly communicate about climate change with their members if they wanted their messages to resonate and not be rejected.

In summary, external factors and individual board members gave pause to wildlife organizations in communicating about climate change. A conservative-leaning constituency that included climate skeptics and deniers and a close relationship with a conservative government not interested in climate change provided legitimacy to avoid the topic of climate change. Nonetheless, all five wildlife organizations did communicate about climate change because of the effects of climate change on wildlife, but climate change was often only implicit in that communication. In line with the conservative and possibly nativist leanings (Park and Pellow 2011; Lachapelle and Martel-Morin 2024), most of these organizations were silent on DEDI.

7.3.8 NRNPs in Northern Ontario: Ruled by forestry

Two challenges to communicating about climate change in northern Ontario were a lack of evidence of climate change and the predominance of extractive industries as employers. First, climate change and biodiversity loss were not readily apparent in the immediate vicinity, as described by Matt, at Wolfland CA:

> Up here, we have so much of it [nature], it's taken for granted. And so that goes back to that climate change discussion, where, if you're not living in an area that's absolutely decimated by clear cutting, or that's decimated by, you know, there's no [highway] expansion being shot through the middle of our pristine boreal forest at the moment, right, there's all these things that aren't happening that can maybe make you think that, “Oh, this isn't an issue. This isn't an issue.” Well, it's not gonna be an issue until it is. And then it's too late. So, that's part of our communications with people is to explain that, like, you know, these are things that you need to be concerned about.

Matt referred to not only willful ignorance by constituents but also climate change denial due to a lack of evidence in the north. He found climate denial and science denial frustrating but noted that it was limited.

Matt's concern that residents of northern Ontario take nature for granted was borne out in other interviews. Carolyn, with Spruceville Naturalists' Club, was one who was less concerned:

> I think, where we live, our locality, we still have a lot of boreal forest. … And actually, we've had pretty good weather. … So we hear of climate change, and we have climate change rallies every year. The students in the high schools, you know, every year they have a little demonstration.

Members of Spruceville NC participated in the annual climate change rally, then carried on with their regular lives. This is not unlike the people of Bygdaby, Norway, who engaged in implicatory denial and cognitive dissonance (Norgaard 2011). Spruceville NC did not include information about climate change on their website, despite recently redesigning the site.

Exploring why Carolyn felt it was unnecessary to include climate change led to the second challenge facing these organizations. Forestry and mining are the main employers across northern Ontario, according to multiple interviewees. A Bourdieusian perspective views the possession of not just economic capital but any form of capital as a source of power (Bourdieu and Wacquant 1992:98; Emirbayer and Johnson 2008:11; Barman 2016:447). Gordon, with Northern Lights Cross Country Ski Club, described the power of the forestry industry:

> Forestry is kind of run in Ontario by the forestry industry itself, not by government. The decision to clear cut trees, forests, really, is an industry decision the way it is. And so, we had a major conflict a couple of years ago with them. … It took effort to get that reversed. … They're allowed to harvest anywhere in Ontario there's Crown Land there.

This apparent hands-off approach of government indicates that the forestry industry possessed a substantial amount of economic and symbolic capital (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008; Barman 2016:447). The forestry industry in the province of New

Brunswick similarly held preferential status with their provincial government (Beckley 2014). Carolyn discussed the power of the forestry industry to set the discourse:

> How I look at it is you'll never be able to fight [the forestry industry consultation] groups. You won't, because logging, they've already mapped all these forests out when they're gonna do their cuts, whether it's in 10, 15 [years]. They do their, you know, their 10 Year Plan. So the best you can do is just advocate and have people in our organization help to advocate, sign petitions.

Carolyn described feeling somewhat powerless against the industry but was happy that some of the land was being protected through the action of nature-related NGOs.

The power of the forestry industry also reached into the internal workings of Spruceville NC. Carolyn expressed the challenges of having forestry industry connections on the board:

> We have to be careful as well, too. … We have a lot of people on our board who worked for MNRF [the Ontario Ministry of Natural Resources and Forestry]. … I don't think we've had really too many controversial issues that have really been exposed. And I think that probably comes from as long as I've been on the board is that we advocate but we're not a hardcore organization.

Carolyn linked having industry connections with staying away from advocacy. Although the industry ties might have benefitted the organization in terms of financial and other resources, the ties were sources of constraints on the organization's ability to address climate change.

Summing up the situation in northern Ontario, physical context, external pressures, and individuals on the leadership team were all obstacles to communicating about climate change. There was both literal and implicatory climate denial (Norgaard 2011) in the general population due to lack of evidence of climate change. The extractive industries of forestry and mining, as the main employers, possessed significant symbolic capital (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008; Barman 2016:447) and were able to exercise coercive power through a network of relationships (DiMaggio and Powell 1991b:67; Minkoff and Powell 2006:593; Munck af Rosenschöld et al. 2014:643), making it difficult to address climate change and environmental issues.

7.3.9 NRNPs in Rural Southern Ontario: Ruled by agriculture

Two challenges appeared in rural parts of southern Ontario that did not register as problems in the more urban or northern areas, namely, industrial agriculture and renewable energy, particularly wind turbines. Again, physical context affected the ability to communicate about climate change.

Agriculture in rural southern Ontario is a significant industry (Chen 2022) and a significant constituency for many of the CAs. Agriculture includes both small, family farms and large, industrial farms. Intensive animal agriculture has grown immensely in Ontario since the mid-20th century and, along with it, the risk of adverse impacts on human health and the environment, such as the *E. coli* disaster in Walkerton, Ontario.[123] Despite these risks, I found a significant reluctance among interviewees working for CAs to blame industrial agriculture for any environmental problems. Anita, at Farm-to-Lake CA, articulated this:

> At the end of the day, there's two things we have to do: feed ourselves and make sure we don't pollute the planet. And there is no us and them. There is no us against the farmers or us against somebody else, in that objective. There's only all of us trying to figure that out.

Anita saw no benefit in an adversarial stance. It was the job of CAs to work with their constituents. In a similar study of five large Canadian ENGOs, none of them fully took on the issue of the global food system and its associated problems and injustices (Hanson 2009).

The main concern with agriculture for CAs was drainage in terms of both quantity, related to flooding, and quality, including soil and nutrient content, which affected the water quality for residents across the watershed. Some CAs promoted NbCS to reduce flooding risk. Bruce, an employee of Farmland CA, talked about:

[123] Walkerton is in the heart of southwestern Ontario farm country. A neoliberal rollback of provincial oversight over water quality monitoring practices contributed to the non-detection of contaminated groundwater in 2000, leading to seven deaths and many hospitalizations (Ali 2004).

> … getting flood plains, river valleys, and riparian areas out of agriculture. And there's good reasons for doing that from a farming standpoint, because with these intense rainfall events and rapid snow melt events in winter, it's just washing soil and nutrients from those lands into water courses. They're the most susceptible to flooding.

Adding natural areas back to the agricultural landscape, as described by Bruce, addresses both climate change adaptation and mitigation (Osaka et al. 2021:4; Seddon et al. 2021:1528). Reducing the potential for flooding damage is an adaptation measure in the face of increasing rainfall. Renaturalizing is a mitigation measure through planting trees and vegetation, which are carbon sinks. In addition, enhancing soil carbon sequestration through cropland nutrient management is a mitigation measure (Davidson et al. 2019; Osaka et al. 2021:4; Seddon et al. 2021:1528; IPCC 2023:21).

Farmers tended to be older, White males, fitting the demographic that was most likely to espouse climate change denial (McCright and Dunlap 2011; McCright 2016; Davidson et al. 2019:8; Leiserowitz et al. 2021), although the farmer demographic was changing. Anita suggested that the conservative leanings of farmers made communicating with them about climate change more challenging, and that talking about the global impacts of climate change was a waste of time:

> It's already hard enough for me to get their heads wrapped around, "Well, you up here in [a rural community] are having an impact down over there in [a lakefront community]." Like, already, we're stretching people's minds.

Anita felt that it was necessary to stick with impacts "within their realm of understanding." Brenda, at Farmland CA, provided some insight into why that might be the case:

> With this rural audience, the environment and the land is very much a commodity. And decisions are very much driven by that economic impact.

Brenda's comment that economic costs and benefits would be of most interest to farmers referred, in part, to the cost of removing land from agricultural production for renaturalization. With costs top-of-mind, global or distant local impacts of climate change might not register as concerns.

Most of the CA employees interviewed mentioned using peer-to-peer mentoring techniques to reach farmers by showing rather than just talking about the benefits of action. CAs recognized that social capital (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008:3) was important when dealing with the agricultural community.

Brenda saw the attitudes of farmers changing, as the flooding effects of climate change were becoming noticeable:

> In terms of our landowner or agricultural community, the breakthroughs that we're seeing now are really their ability to see impact on their own property and their own land. You know, I think 20 years ago, when we began talking about this, it seemed too high level [chuckling]. … But now that we see these more short, intense rainstorms, we see more days above freezing in the wintertime, … we're seeing more, you know, snow, but then quick melts, like, so now, they're really seeing the impacts and what that means for erosion and the movement of soil and all of that kind of stuff. That means that it's easier to talk to them explicitly about it, and they're ready now to hear those messages, where maybe 20 years ago it just seemed too out there, you know [chuckling].

Brenda described an evolution away from climate change denial. Direct experience with climate change has been shown to change opinions on climate change (Myers et al. 2013; Ballew et al. 2022). This openness to climate change solutions with co-benefits aligns with Davidson et al. (2019), who found that many Alberta farmers had already adopted a number of climate mitigation practices regardless of the perceived cause of climate change, because they benefitted soil quality and wildlife. It also aligns with Huddart-Kennedy et al. (2009), who found that rural residents in Canada were much like urban residents in terms of environmental attitudes but were more likely to engage in stewardship activities, such as tree planting, likely due to greater opportunities to do so.

Wind turbines presented a different sort of challenge. Much of rural southern Ontario was becoming dotted with wind turbines, often through foreign corporate investment (Christidis et al. 2017:98). Again, this is a conservative-leaning population (Christidis et al. 2017:96). Corinne,

with Trees-R-Us Conservation Organization, described the lack of acceptance of wind turbines in the wider community:

> A couple of big companies came in and started putting up turbines. And that created a lot of opposition. People were just annoyed about them, and you know, probably heard lots of the things that were claimed about wind turbines at the time. And I think, … people didn't want to talk about climate change, because climate change somehow implied or supported wind energy.

Wind turbines have long faced opposition for aesthetic and health reasons as well as concerns about poor planning (Wolsink 2007; Christidis et al. 2017). Wind, as well as solar, installations pose a challenge for conservation-based organizations because of their interest in preserving land and wildlife (Northrup 2012; Boscarino 2015:106-107). "The American conservation movement has had to balance the values of obtaining renewable energy versus the need to protect sensitive natural land" (Northrup 2012:108-109).

Dave, a board member of Trail Management Club, relayed a comment from the agricultural community indicating that it was also part of the opposition:

> I heard rumours like you couldn't find a worm within 50-foot to 100-foot radius of the base of a wind turbine in the farmers' fields.

Dave's comment implied that farmers were not in favour of wind turbines because of perceived adverse impacts to their crops. Farmers have a deep understanding of their land and object to climate change solutions being imposed on them (Afanasyeva et al. 2022).

The community eventually supported wind turbines when the benefits became apparent, as explained by Dave:

> When the wind turbines came in here locally, they wanted to "bribe" the local people into being in favour of what they were doing. … So what they did was they worked out a deal with the municipality. And so they gave the municipality millions of dollars every year for a 20-year guaranteed timeframe, and of that millions of dollars, 20 percent of it could go to organizations like ourselves if we applied for grant money.

Christidis et al. (2017) found that a significant part of the opposition to wind turbines was due to the perception that rural communities were not reaping benefits from these installations. Dave outlined one solution to that opposition, illustrating that the economic capital of industry may sway the social capital of local communities, and that those with capital hold the power (Bourdieu 1990; Bourdieu and Wacquant 1992).

Trees-R-Us Conservation Association experienced farmers as a more general challenge to communicating about climate change. Corinne shared a recent comment from another board member:

> He works … with a lot of farmers … and he said … "You know, there's still a lot of people who just won't buy it, because … a lot of people don't want to hear about climate change."

It is impossible to know, in this case, whether farmers were the obstacle or whether the board member's interpretation of the situation was the obstacle for Trees-R-Us.

Summing up the rural southern Ontario situation, the agricultural community controls much of the land and, therefore, has a significant role to play in the fight against climate change. Farmers were starting to understand how climate change was affecting them and were reachable through peer-to-peer mentoring and discussion of local costs and benefits. According to Davidson et al. (2019), farmers "bear very little resemblance to conservative white males outside the farming population," which provides both challenges and opportunities for climate action. Farmers, however, were implicated in the opposition to wind turbines. The NRNPs in the interview sample seemed to stay away from taking sides on the issue. This aligns with the avoidance of controversy on climate change in general but did not address the conflict between biodiversity issues and renewable energy, about which I was hoping to learn more.

7.4 DISCUSSION AND CONCLUSION

For this research, I intended to speak with dozens of ordinary Canadians that appreciate nature and enjoy being outdoors. By "ordinary," I meant the large proportion of Canadians who fall between climate activists and climate deniers. Because I was interested in how they talked about climate change, it made sense to approach the communications people on the leadership teams of NRNPs.

I realized early on that my definition of "ordinary" was flawed. After a dozen interviews, it struck me that the people with whom I had spoken were not only White but largely had British names. I had simply contacted organizations asking for their person in charge of communications. That trend continued. In this chapter, I have shown that the membership of NRNPs, and especially their boards, consists primarily of older, White people with financial and time resources to spare. This puts them in a socio-economically privileged category rather than my expectation of ordinary Ontario residents. This aligns with previous findings that people who are financially stable and with free time are more likely to participate in membership associations (Tschirhart 2006:530), leisure activities (Lee et al. 2001; Lee and Scott 2011; Lee et al. 2016; Powers et al. 2020), the environmental movement (Pezzullo and Sandler 2007; Jafri 2009; Gibson-Wood and Wakefield 2013; Taylor 2016), and activism more generally (McAdam 1986).

In this chapter, I drew together climate change and DEDI because it became apparent during the interviews that NRNPs faced the same challenges in adopting either issue. Field-level challenges included: 1) the subfield of the organization within the larger field; 2) funding and institutional constraints; and 3) conservative constituencies. At the individual level, organizations were affected by the behaviour of members of their leadership team. Organizational-level challenges were related to: 1) the age of the organization and its mission; 2) size and organizational

capacity; and 3) environmental privilege. I did, in fact, find a moderate correlation between communicating about climate change and communicating about DEDI issues.

The subfield of the organization, or organizational focus, was the most statistically relevant factor related to communications on climate change and DEDI. Conservation-oriented NRNPs were much more likely than recreation-oriented NRNPs to communicate about either. Wildlife-focused organizations were more likely than recreation-based organizations to communicate about climate change but less likely to address DEDI. The case studies illustrated significant differences in behaviour depending on the specific subfield of the organization. The subfield was an obstacle regarding climate change for 21 NRNPs (54 percent), including those who suggested that they did not need to communicate about climate change because it was the mission of other organizations in the broader field to do so. This illustrates free-ridership at the field level (Munck af Rosenschöld et al. 2014:641).

Funding and institutional constraints also presented obstacles at the field level. For those NRNPs with close ties to government or industry, whether structurally or through individual board members, those ties constituted coercive constraints due to the symbolic capital possessed by the conservative provincial government and the forestry and agriculture industries. For CAs, multiple interviewees cited the lack of a provincial mandate to address climate change and, relatedly, lack of funding, as reasons for not communicating about climate change. For non-CAs, having charitable status, while beneficial in terms of attracting funding, was perceived as a constraint on the ability to communicate about climate change. Previous limits on advocacy continued to be observed (Cameron and Kwiecien 2019). Overall, funding relationships and institutional constraints were obstacles for 14 NRNPs (36 percent).

Conservative constituencies were another obstacle to communicating about climate change due to the political climate. Twenty-one interviewees (54 percent) described either climate skeptics and deniers within their constituency or a sense of fatigue or negativity around the issue of climate change. Constituencies that required careful framing in communicating about climate change included farmers, hunters, and anglers. Interviewees at CAs suggested that farmers cared primarily about the economics of their farming business, and global climate change was not their immediate concern. Interviewees at wildlife organizations noted that there were vocal skeptics and deniers in their membership. In these cases, strategic ambiguity or tangible, place-based communications were felt to be more effective than overtly mentioning climate change.

Conservative constituencies in Ontario, especially climate skeptics and deniers, tend to be more prevalent in rural than urban areas. Urban NRNPs were more likely than rural NRNPs to address DEDI, which is probably a reflection of greater diversity in urban areas (ROI 2023a) and higher expectations to address DEDI (Patterson and Edge 2025). Surprisingly, the boards of urban NRNPs were proportionately less diverse than rural boards.

Individual-level obstacles to communicating about climate change relate to the composition of the leadership team. Each individual brings their own habitus to an organization, which might affect the operation of the organization (Emirbayer and Johnson 2008:4). Six interviewees admitted that they, personally, were not overly worried about climate change. As communications personnel, that, in itself, could fail to create a priority for communicating about climate change.

Individuals also possess various types and amounts of capital that can affect decision making (Emirbayer and Johnson 2008:24-25). Most member-oriented, recreational NRNPs have no staff and are, therefore, wholly dependent on their volunteer boards. Staffed NRNPs are also directed by volunteer boards. The composition of the board has a great deal of influence on how NRNPs

operate (Martinelli 1998; Rochester 2003; Ostrower and Stone 2006; Fredette and Bernstein 2019). The interviewees who were board members and not overly worried asserted that their board had no time on their agenda to discuss climate change. One board chair admitted that a previous chair would have been more likely to have brought issues like climate change to the board. An employee of a wildlife organization noted that they previously had climate denialists on their board. Another board included a member who was concerned about community pushback on climate change messaging. In addition, one interviewee described the obstructionism of a previous manager. The embeddedness of NRNPs in society leaves them vulnerable to societal influences, including political and social media polarization. In total, individual members of the leadership team created obstacles to communicating about climate change in 18 NRNPs (46 percent).

At the organizational level, interviewees from all types of NRNPs used their mission as a shield against having to address climate change (Hannan and Freeman 1984:156; Brown and Iverson 2004; Rangan 2004; Souder 2016:2714; Seiler 2026). The mission of the organization was the most commonly cited obstacle to communicating about climate change, offered by 24 NRNPs (62 percent). Mission statements are difficult to change since they are core to an organization's identity (Hannan and Freeman 1984:156; Rangan 2004) and, thus, may be related to the age of the organization. Most of the organizations in this study were decades old. Organizational age was not statistically relevant, with the exception that the one NRNP with climate change in its mission was one of the newest organizations. Regarding engagement with DEDI, the age of the organization was again uncorrelated but might have been a factor, in that two of the newest organizations were the only ones to fully embrace social justice issues. These findings align with Minkoff and Powell's (2006) assertion of conflicting influences on NPOs. The exceptional organizations are examples of newer organizations exhibiting less inertia than older ones, possibly due to fewer accumulated

practices (Hannan and Freeman 1984) and less build-up of organizational habitus (Bourdieu 1990:62).

