

**Crying Wolf – Perceptions and Realities of Algonquin Park
Wolves**

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Foreword

Making the documentary *Crying Wolf – Perceptions and Realities of Algonquin Park Wolves* helped me complete the objectives outlined in my Plan of Study. Accordingly, by interviewing a wide variety of interest groups, the project allowed me to explore representations of the wolf in western culture and how they affect society. The documentary also demonstrates how different interest groups value wolves and why. The film portrays each interest group within their social context, so that the audience can understand the origins of their values and perceptions.

Interviews with a variety of scientists, coupled with additional research and fact checking throughout the project, provided me with a much deeper understanding of wolf ecology and the scientific debates swirling around contentious wolf management issues.

The project also put my knowledge of communications theory into practice in two ways. On-camera questions helped me determine where people get their information about wolves, and how effective the science communication has been. Secondly, the act of making the documentary film itself is an attempt at science communication. The film is set up like a scientific paper, so that audiences get an idea how science works as they watch the film.

Making the film also put my knowledge of documentary theory into practice. I learnt new interviewing skills, camera techniques, sound techniques, and I gained valuable editing experience. I also learnt how to treat interview participants ethically and maintain a balanced, objective approach throughout my project.

In the end, the documentary provided an egalitarian platform, by which each interest group could share their views with me. Via their interviews, they all participated in the communication of my research. In this manner, the project helped me generate a balanced view of Algonquin Park wolves that is more conducive to effective environmental education. Considering the multidisciplinary character of my documentary, it is truly an environmental production that effectively communicates a complex issue to the general public.

Introduction

When I began this documentary back in November, 2001, my views on the Algonquin Park wolf situation were much different than they are now. Perhaps I am the *only* evidence I have that good science communication can change how people value and perceive the wolves!

Back in the early days of my Masters program, I was somewhat under the spell of the pro-wolf advocates. On November 6, 2001, when I was filming a presentation by Dr. John and Dr. Mary Theberge, sponsored by Earthroots / Wolves Ontario, it was announced that a 2.5 year moratorium on the hunting and trapping of wolves in 39 townships around the park had just been approved by the Ministry of Natural Resources (MNR). At that time, I thought I was privy to a great documentary story – the rare, endangered, genetically distinct Algonquin Park wolf, under siege by hunters, trappers, and coyotes. Little did I know that I was about to have my eyes opened.

Throughout my Masters program, courses such as Resource Management, Conservation Biology, Wolf Ecology and Science Advocacy, Hierarchy Theory, and Protected Area Management provided me with a strong critical lens. Armed with new information regarding the science of Algonquin Park wolves, I began to question the Theberges' point of view. Courses like Political Communication and Environmental Issues, Science Communication, and Mass Communications helped me grasp the problems inherent in communicating reliable scientific knowledge to the general public. Nature and Society, Culture and the Environment, Action Learning, and Environmental Education helped me appreciate the differences and complexities that occur across the “general public”. Essentially, all of these courses helped me grasp the uncertainties inherent in Algonquin Park wolf management.

The challenge for me was to communicate my new found knowledge of Algonquin Park wolves to the general public, with the hopes of dispelling some of the misconceptions regarding the wolves. To achieve this, I would make a documentary. It would allow me to research the issues and communicate my results to the general public in an engaging, easy-to-understand format. Along these lines, courses like Studies in the Documentary, Activist Video Making, and Qualitative Methods helped me design and implement my project.

Thus, through a long, slow process of re-evaluating how I felt about Algonquin Park wolves, sifting through the scientific information swirling around them, and developing a multidisciplinary critical lens, I came upon what I *think* is a more balanced view of the animals. This view flavoured my documentary.

The Science

The Deer Yards – Welcome to the “Algonquin Park Zoo”

When considering how protected areas are managed, there is often the central irony that maintaining these “natural areas” requires an excessive amount of management and human intervention. This often amounts to conflict, as our short term fixes interfere with long term, natural ecological processes. Along these lines, I believe that the problems currently facing Algonquin Park wolf management were initiated by an ecological imbalance, caused by humankind.

In the eastern portion of the park, there is an annual winter migration of between 2000 to 3000 white-tailed deer (Conservation Breeding Specialist Group 2000). The deer congregate in deer yards in the Round Lake Centre area, at the south east corner of the park. This migration started within the last 20 years, after the Ministry of Natural Resources (MNR) opened the deer yards to feed starving deer (Thompson; Pecoskie 2003). No doubt, the MNR was under political pressure from local deer hunters, residents, and tourists to save the deer. However, the starving deer were symptomatic of natural ecological processes within the park. For some reason, the park could no longer support them throughout the winter. The park's forest ecosystem was changing - moving towards a new normal.

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Recent evidence suggests that the Algonquin Park forest ecosystem is returning to the state it was in the 1850s (White 2003). Around that time, when logging was less intensive, it is likely that mixed conifer and deciduous old growth forest dominated. In general, moose prefer a dense, conifer-dominated forest (United States Department of Agriculture Forest Service 2004). Deer moved into the Algonquin Park area only after years of logging cleared away old growth forest, allowing mixed deciduous forest to dominate (i.e., secondary succession). Currently, an aging forest and changing logging practices may explain the shift back to moose habitat. The ultimate outcome is a decreasing white-tailed deer population and an increasing moose population (White 2003). Currently, it is estimated that there are approximately 3500 moose and 10,000 deer in the park (Quinn 2002). Thus, for humankind to intervene and make adjustments to the system (i.e., attempt to maintain deer populations in the short term when it is futile in the long term) will only cause an imbalance and conflict. Unfortunately, that imbalance and conflict is now symbolized by the wolf.

During their eleven year study, John and Mary Theberge radio collared 172 wolves in the eastern portion of Algonquin Park (Conservation Breeding Specialist Group 2000). They were the first to discover that these park wolves were following deer out of the park into the winter deer yards. The wolves had gradually adjusted their behaviour, an unforeseen result of the creation of the deer yards. Thus, wolf ecology had been impacted by social pressure to maintain deer numbers.

Unfortunately, this migration of wolves has increased the perception that wolves are a threat and a nuisance around the park. Once the wolves follow the deer into residential areas, it is no longer just an ecological problem – it has social and cultural ramifications. Round Lake Centre area residents became concerned; since the deer were literally in their backyards, so were the wolves (Thompson, Pecoskie, Anderchek, Foy 2003). This greatly increased the chances of wolves interacting negatively with deer, pets, and livestock around people's homes. One gentleman I spoke to at Del's Diner in Killahoe, near Round Lake Centre, commented that wolves are following deer right into people's backyards, so local residents fear for their children's safety. He said that, for this reason, some wolves are being shot. He mentioned that people in Toronto do not know the extent of the problem. Thus, the problem has furthered the urban / rural divide. No doubt, it has also added to local stories and superstitions that place the wolves in a negative light.