The size of the organization, as measured by number of employees, was strongly related to NRNPs' engagement with climate change. Johnson et al.'s (2023) findings were less clear. The relevance of size in my data is likely, in part, due to the even stronger influence of organizational focus, and the fact that almost all conservation-oriented NRNPs were staffed and almost all recreation-based NRNPs were not. Furthermore, the greater likelihood of the presence of science professionals within the staffs of larger NRNPs would increase climate literacy, thereby increasing the ability to communicate intelligently about climate change. The size of the organization was also moderately related to NRNPs' engagement with DEDI. This is likely due to more fully developed human resources processes and the increased applicability of accessibility regulations for larger organizations.

Organizational size affects the capacity of the organization. Capacity was a stated obstacle to communicating about climate change for 19 NRNPs (49 percent). Volunteer-run NRNPs are wholly dependent on their volunteers for their operations, and the size of the pool of volunteers can limit what the organization is able to undertake. In addition to volunteer challenges, small, staffed, conservation-oriented NRNPs face capacity difficulties related to funding (Akingbola 2006; Eisenberg and Eschenfelder 2009). One organization used students and interns to handle its communications, to keep costs down. Another lacked capacity to support its staff in keeping up with current developments in the field. In both cases, communication on climate change was minimal. It was mostly the volunteer-run organizations and organizations with very small paid staffs that claimed lack of capacity as a reason for not addressing climate change. That lack of capacity could include a lack of vocabulary to communicate effectively about climate change.

Finally, environmental privilege was apparent in 16 NRNPs (41 percent) and demonstrated in two main ways, one related to NRNPs' approach to DEDI and the other related to their approach to climate change. Argüelles's (2021) aspects of access, identity, and naturalization of privilege relate to the former. Despite the changing demographics of Ontario, the majority of the NRNPs interviewed had little to no evidence of racial diversity (D) on their board or in their online presence. This aligns with previous Canadian research on NPO boards (Fredette and Bernstein 2019) and ENGO websites (Haluza-DeLay and Fernhout 2011). It did not appear to be through any rejection of diversity but simply limited engagement with it. NRNPs engaged in speech acts (Ahmed 2006; Spaaij et al. 2020) on their websites by displaying a welcoming statement as an effort at inclusion (I) or an Indigenous land acknowledgement as an effort at decolonization (D) but often stopped there. The majority of NRNPs in the interview sample failed to recognize systemic barriers to participation for marginalized populations. These are indicators of White privilege, which does not require malintent (Pulido 2015), and fall short of the equity (E) component of DEDI. The link to environmental privilege is made through access to environmental amenities.

Privileged representation manifested differently in different subfields of NRNPs. Some hikers and cross-country skiers justified their Whiteness as a historical remnant of the origins of their activity, thus naturalizing the environmental privilege (Argüelles 2021). Environmental identity was expressed by cross-country skiers, who felt that they exhibited pro-environmental behaviours in their daily lives. Environmental identity for hunters and anglers valued the conservation of wildlife, while farmers valued the viability of their farmland; portions of these constituencies presented challenges to NRNPs through their skeptical stance towards climate change. Environmental representation manifested as privileged decision-making by conservation

organizations that promoted a vision of preservation, in some cases with limited consideration for existing uses of the land.

The second main strand of environmental privilege was the ability to ignore climate change while continuing to engage in environmentally-privileged activities, which was more evident in the recreation-oriented NRNPs than in the conservation-oriented NRNPs. This was an organizational-level equivalent of cognitive dissonance (Norgaard 2011, 2012). A good example was transportation. Naturalist groups, hikers, and cross-country ski clubs regularly arranged outings for their members. Transportation to outings was, therefore, both an access problem and an environmental problem in the GHG emissions produced. Some NRNPs recognized this and provided group transportation while others continued driving their cars and trucks. The ecological irony (Szerszynski 2007) of this was recognized by interviewees. In addition to local travel, cognitive dissonance was involved in continuing to support long-distance travel habits that were an integral part of the activity, particularly in naturalist clubs and competitive cross-country ski clubs. This combination of privileged access to environmental amenities with the ability to ignore climate change, while justifying the offending behaviour, is an indicator of environmental privilege (Norgaard 2012:98; Nevins 2014:305; Argüelles 2021:655).

It is unfair to say that NRNPs did not engage with diversity at all. Only one-third of NRNPs interviewed had no mention of diversity in their public presence, even though some of that third had a BIPOC board member. This supports Fredette and Bernstein (2019), who found that board diversity needs to exceed a minimum threshold before noticeable change occurs. While their threshold was 35 percent, the largest proportion of BIPOC board members in my interview sample was 20 percent. The one at 20 percent was the only organization to address climate justice. That cannot be a coincidence. One of my original interests in this chapter was in analyzing the

relationship between board composition and attention to issues of justice, especially climate justice. Although the sample size was relatively small and not statistically representative, for the NRNPs in the interview sample, when board membership was less diverse, attention to justice issues was minimal or non-existent. For much of this population with their socio-economically privileged boards, there was minimal attention to either DEDI or climate change. On a positive note, close to half of the NRNPs in the interview sample did address one or both of those issues to more than a cursory degree. I discuss positive signs in the next chapter — the conclusion.

CHAPTER 8 – CONCLUSION

In this dissertation, I studied how conservation-based and recreation-based NPOs have responded to climate change. Based on findings from interviews and textual data, I have demonstrated that these NRNPs tended to avoid communicating about climate change. I uncovered a set of frames that are distinct from those used by the climate movement and an array of obstacles at the levels of the field, organization, and individual. The findings contribute to an understanding of how non-activist organizations communicate about climate change. A unique theoretical contribution of this dissertation is the widening of the discussion of climate change beyond environmental sociology to include the sociology of organizations, Whiteness studies, and ANT.

There are three key sets of findings, responding to the research question. First, regarding communications behaviour, NRNPs: 1) ignored climate change, 2) avoided the topic of climate change, 3) avoided the term "climate change," 4) selectively used "climate change," 5) downplayed the seriousness of climate change, or 6) treated climate change as a serious problem. Second, field-level obstacles to communicating about climate change included: 1) the subfield of the organization within the larger field, 2) funding and institutional constraints, and 3) conservative constituencies. Organizational-level obstacles included: 1) the age of the organization and its mission, 2) size and organizational capacity, and 3) environmental privilege. Individual obstacles were a function of the composition of the leadership. Third, because of these obstacles, NRNPs tended to avoid political discourse when communicating about climate change and instead used apolitical frames, such as mentioning the effects of climate change without laying blame, or post-political frames that focused on scientific, technological, and managerial solutions to climate change.

These findings address four weaknesses in the literature. First, they address a general gap regarding climate change and NPOs (Gazley and Prakash 2023), including causes of inertia on climate change (Munck af Rosenschöld et al. 2014). Second, they address a gap in theorizing organizational responses to societal shifts by small NPOs (Minkoff and Powell 2006; Brulle and Norgaard 2019). Third, they identify climate change discourses and frames used by conservation ENGOs while unusually adding movement-adjacent recreation groups. Finally, they apply the concept of environmental privilege (Park and Pellow 2011; Norgaard 2012; Argüelles 2021) to the issue of climate change and the level of the organization.

This chapter brings the dissertation to a close by presenting in more detail the theoretical contributions of the dissertation and how they aid in understanding responses of NRNPs to climate change. The theoretical contribution section is lengthy and, therefore, broken into subsections. The three key sets of findings outlined above each have their own subsection. Three additional subsections follow, for each of three additional theoretical contributions. A small contribution is made to the non-profit literature on the challenges of being a NPO. A novel contribution is bringing together an analysis of organizational engagement on climate change and DEDI and tying that to the concept of environmental privilege. A final theoretical contribution posits divisions within the environmental movement. The remainder of the chapter includes sections on methodological contributions, positive signs, takeaways for NRNPs, limitations of the study, and suggestions for future research. I start with a refresher on why I chose NRNPs as my target population.

8.1 WHY NRNPS?

NRNPs are a unique construct for this dissertation, so a refresher at this point will aid in understanding what follows. NRNPs are the offspring of the original North American environmental movement dating back to the 19th century. Preservation organizations are direct

descendants of the early preservation organizations, that had a reverence for nature as pristine and requiring protection (Cronon 1996; Brulle 2000; Rootes 2004). Hiking and cross-country skiing clubs developed from the view of nature as something to conquer or as a place of escape from the ills of the city (Brulle 2000). Naturalist clubs are the local manifestations of the Audubon Society, which was built on an awe of nature and was originally reserved for well-off members of society (Brulle 2000; Taylor 2016). Wildlife conservation organizations developed from the conservationist branch of the environmental movement that advocated wise use of environmental resources, such as fish and game, in order to sustain the existence of those resources into the future (Brulle 2000; Rootes 2004; Love-Nichols 2020:3). CAs were developed to manage water resources, following a managerial approach to conservation (Brulle 2000). For the affluent, White men who founded these strands of the environmental movement, domination of nature was foundational, as was exclusion of "Others."

Today, the interaction of NRNPs with their environment brings them in close contact with pathogen-carrying ticks, stressed trees, and different species of fish than they might expect. The snow is less reliable for cross-country skiing than in the past, and hiking trails get washed away in extreme flooding events. Wildfire smoke keeps NRNPs and their members indoors, preventing them from engaging in activities altogether. These are among the embodied experiences of climate change (O'Reilly 2018) heard in the course of this study (Seiler 2024).

Recent Canadian research has put a label on the members of NRNPs: Civic Nationals (Lachapelle and Comeau 2024; Lachapelle and Martel-Morin 2024). Civic Nationals represent over one-fifth of the Canadian population. They enjoy outdoor activities and lean slightly conservative, but they are also quite concerned about climate change and tend to support climate policies (Lachapelle and Comeau 2024). Political polarization and vocal skepticism across North

America, however, give people the false impression that only a minority of the population supports climate action (Maibach et al. 2016; Ballew et al. 2019; Sparkman et al. 2022; Comeau 2026). Communications researchers recommend increasing conversations on climate change in order to increase the understanding that others care about the issue (Goldberg et al. 2019; Ballew et al. 2022; Comeau 2026).

NRNPs are well-placed to hold such conversations, but few in this dissertation were doing so. The dissertation asked whether and how NRNPs communicate about climate change, and what the obstacles might be. The main finding was that NRNPs tended to avoid mentioning climate change even though they were experiencing the effects of climate change in the course of their outdoor activities. If NRNPs communicated about climate change, it was generally by talking about the effects without labelling it as climate change or naming a cause. Solutions such as tree plantings were presented, often without tying them to climate change. Motivations for climate action were often communicated in terms of benefits to the individual or community, again without mentioning climate change. This avoidance exacerbates the spiral of silence on climate change (Maibach et al. 2016), leading members to think that their organization does not care about climate change, even though I found that most NRNPs were more concerned about climate change than they showed in their communications. Climate change is a "scary" topic, as shared in the opening to Chapter 1. The hope of this dissertation is that its conclusions will embolden NRNPs to name climate change, hold those conversations, and end the spiral of silence.

Studying this population addresses gaps and weaknesses in the literature by: 1) adding Canadian data — specifically, Ontario data — to the literature on environmental movements; 2) adding qualitative data to the growing body of quantitative data on responses to climate change in Canada; 3) adding data on a non-activist, middle section of the population rather than the more

frequently studied climate change extremes; and 4) adding data on small NPOs to the literature on NPOs generally and, more specifically, related to climate change.

8.2 THEORETICAL CONTRIBUTIONS

Asking the questions of whether and how NRNPs communicate about climate change and why brought together a number of sociological strands. Using ANT in Chapter 5 revealed NRNPs to be small players in a large web of relationships that include governments, corporations, other NPOs, human communities, and the non-human world. As small players, they are buffeted by a whole range of forces from the micro to the macro. The new institutionalist literature (DiMaggio and Powell 1983) was helpful in understanding NRNPs as embedded within and responding to forces within an institutional field. Mostly lacking in capacity, they are more likely to engage in mimetic isomorphism — following the lead of other organizations — than to chart their own course. If the field is not acting on climate change, small NRNPs are unlikely to lead the way. A loss of legitimacy in the eyes of funders or potential funders could be an existential threat. Strategic action fields (Fligstein and McAdam 2012) illuminated the role of umbrella organizations in facilitating that isomorphism. Political process theory (McAdam et al. 1996; McAdam and Tarrow 2019) was useful for framing the rise of right-wing populism and the associated climate skepticism and denial as a societal challenge to discussing climate change. Vocal pushback from deniers could be another threat to organizational legitimacy or, at least, uncomfortable. Bourdieusian field theory's concept of habitus (Bourdieu 1990; Bourdieu and Wacquant 1992) helped to explain how organizations build up a set of practices and then continue or modify those practices as new situations like climate change arise, with a preference for continuing past practices. Members of the leadership team also bring their own habitus and capital, which could block change in an organization or enable it to change as the leadership team changes. Sensitivity amongst the

leadership team to climate change skepticism could cause inertia at the individual or organizational level. This apparent theoretical eclecticism builds on Fligstein and McAdam's (2012) theorization of strategic action fields, that pulls together Bourdieusian field theory, new institutionalism, and social movement theory to explain stability and change within fields, while responding to Barman's (2016) call to go beyond normative assumptions about NPOs in applying these lenses. The result is the beginnings of a sociological theory of small non-profits, where such does not exist. Finally, the concept of environmental privilege (Freudenburg 2005; Park and Pellow 2011; Norgaard 2012; Argüelles 2021) was invaluable in providing the missing piece in the specific case of climate change to complete the explanation of inertia on climate change in NRNPs. I assert that environmental privilege is an example of habitus.[124]

The following subsections detail the theoretical contributions of this dissertation. Section 8.2.1 contributes to the sociology of organizations by discussing organizational communications responses to climate change. Section 8.2.2 contributes to the literature on climate change discourse and framing. Section 8.2.3 discusses obstacles to communicating about climate change, including the effect of conservative constituencies. That section contributes to the sociology of organizations as well as framing for skeptical target audiences. Section 8.2.4 discusses challenges of being an NPO in the larger field of NRNPs, including funding and institutional constraints and, uniquely, the individual influences of a volunteer board, thus contributing to non-profit studies. The challenge of environmental privilege is discussed in Section 8.2.5, where I link it to the juxtaposition of climate change and DEDI throughout this dissertation, thereby contributing to Whiteness studies. Section 8.2.6 addresses the most relevant indicator of how a NRNP would communicate about climate change: its subfield or particular focus. Differences in behaviour

[124] Future research could explore the intersection of the concepts of ecological habitus (Kasper 2009) and environmental privilege.

among recreation-based groups, wildlife organizations, and other types of conservation organizations were identified. The differences, including differences from the climate movement, prompt the question: are NRNPs part of the environmental movement?

8.2.1 Organizational Communications Responses to Climate Change

Identifying the range of organizational responses to climate change brings together work on responses to change in NPOs (Minkoff and Powell 2006) and responses to cultural trauma (Brulle and Norgaard 2019). This dissertation specifically addresses a gap at the intersection of NPOs and climate change (Gazley and Prakash 2023). NRNPs ranged in their responses to climate change from ignoring it altogether to embracing it as an opportunity to forge a new path. Focusing on communications behaviour, NRNPs: 1) ignored climate change, 2) avoided the topic of climate change, 3) avoided the term "climate change," 4) selectively used "climate change," 5) downplayed the seriousness of climate change, or 6) treated climate change as a serious problem. Ignoring climate change combines the possible individual response of willful ignorance (Brulle and Norgaard 2019:900) with the suggestion that very small NPOs might be unaware of external pressures (Minkoff and Powell 2006:608), confirming that that lack of response can also apply to small NPOs regarding climate change. The responses ranging from avoiding the term "climate change" to downplaying the topic reveal nuances within the category of conservative change by NPOs (Minkoff and Powell 2006) in relation to climate change. The categorization provides a framework for communications strategies noted in other studies: 1) avoiding the issue of climate change by using strategic centrism (Cherry 2019); 2) avoiding mentioning climate change by using strategic ambiguity (Davidson et al. 2019) through highlighting threats to nature (Boscarino 2015:107) and using place-based, practical communications (Gislason et al. 2021); and 3) downplaying climate change, selectively reframing existing messages to incorporate climate

change, or avoiding reframing (Boscarino 2015). There were no NRNPs in this study that actively resisted climate action, although some of their members might have done so.

8.2.2 Framing Climate Change

The analysis of climate change framing by NRNPs builds on work on framing climate change by conservation ENGOs (Markham and van Koppen 2014; Tosun and Saad 2023) and ENGOs more generally (Boscarino 2015; Johnson et al. 2023; Graham and Robinson 2025), as well as categorizing climate change frames by core framing task — diagnostic, prognostic, or motivational (Snow and Benford 1988; Hoffman 2011; Wetts 2020; Vu et al. 2021; Graham and Robinson 2025; Yoreh and King 2025). To this body of literature, which mostly deals with larger ENGOs, it adds the framing of climate change by local conservation organizations as well as framing by nature-related recreation groups. Furthermore, it provides descriptions of the frames often mentioned simply by their category in other literature. Finally, it adds a novel aspect of categorizing the framing into political and post-political discourses and adds the category of apolitical discourse.

The main finding is that climate change was more likely to be communicated implicitly than explicitly by NRNPs. For some NRNPs, that depended on the particular topic or target audience. Many of the frames described could be used implicitly. For instance, the most popular prognostic frame — nature-based solutions — would be one such frame, leaving the "climate" out of NbCS, or simply "planting trees." The most popular diagnostic and motivational frames referred to the effects of climate change and the benefits of acting, respectively. Most of those frames addressed tangible, local effects and benefits rather than referring to the global issue of climate change.

A related significant finding is that NRNPs tended to avoid political framing, consistent with an earlier U.S. study (Wetts 2020) but in contrast to a recent Canadian study of both climate and

conservation-oriented ENGOs (Graham and Robinson 2025). While most of the framing fit within the post-political climate change discourse, some of it could be considered apolitical. The latter was distinct from the post-political discourse in its lack of acknowledgement of climate change and lack of discussion of measurement, mitigation, or adaptation, and far from political discourse involving blame or advocating collective action. The apolitical discourse was especially popular with recreation-oriented NRNPs.

Despite the avoidance of climate change, the same apolitical frames could easily be linked to climate change with slight modifications. Some NRNPs expected that those who were concerned about climate change would pick up the connection. Other NRNPs hoped that they could get their messages across without mentioning climate change. Either way, the climate change message could get lost when implicit language is used. The constituencies of NRNPs are largely interested in climate action (Lachapelle and Comeau 2024), so burying the message is a lost opportunity to engage constituents. It could also cause difficulties for researchers in identifying climate change communications.

I assert that frames that discuss local effects and benefits of individual actions put the onus on individuals to adapt to changing conditions, whether an increase in ticks, as seen in Chapter 5, or an increase in extreme weather, as seen in Chapter 6. Constituents were encouraged to see the effects of climate change as just something that was happening. Without discussing climate change as a societal issue, experiencing the effects of climate change remains a personal trouble, borrowing from C. Wright Mills (1959). Furthermore, the apparent lack of concern about climate change conveyed by such frames perpetuates the spiral of silence on climate change (Maibach et al. 2016). It raises the question of whether such framing is preferred by constituents. That question is beyond the scope of this dissertation but is an avenue for future research.

Identifying the benefits frame as a motivational frame is a unique contribution of this dissertation. Efficacy is a motivational frame noted in the literature (Hart and Feldman 2016; Bolsen and Shapiro 2018; Snow, Vliegenthart, and Ketelaars 2019:397; Bostrom et al. 2021; Vu et al. 2021). I suggest that response efficacy regarding climate change is equivalent to a global benefits frame. The benefits frame, however, is broader, incorporating benefits to the individual, community, nature, and globally, each of those linked to specific values (Schwartz 2012; Bouman et al. 2021). Biospheric, altruistic, egoistic, and hedonic values have been studied in relation to climate change (Bouman et al. 2021). The benefits frame provides a way to consolidate frames appealing to values into a single concept. In addition, identifying the frames of community benefits and global benefits highlights a distinction regarding climate change between the two altruistic values of benevolence at the community level and universalism (Schwartz 2012:7). Future research should explore this distinction.

8.2.3 Obstacles to Communicating about Climate Change

Chapter 5 started to look at obstacles to climate action by putting the focus on non-humans. Members of NRNPs often see forests as places to recreate, cleanse, or escape from everyday life. Such visits to intact, healthy-looking forests offer assurances that everything will be fine. The spread of EAB and ticks throughout Ontario has rattled that sense of security. The less reliable snow conditions have cross-country skiers starting to think about the future of their pastime. The threat of loss of cold-water-loving trout in southern parts of the province is having the same effect on anglers and those who support them. Responses by NRNPs have been calls to tuck pants in socks, do tick checks, wait for better weather next week, or fish for different species. These responses fail to transform the personal problems related to climate change into societal issues

(Mills 1959) and, according to interviewees, are often deliberate efforts to avoid that translation. Why are these situations not inspiring more action?

To be fair, tree planting is a popular activity for NRNPs, bringing in funding and volunteers as well as increasing partnerships, but NRNPs sometimes avoid mentioning that it is a form of climate action. A unique contribution of this dissertation is to identify obstacles to communicating about climate change at the levels of the field, the organization, and the individual for NPOs. This builds on Munck af Rosenschöld et al.'s (2014) theorizing of obstacles at the institutional level and Brulle and Norgaard's (2019) theorizing of responses at various levels to the cultural trauma of climate change. Obstacles identified in this dissertation at the level of the field included: 1) the subfield of the organization within the larger field, 2) funding and institutional constraints, and 3) conservative constituencies. At the organizational level, they included: 1) the age of the organization and its mission, 2) size and organizational capacity, and 3) environmental privilege. Obstacles at the individual level related to the composition of the leadership team. This work contributes to the sociology of organizations and responds to calls to apply field theory and habitus to NPOs (Emirbayer and Johnson 2008; Barman 2016). It specifically addresses a gap at the intersection of organizational inertia, NPOs, and climate change.

One of the identified obstacles was conservative constituencies. Growing anti-carbon-tax rhetoric in Canada throughout the data collection period, particularly affecting right-leaning constituencies, contributed to reluctance on the part of NRNPs to communicate about climate change. This shows the relevance of political opportunities and constraints in limiting discursive opportunities (McAdam et al. 1996; Jasper and Polletta 2019; McAdam and Tarrow 2019). Within the hunting and angling subfield, climate deniers possessed significant symbolic capital (Bourdieu and Wacquant 1992:119; Emirbayer and Johnson 2008). On the other hand, hunters and anglers

are very aware of changes in wildlife populations. As a result, wildlife organizations avoided mention of climate change while trying to get the message out in other terms. Organizations dealing with farmers found that farmers were most concerned about the personal economic consequences of changing weather patterns. Communications that spoke directly to the effects farmers were seeing on their land and the benefits to them of changing farming practices were most effective, including delivering those messages via peer-to-peer mentoring. CAs and wildlife organizations that dealt with these communities used the post-political discourse of managerial solutions. These findings support and add Canadian data to Love-Nichols's (2020) study of hunters and anglers in the United States and to studies of farmers and climate change in the United States and Canada (Houser 2018; Davidson et al. 2019; Nowatzke and Arbuckle 2025). Where Davidson et al. (2019) recommended strategic ambiguity with farmers, my research found a very concrete, place-based approach to communicating with farmers but strategic ambiguity in communicating with hunters and anglers.

8.2.4 Challenges of Being a NPO

This dissertation adds to the non-profit literature through describing challenges faced by NPOs, particularly small NPOs. NRNPs were chosen, in part, because they tend to be small local or regional organizations. Most research on conservation organizations and climate change focuses on large national and internationally-active ENGOs (e.g., Markham and van Koppen 2014; Boscarino 2015; Partelow et al. 2020; Johnson et al. 2023; Graham and Robinson 2025). Falzon et al. (2021) call for research on climate change responses at a subnational level. Local NRNPs reach individuals in ways that are not possible for organizations at the national level, including interacting directly through local outdoor activities. Local NRNPs also face different challenges

than large, national organizations. The small, local conservation group with a handful of staff members and a board continually scraping for funding to maintain continuity is not often studied.

The only differences between the organizations studied in this dissertation and those studied by Graham and Robinson (2025) were size, scope, and focus. Graham and Robinson studied large conservation-focused, climate-focused, and generalist ENGOs operating at the national level in Canada. Those organizations were much more likely to communicate about climate change and to use political discourse than the NRNPs in my interview sample. This provides independent support to my quantitative finding that focus, size of organization, and scope of catchment area were the most significant factors affecting whether NRNPs communicated about climate change.

Field theory and, particularly, ANT were helpful in illuminating the larger field in which NRNPs operate. The cases of EAB and ticks illustrated the large amount of human-created infrastructure around NRNPs, including multiple levels and departments of government and a variety of industries, such as health care, pharmaceuticals, and clothing. The cases of northern Ontario and rural southern Ontario highlighted the influence of the forestry and agriculture industries. NPOs and, more specifically, NRNPs are tiny voices with few resources in comparison to these massive institutions.

Furthermore, NPOs are often dependent on these larger institutions for funding, which constrains what they can do and say without fear of losing funding. In Ontario, even the quasi-governmental conservation authorities have been constrained on what they can say about climate change, due to changes in regulations by the conservative provincial government. More generally in Canada, the legacy of advocacy constraints and previous federal government crackdowns on charitable ENGOs has led to self-censorship even after those constraints have been lifted (Seiler 2026).

A novel contribution of this dissertation is identifying individual influence on organizational inertia on climate change. Norgaard (2011; 2012; Brulle and Norgaard 2019) has identified cognitive dissonance as a prominent response of individuals to the cultural trauma of climate change, alternative responses being to embrace, obstruct, or intentionally avoid the issue. This dissertation extends these responses to their effect on NPOs. NPOs are internally challenged by the volunteer nature of their boards. The pool of potential board members is necessarily limited to those who can afford the time to help the organization without compensation (Martinelli 1998; Rochester 2003). Member-based NPOs are further limited to their own membership, and small NPOs are more limited still (Rochester 2003). As a result, there might not be people available with the ideal skill sets to run an organization. Individuals within the leadership teams in this study blocked action on climate change or chose not to prioritize the issue. Cognitive dissonance on the part of individuals was not challenged by the board as a whole, resulting in cognitive dissonance at the organizational level. NPOs make do with the volunteers that they can get and the time that those volunteers have available, often leading to less-than-optimal results. This affects all aspects of an organization, including communications and the long-term visioning required to redirect the mission of the organization in the face of changes like climate change.

8.2.5 Climate Change, DEDI, and Environmental Privilege

The concept of environmental privilege was not in my dissertation proposal, although racial disparities in recreation and the environmental movement were. I started off this research thinking that NRNPs were comprised of ordinary Canadians, knowing that the vast majority of Canadians enjoy nature. I selected NRNPs with a low financial barrier to entry in the hope of reducing the effect of White privilege on my research. I found, instead, that NRNPs were largely White and controlled by an even Whiter leadership. This was apparent in both the interviewees and survey

respondents, as well as the descriptions given by interviewees about their boards and memberships. Consistently negative responses to the frame of environmental justice led to a review of the textual data for evidence of work on social justice issues, which revealed that only a cursory nod to DEDI, if any, was the norm for most of the organizations. That led to the application of the concept of environmental privilege to the field.

Throughout the dissertation, I have portrayed climate change communications and DEDI initiatives as two sides of the same coin. Some NRNPs in my interview sample simply ignored the coin; others addressed only one side or the other; some addressed both sides, to varying degrees; few gave both issues serious attention. This dissertation builds on Johnson et al.'s (2023) juxtaposition of climate change and DEDI and relates that to the concept of environmental privilege, as a unique contribution of this dissertation.

Environmental privilege is a concept that was originally applied to the ultra-rich, with their near-exclusive access to certain environmental amenities (Pellow 2009:5; Park and Pellow 2011). Argüelles (2021) extended the concept to a less exclusive but still affluent, largely White portion of the population for whom there are few barriers to accessing environmental amenities. Environmental privilege encompasses disproportionate access to and decision-making over environmental goods, the ability to embody an environmental identity, and a naturalization of those privileges (Argüelles 2021). Building more directly on Freudenburg (2005), environmental privilege also involves avoiding DEDI and climate change while continuing to enjoy privileged access to and representation of the environment. The concern with environmental privilege includes both the environmental footprint of disproportionate access and who is left out (Freudenburg 2005; Park and Pellow 2011).

Applying Argüelles (2021), recreation-oriented NRNPs enjoyed privileged access and conservation organizations determined the value of environmental goods, such as which lands were worth preserving. Wildlife organizations enjoyed not only privileged access but also the support of government to maintain wildlife populations (MNRF [2021] 2023). For many of the organizations in this dissertation, that privilege was naturalized through their predominantly affluent, White leaderships, in a White-oriented, multicultural society (Gosine and Teelucksingh 2008; Jafri 2009; Lei and Guo 2022).

NRNPs continue the traditions of their preservation and conservation roots, seeing nature as a place for escape. Escapes from the city are more difficult to access for more marginalized communities. Land use decisions could perpetuate inequities (Bauer 2023). The arrival of Lyme disease and other tick-borne diseases in Canada has erected yet more barriers to participation in outdoor activities, due to the downloading of responsibility to the individual to take precautions. In addition to the inherent threat to personal security and well-being are prompts to purchase protective products, like tick pants and insect repellents. While some NRNPs in this study made efforts to reach out to marginalized communities, those efforts were often well-meaning but insufficient or, worse, self-serving. It was a rare NRNP that was successful in developing and maintaining authentic, reciprocal relationships with marginalized communities.

I found a similar organizational inertia regarding both climate change and DEDI. The majority of NRNPs in the interview sample showed minimal to no engagement with either issue. Moreover, most NRNPs had a similar degree of engagement or lack thereof with both issues. No engagement with either issue was almost exclusively by volunteer-run organizations. This supports the assertion that very small NPOs may not have the awareness or capacity to recognize external pressures (Minkoff and Powell 2006:608). The few that engaged strongly with one issue or the

other or both were mostly relatively new conservation organizations that were forging their own paths locally and not part of a broader conservation-focused subfield. This suggests that the pull toward isomorphism (DiMaggio and Powell 1983; Barman 2016:449-450) in long-established NRNPs is strong and has contributed to limited engagement in climate change and DEDI. It also suggests that if these subfields could be moved towards greater engagement, perhaps through their umbrella organizations, then the pressures toward isomorphism could result in positive change.

This dissertation extends the findings of Spaaij et al. (2020) on barriers to engagement with diversity in sports clubs to other NPOs. I identified self-victimization, essentialism, and speech acts as also applying to NRNPs. The appeal to lack of capacity as a defence for lack of engagement would be labelled more critically by Spaaij et al. (2020:370) as self-victimization. Essentialism was claimed regarding the historical roots of hiking and cross-country skiing. More broadly, the field of NRNPs arose from 19th century, affluent, White roots, and many NRNPs have been in existence for decades. The consequently long-standing habitus of these organizations presents obstacles to change (Bourdieu 1990:62). Speech acts (Ahmed 2006; Spaaij et al. 2020) — which include Indigenous land acknowledgements and messages of "all are welcome," but not following through with actions — reveal White privilege and, due to the link to environmental amenities, environmental privilege. Whiteness is the privilege of not having to think about diversity (Doane 2003). Environmental privilege extends that to not having to think about climate change. Extending Freudenburg's (2005) theorizing of a double diversion to climate change, environmental privilege involves disproportionate access to and representation of environmental goods, along with the ability to ignore or divert attention away from climate change.

8.2.6 Are NRNPs Part of the Environment Movement?

Two of the issues raised in the literature and addressed in this dissertation are whether conservation organizations (Saunders 2007) and wildlife organizations (Johnson et al. 2023:966) are part of the environmental movement. Having added recreation-oriented groups to my target population, I found two splits in relation to climate change: 1) between recreation-oriented groups and conservation-oriented groups, and 2) between conservation-oriented organizations and climate change organizations. Adding recreational organizations to the population of conservation ENGOs is a unique feature of this dissertation that enables these comparisons. Differences between wildlife organizations and other NRNPs were less clear.

I label the recreation-oriented groups as movement-adjacent. Most of the hiking and cross-country skiing groups self-identified as outside the environmental movement, and most of them did not engage in advocacy activities. As such, they would not be considered interest groups but simply associations. In contrast, all of the naturalist clubs self-identified as part of the environmental movement. All of the naturalist clubs also engaged in some form of advocacy on nature issues with their local government and, through their umbrella organization, with the provincial government. Thus, they would be considered interest groups. Nonetheless, most of the recreation-oriented groups — including some of the naturalist clubs — either ignored or deliberately avoided communicating about climate change, even though climate change was affecting their organizations' activities or what they saw on their outings.

How recreational groups communicate about climate change is a unique aspect of this dissertation. Naturalist clubs have been studied regarding their communications on environmental issues (Burke et al. 2015; Cherry 2019). This dissertation extends those studies to climate change and to other recreational groups. Framing by recreation-oriented organizations was either apolitical

or post-political regarding climate change, avoiding controversy, like the Audubon Society's strategic centrism (Cherry 2019). My findings also support Burke et al.'s (2015) assertion of a split in the environmental movement between actively protecting nature and passively appreciating nature, in that most of these recreation-oriented groups would fall on the side of passive appreciation. It does seem to be a fuzzy line, however. The variation in interest of recreation-oriented groups in climate change, evidenced through their descriptions of activities like carpooling or participation in tree plantings, showed the effects of individual influence on small NPOs, as that interest varied widely from one group to the next depending on the leadership. Even the apolitical frames of recreation-oriented NRNPs, however, could be modified to include reference to climate change if an effort were to be made to encourage these movement-adjacent groups to start talking about the issue. I suggest that they are mobilizable.

Johnson et al. (2023) questioned whether wildlife organizations were part of the environmental movement. My interview sample included only five wildlife organizations, so broad generalizations are not possible. From my analysis, it was clear that all were interested in conservation and most agreed that they were part of the movement. They were concerned about climate change and did, in fact, communicate about it, but generally without using the term "climate change." This behaviour might cause miscategorizations in an automated textual analysis. This was the biggest difference in communications between wildlife organizations and other conservation-based organizations, which were generally more likely to use the term. The intentional avoidance of "climate change" was a result of the noticeable presence of climate change skeptics and deniers within their memberships. Wildlife organizations felt that they had to be careful in framing climate change, some using strategic ambiguity (Davidson et al. 2019).

All of the wildlife organizations in my interview sample were at the multiregional, provincial, or national level, and most of them engaged in advocacy activities, enjoying a consultative relationship with the provincial government. In contrast with Love-Nichols (2020) in the United States, I did not find the beginnings of a climate movement within the hunting and angling community. That is not to say that such does not exist elsewhere in Canada, but my sample was limited to Ontario. My conclusion is that wildlife groups would be considered interest groups in Ontario.

Conservation organizations behaved more like interest groups or (even less activist) associations than social movement organizations, even though most identified as part of the environmental movement. In contrast to naturalist clubs and wildlife organizations, most of them did not mention advocacy with any level of government. Some specifically noted that they were non-advocacy in order to maintain their charitable status (Cameron and Kwiecien 2019). Regarding climate change, they were the most likely of the organizations in this study to communicate about climate change, but that spanned the entire spectrum from ignoring climate change to treating it seriously. Almost all of these organizations used post-political discourse, showing that they work within the status quo (Swyngedouw 2010), again identifying them as interest groups rather than movement organizations. Some also engaged in more political discourse, such as involving constituents in socially-just community solutions or sharing the posts of local climate activist groups. Within the subfield of conservation organizations, the size and age of the organization and leadership of the organization all contributed to different approaches to climate change, demonstrating the operation of organizational and individual habitus within a field (Bourdieu 1990; Bourdieu and Wacquant 1992). Overall, the discourse of these organizations

contrasted with Graham and Robinson's (2025) study of a range of large Canadian ENGOs, in which a significant proportion of the discourse was political.[125]

Thus, whether NRNPs are part of the environmental movement depends, in part, on how one defines the environmental movement. Saunders (2007) asserts that the environmental movement is a set of separate sub-movements, one of them being the conservation movement. NRNPs, including conservation, wildlife, and naturalist organizations, play an important role in preserving, protecting, and restoring habitats directly and/or through advocacy. Saunders (2007) found that there was little need for conservation organizations to coordinate their work because that work was generally quite local. I found that, other than naturalist clubs following their umbrella organization, there seemed to be little in the way of coordination of advocacy among NRNPs, echoing Saunders (2007), and little in the way of unconventional means, thus invalidating two requirements of social movements (Snow, Soule, et al. 2019). NRNPs would, therefore, best be considered interest groups rather than social movement organizations (Snow, Soule, et al. 2019:6). On the other hand, what is the environmental movement if conservation, preservation, and wildlife organizations — the largest part of the movement (Brulle 2015; Tindall 2025) — are excluded? That question is beyond the scope of this dissertation.

As for climate change, most NRNPs avoided or downplayed the topic, despite the fact that their nature-based solutions often help to sequester CO_2 emissions that contribute to climate change. Free-ridership (Munck af Rosenschöld et al. 2014:641) seemed to be an integral feature of the subfield of NRNPs, which tended to rely on other fields and subfields to communicate about climate change. It would, therefore, be even more of a stretch to say that NRNPs, on the whole, were part of the climate movement.

[125] A detailed comparison between Graham and Robinson's (2025) data and the data in this dissertation could prove enlightening.

A related, incidental, theoretical finding in this dissertation involves the level of advocacy of movement organizations. The naturalist clubs engaged in advocacy, but the conservation organizations tended to stay away from it. I attribute that to the structures of the subfields. Naturalist clubs were well-organized by a strong provincial umbrella organization, whereas the conservation organizations in the interview sample were less invested in networks. Naturalist clubs exhibited mimetic isomorphism within their subfield (DiMaggio and Powell 1983) and had adapted to the relaxation of the advocacy rules for charitable organizations (Cameron and Kwiecien 2019), in part signing on to the advocacy initiatives of the umbrella organization. The naturalist clubs also advocated at the local level. Meanwhile, some conservation organizations were clinging to the legacy of past legislation limiting advocacy activities (Cameron and Kwiecien 2019; Seiler 2026). This confirms the value of umbrella organizations as coordinators within fields and as links to external fields (Fligstein and McAdam 2012). The majority of wildlife organizations were also umbrella organizations that engaged in advocacy with the provincial government. The evidence suggests that NRNPs are most likely to advocate at the level of government that matches their catchment, if at all. As an incidental finding, more research would be needed for confirmation.