The heavily managed deer yards gave me the impression that Algonquin Park was being managed like a zoo. It is interesting (and unsettling) to note that *The Wolves of Algonquin Park Population and Habitat Viability Assessment* workshops and reports were sponsored by the Conservation Breeding Specialist Group, whose contributors were mainly from zoos (Conservation Breeding Specialist Group 2000). Short term fixes might work within the confines of a zoo, but in the real world they cause reverberations - negative feedback - that we will pay for in the future. Instead of making longer term, larger scale management decisions, park managers went for short term fixes to keep tourists and locals happy. The deer yards are a prime example of this - social pressure taking precedent over long term ecological concerns. If park managers had been patient, and involved all the interest groups, we could have accepted a naturally changing ecosystem with more moose than deer. Instead, we now have an imbalance and the wolves are caught in the middle.

Thinking Outside of the Park

“Thinking outside of the park” sums up my new view of Algonquin Park wolf management. The term insinuates moving above and beyond traditional views of parks as isolated systems managed within strict boundaries. It also implies a multidisciplinary approach that moves beyond the traditional boundaries of science into social, cultural, and communications aspects. In the case of Algonquin Park wolf management, the catch phrase applies wonderfully.

The eastern timber wolves (*Canis lycaon*) that populate Algonquin Park make a great case study for “thinking outside of the park” since they are socially and politically contentious, their ecology and behaviour can be unpredictable, they require a large range, and they do not recognize boundaries and

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borders. Thus, their management should not be restricted to traditional park boundaries. In addition, because of the wide ranging social, cultural, communications, and political ramifications of wolf management, the importance of managing *people* outside of the park boundaries must not be underestimated.

Knowing what I know now about Algonquin Park wolf management, I'd describe the situation as a real quagmire. I'm convinced that the only way to wade through it is to take a multidisciplinary, large scale look at the problem. You need to take the time to look down at the problem through a variety of critical lenses.

While a small scale look might provide quick results, with lower costs, it will not be representative of the overarching problems. Similarly, the Theberges' research on wolves in the eastern portion of the park, over an eleven year period, constitutes a small scale approach. Their results should not be extrapolated to say something about the rest of Algonquin Park, let alone the entire system these wolves are a part of. Also, eleven years might seem like a long time to us, but considering the complexity of the ecosystem these wolves belong to, the slow changes that ecosystem is going through, and the suggestion that these wolves have existed for about one million years, that time frame loses meaning and significance.

When I was limited to a small scale view, I felt lost in the chaos. The data, controversies, uncertainties, stories, and folklore overwhelmed me. When I switched to a larger scale, multidisciplinary critical lens to "think outside of the park", I was much better equipped to separate the reliable information from the misinformation. Perhaps more importantly, I was able to understand the origins of both types of information and place them within their context. I could suggest how they fit into the overall view of Algonquin Park wolves. Through this process, I became more comfortable with the complexities inherent in the study of wolf genetics and ecology. I was also better versed to argue against what I consider misinformation regarding the wolves.

Some Pro-wolf Advocate Misconceptions

In a spatial sense, thinking outside of the park helped me dismiss some pro-wolf advocate claims. For example, during my project, I often encountered the debate over whether or not the park was a sink or a source of wolves. During my interview with Jean Langlois, he mentioned that it *was* a sink for wolves, which had negative connotations for him. I think the point is moot. The park is *neither* a sink nor a source because it is connected to a much larger forest system, wolves do not recognize park boundaries, and - according to Bradley White's work - there is a genetic continuum between park wolves, gray wolves to the north, and coyotes to the south. Thus, there is a flux of wolves throughout the area - be it wolf DNA or wolves themselves. While I think the sink / source debate is moot, I will say that Algonquin Park is a sink for tourists, since they definitely seem to collect there!

Related to the sink / source debate is the common claim that Algonquin Park is an island of wolves. This insinuates a closed system that requires immediate intervention and management, in order to protect the "endangered" wolves. However, I began to wonder - are these pro-wolf advocates suggesting that Algonquin Park is surrounded by parking lots? How could they think that? A glance at a map of available forest cover outside of the park, combined with genetic evidence and evidence of wolf emigration, convinced me that this perception was incorrect.

Initially, eastern wolves were thought to occur from Sault St. Marie to Quebec City (Conservation Breeding Specialist Group 2000). Recently, Bradley White's work furthered our understanding of the wolves' true range.

"The nuclear DNA markers are consistent with the eastern timber wolf being a single population of about 10,000 animals ranging from Manitoba to Quebec with the larger animals in the north impacted by gray wolf hybridization and the smaller animals in the north (sic) being impacted by coyote genetic material." (White 2003)

Pro-wolf advocates also believe that hunting and trapping are major threats to the eastern timber wolf population. Based on my research, I do not agree. On a larger spatial scale, hunting and trapping can only have limited impact. As Bradley White mentioned during my interview with him, hunting and trapping has to be considered across the entire range of the wolf. Undoubtedly, wolves were killed as they left the park, but those deaths were isolated events when you consider the complete range these animals occupy. Hunting and trapping could only pose a serious threat to wolves if they became an isolated island population. This is why scientists like Bradley White and Tom Nudds press for maintaining, and increasing, connectivity with forested areas outside of the park.

In addition, it is unlikely that the hunting and trapping of wolves can have population level consequences, since wolves compensate for a low population density by having more pups. Between 1958 and 1965, Pimlott found the park wolf population to be self-regulating in this manner (Pimlott et al. 1967). Interestingly, wolves can reproduce more offspring than their prey (Pimlott et al. 1967). With this in mind, and considering that predator populations are naturally small, so as not to overwhelm their prey, it is possible that pup production and survival can compensate for the loss of a few individual wolves due to hunting. The history of park wolves and human based mortality seems to concur with this.