8.3 METHODOLOGICAL CONTRIBUTIONS AND RESEARCH OUTPUTS

In this dissertation, I used a mixed methods approach, engaging in methodological triangulation and data triangulation to complement the theoretical triangulation (Denzin 2015). The main data source was a set of one-on-one semi-structured interviews with communications personnel from 39 NRNPs. The interviews were supplemented by textual data from the NRNPs' websites and annual reports, Twitter feeds from a larger set of NRNPs, and a survey of 103 attendees of a province-wide conservation conference. The NRNPs in the study represented communities across the province of Ontario, including urban, rural, and mixed catchments. The

study aimed for breadth within the field of NRNPs in Ontario, while also shining spotlights on specific subfields within the larger field.

The mixed methods sequential design (Neuman and Robson 2018) enabled the collection of valuable corroborating evidence for some aspects of the study and filled gaps in others. The annual reports, although only available for the larger organizations, provided more concise collections of information than could be gleaned from the, often, extensive websites of those organizations. The organizations that did not produce an annual report generally had much more limited websites from which data could be gathered. Epistemic priority in the quantitative textual analysis was given to the annual reports, if they existed, both to reduce the amount of data and to rely on the most official communications of the organizations.

The interviews were the primary data source for the categorization of the continuum of climate change responses, the climate change frames used, and the obstacles encountered. As noted in Section 6.3.4, the NRNPs with a climate change score of 0 appeared to be ignoring climate change, while the NRNP with a score of 3 appeared to be actively embracing the opportunity to address it. Interviews revealed a continuum of responses that did not always align with the assessments of the textual material. Rather than reconciling the two sets of evaluations, I opted to present them separately. The quantitative scores represent the images that the organizations were presenting to an external audience. The more nuanced continuum represents the admitted motivations behind those images and also reflects the fact that internal communications, such as member newsletters, might differ from websites and annual reports.

The sequential aspect of the study allowed for development and modification along the research journey. Finding a very low volume of climate change tweets was unexpected but quickly explained within the first few interviews. What was intended to be a more thorough Twitter

analysis was abandoned, knowing that other sources of textual data were available. The addition of a survey prompted analysis of the interview guide early on and enabled modification later in the process for those types of organizations involved in the survey. The only adverse effect was on timing, in that interviews with those organizations were delayed until after the survey.

Presenting two case studies using ANT as my first empirical chapter situated NRNPs and enabled a better understanding of the field than could be gained from launching directly into a more purely sociological chapter. Callon (1984) used visual images to illustrate the actants and obligatory passage points, in a method where language can sometimes be an obstacle. I drew on Callon's example to create visual images to help explain my case studies. That ANT brings non-humans into the discussion is very relevant to this collection of nature-related groups. The discussions of ticks and EAB brought to life the embodied experiences of climate change and invasive species felt by members of NRNPs as they participated in their organizations' events and the associated responses by NRNPs. Centring non-humans also revealed the agency and ingenuity of those beings in defeating human efforts to control them. Following the actants revealed the complicated human-made fields in which NRNPs are embedded and the fluidity of those fields (Law 2008; Mol 2010) as the tiny beings escaped efforts at control. The case study on ticks and Lyme disease responds to a call for sociological research on an issue which is more commonly studied as a medical phenomenon (Bouchard et al. 2019). ANT, however, is descriptive rather than explanatory (Law 2008), which made it a good starting point for the rest of the empirical work.

Case studies were also used in Chapter 7, to illustrate the obstacles to climate change communications and DEDI. Placing the discussion within the context for each of the subfields in the interview sample enabled a deeper understanding of the internal and external challenges they faced.

The dissertation follows previous studies of whether ENGOs are incorporating a social justice agenda (Agyeman 2005; Haluza-DeLay and Fernhout 2011), a climate change agenda (Tosun and Saad 2023), or both (Johnson et al. 2023), and extends the methodology. All of those studies used quantitative tools to analyze website content, some supplemented by a limited number of qualitative interviews. This dissertation responds by updating and aligning the quantitative tools and adding a qualitative interview component involving 39 organizations to validate the findings and provide context. Both Agyeman's (2005) Just Sustainability Index (JSI) and Tosun and Saad's (2023) climate change index use a scale from 0 to 3 to indicate the degree of engagement within an organization's communications. I maintained Tosun and Saad's (2023) definition of the levels for both my climate change and DEDI scores. I also expanded the search terms in the JSI to reflect more recent societal interest in EDI and DEDI. The climate change score is presented and implemented in Section 6.3.3 and in Appendix N. The DEDI score is presented and implemented in Section 7.2.2 and in Appendix O. This alignment of the two scales enabled a cross-tabulation and test of association between the two sets of scores.

The dissertation identified concerns with computer-driven textual analyses. First, my Twitter analysis was only applied for general comparisons and specific examples of communications once I learned of its limited use by NRNPs. Second, Partelow et al. (2020) provided a replicable computer-generated analysis of ENGOs' mission statements. When applied to my corpus, the results were erroneous, as discussed in Section 4.4.2.1. The conclusions drawn by Partelow et al. (2020) were later refined through in-depth textual analysis of selected cases, producing quite different results (Ritter and Thaler 2023). Third, Ter-Mkrtchyan and Taylor (2024) performed a Twitter study similar to mine but entirely computer-driven and arrived at very different results, as footnoted in Section 4.1.2. Finally, my conclusion that wildlife and other organizations

communicate about climate change but often in implicit terms raises questions about whether computer-driven analyses would correctly identify such messages.[126]

For the qualitative analysis, taking a discourse analysis approach (Bischoping and Gazso 2016) coupled with an interpretive, assertion development approach (Erickson 1986; Saldaña 2020) using interview and textual data enabled the identification of not just the discourses and frames used by NRNPs but also the overarching approaches that each organization took to the phenomenon of climate change and the obstacles in their way.

Three additional outputs of this dissertation could be of value to future research. Lexicons were developed to identify: 1) climate change tweets, 2) justice tweets, and 3) nature tweets. Those are included in Appendix C, along with internal validity checks.

8.4 POSITIVE SIGNS

Spinning the negative statistics up to this point in a positive direction, whereas 72 percent of my interview sample had no or very little mention of climate change on their website and in their annual report and 72 percent addressed DEDI minimally or not at all, only 22 percent had no mention of either issue. Internally, most NRNPs recognized that climate change was more important than they were letting on. That is, there was at least some recognition to build on.

Despite the general silence on climate change, there were individual NRNPs that had started to create new paths. One naturalist club was quite concerned about having to abandon their carpooling routines during the pandemic. Other groups were sharing tips on how individuals could help mitigate climate change. One of the more urban CAs had significant programming for both climate change and DEDI, perhaps acting as a model for others in their subfield.

[126] This question would apply to this dissertation as well. I did not circle back to the Twitter analysis with an expanded list of less explicit search terms. The validity checks on my lexicons (Appendix C) gave good enough results for the purposes for which I was using them.

Regarding DEDI, two-thirds of NRNPs had at least some recognition of the issue on their website or in their annual reports. Two conservation organizations had broken free of isomorphic subfields and were forging more socially just and inclusive paths. On Indigenous relations, I found the gamut of responses, from no mention to land acknowledgements to an embrace of decolonization. There was a range of attempts expressed at reaching out to Indigenous communities. While mostly lacking success, a few organizations were more successful, especially those with Indigenous representation on their board.

8.5 TAKEAWAYS FOR NRNPS

There are six takeaways from this dissertation for NRNPs. First, NRNPs have been experiencing the effects of climate change in their regular activities, such as weather or wildfire smoke forcing cancellations, the presence of ticks causing changes in preparations, and more. Nonetheless, many NRNPs avoid communicating directly about climate change. Doing so perpetuates the misconception that people who are concerned about climate change are in the minority (Maibach et al. 2016; Ballew et al. 2019; Sparkman et al. 2022; Comeau 2026). Communicating more explicitly about climate change creates a positive social feedback loop that leads to further discussion (Goldberg et al. 2019). One way to start is to target influential individuals as messengers (Ballew et al. 2019:12; Thomas-Walters et al. 2024). This was being done by some CAs, who worked with farmers by establishing peer-to-peer mentoring opportunities.

Second, research on the Canadian population has shown that members of NRNPS often fall into the category of Civic Nationals, who tend to be concerned about and open to engagement on climate change as a community despite their political leanings (Lachapelle and Comeau 2024). This provides an opening for NRNPs — which have an existing community — to be bolder about

climate change. This should start by communicating more explicitly about climate change and could evolve into creating or supporting activities at the organizational or individual level.

Third, the work that conservation-oriented NRNPs already do in conserving nature is important in addressing climate change and can be labelled NbCS. Conservation-oriented NRNPs and conservation-adjacent groups are best placed to undertake NbCS. Protecting a parcel of land, planting trees, and restoring a watercourse are all NbCS. In addition to contributing to climate mitigation through carbon sequestration, these solutions also protect or restore habitat and often improve other ecosystem services that are beneficial to humans and wildlife, such as preventing flooding. In doing so, they assist with climate change adaptation and climate resilience. The link between the work of NRNPs and climate change is not always communicated; hence, the greater value of that work is not always recognized. There was evidence that even some board members and employees who were engaged in communications were somewhat unclear about how their work impacted climate change, which might be a reason for or a result of the avoidance of the topic. Communicating more explicitly about the links between the work of the organization and climate change would improve understanding.

Fourth, several NRNPs are already using the most promising combination of frames regarding climate action. The combination of personal self-efficacy and collective response efficacy has been shown to increase support for climate action (Bostrom et al. 2019). Some NRNPs in this dissertation used that combination in asking individuals to support the organization in their work. Indeed, conservation and preservation organizations are the largest and most successful organizations within the environmental movement (Brulle 2015:277; Carroll et al. 2021; Tindall 2025). NbCS appeal to many constituencies. Thus, mentioning NbCS in a request for support

should be quite effective in increasing funding for this important work, especially given the level of concern about climate change noted above.

Fifth, many NRNPs are uniquely placed to contribute to the climate change discussion through their observations. Those NRNPs engaged in nature inventories and measurements often report those findings to larger organizations, such as scientific or government bodies or umbrella organizations. If they are not already doing so, NRNPs could then help by amplifying the voices of those organizations that compile and report on the data and engaging their constituents on their involvement in the data. This is a concrete way of linking local observations to broader issues.

Sixth, NRNPs have historically been and continue to be disproportionately White. As the diversity of Ontario grows and the urgency of climate action increases, it is important to involve as much of the population as possible in the climate change conversation. NRNPs should reflect on any barriers they might have to participation. Increasing diversity within an organization — particularly its board — increases the variety of viewpoints to be considered, which can provide more balance in decision-making (Fredette and Bernstein 2019). Furthermore, NbCS can exacerbate inequities if decision-making is limited to those with socio-economic privilege (Bauer 2023). NRNPs should reflect on their decision-making regarding such projects and whether those decisions perpetuate environmental privilege.

8.6 LIMITATIONS AND FUTURE DIRECTIONS

My study is the first qualitative study of organizations catering to a middle section of the Canadian population that is neither climate activists nor climate deniers and how those organizations address climate change. At the same time, there are some limitations in this research and avenues for future study. I bring these together in this section.

The first limitation relates to the definition of the target population. The selection process aimed for breadth, both geographically and in types of organizations, within the limits of the defined population. While the intention was to have as random a selection as possible, it was not truly random, since no complete list exists. Even less resourced groups would not have made the initial sampling frame due to lack of visibility (Tschirhart 2006:535). Therefore, the results are not necessarily representative of the entire field of NRNPs. Furthermore, small numbers of each type of organization limit the conclusions that can be drawn for each of the subfields. Conclusions reflect the responses of the organizations and individuals participating in the research. Triangulation of the data sources with overlapping but different populations, however, provided consistent conclusions within this study. Future research could explore other types of recreation-oriented NRNPs, such as paddling or cycling clubs, or go deeper into any of the types of NRNP already studied to give a fuller picture.

Alignment between my definition of NRNPs and the *Five Canadas* category of Civic Nationals (Lachapelle and Comeau 2024; Lachapelle and Martel-Morin 2024) should be verified as a follow-up to this dissertation. I recognized a gap in the climate change research regarding the middle of the population that is neither activist nor denialist. To have a possible label of Civic Nationals for this population is a happy coincidence, since the revised *Five Canadas* typology was first shared after I collected my data (Lachapelle and Comeau 2024; Lachapelle and Martel-Morin 2024). The goal of the *Five Canadas* work is to be able to better target climate change communications. A future direction would be to more intentionally combine the *Five Canadas* survey work with qualitative studies such as this, to provide further depth and understanding of each of the five constituent populations.

A second limitation is that, even within an organization, responses might be different coming from different individuals. In inviting communications people to be interviewed, I was looking for people who had a view of their constituencies. In some cases, the amount of information the interviewees were able or willing to give me was limited. Their view of the operations of the organization would vary depending on their position, level of seniority, and size of the organization. For instance, a junior communications person in a larger organization might not be privy to strategic decisions and justifications. Conversely, a communications manager might not be involved in the operational details of segregating communications lists. For the most part, I interviewed the only or main communications person in the organization. In four organizations, I interviewed two people, which provided additional perspectives. Again, triangulation using multiple data sources provided consistent results.

Third is the issue of self-selection. A disproportionately high number of interviewees were Alarmed or Concerned about climate change, referring to the *Six Americas* categorization (Leiserowitz et al. 2021; Leiserowitz et al. 2025). The fact that none of my interviewees were Doubtful or Dismissive is likely a reflection of self-selection. I received no response to my requests for interviews from local, wildlife-focused, hunting and angling groups. The invitation mentioned climate change and biodiversity loss. I suggest that future such invitations for a skeptical audience focus on the environment or wildlife and avoid mentioning climate change. Self-selection could have also limited who participated to those who had an interest in the issues mentioned.

Fourth, most framing studies use published media channels as data sources. Interviews were chosen for this project with the expectation that published communications on climate change by NRNPs would be limited and interviews would be required to draw out explanations. That was borne out. Many of the websites and annual reports had no mention or only a one-word mention

of climate change. Twitter feeds were similarly limited on climate change. Although the range of frames revealed in an interview might be incomplete and influenced by social desirability bias, interviews were required in order to learn that other frames may have been veiled references to climate change. Future researchers can use this information for a more nuanced analysis of textual data.

Fifth, and relatedly, the most valid place to uncover framing for NRNPs would likely be their newsletters, which are intended for and communicate directly with the membership. All but two NRNPs in the interview sample sent newsletters to their members. Given the capacity limitations uncovered, other communications vehicles like websites and social media might not reflect a fulsome picture of an organization. Newsletters were not gathered in this project since there are ethical considerations regarding internal communications. Obtaining ethical clearance and consent to gather newsletters would pave the way to presenting a clearer picture of the frames used by NRNPs with their membership as well as the evolution of that messaging over time.

Newsletters would also be a better place than websites and annual reports to find emotions used in framing. Emotions are a component of framing, particularly motivational framing (Jasper 2011; Snow, Vliegenthart, and Ketelaars 2019:397). Studies have examined the emotions used by the climate movement (e.g., Kleres and Wettergren 2017). Comparing the emotions used by NRNPs to those used by the climate movement is another potential extension of this study.

Sixth, almost all of my interviewees were White, which is not reflective of all NRNPs. Only one interviewee expressed an immigrant viewpoint, and that viewpoint questioned the normative assumptions of the environmental movement. Gibson-Wood and Wakefield (2013) and Legg and Karner (2021) took the approach of targeting BIPOC employees and volunteers for interviews at community environmental organizations and a sports organization, respectively. A study of

BIPOC staff, volunteers, and/or members of NRNPs could illuminate obstacles to participation, with a goal of dismantling Whiteness and environmental privilege in NRNPs.

Finally, while this dissertation took the perspective of the NRNPs and the communications they sent out, future research could take the perspective of their members. One possibility would be to explore how the communications were received. This might include identifying the values held by various types of constituents and whether they align with the values-oriented benefits framings of climate action identified in this dissertation. Another possibility would be to explore the readiness of members to receive explicit messages about climate change and the readiness for climate action.

8.7 CONCLUSION

This dissertation covered the challenges faced by mostly small, local nature-related groups in dealing with climate change. It found that they tended to avoid communicating about climate change due to a range of challenges, from institutional-level constraints to entrenched organizational missions and environmental privilege to lack of capacity at the organizational and individual levels, in a context of increasing anti-climate-action rhetoric across Canada. Climate change was not originally envisioned in the missions of most of these often decades-old organizations to protect or enjoy nature, yet it was having an impact on the ability of the organizations to fulfill their mission. As a result, NRNPs were in a position to consider how to respond. Most had started to communicate with their constituents about climate change, but in a subtle way that aligned with their mission and could be mistaken as a lack of response. Some truly had not responded; others had responded more vigorously. Decisions on organizational direction sit with volunteer boards, who are often challenged by lack of time and skill sets, both individually and as a group. Small, staffed organizations are faced with the same challenges due to the

difficulties of finding sufficient funding. Funding comes with its own constraints on what can be addressed. There was a concern that constituencies might not want to hear about climate change, especially in the situation of increasing political polarization. It was easier to stay away from controversy and rely on other organizations or fall back on past regulations limiting advocacy for charitable organizations. Environmental privilege enabled NRNPs to carry on their traditional activities and engage in cognitive dissonance regarding climate change.

The role of conservation organizations is to preserve, protect, and restore nature, which assists with climate change mitigation in sequestering carbon emissions and often assists with local climate change adaptation. While national conservation organizations have started to expand over the past twenty years to consider climate change and other issues (Markham and van Koppen 2014; Boscarino 2015; Graham and Robinson 2025), that change has been slow to trickle down to the local level.

One question haunted me throughout this research: If NRNPs are doing climate change work, does it matter whether they acknowledge that work as addressing climate change? My conclusion is yes. Without an explicit connection, the full value of the work of NRNPs is underrecognized or misrecognized as unconnected to climate change. The constituents of NRNPs represent a substantial portion of the Canadian population and are, for the most part, open to climate action (Lachapelle and Martel-Morin 2024; Lachapelle and Comeau 2024). The climate actions that NRNPs take, therefore, should be recognized and celebrated. Doing so would start to correct the spiral of silence on climate change (Maibach et al. 2016). NRNPs know that climate change is more important than they are communicating. To not discuss climate change demonstrates the eliteness with which the environmental movement has long been accused (Cronon 1996; Pezzullo and Sandler 2007; Jafri 2009; Park and Pellow 2011; Gibson-Wood and Wakefield 2013; Taylor

2016; Argüelles 2021). NRNPs appeal to a large middle of the population that enjoys spending time in nature. Openly discussing climate change with this large middle is a way to start shifting the discourse on climate action, show that action is happening, and provide hope for the future.

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APPENDICES

Appendix A: Positionality (Insider-Outsider)

I come at this project as an older White woman who has much in common with the people and organizations in which I am interested. I have been a peripheral member of a local naturalist club since 2015. I joined their board in 2024, after my data collection was complete. The familiarity caused a problem in an interview at least once. This exchange with another naturalist occurred in my fourth interview when talking about changes due to climate change and biodiversity loss:

LYS: But does [climate change] affect, like, what you see?

Peter: Yes, it affects what we see. Yeah.

LYS: Okay. Yeah. Okay.

Peter: Or don't see, as the case may be. [chuckling]

LYS: Yeah.
On a scale-- You, you're talking about, like, birds and plants and, and extinctions. Right?

Peter: Well, yes, there's that. Did you mean something totally different? Sorry. [laughing]

LYS: No, no, no, no.
No, that's what I was… That was what I was thinking.

Peter: Yeah.

LYS: Just when it comes--
If we have too much in common, I might miss things in my interview, because I'm assuming that you're thinking the same thing I'm thinking. So I have to clarify. We're talking about biodiversity loss. Right?

Peter: Right.

Unfortunately, this left the whole question somewhat unanswered. I was more conscious of avoiding that sort of situation thereafter by probing where needed.

Nonetheless, I consider myself somewhat of an outsider rather than a naturalist. As I alluded in the preface, I came from the reform environmental space. I am not an avid birder. I do not rush to see rare local bird sightings. I do not spend all day on birdwatching driving trips, nor do I take

birding vacations to exotic locales. I like being outdoors, going for walks, seeing nature, and ideally having someone tell me about what I'm seeing, for short periods of time. Naturalist clubs provide that opportunity occasionally. I joined to take part in a series of local, two-hour, summer evening walks, which suited my schedule and criteria. The pace, though, was oh-so-slow. That is probably both a cause and symptom of the demographic skewing toward retirees.

Once data collection was complete, I decided to join a local hiking club and went on my first hike with them. There, I found a much better pace for me and a more interesting demographic mix. The drawback was that there was little in the way of nature education. Exercise and health benefits seemed to be the primary goal. As a new member, I have not yet participated enough to get a feel for the organization, especially given my student's schedule, so I am an outsider there as well.

The other source of outsiderness is political. Following Re.Climate's revised *Five Canadas* typology (Lachapelle and Comeau 2024), birders would generally identify with the Civic Nationals category. As a reform environmentalist, I would fit within Re.Climate's Progressive Activists, even though I do not identify as an activist. Attending a large gathering of conservation professionals recently, I felt quite out-of-place, not only because of my position as an academic, whereas, at a similar gathering of climate activists, I felt quite at home. In a quantitative study, Skogen, Helland, and Kaltenborn (2018) found that people interested in habitat and landscape issues were different from people interested in climate and pollution issues, with little overlap.

The best way to state my positionality is that I am a researcher. I come at this project as someone looking in. Despite my similarities and differences with the target population, I tried to maintain an open mind in the interviews and later analysis, and fairly present the findings. As a researcher and sociologist, I am interested in understanding differences. I used to coordinate a wide range of environmental groups, including both reform environmental groups and conservation

groups. I found it curious how different the groups could be from each other. I was interested in why birding groups, among others, would put up resistance to climate action. That is the genesis of this dissertation.

Appendix B: Reflections on Methodology

In this appendix, I share my reflections on my timeline and methodology, including struggles and challenges. My preparation work started in mid-2022, culminating in approval of my dissertation proposal in February 2023. Data collection took up all of 2023 and into early 2024. Work on the dissertation slowed at that point, in part due to the rapidly declining health of my mother. After she passed away in September of that year, I was able to resume work in earnest.

Preparation Phase

It was during Dr. Muyang Li's course in data mining in May and June of 2022 that I came to the decision to combine an analysis of the Twitter feeds of nature-related organizations with interviews with representatives of those organizations for my dissertation. Dr. Li's course focused on the application of computer-assisted content analysis using the R programming language (R Core Team n.d.) to web-based textual data. At the time, Twitter allowed academic researchers with pre-arranged access to download complete timelines[127] at no charge. I applied for Academic Research access, and it was granted in September 2022. Many thanks to Dr. Li for offering the course and for her advice and support during that time and beyond.

During and after taking Dr. Li's course, I slowly built up my list of organizations — my sampling frame — storing the information in Excel. On hearing of Elon Musk's takeover of Twitter in late October 2022, I started to worry about access to data. I was in the midst of preparing my dissertation proposal, and I needed a sampling frame before downloading anything from Twitter. As soon as I finished that draft of the proposal, I went back to my sampling frame and hastily finished that up. I downloaded the Twitter data in mid-November 2022.

[127] All tweets sent, including retweets, up to a limit of 3,200 tweets per Twitter handle.

My fear proved true. In January 2023, I tried to download the data again with a slightly cleaned-up sample of organizations but found that the format of the data was different. Not wanting to waste time reprogramming and reformatting an essentially identical set of data, I decided that the November data would suffice. The biggest loss was not being able to capture data from mid-November to the end of the year, to enable year-to-year comparisons. By April 2023, I was hearing that Twitter was demanding payments of thousands of dollars to access what I was able to access for free. I am really glad that I had the foresight and was in a position to act when I did. As a result, my sampling frame served well enough for the Twitter analysis, but it also committed me to a definition and set of NRNPs for my interviews.

Twitter Analysis Phase

Much of the analysis of Twitter data was performed in April 2023, after the end of the school semester. Throughout the early part of the year, I had been setting up and testing my programs for various types of computer-assisted analysis using a test dataset. I had been splitting my time working on basic descriptive statistics, sentiment analysis, network analysis, and topic modelling. The network analysis had too many gaps to be of value. My tentative attempts at topic modelling using latent Dirichlet allocation (LDA) (Silge and Robinson 2017), even subsetting the data using my climate/nature criteria, did not yield useful topics. More complex versions involved machine learning. I was uncomfortable with the artificial intelligence (AI) aspect, given the recent launch of ChatGPT and growing concerns about generative AI.[128] I decided to limit my analysis to descriptive statistics and lexicon-based sentiment analysis.

My preliminary criteria for climate and nature tweets only identified 15 percent of tweets. In April, I analyzed what I had done and progressively tweaked the climate/nature criteria until I was

[128] ChatGPT was launched in November 2022 (https://www.forbes.com/sites/bernardmarr/2023/05/19/a-short-history-of-chatgpt-how-we-got-to-where-we-are-today/).

happy with the result, as described in section 4.1.2.1. One of my motivations to finalize my criteria at that point was that I had committed to doing two presentations using my Twitter data at Congress at the end of May.

One of the presentations was on the use of computer-assisted content analysis for getting at emotions. I used three different sentiment dictionaries for my analysis: Bing (Hu and Liu 2004), AFinn (Nielsen 2011), and NRC (Mohammad and Turney 2013). In each case, the sentiment dictionary, or lexicon, was compared against each tweet and the matching words were counted to produce sentiment scores for each Twitter handle. The dictionaries vary in whether they simply identify positive and negative words, specify the degree of positive or negative valence, or identify different emotions. The methodology for all three is outlined in Silge and Robinson (2017). Because of its simplicity, the Bing lexicon lent itself well to customization. It was created from customer feedback data, so it gave odd results with my data at first but performed well after tweaking. Tweaking meant creating a modified lexicon based on the Bing lexicon. The other two lexicons were deemed too well-constructed to tamper with. Nonetheless, all three lexicons gave similar results. For the presentation, I shared statistics from the sentiment analysis. The focus of the presentation, in the end, was on the limitations of using sentiment analysis to identify emotions in tweets by non-profit organizations.

The other presentation at Congress anticipated Chapter 7, suggesting that obstacles to communicating about climate change varied by type of organization. I intended to show a difference in the proportion and valence of climate and nature tweets by organizational type. Unfortunately, the number of climate tweets was so low for most types of organizations that a comparison was not useful. Qualitative interview data was required to contextualize the Twitter analysis.

As Congress drew closer, I started shifting my focus toward the interview phase. In a fortuitous chat with Dr. Li in late April, she confirmed that I should get on with the interviews and not get mired in the Twitter data. I started sending out interview invitations the next day, resulting in two interviews and one short telephone conversation before Congress—just enough to be able to share some findings in my presentation. Both interviews were with organizations with among the fewest climate and nature tweets. My findings, however, had nothing to do with their tweets, Twitter being a relatively minor part of their operations. Both organizations used Twitter mainly to announce and/or report on club activities. That revelation confirmed for me the limitations of Twitter as a data source for my dissertation. It might be fruitful for some organizations but not all, so I stopped the Twitter analysis.

Interview and Survey Phase

The first experience of sending out six invitations, hearing back from four of them, and scheduling two interviews right away, was positive. The two interviews yielded excellent data but took time to transcribe and organize in NVivo, which was new to me. I capitalized on the opportunity to take an NVivo mini-course through York University just as I was setting up. The instructor mentioned frequently that NVivo was slow and prone to crashing, so when that happened to me, I took it as normal, hoping for a useful outcome at the other end. A year after I completed the interviews, I upgraded the memory on my computer and found that it had been a memory issue that had caused NVivo's poor performance. It is unfortunate that I did not realize and address that sooner but, once I did, coding and analysis became a lot more enjoyable.

I was very organized throughout the interview process. The Excel spreadsheet that I used to compile the organizations in the sampling frame was expanded for data collection. Columns were added to track first contact, any response, and subsequent attempts in the case of non-response. In

the case of agreement to be interviewed, I booked the interview at a date and time convenient to the interviewee and recorded it in Excel. I recorded the date of sending out the pre-interview questionnaire (Appendix G) and consent form (Appendix J) and the date of receipt. That occasionally required a follow-up email, which was also recorded, as was the date that I sent the Zoom link and any reminder.

After Congress, the interview phase developed into a routine. I worked in small batches, sending out half a dozen or so invitations over the course of a day, and then dealing with responses. I tried to book interviews within one to three weeks of contact. Whenever my calendar started clearing, I sent out another batch of invitations, including recontacting organizations that had not responded. By working in small batches, I could review my table by region and type of organization and focus on filling gaps while maintaining control over the processing and analysis.

After each interview, I went through a series of processing steps, including: 1) downloading the consent form, pre-interview questionnaire, transcript, and Zoom video; 2) editing the transcript while rewatching the Zoom video; 3) uploading the edited transcript to NVivo; 4) tagging it with pertinent administrative and categorical information; 5) setting up the transcript for coding; and 6) doing the first pass of manually coding the transcript. I took a fair bit of time to edit the transcripts, doing a mental analysis at the same time. I had four interviews scheduled for one week in June when, unfortunately, my mother was admitted to hospital for the first of a series of hospitalizations. I proceeded with the interviews but got behind in processing and decided to start limiting myself to two or three interviews per week. After that, I was diligent about transcribing after interviews, but coding sometimes waited until I had a window of time available so that I could code a group of interviews in succession.

Timing was a concern. Starting interviews in May meant that there was only a limited opportunity to reach volunteer-run organizations before they took a summer hiatus, so that was my focus. I was successful with naturalist groups early on. I included them up front due to my familiarity with them. I wanted to get comfortable with interviewing before reaching out too broadly. I only interviewed four naturalist groups in total due to their similarities. Aside from naturalist clubs, I contacted hiking clubs, cross-country ski organizations, local conservation organizations, and Friends organizations. I delayed contacting larger staffed organizations until the summer, because I thought that they would have a higher likelihood of having someone available at some point. I also delayed contacting hunting and fishing groups to the summer, due to my lack of familiarity with that population and desire to be comfortable with my process before reaching out.

Whether it was due to the timing, resistance to the premise of the interview, or other factors, I was entirely unsuccessful with local hunting and fishing clubs, even after repeated follow-ups later in the year. I managed to interview multiregional and provincial umbrella groups that fit into the category of wildlife organizations. Umbrella groups were not in my original plan because I wanted to talk with groups who were actually out in nature with their members. Contacting them became a necessity when I did not hear back from local clubs. All umbrella groups in the interview sample had a strong connection to the outdoor activities of their member groups.

Meanwhile, in March 2023, I received notification of a call for proposals for the Latornell Conservation Symposium — an annual gathering of my target audience. I had attended in October 2022 in preparation for my dissertation. I thought about whether I might have enough to present in October 2023 and decided against it. Then it occurred to me that the organizers might allow me to do a survey of attendees. I proposed the idea to the organizers and they loved it. I drafted a

questionnaire, using a subset of questions from my interview script as a basis. I sent it to the organizers, received a few comments and additions back, made changes, and then resubmitted it for their Steering Committee to review. I was very excited to capitalize on the opportunity to gather data from 300 people rather than a tenth of that and cover most of the 36 CAs in Ontario in doing so. I was also happy to be able to put my existing expertise in survey methodology to use. The survey required a minor revision to the ethics protocol since a survey was not part of my original dissertation proposal. Ethics approval was received in July. The survey was conducted in the last half of September. A summary report was prepared and submitted before the symposium but not shared by the committee until afterwards. It is, unfortunately, no longer publicly accessible. Portions of it have been incorporated into this dissertation.

With the survey discussion going on throughout the early interview stage, I made the decision to not interview employees of CAs and other large NRNPs that were likely to attend Latornell until after it was over in late October 2023. CAs make up a large proportion of attendees at the symposium. Waiting for the survey results eliminated the need to ask some questions and informed the addition of other questions. The delay affected the length of my data collection period. It also temporarily limited my sampling frame to mostly smaller NRNPs, so data collection proceeded at a bit of a slower pace during the summer due to lack of response. It picked up again towards the end of August and continued throughout the fall.

By mid-November, I had completed 26 interviews, but my sampling frame was getting thin. Out of courtesy, I was awaiting confirmation from the General Manager of Conservation Ontario — the umbrella organization for CAs — to proceed with interviews with their member CAs, since I used her name in the email invitation. I had met her in person at the symposium and received verbal approval but wanted that confirmed before proceeding. I did receive approval in mid-

November and then determinedly set about trying to schedule interviews so that I could complete my data collection in 2023. That failed pretty quickly, as one of my prospective interviewees could not participate until January. I decided to be a little more relaxed about it and set my sights on the end of January 2024. That worked. I also had a lot better response from cross-country ski organizations than I had had earlier in the interview period when they were apparently dormant. In the end, I completed 41 interviews between May 2023 and January 2024 as well as a survey with 103 respondents.

One challenge in the interviews was balancing open-ended and closed-ended questions. My interview script was long, so I applied my expertise in survey design and opted to ask some of the questions as closed-ended multiple-choice questions to shorten the length of the interview, provide breaks in talking for the interviewee, and generate some comparable quantitative data (Salant and Dillman 1994:82). Asking an open-ended question at the end of each group of closed-ended questions gave the interviewee an opportunity to express any thoughts that might have popped into mind (Salant and Dillman 1994:81). Some of the closed-ended questions were transferred directly into the Latornell questionnaire. After the survey, the revised interview script converted some of the closed-ended questions into open-ended questions in order to contextualize the survey responses.

Writing Phase

The writing phase of the dissertation was structured around external constraints. The first was an opportunity to submit an article to a special edition of *npj Climate Change* focusing on barriers and pathways to climate action. That was due at the end of April 2024. I decided to take an individual-level approach in order to be able to use the article as background for the dissertation

at the organizational level. I did not include CAs in that article because of the less personal nature of their interviews. The article was published in October 2024 (Seiler 2024).

Another constraint was a presentation at the October 2024 Latornell Symposium, after conducting the survey the previous year. The theme of the symposium in 2024 was collaborations, so I decided to feed back that portion of my findings. Due to frustrations with NVivo, I had delayed coding the CA interviews in order to do them all together, so this presentation provided a timeframe for completing the coding. Once at the conference, I engaged in member checking (Fossey et al. 2002:729) during informal lunchtime conversations and was able to verify some of my findings.

The final constraint was a chapter in a special edition of the *Research in the Sociology of Organizations* series focusing on climate change. That was due at the beginning of March 2025, which meshed with writing a parallel chapter for the dissertation. I took advantage of the opportunity to gain feedback from experts in the field, since that specialty was missing from my committee. The chapter focused on organizational constraints in NGOs. I again omitted CAs because of their quasi-governmental status. The chapter was accepted for publication in August 2025 and published in April 2026 (Seiler 2026).

I have taken two opportunities since the interviews ended to engage in member checking with my interviewees. First, I emailed my interviewees in March 2024 with a link to the *Six Americas Super Short Survey* (SASSY) created by the Yale Program on Climate Change Communications (Chryst et al. 2018). SASSY is their short four-question version of their longer *Six Americas* questionnaire (Leiserowitz et al. 2021; Leiserowitz et al. 2025). SASSY enabled participants to independently verify their impressions as to where they fit on the spectrum. Nineteen interviewees sent back their SASSY reading. Second, I contacted my interviewees by

email in November 2024 to update them on my progress and share a link to my first article related to the dissertation. I received no substantive feedback on that.

Ethics

A number of minor ethical issues arose over the course of the project. Prior to submitting the ethics application, two of the main umbrella organizations — Ontario Nature and Conservation Ontario — were approached for permission to contact their member organizations. Both organizations list their member organizations on their website. The expressions of support from these two organizations formed part of the ethics application. Although Ontario Nature offered to facilitate connections with its members groups, I opted not to accept the offer in order to avoid any potential for coercion or cherry picking.

There was a potential ethical concern with the Twitter data collection. Permission to collect Twitter data formed part of my ethics application, which was approved in early February 2023, after I had already collected the data. The main part of the ethics application and the main concern of reviewers were the individual interviews. Collection of social media data is a grey area for ethics. The Twitter feeds collected were the public-facing accounts of organizations meant for public consumption. The Office of Research Ethics confirmed that there were no ethical concerns.

On the electronic consent form, two interviewees did not consent to the audio recording of the interview. One item on the form read, "I consent to the use of the audio portion of any video recording of my interview(s)," and the interviewee had to check yes or no. After explaining that I would only use the recording to verify the transcript, I received verbal consent from both interviewees to record the interview. After the second time this happened, I changed that item on the consent form so that it read, "I consent to the use of the audio portion of any video recording

of my interview(s) for the sole purpose of verification of the written transcript." I had no problems with consent to record thereafter.

Two interviewees with Twitter accounts denied permission to link their Twitter data with their interviews. From the ethics application:

> Twitter rules constrain the use and sharing of Twitter data. Twitter data may only be matched to other data with express written consent. Thus, this question has been added to the Informed Consent Form. Individual tweets may not be shared; only Tweet IDs and User IDs may be shared, and only for research purposes. I will only share Tweet IDs, as per 11. l) below. … Given the current trend to making quantitative data available to other researchers for verification purposes, the Twitter portion of the data will be archived in a data repository at York University for use by other researchers. Following Twitter's policies, only Tweet IDs will be retained in the repository. Tweet IDs are simply identification numbers for individual tweets. They do not include the user ID or the content of the tweet. The programming code used to access and analyze the tweets will also be placed in the repository. The repository to be used will be the York U Dataverse — York's research data repository.

Because I perceived that doing so would not be useful, I decided not to proceed with linking Twitter data with interviews, except through the initial process of using the Twitter analysis to select potential interview candidates. Two additional organizations denied permission to include their Tweet IDs in a research data repository.