Although wolf bounties were in place in Ontario from 1793 to 1960, they were *never* proven to be an effective means of control (Quinn 2002). In fact, between 1909 and 1957, park wardens actively killed wolves (Quinn 2002). Between 1955 and 1957, 220 wolves were snared or poisoned - nearly 50% of the population at that time (Quinn 2002). Yet these efforts to limit wolf numbers did not adversely impact the population (Quinn 2002). For comparison sake, the Theberges recorded a total of 31 wolves killed by hunting and trapping in the eastern portion of the park during their 11 year study (Conservation Breeding Specialist Group 2000). Considering the number of wolves killed previously in the park, with no apparent impact on the population, I find it hard to accept any claim that hunting and trapping currently poses a genuine threat to Algonquin Park wolf populations.

Often, pro-wolf advocates link human based mortality to the “coyote threat”. In the Theberges’ paper *The Algonquin Park Wolf Population, 1987 to 1999*, it is implied that since wolf body sizes are decreasing, “entire packs” are being wiped out, and territories are becoming vacant, coyote gene introgression is occurring (Conservation Breeding Specialist Group 2000). The Theberges suggested that below a density of roughly 1 wolf / 39 km², coyotes will invade the wolves’ territory. Based on their 1999 data, the Algonquin Park density is 1 wolf / 38 km², thus it is approaching the point where interbreeding will occur.

“Putting the evidence together, Algonquin Park is a fortress held by wolves, under siege by coyotes.” (Theberge & Theberge 2000)

However, as Bradley White pointed out during my interview with him, coyote gene flow into the eastern timber wolf population is not a major problem. The reason is that smaller deer-eating wolves, such as coyote hybrids, would be selected against, as the park reverts back to a moose friendly ecosystem – thus favouring a larger gray wolf hybrid that can prey on moose (White 2003).

In a temporal sense, a long-term management goal must be specified. Only then will the confusion clear. We must ask ourselves if we want a heavily managed deer park with small, deer eating wolves – which the Theberges’ seem to support - or a natural moose park with larger, (primarily) moose-eating wolves. Recent evidence suggests that the Algonquin Park forest ecosystem is more “moose friendly” (White 2003). John Theberge et al. found that the major wolf prey items had switched from deer to moose between 1959 and 1992 (Conservation Breeding Specialist Group 2000). Considering these recent findings, and the fact that gray wolves were the original inhabitants of the area, it makes sense that a more natural park system should be geared towards moose and gray wolves.

In this scenario, which will play out over several generations, a moratorium on hunting and trapping would be unnecessary. It is widely held that gray wolves will not leave the park as often, since moose do not, and they are more human-shy (Hodgson & Hodgson 2003). While shooting my documentary, I was surprised to

discover the gulf between the public perception of gray wolves and the smaller, reddish eastern timber wolf. Several people told me that the gray wolves were rarely seen, or trapped. On the other hand, the “bold” eastern timber wolf is considered a nuisance and a threat. In the end, a long term management strategy that allows the park to revert back to its original “gray wolf and moose” system may greatly improve the image of the wolf in the public mind – particularly those who live around the park.

Some Hunter and Trapper Misconceptions

During my interviews with hunters and trappers, it was suggested that there were too many wolves in Algonquin Park, as a result of the moratorium. Based on what I have learnt throughout my project, this could not happen.

There could never be “too many” wolves in Algonquin Park, since all large carnivores live at a low population densities. Since wolves are at the top of the food chain, their populations are restricted by the abundance of prey below them. Thus, any disturbance in the ecosystem – via the food chain below them, or the environment around them - means wolves could be the first animals impacted. Along these lines, I can not imagine a “positive disturbance” that would cause an observable increase in wolf numbers. There are two reasons for this.

Firstly, since park deer numbers have been declining for years now, and the park is slowly turning into a moose ecosystem, the wolves’ preferred food item is slowly dwindling. Thus, it follows that wolf numbers are unlikely to increase dramatically. If anything, they may decrease slightly, as wolves slowly adapt to the changing ecosystem (unless there is a major environmental catastrophe). Secondly, as mentioned previously, wolves can regulate their populations via pup production. If pup production can compensate for human killing, it follows that it could compensate for any short term potential increase in wolf populations, such as a moratorium.

It can also be argued that any apparent increase in wolf numbers could be merely a temporary upward trend. Likewise, the Theberges’ observed decline in wolf numbers could be a temporary downward trend. After all, as Dan Strickland pointed out in my documentary, animal populations are never flat lined; they go up and down.

Interestingly, the claim that there are now too many wolves works *against* hunter and trapper claims that the moratorium was not necessary. That is, if they think the moratorium will have no effect on wolf populations, because hunting and trapping were not decreasing those populations, then how could post-moratorium wolf populations be “exploding”? If human based mortality was never a threat, then shouldn’t the removal of that mortality have no impact on wolf numbers? Presented with this logic, they would probably argue that hunting and trapping were always necessary to keep the wolf populations at “equilibrium”. I would argue that, considering how long wolves and their prey have existed in the area, the ecosystem can maintain an “equilibrium” without any human intervention.

Related to wolf numbers, there is a concern among some hunters that wolves are reducing deer populations. In theory, predators limit prey populations. In reality, I discovered that there is no consensus on whether or not wolves can control deer populations. This is an on-going ecological debate. Perhaps the best answer is “it depends”.

In a population that is free from direct human intervention (e.g., hunting, logging), it may be possible that wolves can limit deer populations. An example might be Anticosti Island (St. Lawrence River), as mentioned by Dan Strickland during my interview with him. When deer were introduced to Anticosti Island, there were no predators to control their numbers. Thus, deer populations exploded, causing devastating ecological impacts. Gradually, black bears disappeared from the island, as the deer ate all the berries. Dan’s example suggests that deer populations explode in the absence of wolves. Thus, he suggests that wolves *can* limit deer populations. I’d like to see his theory taken one step further.

Ideally, to test his hypothesis, wolves should be added to Anticosti Island and a complete ecosystem wide study should occur, to see if there are measurable changes in local flora and fauna. All instances where wolves are being added to a system are excellent opportunities to study their ecology in depth. The information generated would go above and beyond limited notions of wolf / prey interactions. A clearer, large scale picture of what wolves actually do in an ecosystem would emerge.

Despite Dan Strickland's theory, Pimlott et al. were careful to suggest that there is no strong evidence that wolves limit deer numbers (Pimlott et al. 1967). Since logging occurs within the park, the changing ecosystem, combined with winter mortality, may limit deer populations. At one point, Pimlott came out and said that predation and hunting do not impact deer and moose numbers. Instead, ungulate numbers were impacted by available range, related to available graze.