On reviewing the requirements for data storage in a repository in conjunction with current rules on sharing Twitter (X) data, it was ultimately decided not to store the Twitter data in a repository and only to store the programming code that was used to analyze the data.[129] In part, this change was to protect the organizations from identification. In addition, York's Dataverse would not accept code without data, so the repository was changed to the Open Science Framework (OSF). "The OSF is an open-source platform to manage, share, and publish your research outputs" (COS n.d.). These changes were approved by the Office of Research Ethics on June 9, 2026.

[129] The R code is accessible under Academic Free License (AFL) 3.0 at doi:10.17605/osf.io/7d9pu.

Ethical storage of data is a large component of the ethics application due the risk of breaches of confidentiality (Salganik 2017:6.6.2). For this project, interviews were held and video-recorded on Zoom. Once the transcriptions were complete, the video recordings were moved to a password-protected storage device and deleted from Zoom. From the ethics application:

> The questionnaire and interview data will be stored on a password-protected external hard drive. The confidential identifying information will be stored on a password-protected USB key. The Twitter data will be stored on a separate password-protected external hard drive.

Due to the online nature of the project, all data were digital so there was no need to consider physical data. The recordings will be erased in June 2027. Again, from the ethics application:

> Audio and video recordings and any electronic organization-produced communications documents will be retained for two years after the dissertation is expected to be completed and then destroyed by wiping the drives, i.e., by 06/30/2027. The confidential identifying information will be wiped from the USB key at the same time. The anonymous surveys and anonymized transcripts of the interviews and spreadsheets of the questionnaire data will be retained indefinitely on the password-protected external hard drives. … The survey data, questionnaire data, interview transcriptions, and Twitter data will be retained indefinitely.

Because of the potential to continue and expand on research using this data, I have left open that possibility by opting not to prematurely delete the anonymized data.

Finally, as an environmental sociologist, I am strongly opposed to the use of generative AI due to the human abuses involved in the establishment of generative AI datasets and the ongoing and increasing environmental impacts of operating AI data centres, in addition to its questionable effects on learning and academic outputs. I wrote the following for the students in my tutorial in March 2025:

> In academia, we build on what others have said, and we give them credit. That's why citations are important.
> Gen AI gives us a best guess of what others have said. Because it combines other people's work, it can't credit them properly. And sometimes it's just plain wrong.

Generative AI was not used at any point in this dissertation.

Appendix C: Climate, Justice, and Nature Lexicons

Within a corpus of tweets produced by NRNPs, the following words, word stems, and word pairs were used to identify: 1) climate change tweets, 2) justice tweets, and 3) nature tweets. All lexicons reflect the Canadian context, so they would need to be reviewed if used for another geographical area. The tests of precision and recall for each lexicon are reported at the end of this appendix. These lexicons are stored in the Open Science Framework (OSF).[130]

Climate Search Strings

acidification
carbon
clean electricity
clean energy
climacon
climate
co2
electric vehicle
electricvehicle
emissions
emitter
energy transition
fossil fuel
fossil gas
fossilfuel
frack
ghg
greenhouse gas
lossanddamage
methane
oil and gas
paris agreement
parisagreement
pipeline
renewable energy
warming
zero-emission

[130] The lexicons are accessible under Academic Free License (AFL) 3.0 at doi:10.17605/osf.io/7d9pu.

Justice Search Strings

accessib
affordab
bipoc
blackhistory
blacklivesmatter
colonial
decolon
disab
discrimin
equalit
equit
first nation
firstnation
global north
global south
idlenomore
immigra
indigen
insecur
intersectional
just transition
justice
justtransition
lgbt
marginali
multicultural
newcomer
poverty
racial
racis
reconciliation
rich countries
rich nations
rights
solidarity
wealthy

Nature Search Strings

amphibian
animal
bioblitz
biodivers
bird
boreal
breed
butterfl
citizen sci
community sci
coyote
deer
duck
ecolog
ecosystem
eggs
endangered
extinct
extirpat
fauna
feeder
fish
flora
forest
fungi
geese
genus
goose
grassland
habitat
insect
invasive
lichen
mammal
naturali
nature
phragmites
plant
pollinat
reptil
savannah
seedling
seeds

snake
species
tree
turtle
vegetat
waterfowl
watershed
wetland
wilderness
wildflower
wildlife
wolves

Tests of precision and recall were performed on each of these three lexicons. Three random samples of 100 tweets each were drawn from the Twitter dataset. The first two samples used a random number generator to identify tweets. The third used systematic random sampling, since the dataset was arranged chronologically within each Twitter account. Each tweet was manually coded as a climate, justice, and/or nature tweet. Those true/false codes were read into R along with the R-applied codes, and the *caret* package (Kuhn 2008) was applied to generate F_1 scores. The results are shown in Table C.1.

Comparing the final two rows in Table C.1, the average prevalence of climate, justice, and nature tweets in the samples was a couple of percentage points higher than the detected proportion in the overall dataset. If the samples are truly representative, this suggests that all three lexicons tended to under-identify tweets. That was partly by design: terms that could be misidentified among the lexicons were omitted. The F_1 and accuracy scores show the best results for climate tweets and fairly good results for nature tweets, which were noted in Chapter 4 to be harder to identify. There was less consistency for justice tweets, but that is not surprising for such a small prevalence.

Table C.1. *Evaluation of precision and recall for climate, justice, and nature lexicons.*

Sample	**Measure**	**Climate Lexicon**	**Justice Lexicon**	**Nature Lexicon**
Sample #1	Precision	1.00	1.00	0.88
	Recall	0.86	1.00	0.76
	F_1 score	0.92	1.00	0.82
Sample #2	Precision	1.00	0.67	0.89
	Recall	0.77	0.67	0.70
	F_1 score	0.87	0.67	0.78
Sample #3	Precision	0.83	1.00	0.94
	Recall	0.83	0.43	0.79
	F_1 score	0.83	0.60	0.86
Average of samples	F_1 score	0.87	0.76	0.82
	Accuracy	0.98	0.98	0.85
	True prevalence	0.09	0.05	0.46
Full dataset	Detected proportion	0.058	0.027	0.413

Appendix D: Interview Guide – General

INTERVIEW GUIDE
FINAL

Preamble (mostly filled out in advance).

1. Name of interviewee
2. Name of organization
3. Role within organization
4. Type of interview (Zoom/in-person/other)
5. Consent to record (audio and video/audio only/no)
6. Date of interview
7. Time of interview
8. Location of organization
9. Location of interviewee
10. Can you tell me how you came to be in your current position? (How and when did you become a board/staff member?)

My first set of questions relates to your organization and communications in general. I'm going to be asking you about how you communicate with your members or constituents, so we have to start by getting that terminology right.

1. Do you have different levels of membership or constituents?
    a. What do you call the people in those categories? (members? constituents?)
2. What is the composition of your [membership/constituency]? (gender/age/race/ethnicity)
    a. (How) has that changed over time?
3. How do your [membership/constituency] demographics affect your messaging?
    a. Different media channels?
    b. Different messaging?
    c. Focusing on some constituencies more than others?
4. Do you consider your [members/constituents] to be nature lovers?
    a. If not, do you have different term to describe them?
5. What is the composition of your board/leadership team? (gender/age/race/ethnicity)
    a. Does it reflect the composition of your [membership/constituency]?
    b. To what extent does your board influence the activities of the staff [if it is a staffed organization]?
    c. Can you describe your annual general meetings?
6. Whose job is it to post to your organization's social media account(s) (if applicable)?
    a. Who determines the content? (that individual, another individual, a committee, parent organization, other)?
    b. Has that changed over time?
7. Do you have a specific purpose for your Twitter account?
    a. If so, what is the purpose?
    b. Do you have specific purposes for other social media accounts?
8. Who manages your website content (if applicable)?
    a. Who determines the content? (that individual, another individual, a committee, parent organization, other)?

9. How up-to-date would you say your website is?

My next set of questions relates to how you categorize your organization.

1. Do you consider your organization to be an environmental organization?
    a. What does the term "environmental organization" bring to mind?
    b. Do you consider yourself to be an environmentalist? (Yes/sort of/no)
    c. How appropriate would any of these terms be, relative to "environmental organization"?
        i. Conservation organization
        ii. Nature-focused organization
        iii. Nature-oriented organization
        iv. Nature-friendly organization
        v. Nature-dependent organization
        vi. Nature-based organization
        vii. Nature-related organization
    d. Do you have any other suggestions?
2. Do you consider your organization to be part of:
    a. the environmental movement?
    b. any other social movement?
    c. Comments
3. What other *nature or environmental* organizations does your organization work most closely with? Take direction from? Give direction to? Listen to? Locally? More broadly? What is your relationship with your parent organization/member groups?
4. What *other* organizations does your organization work most closely with? Take direction from? Give direction to? Listen to? Locally? More broadly?
5. Has your organization had any conflicts (either major or minor) with local environmental groups?
    a. Can you describe those conflicts? What were they about? How did they manifest? Any conflicts with anyone else?

This is a longer set of questions on how your organization talks about nature conservation and climate change.

1. Has climate change or biodiversity loss caused problems for your organization? Have you seen changes?
    a. Can you describe those problems or changes?
2. On a scale from 1 to 10, where 1 is not at all important and 10 is extremely important, how important is *nature conservation* as an issue for your organization to communicate about?
3. There are lots of different ways to talk about nature. I'm going to give you a list of terms. For each, I'd like you to rate these terms regarding the way your organization talks about nature when communicating with your members/constituents, using the following scale (We use that frame – yes; that is somewhat like what we use – sort of; that is a little like what we use – a little bit; we don't use that frame – no; we used to use that frame – not anymore):
        i. Protecting biodiversity
        ii. Caring for nature
        iii. Wilderness
        iv. Protected areas

v. Access to nature
vi. Nature appreciation
vii. Nature education
viii. Endangered species
ix. Pollution
x. Natural resource management
xi. Habitat conservation
xii. Ecosystem services
xiii. Economic losses
xiv. Stewardship
xv. Harmony with nature
xvi. Resilience
xvii. Environmental justice
xviii. Biodiversity crisis
xix. Wise use
xx. Invasive species

b. Did I miss one that you use?
c. How has your organization's view of nature conservation changed over time?
d. What has caused it to change?
e. What sorts of emotions would you say your organization uses when communicating about nature conservation? (joy, hope, anticipation, surprise, resilience, trust, anger, fear, disgust, sadness, disappointment, worry, other)
f. Any comments on use of emotions in communications?

4. How much does your organization talk about biodiversity loss internally? (never, rarely, sometimes, often, it's an overarching concern for us)
    a. Any comments on biodiversity loss as an issue for your organization?
5. On a scale from 1 to 10, where 1 is not at all important and 10 is extremely important, how important is *climate change* as an issue for your organization to communicate about?
    a. Is dealing with climate change any different than dealing with biodiversity loss for your organization?
    b. Is *communicating about* climate change any different than communicating about biodiversity loss for your organization?
    c. This time, on a scale from 1 to 10, where 1 is totally implicit and 10 is totally explicit, how implicit or explicit is your messaging about climate change?
6. When communicating with your members/constituents about climate change:
    a. What terms do you use?
    b. How has that changed over time?
    c. What has caused it to change?
7. The term "nature-based climate solutions" has been touted by some as a win-win, addressing both climate and biodiversity issues. What is your organization's current approach to nature-based climate solutions, if any?
    a. I haven't heard of it.
    b. We haven't looked into it yet.
    c. We have looked into it but haven't acted on it yet.
    d. We have looked into it but have rejected it.
    e. We have looked into it and are starting to implement it.
    f. We have looked into it and are well into implementation.

g. Don't know
h. Any comments on nature-based (climate) solutions?

8. Going back to *communication on climate change*, what sorts of emotions would you say your organization uses? (joy, hope, anticipation, surprise, resilience, trust, anger, fear, disgust, sadness, disappointment, worry, other)
    a. Any comments on the use of emotions regarding climate change?
9. How much does your organization talk about climate change internally? (never, rarely, sometimes, often, it's an overarching concern for us)
10. Are any of these circumstances affecting your organization's ability to communicate about climate change (Not at all; a little bit; somewhat; a great deal; in the past but not now)
    i. Not part of the organization's mandate?
    ii. Lack of capacity?
    iii. Uncertainty about climate change?
    iv. The costs (financial, staff-wise, etc.) of adopting new practices?
    v. Path dependence constraints from previous decisions?
    vi. The perception that new practices are not legitimate?
    vii. Relationships with other organizations?
    viii. Member feedback?
    ix. Conflict within your organization?
    x. Other organizations are doing it?
    xi. Charitable status?
    xii. The scope of the problem?
    b. To what extent do conflicting opinions affect your ability to communicate externally? (not at all; a little; a fair bit; a great deal)
    c. Any comments on conflict around climate change?
11. How have your connections to other organizations affected your organization's response to climate change?
    a. Have those connections changed due to biodiversity loss and/or climate change? If so, how?

The COVID-19 pandemic caused a big disruption in activities for a lot of organizations. This is a very short section, and we've probably already covered some of it.

12. Has COVID caused problems for your organization?
    a. Can you describe those problems (other than what we've already discussed)?

This last set of questions is about you. You don't have to answer if you don't feel comfortable.

1. Do you consider climate change a crisis? (you personally; your organization) (yes/somewhat/no)
    a. Following Global Warming's Six Americas regarding climate change, which of these best describes you? Your organization? (Alarmed, Concerned, Cautious, Disengaged, Doubtful, Dismissive)
2. Do you consider biodiversity loss a crisis? (You personally; your organization) (yes/somewhat/no)
    a. Using the same scale but for biodiversity loss, which of these best describes you? Your organization? (Alarmed, Concerned, Cautious, Disengaged, Doubtful, Dismissive)
3. Do any of these emotions reflect your feelings about climate change? (yes/maybe/no)

    a. Anger
    b. Fear
    c. Sadness
    d. Worry
    e. Hope
    f. Resilience
4. Do any of these emotions reflect your feelings about biodiversity loss? (Same question except for biodiversity loss.) (yes/maybe/no)
    a. Anger
    b. Fear
    c. Sadness
    d. Worry
    e. Hope
    f. Resilience
5. Any comments on emotions?
6. Gender (male/female/gender non-conforming/other)
7. Age (18-24/25-34/35-44/45-54/55-64/65 or older/other)
8. Visible minority/BIPOC (no/yes/other)
9. Would you be interested in participating in a focus group to explore these questions on climate change and biodiversity loss further? (yes/maybe/no)

Appendix E: Latornell Symposium Questionnaire

[Administered via York University's MachForms platform]

Latornell Survey 2023
This anonymous survey is being undertaken as a collaborative project between the Latornell Symposium and Lisa Seiler, a PhD candidate in environmental sociology at York University. The results of the survey will be shared at the symposium this October. We thank you in advance for your participation.

Informed Consent
Informed Consent for Online Survey
Study Name: Communicating with Nature Lovers about Climate Change and Nature

Researcher name: Lisa Seiler, lseiler@yorku.ca
Lisa Seiler is a PhD candidate in the Department of Sociology at York University and the Principal Investigator (PI) on this project.

Purpose of the Research:
This anonymous survey is being conducted in conjunction with the Latornell Symposium. One of the objectives is to gather demographic data and opinions on climate change and biodiversity loss from all symposium participants. For participants attending on behalf of an organization, there are three further objectives. The first is to determine the relative importance of communicating about climate change and biodiversity loss. The second is to gather best practices for engaging constituents on climate change and/or biodiversity loss. The third is to determine any organizational obstacles to action on climate change and/or biodiversity loss. The results of this survey will be reported back at this year's symposium. The results will also form part of the PI's dissertation and potentially future journal articles and academic and environmental presentations.

What You Will Be Asked to Do in the Research:
If you are attending the symposium on behalf of an organization, this survey should take you approximately ten minutes to complete. If not, it should take only a couple of minutes.

Risks and Discomforts:
If you are answering on behalf of your organization, please answer to the best of your ability. Rest assured that the survey is anonymous and cannot be identified with either you or your organization.

Benefits of the Research and Benefits to You:
The most direct benefit to you will be the satisfaction of contributing to research that could increase action to limit climate change and/or biodiversity loss.

Voluntary Participation and Withdrawal: Your participation in the survey is completely voluntary and you may choose to stop at any time. If you stop the survey before submitting it, your data will not be retained. Because it is an anonymous survey, stopping will not have any adverse consequences on your attendance at the conference or your relationship with the research team.

Confidentiality:
Confidentiality will be provided to the fullest extent possible by law. Although the symposium

organizers will have your name, the name of your organization, and your contact information, that information will not be shared with the PI, who will be analyzing the data. All information you supply during the survey will remain anonymous. Neither your name nor your organization's name will appear in any report or publication of the research.

The research team acknowledges that the host of the online survey (MachForms) may automatically collect participant data without their knowledge (i.e., IP addresses). Although this information may be provided or made accessible to the researchers, it will not be used or saved on the researcher's system. Further, because this project employs e-based collection techniques, data may be subject to access by third parties as a result of various security legislation now in place in many countries and thus the confidentiality and privacy of data cannot be guaranteed during web-based transmission.

Privacy and confidentiality will be maintained for all information you supply. The survey data will be downloaded to a password-protected external hard drive and erased from the cloud-based service. Only the PI will have access to this information.

The data collected in this research project may be used – in an anonymized form – by members of the research team in subsequent research investigations exploring similar lines of inquiry. Such projects will still undergo ethics review by the Human Participants Review Sub-Committee (HPRC), York University's Research Ethics Board. Any secondary use of anonymized data by the research team will be treated with the same degree of confidentiality and anonymity as in the original research project. Because of this potential future use, the survey data will be retained indefinitely.

In accordance with current protocols for verifying quantitative research, the anonymous survey data will be made available in the Dataverse, York University's research data repository.

Questions About the Research? If you have questions about the research in general or about your role in the study, please feel free to contact the PI at lseiler@yorku.ca or her supervisor, Dr. Joanna Robinson, at jrobinson@glendon.yorku.ca. You may also contact the Graduate Program in Sociology at gpdsoci@yorku.ca and/or (416) 736-2100 extension 60312.

This research has received ethics review and approval by the Delegated Ethics Review Committee, which is delegated authority to review research ethics protocols by the HPRC, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Director, Research Ethics in the Office of Research Ethics, 3rd Floor, Kaneff Tower, York University (e-mail ore@yorku.ca).

Legal Rights and Consent:
By clicking the box below, I consent to participate in Communicating with Nature Lovers about Climate Change and Nature, conducted by Lisa Seiler. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by consenting to participate.

Informed Consent *
☐ I understand the nature of this survey and consent to participate.

Setting the Stage
This survey is about climate change and biodiversity loss - both how you feel about these issues personally and how your organization is handling them. The survey is anonymous. We have three questions to start you off.

1. **Which of the following best describes your personal views on climate change and biodiversity loss?**
    a. Neither climate change nor biodiversity loss is at a crisis level.
    b. Climate change is a bigger crisis than biodiversity loss.
    c. Biodiversity loss is a bigger crisis than climate change.
    d. Climate change and biodiversity loss are twin crises with similar urgency.
    e. Prefer not to answer.
2. **Which type of organization are you representing at the Latornell Symposium? (Choose best answer if more than one apply.)**
    a. Conservation authority
    b. For-profit environmental organization or consulting firm
    c. Not-for-profit environmental organization
    d. Government (municipal/regional/provincial/federal)
    e. None of the above. I'm a student.
    f. None of the above. I'm a concerned citizen.
    g. Other

For those representing an organization only: (i.e., not e. or f. above)

Communicating and Engaging on Climate Change and Biodiversity Loss

This is an opportunity to share best practices. If you work for a consulting firm, please respond for your firm or, if more relevant, for the client that you are or were most connected with.