In the end, the debate over whether or not wolves can limit deer populations is highly political and value laden. Biologists and ecologists are likely reluctant to take sides in the debate, not only because of the inherent scientific uncertainty, but the possible political fall out. Regardless, the ecology of Algonquin Park is changing, becoming more of a moose park. Thus, the recent trend in declining deer populations is probably due to slow, natural ecological change, as opposed to wolf mortality, especially since wolves should be slowly adapting to moose prey (White 2003).

While filming my documentary, I came across a conspiracy theory that was shared by hunters and trappers alike. Unusually high deer numbers witnessed in the 1960's led to a lot of local speculation when the deer mysteriously left the park. A theory held by some locals is that the MNR had a wolf breeding program within the park. Depending who you speak to, the wolves were bred with border collies, Irish setters, or German shepherds. These "hybrid wolves" were then released into the park to help control the large deer population gathering around Highway 60, where people were feeding them (Lou & Keith Hodgson, 2003). The official MNR line is that a combination of a harsh winter and the extraction of hemlock for the creation of the Toronto Subway greatly reduced deer numbers (Quinn 2002). Yet, the rumours persist among local residents.

Stan Pecoskie, Michael Pecarskie, and Lou Hodgson all reported that the original park inhabitant - the gray wolf - would not come anywhere near people, but the eastern timber wolf (the "red wolf" to some) was far too bold, almost tame. They reasoned it was because the eastern timber wolf was a pen fed, dog hybrid. Lou Hodgson, in particular, saw the wolf pens that the MNR kept in the park in the early 1960's. It is documented that both wolves and wolf/coyote hybrids were kept in the pens for scientific study. In particular, John Theberge, then a young Masters student, studied howling using the animals. However, I never found any evidence that wolf breeding occurred there.

Despite a lack of evidence, local people spread stories about the government breeding program. While I do not believe these stories, and Bradley White's genetic evidence does not support them (White 2003), it is possible that they persist for a legitimate reason. The rumours may be fueled by an actual change in the wolves' behaviour over time.

During my on-camera interview with Michael Runtz, he mentioned that a possible threat to the wolves may be their increasing fearlessness. He alluded to the two attacks on young children within the park in recent years. In August of 1996, as reported in *The Raven*, a young boy was bit on the face and dragged away by a normal, healthy male eastern timber wolf (Conservation Breeding Specialist Group 2000). That was considered the first significant human injury due to a wolf encounter in Algonquin Park. *The Raven* reported another wolf attack that occurred in September, 1998. A young boy was seized and tossed aside by a wolf (Conservation Breeding Specialist Group 2000).

Runtz hypothesized that the irony of a completely protected wolf population in a major park, with constant exposure to humans and no threat directed towards the wolves, may make the wolves bolder over time. The same scenario might apply to wolves migrating into the deer yards and encountering people. Thus, more negative interactions may occur between humans and wolves in the future. These interactions would only further the wedge between wolf hatred and wolf appreciation. To get to the bottom of the problem,

behavioural studies should be conducted, and an appropriate management scheme developed, to ensure that the Algonquin Park wolves remain truly “wild” – separate from humans.

A misconception that is specific to trappers is that Algonquin Park wolves are reducing beaver populations. When I interviewed Michael Pecarskie, he mentioned that Algonquin Park area trappers were having trouble meeting their beaver quotas. He thought this was because wolves were being protected, resulting in too many wolves and increased utilization of beaver.

In reality, beaver utilization by park wolves varies according to location and time of year. It is known that wolves increase their beaver utilization in the summer months (Fish and Wildlife Branch and Research Branch 1967). If the wolves do not have access to enough deer, they will increase their beaver diet. Beaver utilization was shown to change from 7% in the early sixties to over 50% of the wolves' diet by 1972, following a major deer die off (Quinn 2002). Since deer populations in the park have been declining, it follows that local trappers would blame wolves for decreased beaver numbers. However, viewed at a larger temporal scale, decreased beaver numbers are probably the result of a very slow change in the park ecosystem.

Again, the forest is aging, becoming more of a moose park. Older growth forest is not suitable habitat for deer or beaver, especially since it lacks key tree species, like poplar, that beaver depend on (Quinn 2002). Thus, to focus on the animals alone, or simple food chain interactions, will not reveal the long term trends. Wolves should not be blamed for naturally occurring changes to the overall park ecosystem.

Science Communication

Once the Theberges discovered that wolves were leaving the park and were susceptible to human based mortality, they communicated their concerns. That's when the real conflicts began. The scientific debate raged while various interest groups took up positions, and selected their “facts”, according to their values. The conflicts, controversy, uncertainty, and mudslinging lead me to ask - was the science communicated effectively, and what impact did it have on the interest groups? Throughout my research, and in my documentary, Algonquin Park wolf management proved to be an excellent case study in science communication.

In the initial stages of my project, I felt that the Theberges were right to speak out about what was happening to Algonquin Park wolves. However, once I interviewed people around the park who were directly impacted by the Theberges' advocacy, and the pro-wolf groups that supported them, I changed my mind. As I interviewed more scientists, I realized how simplified and one-sided the Algonquin Park wolf debate had appeared in the media. The scientific uncertainty and controversy was never communicated. In the absence of good science communication, based on a more balanced view of the wolves, the Theberges easily dominated the discourse. Throughout the controversy, they had made a transition from scientists to advocates to pop culture personalities. This process forwarded their cause, but it also exposed them to many different forms of criticism.

On a scientific level, they were criticized for releasing scientific information before consensus had been reached on it; they had stated their hypotheses as facts. This had tremendous negative social and cultural consequences. John Theberge's demand that the hunting and trapping of wolves be stopped before the population crashes resulted in fear, anger, and mistrust directed at both researchers and the provincial government (Pecoskie, Anderchek, Hodgson 2003). Local hunters and trappers did not believe that wolf populations were declining. Nor did they think they were to blame. Their personal experiences had taught them otherwise. Needless to say, one must be wary - coming from an educated, urban background – when asking northern peoples to make changes to their way of life. Cultural sensitivity must be considered before making recommendations – especially when recommendations are made based on untested hypotheses.

On an advocacy level, the Theberges were criticized for moving away from science towards advocacy. Significantly, one person told me that John Theberge gradually stopped publishing in peer reviewed,

scientific journals and switched to publishing in the popular culture forum instead. Reading the Theberges' work on Algonquin Park wolves, this trend towards advocacy became clear to me.

To be fair, other organizations played a large role in forwarding the Theberges' cause. Advocates successfully infiltrated the media with images of the evil, ignorant hunters and trappers killing helpless wolves. A prime example would be the wolf head incident.

In response to the circulation of posters and pamphlets stating "HOW DARE YOU", and demanding that Round Lake Centre area residents stop killing wolves, the head of one of John Theberge's radio collared wolves was mounted on a telephone post (see poster in Appendix). I believe that incident was *the* major turning point when science was abandoned for advocacy. I believe the wolf head incident was provoked by a well-thought out strategy. Whoever circulated the pamphlets and posters stating "HOW DARE YOU" knew the social and cultural implications of what they were doing. They knew how to get a response – and they got one. This may sound too conspiratorial, but consider this - why did the group who circulated those materials hide behind an untraceable Ottawa area P.O. box? If they were so sure of their stance, and thought they had a moral obligation to stop the hunting and trapping of wolves, then why conceal themselves?

While I can not condone the mounting of the wolf head on the post, it was the means by which a Round Lake Centre resident chose to send a message back to the pro-wolf advocates who were challenging local ways of life. Since that incident, several environmental groups have used the wolf head image to forward their pro-wolf cause. Quite often, I have noticed that the photo they use is altered. The "HOW DARE YOU" poster above the wolf head is cropped out, thereby giving the general public the false impression that it was purely an act of hatred towards wolves - not a symbolic retaliation to a challenge. Capitalizing on this sort of imagery, advocates built up a provocative campaign based on emotions - not facts.

No one can deny that the wolf head incident got maximum press coverage. The evils of hunting and trapping were cemented in the public's mind. The importance of a moratorium on hunting and trapping was justified. Thus, advocacy successfully pushed the Theberges into the final stage – pop culture icons.

By becoming an outspoken pro-wolf advocate, John Theberge became an icon – the "wolf man". He would become the only person the media went to for information on the wolves. Documentaries would focus almost solely on the Theberges' work (see Appendix, *Existing Documentary Work*). In addition, the couple would author *Wolf Country – Eleven Years Tracking the Algonquin Wolves*. Unfortunately, much like other pop culture figures, the Theberges' ideas became secondary; people could criticize them on many other levels. Image plays into it – a general feeling people get from them. In the pop culture forum, gossip, mudslinging, and unsubstantiated rumours predominate the discourse. In a way, the Theberges made a deal with the devil. Sure, they raised awareness regarding the Algonquin Park wolves – that can not be denied. However, by entering the pop culture arena, their science- their life's work - became secondary to public perceptions and /or misconceptions of them.

All things considered, I believe that the Theberges' strong pro-wolf stance did more harm than good. Feelings of resentment and disenfranchisement among park residents are sure to continue for quite some time. These feelings are summed up in local culture. I sensed that many of the small rural communities around the park still rely on traditional story telling and gossip. As I discovered during my interviews, there are all sorts of negative stories and rumours floating around about the Theberges. In fact, I had to edit out many on-camera comments regarding the Theberges, for fear of a lawsuit. The edits were necessary because I wanted my documentary to focus on the implications of the Theberges' research, rather than the couple themselves; however, for people living around the park, these two were indistinguishable.

Worst still, an unfortunate by-product of the moratorium is the killing of wolves as a purely political statement against both the Theberges and the moratorium. Regardless of how local hunters felt about wolves previously, wolves now have additional cultural baggage. They have become symbols of bureaucracy run amok. Accordingly, they symbolize a threat to local culture and traditions.

Whether or not the actions of pro-wolf advocates will benefit park wolves is debatable. However, it is clear to me now that - at a much higher level - advocacy had a negative impact on social, cultural, and communications related factors. The anger and frustration the moratorium has generated in people living around the park is bound to have a negative impact on present and future wolf management strategies, even if they attempt to use a multidisciplinary, participatory approach.

Social & Cultural Aspects

Based on my findings throughout this project, the Algonquin Park wolf debate is powered by several different interest groups, operating together as a “house of cards”. If you pull one card out - the rest will tumble. A balance will be upset. Thus, the challenge for me was to represent as many interest groups as possible in a fair, balanced, equitable manner. None of their views could be rejected on the basis of their values or morals. If so, the house would collapse and I would fail to fully understand the issues. This line of logic defends many choices I made.

While I was making my documentary, I felt that some people might think interviewing trappers and hunters was “un-environmental”, thus they should not appear within an “environmental” production. However, I discovered that hunters and trappers around the park were marginalized, disenfranchised people. By allowing them to tell their stories, I believe I provided an alternative to both the status quo view of wolves and what has appeared in documentaries previously. I was also acutely aware of the fact that I was a University researcher from Toronto. Entering these small rural communities around the park, I would be venturing into a different culture. Thus, I had to respect their thoughts and traditions. I had to represent them fairly and avoid an ironic or condescending tone. By all accounts, they greatly appreciated my efforts and I left feeling as though I had learnt a lot about wolves - and even more about people.

In a similar manner, urban based pro-wolf advocacy groups should engage northern peoples, but I do not think they put much effort into it. In fact, listening to my interview with Melissa Tkachyk from Earthroots, a Toronto based environmental group, I got the impression that generalizations were being made about northern peoples. For example, she gave the impression that in communities around the park there were two camps – those who want to protect wolves and those who “hate” them. She does not qualify this “hate”. As I discovered, there are complex reasons why people “hate” wolves, and they are not mutually exclusive.

Reasons include negative personal experiences, competition with hunters (whether real or imagined), a mistrust of bureaucracy, a mistrust of the science, a dislike of the Theberges and the moratorium, and – lastly – their hatred is a reaction to provocation from environmental groups (i.e., the wolf head incident). Under these conditions, I believe the wolf became a symbol of bureaucracy run amok. No longer just an animal, it became a symbol for the rules, regulations, and negative perceptions being cast on northern peoples. For some, killing a wolf sent a message back to the urban centres that had provoked them. This is an unfortunate aftermath of advocacy that fails to engage northern peoples.

In addition, I think it is possible for some residents to have a “transitory hatred” of wolves. I do not think that any landowner around the park would be too keen on having wolves wander through their property if they had pets or livestock – or even small children, for that matter. Thus, it is only natural that they become somewhat defensive when the word “wolf” is uttered – as my documentary attests. I also find it difficult to believe that, according to Earthroots, wolves are killed simply because they are hated. To my knowledge, Earthroots has not interviewed any hunters or trappers who have killed wolves. Thus, how can they know their thoughts?