1. **On a scale from 1 to 10, where 1 is not at all important and 10 is extremely important, how important is BIODIVERSITY LOSS as an issue for your organization to communicate with your members or constituents about?**

2. **Please rate the following mechanisms for engaging constituents on BIODIVERSITY LOSS in terms of your perception of their effectiveness. (**Scale: not at all effective, not very effective, fairly effective, very effective, we don't use this mechanism)
    a. Workshops
    b. Open houses
    c. Volunteer conservation events
    d. Flyers
    e. Websites
    f. Social media
    g. Newsletters
    h. Reports on specific issues

3. **On a scale from 1 to 10, where 1 is not at all important and 10 is extremely important, how important is climate change as an issue for your organization to communicate with your members or constituents about?**

4. **This time, on a scale from 1 to 10, where 1 is totally implicit and 10 is totally explicit, how implicit or explicit is your messaging about CLIMATE CHANGE? For example, if you avoid mentioning climate change and instead use terms like "flooding", then you would use a rating on lower half of this scale.**

5. **Please rate the following mechanisms for engaging constituents on CLIMATE CHANGE in terms of your perception of their effectiveness:** (same scale and list as in 2.)

6. **Please describe any particularly effective mechanisms for engaging constituents on any of these issues.**

Challenges for Organizations

The following set of questions relates to the challenges faced by your organization around dealing with climate change and biodiversity loss. Again, if you work for a consulting firm, please respond for your firm or, if more relevant, for the client that you are or were most connected with.

1. **The term "nature-based climate solutions" has been touted by some as a win-win, addressing both climate and biodiversity issues. What is your organization's current approach to nature-based climate solutions?**
    a. We haven't looked into it yet.
    b. We have looked into it but haven't acted on it yet.
    c. We have looked into it but have rejected it.
    d. We have looked into it and are starting to implement it.
    e. We have looked into it and are well into implementation.
    f. Don't know

2. **How much are these circumstances negatively affecting your organization's ability to address climate change, or were they previously a problem?** (Scale: not at all, a little bit, somewhat, a lot, in the past but not now)
    a. The costs (financial, staff-wise, etc.) of adopting new practices
    b. Lack of capacity to consider adopting new practices
    c. Path dependence constraints from previous decisions
    d. The perception that new practices are not legitimate
    e. Uncertainty about whether climate change is human-caused
    f. Conflict within the organization
    g. Feedback from constituents
    h. Relationships with other organizations
    i. Government regulations
    j. Lack of political will
    k. Not part of the organization's mandate
    l. The scope of the problem

3. **How much are these circumstances negatively affecting your organization's ability to address BIODIVERSITY LOSS AND/OR EFFECTIVE WATERSHED MANAGEMENT (whichever is more relevant to your organization), or were they previously a problem?** (same scale, same options except e. uncertainty)

4. **What is the current size of your organization in terms of number of staff?**
    a. No paid staff
    b. One paid staff member (full- or part-time)
    c. 2-5 paid staff members (full- or part-time)
    d. 6-10 paid staff members (full- or part-time)
    e. More than 10 paid staff members (full- or part-time)

For all respondents:

About you and final question

Finally, some demographic questions and a wrap-up question. Reminder that this survey is anonymous.

1. **Which gender do you identify as?**
    a. Male
    b. Female
    c. Non-binary/other
    d. Prefer not to answer

2. **Which age range do you fall into?**
    a. Under 18
    b. 18-24
    c. 25-34
    d. 35-44
    e. 45-54
    f. 55-64
    g. 65 or over
    h. Prefer not to answer

3. **Do you identify as BIPOC (Black, Indigenous, or person of colour)?**
    a. Yes
    b. No
    c. Prefer not to answer

4. **Where do you live? (Please choose the best answer for your circumstances.)**
    a. Greater Toronto and Hamilton area (GTHA)
    b. West of the GTHA, within Ontario
    c. North of the GTHA, within Ontario
    d. East of the GTHA, within Ontario
    e. Elsewhere in Canada
    f. Outside of Canada
    g. Prefer not to answer

5. **Referring back to the symposium's theme, "Changing Climates: Our Watershed Moment", what opportunities do you see to address the challenges of our changing environmental, political, social, and/or economic climates?**

Appendix F: Email Requests to Participate in Survey

Request #1:

Tue 2023-09-19 1:38 PM Survey for Latornell Conservation Symposium Attendees
Hello-

An anonymous survey has been developed by a PhD candidate in environmental sociology at York University. The purpose of the survey is to gather demographic data and opinions on climate change and biodiversity loss from symposium attendees.

For participants attending on behalf of an organization, there are three further objectives:

- to determine the relative importance of communicating about climate change and biodiversity loss.
- to gather best practices for engaging constituents on climate change and/or biodiversity loss.
- to determine any organizational obstacles to action on climate change and/or biodiversity loss.

The results of the survey will form part of the researchers dissertation and potentially future journal articles and academic and environmental presentations. The results will also be shared with Latornell Conservation Symposium attendees.

To support this research, please complete the survey by clicking the link below, by **September 30, 2023**:
https://laps.apps01.yorku.ca/machform/view.php?id=1911975

Thank-you for your participation.

Request #2:

Tue 2023-09-26 8:56 AM Re: Survey for Latornell Conservation Symposium Attendees
Hello-

This a reminder to please complete the anonymous attendee survey for this year's Latornell Conservation Symposium.
Thank you to those who have already done so.
For those who haven't, the purpose of the survey is to gather opinions and best practices on climate change and biodiversity loss.
The survey should take no more than ten minutes to complete, much less for those not representing an organization.
Please complete the survey by **September 30** by visiting
https://laps.apps01.yorku.ca/machform/view.php?id=1911975.

Request #3:

Fri 2023-09-29 8:43 AM Final reminder for Latornell Conservation Symposium Survey
Hello-

This is the final reminder to please complete the anonymous attendee survey for this year's Latornell Conservation Symposium.
The deadline is Saturday, September 30. So far, 26% of attendees have completed the survey. We are hoping for a higher response rate.
If you are attending the symposium as a representative of an organization, the survey should take no more than 10 minutes to complete. Otherwise, it should only take a couple of minutes.
Here is the link: https://laps.apps01.yorku.ca/machform/view.php?id=1911975.

Your anonymous responses will be tallied and reported back at the symposium and will feed into a broader research study about how nature-related organizations communicate about climate change and biodiversity loss.

Thank you very much for your participation in this research.

Appendix G: Pre-Interview Questionnaire

[Administered via York University's MachForms platform]

Basic Information
In preparation for our interview, I have a few questions about you and your organization. Please answer these to the best of your ability. They will help to guide our interview. The answers will be kept confidential, as will the content of our interview.

1. What is the name of your organization?

2. What is your name?

3. What is your email address?

4. Is your organization a chapter or branch of a larger organization? (yes/no)

Chapters and Branches (only for yes answers above)
Please answer this section only if your organization is a chapter or branch of a larger organization.

1. What is the name of the larger organization?

2. Where is the larger organization based? (city, province)

3. What is the larger organization's intended catchment or reach?
   (regional within Ontario/Ontario-wide/Canada-wide/international/other)

4. Does your branch rely on the larger organization for the content of communications?
   (never/sometimes/often/always)

5. Is your website or webpage managed by the larger organization? (yes/no)

6. Is your social media managed by the larger organization? (yes/no)

7. Do you have any other comments on the role of the larger organization in your communications?

Your Organization or Chapter
If your organization is a chapter of branch of another organization, please answer this section referring to your chapter or branch. Otherwise, please answer for your organization as a whole.

1. Where is your organization based? (city, province)

2. What is your organization's intended catchment or reach?
   (local within Ontario/regional within Ontario/Ontario-wide/Canada-wide/international/other)

3. Is your organization incorporated (or is it incorporated as part of your parent organization)? (yes/no)

4. Is your organization a charitable organization? (yes/no)

5. What is the current size of your organization in terms of number of staff?

    a. No paid staff
    b. One paid staff member (full- or part-time)
    c. 2-5 paid staff members (full- or part-time)
    d. 6-10 paid staff members (full- or part-time)
    e. More than 10 paid staff members (full- or part-time)

6. Approximately how many members does your organization have (total number of people, if available, otherwise number of memberships)?

7. Which of the following means of mass communication do you use to communicate with your members/constituents? (Check all that apply)

    a. Newsletters – by email
    b. Newsletters – by mail
    c. Reports (e.g., annual reports, technical reports)
    d. Social media
    e. Website

8. What is the organization's website or webpage, if any?

9. Which social media account(s) does your organization maintain, if any?

    a. Facebook
    b. Twitter
    c. Instagram
    d. Other

10. If your organization uses Twitter, what is its Twitter handle (account name)? If there is more than one account, please list all accounts.

11. How big is your social media following (separately by platform, if available)?

Contact for Interview
Thank you for providing your name and email address at the start of this form. The next step is to conduct an in-person interview with someone at your organization regarding communications.

1. Are you the best person to speak to in your organization about communications, i.e., the content of messaging directed at members/constituents? (yes/no)

2. If yes, what is your role regarding communications in the organization?

3. If no, please provide the name and email address of a more appropriate person.

Appendix H: Interview Guide – Conservation Authorities

INTERVIEW GUIDE
CONSERVATION AUTHORITIES
November 2023 – January 2024

Preamble (mostly filled out in advance).

1. Name of interviewee
2. Name of organization
3. Role within organization
4. Type of interview (Zoom/in-person/other)
5. Consent to record (audio and video/audio only/no)
6. Date of interview
7. Time of interview
8. Location of organization
9. Location of interviewee
10. Can you tell me how you came to be in your current position? (How and when did you become a board/staff member?)

My first set of questions relates to your organization and communications in general. When we're addressing the issue of communications, I need to first establish who you're communicating with and through which means.

1. On the pre-interview questionnaire, you said that you have _____ members. Can you expand on that in terms of communications?
    a. How do you communicate with them?
    b. Are there other audiences that you communicate with? If so, how?
2. Has the gender/age/race/ethnicity composition of your membership changed over time? How has that affected your communications?

My next set of questions relates specifically to climate change and biodiversity loss. This section expands on the survey I did as part of the Latornell Symposium this fall. We'll start with three quantitative questions.

1. On a scale from 1 to 10, where 1 is not at all important and 10 is extremely important, how important is biodiversity loss as an issue for your organization to communicate about?
2. On a scale from 1 to 10, where 1 is not at all important and 10 is extremely important, how important is climate change as an issue for your organization to communicate about?
3. On a scale from 1 to 10, where 1 is totally implicit and 10 is totally explicit, how implicitly or explicitly does your organization communicate about climate change?
4. Can you express why you don't communicate more explicitly about climate change?
    a. Are there any internal challenges?
    b. Are there any external challenges?
    c. The following list of challenges were rated as relevant obstacles by CAs. Are any of these an issue for your organization? Can you expand?
        i. The costs (financial, staff-wise, etc.) of adopting new practices?
        ii. Lack of capacity?
        iii. Government regulations/Lack of political will?
        iv. Path dependence constraints from previous decisions?

v. The scope of the problem?
vi. Relationships with other organizations?
vii. Input from the board?
viii. Constituent feedback?

d. The survey showed that government regulations are more of a concern for addressing biodiversity loss and/or effective watershed management than they are for addressing climate change. Can you talk about that?
e. The survey also showed that path dependence constraints were more of a concern for addressing climate change than the other topics. Can you talk about that?

5. What is your organization's approach to nature-based climate solutions?
    a. Is that the term you use?
    b. CA implementation of NBCS per survey:
        i. DK = 14 (29.8%)
        ii. Haven't looked into it yet = 2 (4.3%)
        iii. Haven't acted on it yet = 2 (4.3%)
        iv. Starting to implement = 15 (31.9%)
        v. Well into implementation = 14 (29.8%)
        vi. Total = 47
6. Have you seen changes due to climate change and/or biodiversity loss?

My next-to-last set of questions relates to your relationships with other organizations and constituencies.

1. What other nature or environmental organizations does your organization work most closely with?
    a. To what extent does Conservation Ontario direct your communications?
2. What other non-environmental organizations does your organization work most closely with?
3. Does your organization's experience conflict with other organizations or specific constituencies?
    a. Please describe.

This last set of questions is about you. You don't have to answer if you don't feel comfortable.

1. Do you consider climate change a crisis? (you personally; your organization) (yes/somewhat/no)
    a. Following Global Warming's Six Americas regarding climate change, which of these best describes you? Your organization? (Alarmed, Concerned, Cautious, Disengaged, Doubtful, Dismissive)
2. Do you consider biodiversity loss a crisis? (You personally; your organization) (yes/somewhat/no)
    a. Using the same scale but for biodiversity loss, which of these best describes you? Your organization? (Alarmed, Concerned, Cautious, Disengaged, Doubtful, Dismissive)
3. Do any of these emotions reflect your feelings about climate change? (yes/maybe/no)
    a. Anger
    b. Fear
    c. Sadness
    d. Worry

    e. Hope
    f. Resilience
4. Do any of these emotions reflect your feelings about biodiversity loss? (Same question except for biodiversity loss.) (yes/maybe/no)
    a. Anger
    b. Fear
    c. Sadness
    d. Worry
    e. Hope
    f. Resilience
5. Any comments on emotions?
6. Gender (male/female/gender non-conforming/other)
7. Age (18-24/25-34/35-44/45-54/55-64/65 or older/other)
8. Visible minority/BIPOC (no/yes/other)

Appendix I: Email Request for Interview – General

I am a PhD candidate in the Department of Sociology at York University in Toronto. For my dissertation, I am doing research on nature-related organizations in Ontario. I'm in the process of interviewing representatives of 40-50 organizations, and I'm hoping that [insert organization name] will be one of them.

I am interested in whether and how nature-related organizations like yours talk about biodiversity loss and/or climate change with their members. I am a former employee of a regional environmental network and have also been a member of the South Peel Naturalists' Club since 2015. In those roles, I have seen a wide array of approaches to climate change and biodiversity loss. Some organizations talk about these topics with their members. Others don't. I am not interested in persuading you to change your practices. I am interested in understanding what your current practices are and the processes and challenges that have led to them. In addition to writing my dissertation, I will report back to participating organizations. All individual and organization names will be kept confidential, so your responses will not be traceable back to you or your organization.

I would like to conduct a one-on-one interview with someone from your organization, either the person in charge of your social media presence or someone on your leadership team who guides communications. The interview will last one to two hours and will take place on Zoom. It could be split up over two sessions if that works better.

I would very much appreciate it if this email could be forwarded to the appropriate person. I am currently scheduling interviews between [insert dates]. Interviews could be held in the morning, afternoon, or evening. The appropriate consent form will need to be completed before an interview takes place. If you would like to verify this project, you may contact my supervisor, Dr. Joanna Robinson, at jrobinson@glendon.yorku.ca or the Graduate Program Director in York's Sociology Department, Dr. Harris Ali, at socigpd@yorku.ca.

I look forward to hearing from someone at your organization soon!

Lisa Seiler
PhD candidate
Department of Sociology
York University
Pronouns: she, her
Email: lseiler@yorku.ca
Cell: 289-400-8705

Appendix J: Consent Form

[Administered via York University's MachForms platform]

Informed Consent
This form is to be completed by the person within your organization who will be participating in the interview. The final section allows for the signature of a superior, if required.

Study Name
Communicating with Nature Lovers about Climate Change and Nature

Researcher name
Lisa Seiler, lseiler@yorku.ca
I am a fourth year PhD student in the Department of Sociology at York University. I am the Principal Investigator on this project.

Purpose of the Research
The purpose of this project is to examine whether and how nature-oriented organizations talk with their constituents about climate change and biodiversity loss. The research includes interviews and an analysis of written communications, including website content, annual reports, and tweets (if applicable). In total, approximately 50 Ontario organizations from across Ontario will be participating. The anonymized findings will be published in a dissertation and journal articles and will be presented at academic and environmental conferences. Findings will also be shared with participating organizations.

What You Will Be Asked to Do in the Research
You are being asked to engage in an interview in which you will present the views of your organization, as seen from your position within the organization. Interviews will take approximately two hours and will be held on the Zoom platform. You may choose two one-hour sessions or one two-hour session. You are being sent a brief pre-interview questionnaire, which you are asked to complete electronically. You may be asked to provide organizational annual reports and newsletters, if they are not publicly available on the website. You have the right to refuse. If you need consent from your superior or your organization for any portion of this research, there is a section for their consent at the end of this form. In total, you will be expected to commit to no more than three hours to the project.

Risks and Discomforts
Answering on behalf of your organization could cause discomfort that you might say something wrong. Please answer to the best of your ability but rest assured that all data will be anonymized and will not be identified with either you or your organization. Because climate change and biodiversity loss are considered by some to be crises, there is the possibility of some emotional discomfort. Contact information will be provided on request regarding support services. Because climate change is also a politically charged topic, there is the possibility of perceived conflict. Rest assured that this research is not intended to judge participants but rather to gather and compare current practices. You have the option to refuse to answer particular questions.

Benefits of the Research and Benefits to You
There are no direct benefits to you beyond having the opportunity to talk about climate change and biodiversity loss in confidence outside of your organization. You will also be helping me to complete my PhD dissertation. The benefit to the wider society is to provide greater

understanding about how regular people like yourself and your constituents think about and talk about climate change and biodiversity loss. Most research to date has only looked at the extremes of climate change activists and climate change deniers.

Voluntary Participation and Withdrawal
Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to refuse to answer particular questions or provide particular information will not influence the nature of the ongoing relationship you may have with the researcher or the nature of your relationship with York University either now, or in the future.

In the event that you withdraw from the study, all associated data collected will be immediately destroyed wherever possible. Should you wish to withdraw after the study, you will have the option to also withdraw your data up until the analysis is complete.

Confidentiality
Confidentiality will be provided to the fullest extent possible by law. The researcher will have your name, the name of your organization, and your contact information. That information will be kept confidential. Unless you choose otherwise, all information you supply during the research will be held in confidence and unless you specifically indicate your consent, neither your name nor your organization's name will appear in any report or publication of the research.

Privacy and confidentiality will be maintained for all information you supply during the project. Hand-written notes and consent forms and any other hard-copy information will be safely stored in a locked container. Audio and video recordings collected via Zoom or other electronic equipment (e.g., cell phone) will be saved to the researcher's local computer, not the cloud-based service, then stored electronically on a password-protected external hard drive. Any other electronic information collected from your organization will be handled in the same way. Only the researcher will have access to this information. Consent forms, audio/video recordings, and organizational publications will be stored until June 2027 and then destroyed. Hard-copy material will be shredded; electronic information will be wiped from the drives.

The data collected in this research project may be used – in an anonymized form – by members of the research team in subsequent research investigations exploring similar lines of inquiry. Such projects will still undergo ethics review by the Human Participants Review Sub-Committee (HPRC), York University's Research Ethics Board. Any secondary use of anonymized data by the research team will be treated with the same degree of confidentiality and anonymity as in the original research project. Because of this potential future use, the data other than consent forms, recordings, and organizational publications will be retained indefinitely.