Similar to the over simplification of wolf “hatred”, there is a tendency to oversimplify fear of wolves. I think that fear of wolves – or any wildlife, for that matter – is instinctive and perfectly natural. Again, I think there is “transitory fear”. For example, if I’m walking along and a raccoon or skunk walks out in front of me, I stop and back away. It is a natural reaction to encountering a wild animal - let alone a wolf! Similarly, wolf howling may hold great appeal for some, but is it wrong for someone to find howling

frightening? After all, the main reason wolves howl is to designate their territories - to ward off wolves from other packs. Might it not also be a warning for humans to keep their distance? In this regard, I think some degree of fear is best for both us and the wolves. It must be remembered that wolves are wild animals that should not be over-romanticized. They do not exist for our benefit.

Blaming culture for causing fear of wolves is also too simplistic. Based on my findings, I would say that cultural portrayals of wolves have significant impact only in urban areas – and particularly with young, impressionable people. In urban areas, far removed from the wolves themselves, it follows that whatever images are portrayed via the media will impact how young people view the wolf. However, the effects are unpredictable.

In my film, Grade seven students were interviewed before and after an Earthroots' play that sought to dispel negative cultural perceptions of wolves. While the interviews suggested that culture is the main culprit, the trajectory of those Grade seven students is unpredictable. As they become adults, new information and experiences may challenge their views of wolves – be it for better or worst.

Throughout my documentary, I got the impression that people in urban centres are willing to learn about and respect northern animal species, but not northern people and their traditions. The central irony for me is that some people claim to greatly value and respect the “human like” qualities of wolves, yet they do not extend the same respect to their fellow humans. The resulting north / south divide is also evident in the spring bear hunt controversy. People in Toronto think the hunt should be banned on moral and ethical grounds, while people in northern communities view the hunt as necessary to control nuisance bears and provide income. Along these lines, a recent anti-bear hunt article in NOW Magazine got an interesting response from a reader.

“Would it be appropriate for people in Barry’s Bay to demand that the pigeons and seagulls be culled in Toronto? Wouldn’t it be fair to let the people who have to live with the problem decide the best way to solve it? Just asking.” (Goulet 2003)

Similarly, I believe that most people in urban areas consider hunting and trapping major threats to park wolves, even if there is no evidence demonstrating a negative impact at the population level. It is their right to feel that way, but I’d be quick to point out some hypocrisies.

I would ask Torontonians this – what is more destructive to the environment: hunting and trapping, or Toronto’s urban sprawl? It can not be denied that Toronto’s urban sprawl kills trees and dislocates animal populations. So, what is it that makes hunting and trapping so contemptible? Is it because they kill with their “bare hands”? Well, we urban dwellers also kill - except it’s death by proxy. We let others do the killing for us, whether it be for food or urban expansion. Maybe this “death by proxy” makes us feel somehow morally superior, but I question that notion. For example, is it really OK for Torontonians to condemn northern peoples for hunting and trapping while we ask them to open their doors to our garbage?

My research also convinced me that science played a very small role in Algonquin Park wolf management in recent years – if it played a role at all. In fact, I’d argue that focusing on wolf ecology alone would give the wrong impression of wolves. They are not free ranging animals that come and go as they please. Instead, they go only where *we allow them to*. They are restrained by our values, cultural perceptions, and policies. This is why I framed my wolf documentary as a people story.

If I had made a documentary about the wolves themselves, with footage of them going about their business and voice-of-god narration describing their behaviour, I’d be misleading my audience. I’d be misrepresenting the reality of the situation. Much like the wolf is captured in the camera’s lens, it is never free from us. Yet, we are undoubtedly part of the landscape. Development will not end. So I suppose it is up to my documentary to demonstrate the values and perceptions that swirl around the wolf and whether or not - all things considered - wolf populations are still safe living amongst us.

The Documentary Process

Early on, the challenges of my approach became evident, let alone the challenges of a multidisciplinary project. Treating people ethically was always a major concern of mine. In the early stages of my project, I had to avoid comparing lay people's perceptions of wolves to the scientific consensus (the "reality"), thereby placing myself on a pedestal above my interview subjects. There were two problems with this approach – my bias towards the science and my notion of consensus.

To remain as objective as possible, I had to control my bias towards the science. As I discovered throughout my project, good science and good science communication is not a magic bullet. My early documentary model suggested that it was. This early model was essentially set up as a monologue – a one way conversation aimed at the general public. Essentially, I was making the same classic mistake that scientists often make – talking to the public, but not willing to listen. This is one of the key problems with science communication to this day.

In addition, the notion of scientific consensus is foggy at best – especially as it applies to Algonquin Park wolves. Where does the "consensus" start and end? After all, as Dr. Tom Nudds mentioned during my interview with him, the science is always on-going; it never stops. A "truth" can never be established; it's just that the facts have not yet been falsified. Thus, what would be the "average" scientific view of park wolves when the science is a constantly moving target? In the face of these arguments, directly comparing lay people's knowledge to the scientific consensus would be pointless.

To circumvent these two problems, I did three things. Firstly, I decided to encourage a dialogue. Specifically, I asked interview subjects if they had anything to share with scientists, and if they ever had the opportunity to share their knowledge previously. With my on-camera questions and surveys, I discovered that – unsurprisingly – more dialogue is needed between scientists and the general public. In this regard, setting aside my initial biases, the documentary had to be set up to educate *all* interest groups – *including* the scientists.

Secondly, I diminished my scientific bias by asking the scientists many of the same questions I asked other participants. In addition, scientists were portrayed in their social context – outdoors, laboratory, at a desk, etc. – just like any other participant. In this manner, I do not think the scientists were put on a pedestal. How they view the problem, and the limitations of their work, were exposed. However, I do admit a bias towards Tom Nudds, since we agreed on many aspects of the Algonquin Park wolf situation prior to filming. This is apparent in his placement within the film – as the final word, after several people have spoken.

Thirdly, I tried to maintain balance by focusing my film on six scientists and six "non-scientists". Unfortunately, one scientist interview did not make it into the final cut (Karen Goodrowe, a physiologist at Toronto Zoo). Both Melissa Tkachyk and Jamie Honderich have science backgrounds, but the former identifies herself as an "environmentalist" and the latter as a "tourism entrepreneur", suggesting how difficult it can be to place people into predetermined categories.

Once I decided how to deal with scientists and non-scientists within the same film, I was faced with the dilemma of which scientists to interview. I discovered that some sided with the Theberges and some did not. In addition, there are so many different types of scientists. For a balanced mix of scientists, I interviewed a geneticist, physiologist, two naturalists, an ecologist, and a member of a NGO.

I also had to take into consideration that scientists may embellish their side of the argument while on camera. It is possible that they may stray from the facts and give more of an emotional response to some questions. After all, no one can be *truly* objective. Yet, by comparing their interviews with published science, I found little evidence of embellishment. As with anyone I interviewed, when I encountered something that did not ring true, for whatever reason, I edited it out to avoid reflecting badly on them.

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However, even if a scientist did embellish their story, that would only place them on an even playing field with everyone else I interviewed. Scientists are only human – and so am I.

Reducing my bias towards the science was one thing. Concealing my personal biases while I interviewed people was quite another. It was difficult because, for those who agreed to be interviewed, they often spoke to me at length - before and after the interview. They invited me into their homes. Some offered me food and drink, and some even offered me a place to stay the next time I was in the area. Needless to say, in the short time I was with them, I developed a strong bond with my interview subjects. In addition, because they had read my questions in advance, and my press release outlined my project, I believe they understood what I was up to. Along these lines, I believe that speaking to the local press greatly helped.

In Haliburton, Barry's Bay, and Huntsville, my documentary was featured in newspaper articles. Thus, people in the area knew what I was doing. Some papers mentioned that I was coming to do on-the-street interviews in their communities (see Appendix). I felt it was ethically sound to let the communities know who I was and what I was doing there – especially since some of these communities suffered greatly under the moratorium. I did not want them to feel suspicious of, or intimidated by, two strangers from Toronto with a camera, walking around their streets.

Despite the fact that I was always preoccupied with the fair treatment of my interview subjects, and maintaining a balanced documentary, it is still very difficult for me to judge my own success. To be honest, throughout my project, there were moments when I thought I was being *too critical* of the Theberges and the pro-wolf advocates that helped forward their cause. I was concerned that this might upset my balanced approach. However, should I sacrifice what I feel is the “reality” of the situation to maintain “balance”? Notions of reality and balance are both value laden, so how can I make an objective choice? That said, is it not possible that if I *am* too critical of pro-wolf advocates, then there is a real, legitimate reason for it?

While there is a lot of mis information floating around Algonquin Park wolves, and many groups are suspect, I think it is safe to say that environmental groups have a greater ability to spread that misinformation. Since they are urban based, with easy access to many media and communications networks, they can spread more information and reach more people. It follows that, while some of their information would be reliable, there is an increased probability that misinformation is being spread.

In a purely cinematic sense, I do not think that any documentary filmmaker could sacrifice what they feel is the “reality” of the situation to maintain “balance”. If that were possible, and all traces of the director could be removed from the work, I could not imagine the final product. Would there be anything left for the audience to enjoy? Would it be “art”? I think that many people go to documentaries knowing that they are getting a certain director's take on the subject, and that's half the attraction.

I suppose that, on a small scale, it could be argued that some parts of my documentary are “unbalanced”. However, on a much larger scale, considering the over all media culture that my film will become part of, my film represents a marked improvement - a movement towards a more balanced view of Algonquin Park wolves. Yet, getting to that point was not easy.

During one of my FES exams, the problems and conflicts inherent in science communication became apparent. One adviser wanted more scientific facts and one wanted me to minimize my bias towards the science. While the science and its communication are important, I had to be aware that neither is a magic bullet. As I discovered, it is difficult to reconcile the science with social, cultural, and communications issues - *and* turn the resulting information into a film project. On top of that, it is difficult to do a truly multidisciplinary project. I often wondered throughout my work - what *does* “multidisciplinary” mean? Is there a certain percentage of each discipline that my project must have to be deemed a success? Will my project satisfy each advisor, or am I a few percentage points low on one of those disciplines? I also felt the pressure of trying to satisfy four people: my three advisors and my worst critic – myself. This explains why my documentary turned out to be so long. To create a multidisciplinary project that looks at a complex resource management problem, while striving to be fair to all participants, takes time.

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Along these lines, I was adamant about introducing the interest groups within their social context. This legitimized their answers. They were *real* people – not just talking heads thrown together to quickly prove a point. Their social context impacts how they value and perceive the wolf, and what they think the “reality” is. I believe the social context I provided for each interview participant allows for more accurate comparisons between groups. It provides additional qualitative data to make comparisons with (e.g., what people’s homes and workplaces look like). As discussed during my Qualitative Methods course, film and video are legitimate methods by which to collect qualitative data. Instead of going out into the field and collecting quantitative data on wolves, the people I interviewed provided my data.

Thus, I feel that the way I structured my film allows viewers to learn more about the people I interviewed. Of course, it also adds charm and humour to the film. Another benefit of framing my documentary as a people story is that the film may appeal to a wider audience, including people who may not be interested in wolves per se. If the latest craze in reality television is any indication, people will be interested in traveling into a trapper’s basement to see how he lives. In this manner, my film functions as a yard sale – things that were normally hidden away are now out in the open.

Having watched my documentary many times over, I think it was an efficient way to involve various interest groups and have some fun. Most people are attracted to the notion of appearing on camera, especially since TV is such an important aspect of our lives. My documentary is not only a qualitative method for information collection, it is a participatory project, in which various parties are actively communicating the Algonquin Park wolf situation to the general public, in an easy to understand format. People I interviewed openly appreciated the fact that I was listening to what they had to say, and they wished they had a similar chance to share their knowledge with the scientific and political communities (Hodgson, Pecoskie, Biernaski 2003). My documentary also garnered media attention that a scientific paper on the same topic would never have achieved. That said, I tried to bridge the art / science divide by structuring my film like a scientific paper.

Since I structured the film like a scientific paper, whether viewers realize it or not, they are being exposed to how science works. Both the content and the structure of the film itself are science communication devices. In this regard, I think it was more important that I introduce audiences to “science” in general, as opposed to specific specializations like wolf ecology. The reason being they need a broader, larger scale understanding of how science works, why it works that way, and how it can impact their lives. To my knowledge, and according to my interview with Tom Nudds, the public never gets to see the scientific process. They never see the scientific controversies and uncertainties that swirl around major resource management issues.

To this end, my documentary is also an educational tool. Not only does it introduce audiences to various interest groups, and challenge them to understand their values, but it illuminates the role of science within a value laden arena. Undoubtedly, some people will watch my film to get “the facts”. Where are the wolves? How many are there? Are they endangered? However, I think it is more important that they learn about the process of scientific discovery. Only then can they relate to the data.