The researcher acknowledges that the host of the online survey (MachForms) may automatically collect participant data without their knowledge (i.e., IP addresses). Although this information may be provided or made accessible to the researcher, it will not be used or saved on the researcher's system without your consent. Further, because this project employs e-based collection techniques, data may be subject to access by third parties as a result of various security legislation now in place in many countries and thus the confidentiality and privacy of data cannot be guaranteed during web-based transmission.

This study will use the Zoom platform to collect data, which is an externally hosted cloud-based service. When information is transmitted over the internet, privacy cannot be guaranteed. There

is always a risk your responses may be intercepted by a third party (e.g., government agencies, hackers). Further, while York University researchers will not collect or use IP addresses or other information which could link your participation to your computer or electronic devices without informing you, there is a small risk with any platform such as this of data that is collected on external servers falling outside the control of the research team. If you are concerned about this, we would be happy to make alternative arrangements (where possible) for you to participate, perhaps via telephone. Please contact the researcher for further information.

In accordance with current protocols for quantitative research, the code used to access and analyze Twitter data will be made available in the Dataverse, York University's research data repository. Twitter user identities will be removed from the code. Tweet IDs will also be made available in the Dataverse. Twitter does not allow the direct sharing of Twitter data.

Please note that it is the expectation that you agree not to make any unauthorized recordings of the content of a meeting / data collection session.

Questions About the Research?
If you have questions about the research in general or about your role in the study, please feel free to contact me at lseiler@yorku.ca or my supervisor, Dr. Lorna Erwin at lerwin@yorku.ca. You may also contact the Graduate Program in Sociology at gpdsoci@yorku.ca and/or (416) 736-2100 extension 60312.

This research has received ethics review and approval by the Delegated Ethics Review Committee, which is delegated authority to review research ethics protocols by the HPRC, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Director, Research Ethics in the Office of Research Ethics, 3rd Floor, Kaneff Tower, York University (e-mail ore@yorku.ca).

Legal Rights and Signatures:
I consent to participate in the research project, "Communicating with Nature Lovers about Climate Change and Nature," conducted by Lisa Seiler. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. By checking the box below and typing my name in the larger box, I indicate my consent.

Checkboxes
☐ I consent to participate.

Name

Email (for the purpose of sending you a copy of the completed form)

Name of Organization

Date

Additional consent by Participant

I consent to the audio-recording of my interview(s). (Yes/No)

I consent to the analysis of the following organizational publications:

Website	☐ Y ☐ N ☐ N/A
Annual reports	☐ Y ☐ N ☐ N/A
Membership newsletters	☐ Y ☐ N ☐ N/A

I consent to the use of the audio portion of any video recording of my interview(s) for the sole purpose of verification of the written transcript. (Yes/No)

I consent to the connection of the data gathered in my interview(s) with the data collected from the organization's Twitter account in the analysis stage of this research. Before any research results are disseminated, the data will be anonymized. (Yes/No)

I consent to the de-identified programming code used to access and analyze my Twitter data and the Tweet IDs of individual tweets being placed into a research data repository with restricted access, for the purpose of verification of this research by other academics. (Yes/No)

Consent of Organization, if required

I consent to the participation of the organization named above in the research project "Communicating with Nature Lovers about Climate Change and Nature," conducted by Lisa Seiler. I have understood the nature of this project and give permission to the individual named above to participate on behalf of the organization. The organization is not waiving any of its legal rights by my consent on this form. By checking the box below and typing my name in the larger box, I indicate my consent.

Consent of Organization
☐ I consent to the participation of the organization.

Name

Title, Position, or Role

Date

Appendix K: Email Request for Interview – Conservation Authorities

I am a PhD candidate in the Department of Sociology at York University in Toronto. For my dissertation, I am doing research on nature-related organizations in Ontario, including conservation authorities. I met with Angela Coleman at Conservation Ontario after the Latornell Symposium, and she has given me permission to interview staff with the conservation authorities. I've randomly selected seven conservation authorities from all across the province for interviews and [insert CA name] was one of the seven. I've already interviewed 25 other nature-related organizations, including naturalist groups, hiking clubs, and conservation, preservation, and restoration groups. I also conducted a survey (http://www.latornell.ca/wp-content/uploads/files/2023/Latornell_Survey_Report_2023_Symposium.pdf) of registrants for the Latornell Symposium. This round of interviews will build on the results of that survey.

I am interested in whether and how nature-related organizations talk about biodiversity loss and/or climate change with their members and constituents. I am a former employee of a regional

environmental network, I was on the Steering Committee of the Halton Children's Water Festival from 2006 to 2017, and I have also been a member of the South Peel Naturalists' Club since 2015. In my various roles, I have seen a wide array of approaches to climate change and biodiversity loss. Some organizations talk about these topics with their members. Others don't. I am interested in understanding what your current practices are and the processes and challenges that have led to them.

I would like to conduct a one-on-one interview with someone from your organization, preferably the person who guides communications. The questions fall into the categories of:

1. general questions about the composition of your membership/constituency and how you do communications
2. what other organizations you work most closely with and the nature of your local relationships
3. how you communicate about nature conservation, biodiversity loss, and climate change (I have some multiple choice questions to help)
4. a few short questions about the interviewee personally

The data I collect will be used in my dissertation. I also intend to write a series of academic journal articles on various aspects of the findings. In addition, I will communicate with Conservation Ontario about sharing findings with all of the conservation authorities. All individual and organization names will be kept confidential, so your responses will not be traceable back to your organization.

The interview will last one to two hours and will take place on Zoom. It could be split up over two sessions if that works better. I am currently scheduling interviews throughout November and December. The appropriate consent form will need to be completed before an interview takes place. If you would like to verify this project, you may contact my supervisor, Dr. Joanna Robinson, at jrobinson@glendon.yorku.ca, or the Graduate Program Director in York's Sociology Department, Dr. Harris Ali, at socigpd@yorku.ca.

I look forward to hearing from someone at [insert CA name] soon!

Appendix L: Ethics Approval

YORK
UNIVERSITÉ
UNIVERSITY

OFFICE OF RESEARCH ETHICS (ORE)
3rd Floor, Kaneff Tower

4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736 5914
www.research.yorku.ca

Certificate #:	**STU 2023-009**
Approval Period:	**02/07/23-02/07/24**

ETHICS APPROVAL

To: **Lisa Seiler**
Graduate Student of Sociology
lseiler@yorku.ca

From: Alison M. Collins-Mrakas, Director, Research Ethics
(on behalf of Janessa Drake, Chair, Human Participants Review Committee)

Date: Tuesday, February 7, 2023

Title: **Communicating with Nature Lovers about Climate Change**

Risk Level: ☒ Minimal Risk ☐ More than Minimal Risk

Level of Review: ☒ Delegated Review ☐ Full Committee Review

I am writing to inform you that this research project, **"Communicating with Nature Lovers about Climate Change"** has received ethics review and approval by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines.

Note that approval is granted for one year. Ongoing research – research that extends beyond one year – must be renewed prior to the expiry date.

Any changes to the approved protocol must be reviewed and approved through the amendment process by submission of an amendment application to the HPRC prior to its implementation.

Any adverse or unanticipated events in the research should be reported to the Office of Research ethics (ore@yorku.ca) as soon as possible.

For further information on researcher responsibilities as it pertains to this approved research ethics protocol, please refer to the attached document, **"RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE".**

Should you have any questions, please feel free to contact me at acollins@yorku.ca.

Yours sincerely,

Alison M. Collins-Mrakas M.Sc., LLM
Director, Office of Research Ethics

Appendix M: NVivo Code Summaries

Overall Summary of Frames

Name	Files	References
frames	37	483
diagnostic	28	94
motivational	25	177
prognostic	32	176

Detailed Breakdown of Frames

Name	Files	References
diagnostic	28	94
apolitical (diagnostic)	4	10
political (diagnostic)	5	9
post-political (diagnostic)	24	73
economic impacts	2	2
environmental effects	20	56
biodiversity changes	13	20
extreme weather	10	21
flooding, erosion	6	10
not blaming	4	7
science (diagnostic)	4	8

Name	Files	References
prognostic	32	176
apolitical (prognostic)	7	13
political (prognostic)	6	20
climate advocacy	2	5
climate justice	2	7
grassroots solutions	4	7
post-political (prognostic)	26	143
adaptation	14	25
flood forecasting (SWM)	3	8
flood mitigation	5	8
species selection	2	2
weather adaptations	5	6
mitigation	16	48
decrease GHG emissions	9	23
indiv actions	6	9
technology	5	14
increase carbon sinks	9	17
carbon offsets	3	5
NbCS, NbS	19	48
science (prognostic)	5	9
sustainable development	3	13

Name	Files	References
motivational	25	177
apolitical (motivational)	1	1
political (motivational)	2	3
post-political (motivational)	24	170
benefits	20	103
global benefits	7	14
personal benefits	10	23
economics	7	12
other personal benefits	4	7
risk	3	4
to community	14	54
economic benefits	5	11
ecosystem services	13	43
(non)material benefits	7	8
regulating - adapting	10	27
regulating - mitigating	5	8
to nature	6	12
catastrophism	5	15
efficacy	17	41
response efficacy	7	10
self-efficacy	13	31
mobilization	1	2
urgency	4	9

Appendix N: Supplementary Climate Change Tables

In this appendix, I test the strength of the relationship between climate change score and various forces that could affect the likelihood of an organization communicating about climate change. The tests were performed using the Goodman-Kruskal gamma test in the *DescTools* package in R (Signorell 2025).

Table N.1 presents the same analysis as Table 6.2 but grouped by overarching category. A Goodman-Kruskal gamma test shows that the relationship in Table N.1 is very strongly negative (γ=-.86). That is, conservation-oriented NRNPs were much more likely to communicate about climate change than were recreation-oriented NRNPs. Wildlife organizations were treated separately from other conservation-based organizations in this table because of their reputation for less engagement on climate change than other environmental groups (Johnson et al. 2023). That difference did appear to be confirmed in this table.

Table N.1*. Percentage (frequency) of climate change scores by overarching category, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

OVERARCHING CATEGORY	CLIMATE CHANGE SCORE				
	0	1	2	3	TOTAL
Conservation	11%	39%	44%	6%	100% (18)
Wildlife	20%	60%	20%	-	100% (5)
Recreation	85%	15%	-	-	100% (13)
n	14	12	9	1	36

Table N.2 presents the same analysis as Table N.1 but grouped by number of employees, as a proxy for organizational size. A Goodman-Kruskal gamma test shows that the relationship in Table N.2 is strongly positive (γ=.73). That is, NRNPs with more employees were much more likely to communicate about climate change than were NRNPs with no paid employees or only a few.

***Table N.2**. Percentage (frequency) of climate change scores by number of employees, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

NUMBER OF EMPLOYEES	CLIMATE CHANGE SCORE				
	0	1	2	3	TOTAL
None	71%	21%	-	7%	100% (14)
1-10	40%	40%	20%	-	100% (10)
11 or more	-	42%	58%	-	100% (12)
n	14	12	9	1	36

Some totals do not add properly due to rounding.

Table N.3 presents the same analysis but grouped by size of catchment area. A Goodman-Kruskal gamma test shows that the relationship in Table N.3 is moderately positive (γ=.29). That is, national, provincial, and multiregional NRNPs were slightly more likely to communicate about climate change than were NRNPs with a more local catchment. The relevance of the size of catchment was likely somewhat overridden by organizational focus. The multiregional/provincial/national level included of all of the wildlife-focused organizations, which were shown to be less amenable to a climate change frame in Table N.1, agreeing with the literature (Boscarino 2015; Johnson et al. 2023; Tosun and Saad 2023). At least two such organizations had hunters within their membership and were careful in their communications to avoid pushback from climate deniers. If it had been possible to include local rather than higher-level wildlife organizations, the findings might have better supported Johnson et al. (2023) in this regard.

Table N.4 presents the same analysis as Table N.3 but grouped by whether the catchment was rural, urban, or a mix. A Goodman-Kruskal gamma test shows that relationship in Table N.4 is very weak (γ=-.04). That is, there was no correlation between urban or rural catchment and communicating about climate change.

Table N.3. *Percentage (frequency) of climate change scores by size of catchment area, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

SIZE OF CATCHMENT AREA	CLIMATE CHANGE SCORE				
	0	1	2	3	TOTAL
Local	61%	31%	-	8%	100% (13)
Regional	21%	29%	50%	-	100% (14)
National/Provincial/ Multiregional	33%	44%	22%	-	100% (9)
n	14	12	9	1	36

Some totals do not add properly due to rounding.

Table N.4. *Percentage (frequency) of climate change scores by urban or rural catchment, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

URBAN/RURAL CATCHMENT	CLIMATE CHANGE SCORE				
	0	1	2	3	TOTAL
Urban	33%	50%	17%	-	100% (12)
Mixed	20%	50%	30%	-	100% (10)
Rural	57%	7%	29%	7%	100% (14)
n	14	12	9	1	36

Table N.5. *Percentage (frequency) of climate change scores by age of organization, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

FOUNDING OF ORGANIZATION	CLIMATE CHANGE SCORE				
	0	1	2	3	TOTAL
Prior to 1965	29%	35%	35%	-	100% (17)
1965-1989	67%	22%	11%	-	100% (9)
1990 or later	30%	40%	20%	10%	100% (10)
n	14	12	9	1	36

Some totals do not add properly due to rounding.

Table N.5 presents the same analysis but divided by age of organization.[131] A Goodman-Kruskal gamma test shows that the relationship is weakly negative (γ=-.10). That is, older NRNPs

[131] 1965 was chosen as a cutoff to approximate the before *Silent Spring* era. 1990 was chosen as the second cutoff to approximate the climate change era (Johnson et al. 2023:962). Most of the CAs in the interview sample were included in the prior-to-1965 group.

were slightly more likely to communicate about climate change than were newer NRNPs. Despite that, the two NRNPs identified as closest to the climate movement were amongst the newest groups, aligning with Johnson et al.'s (2023) finding that newer groups were more likely to focus on climate change than older groups because they might have included climate change in their mission from the start.

Appendix O: Supplementary DEDI Tables

In this appendix, I test the strength of the relationship between DEDI score and various forces that could affect the likelihood of an organization communicating about DEDI. The tests were performed using the Goodman-Kruskal gamma test in the *DescTools* package in R (Signorell 2025).

Table O.1 presents the same analysis as Table 7.3 but grouped by overarching category. A Goodman-Kruskal gamma test shows that the relationship in Table O.1 is fairly strongly negative (γ=-.46). That is, conservation-oriented NRNPs were somewhat more likely to communicate about DEDI than were recreation-oriented NRNPs. Wildlife organizations were treated separately from other conservation-based organizations in this table because of their reputation for less engagement on justice issues than other environmental groups (Johnson et al. 2023).

Table O.1. *Percentage (frequency) of DEDI scores by overarching category, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

OVERARCHING CATEGORY	DEDI SCORE				
	0	1	2	3	TOTAL
Conservation	17%	44%	28%	11%	100% (18)
Wildlife	60%	20%	20%	-	100% (5)
Recreation	46%	38%	16%	-	100% (13)
n	12	14	8	2	36

Table O.2 presents the same analysis as Table O.1 but grouped by number of employees, as a proxy for organizational size. A Goodman-Kruskal gamma test shows that the relationship in Table O.2 is moderately positive (γ=.39). That is, NRNPs with more employees were somewhat more likely to communicate about DEDI than were NRNPs with no paid employees or only a few.

Table O.3 presents the same analysis but grouped by size of catchment area. A Goodman-Kruskal gamma test shows that the relationship in Table O.3 is weakly positive (γ=.17). That is,

there was little correlation between the geographic size of the catchment area of the NRNP and its DEDI engagement.

Table O.2. *Percentage (frequency) of DEDI scores by number of employees, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

NUMBER OF EMPLOYEES	DEDI SCORE				
	0	1	2	3	TOTAL
None	43%	43%	14%	-	100% (14)
1-10	40%	30%	30%	-	100% (10)
11 or more	17%	42%	25%	17%	100% (12)
n	12	14	8	2	36

Table O.3*. Percentage (frequency) of DEDI scores by size of catchment area, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

SIZE OF CATCHMENT AREA	DEDI SCORE				
	0	1	2	3	TOTAL
Local	46%	31%	23%	-	100% (13)
Regional	21%	50%	14%	14%	100% (14)
National/Provincial/ Multiregional	33%	33%	33%	-	100% (9)
n	12	14	8	2	36

Some totals do not add properly due to rounding.

Table O.4 presents the same analysis as Table O.3 but grouped by whether the catchment was rural, urban, or a mix. A Goodman-Kruskal gamma test shows that the relationship in Table O.4 is moderately negative (γ=-.36). That is, NRNPs with an urban catchment were somewhat more likely to communicate about DEDI than were NRNPs with a rural catchment.

Table O.5 presents the same analysis but divided by age of organization. A Goodman-Kruskal gamma test shows that the relationship in Table O.5 is very weak (γ=.09). That is, there was no correlation between the age of the NRNP and its DEDI engagement.

Table O.4. *Percentage (frequency) of DEDI scores by urban or rural catchment, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

URBAN/RURAL CATCHMENT	DEDI SCORE				
	0	1	2	3	TOTAL
Urban	25%	33%	33%	8%	100% (12)
Mixed	20%	50%	30%	-	100% (10)
Rural	50%	36%	7%	7%	100% (14)
n	12	14	8	2	36

Some totals do not add properly due to rounding.

Table O.5. *Percentage (frequency) of DEDI scores by age of organization, based on websites and annual reports of the NRNPs in the interview sample. n=36. 0 is lowest score; 3 is highest score.*

FOUNDING OF ORGANIZATION	DEDI SCORE				
	0	1	2	3	TOTAL
Prior to 1965	35%	41%	24%	-	100% (17)
1965-1989	22%	44%	33%	-	100% (9)
1990 or later	40%	30%	10%	20%	100% (10)
n	12	14	8	2	36

Some totals do not add properly due to rounding.

LIST OF ACRONYMS AND ABBREVIATIONS

ANT – Actor-Network Theory

CA – Conservation Authority, as constituted by the Province of Ontario

CBC – Canadian Broadcasting Corporation

CDC – United States Centers for Disease Control

CO_2 – carbon dioxide

Congress – Canadian Congress of the Humanities and Social Sciences

COP – Conference of the Parties

DEDI – decolonization, equity, diversity, and inclusion

DEI – diversity, equity, and inclusion

ECCC – Environment and Climate Change Canada

EDI – equity, diversity, and inclusion

ENGO – environmental non-governmental organization

EV – electric vehicle

GHG – greenhouse gas

IPBES – Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPCC – Intergovernmental Panel on Climate Change

IUCN – International Union for Conservation of Nature

Latornell – Latornell Conservation Symposium

NbCS – nature-based climate solutions

NbS – nature-based solutions

NDC – nationally determined contribution

NGO – non-governmental organization

NPO – non-profit organization

NRNP – nature-related non-profit

OSF – Open Science Framework

PHAC – Public Health Agency of Canada

ROI – Rural Ontario Institute

SDG – Sustainable Development Goal

TRC – Canada's Truth and Reconciliation Commission

UN – United Nations

UNFCCC – United Nations Framework Convention on Climate Change

York – York University, Toronto