Overall, the process I went through to create my documentary was a lengthy one, and it involved a lot of background research. I started by looking at the ecology and genetics of Algonquin Park wolves. Increasing my knowledge of the science of Algonquin Park wolves was crucial to developing my critical lens. That’s when I started to doubt the pro-wolf advocates’ claims, and the validity of the moratorium. Having studied science communications, I wondered – how did the moratorium come about if there was no hard science to substantiate it? That’s when I hypothesized that an information vacuum existed. In the place of science, the decisions regarding park wolves were guided by the values and actions of pro-wolf advocates. In the face of powerful human values and perceptions, the sciences of wolf management, as it turned out, had a minor role in the decision making process. In essence, the “reality” of Algonquin Park Wolves went out the window. I think I captured this narrative within my film.

It was interesting how the more I edited, the clearer this narrative became. Editing made the arguments clearer, and my hypothesis about the information vacuum was substantiated. However, knowing that documentary film is a highly subjective medium, was I just seeing what I *wanted* my film to show, or did the Algonquin Park wolf situation *really* unfold the way I portrayed it? At this early stage, it is too difficult to tell. Only repeated screenings, for a variety of audiences, will allow consensus to be reached on the validity of my film.

Looking back over the two years I worked on this documentary, my views on Algonquin Park wolves went through many changes. As my project progressed, and new knowledge became available, I believe my values changed. In essence, I went through a process in which I deconstructed the entire Algonquin Park wolf issue, then reconstructed it into a cinematic depiction of what I thought was the “reality” of the situation. In this manner, my interior journey was similar to the process of editing the film. I had to tear into a very complex, multidisciplinary problem and stitch it all back together so that it made sense. Along these lines, I had to add “reliable” knowledge and edit out what I thought was “unreliable”. Then I had to carefully organize it all. Only then could I grasp the complexity and the inherent uncertainty. Hopefully, future audiences will become aware of the process I went through – if only on a subconscious level. That’s why I made the documentary – to communicate what my research has uncovered, and the journey I went through.

In the end, I believe my film represents the “big picture”. It is a large scale look at the problems facing Algonquin Park wolf management, including social, cultural, communications, and scientific factors – and how they overlap. In this regard, I feel that the information my film has brought together is transferable to other resource management and protected area management problems, especially when they involve controversial animals that evoke strong, polarized reactions from people (e.g., grizzly bears, bats, rattlesnakes, alligators, sharks etc.). Ultimately, how people react to my “big picture” will be value laden. Keeping with my idea that values determine what science will be accepted and what will be rejected, I fully expect that each interest group will love some parts of my film and dislike others. Again, only time will tell what consensus, if any, will be reached on my documentary. I’m willing to be patient and wait for the verdict.

Appendix

Science Background

Wolf Ecology

As I discovered throughout my research, the science of Algonquin Park wolves (AKA: the eastern timber wolf, *Canis lycaon*) is very interesting – and hotly contested. Key hot-button issues include how many wolves are actually in the park, whether or not populations are declining, and the difficulty and uncertainty inherent in studying wolves.

Regarding the number of wolves in the park, a study by Douglas Pimlott in the early 1960s found that the Algonquin Park wolf population was at 300 individuals divided into 55 packs. Recently, John and Mary Theberge determined that the population was significantly lower at an estimated 150 individuals in 30 packs (although this study was restricted to the east half of the park). In addition, the Theberges' observed decreasing population density and decreasing pack size trends, during their 1988 to 1999 study.

According to the Theberges' study, the decrease in wolf numbers was primarily due to hunting and trapping. In addition, they found that recruitment was lower than mortality. That is, the human caused mortality was overtaking the number of new wolves being born. Since the minimum number of wolves inhabiting Algonquin Park necessary to maintain a genetically viable population is in the order of 200 wolves (approximately 40 packs), it was suggested that the Algonquin Park wolf population was in serious trouble. At the other end of the spectrum, The Population Biology and Modeling Working Group assumed that 300 wolves in the park would be an ecologically stable population.

Based on the concerns raised by John and Mary Theberge, the Minister of Natural Resources created the Algonquin Wolf Advisory Group. It included input from scientists, local citizens, biologists, geneticists, conservation organizations, hunters, trappers, and government. The advisory group concluded that the wolf population in the park had - in fact - decreased since the highest recorded wolf population was identified in the 1960s. The group also indicated - and in agreement with the Theberges - that there was a high probability the wolf population had decreased during the last decade. In addition, it will continue to gradually decrease because the annual mortality of wolves, at least in the east side of the park, exceeded recruitment of young wolves into the population. It was found that humans caused two-thirds of the mortality of wolves studied in the east side of the park. Apparently, most deaths occurred when wolves left the protection of the park on their regular travels, or in pursuit of deer in the winter.

Yet, despite this recent evidence collected by the Theberges, the scientific debate continues to this day. Scientific consensus has yet to be reached, primarily due to disagreement with the Theberges' statistical analysis and concerns that the *entire* park had yet to be sampled (the Theberges only studied the east portion of the park). Wolves definitely exist in the west half, since farmers located near the north west border of the park have been having trouble with wolves (Straughan 2002). In addition, in the report *Ecology of the Timber Wolf*, Douglas Pimlott et. al found 90 - 110 wolves in west side of park (2849 km²), during their 1958 – 1965 study.

Thus, in May of 2000, a new study by John Vucetich and Paul Paquet was initiated. They reanalyzed the data collected by John and Mary Theberge, and it was determined that Theberge was, in fact, correct in some instances – wolf populations appeared to be declining in *those portions* of the park that he sampled. The study also found that there was a 71% chance that the Algonquin Park wolf population in the eastern portion of the park was declining at an average annual rate of 5%. The Population Biology and Modeling Working Group Report also indicated that the population in the east portion of the park was unsustainable. Interestingly, in contrast to these findings and Theberges' data, hunters and trappers have not seen any evidence of a decline in the number of wolves, because their harvest of wolves has not decreased over time. According to the Ontario Federation of Anglers and Hunters (OFAH), in Ontario, the eastern timber wolf

population appears stable or growing. In addition, park authorities have confirmed that the Algonquin wolf population appears to have remained stable for the past 30 years.

Some people believe that these low numbers in the east portion of the park mean that the Algonquin wolf will go extinct. However, according to the Ministry of Natural Resources (MNR), the wolves of Algonquin Provincial Park are part of a larger population of thousands of wolves that occupies southern Manitoba, central and much of Northern Ontario, and central Quebec. This makes “extinction” seem unlikely, although *local extinction*, in *at least* the east side of the park, may occur. Regardless, many groups throw around the powerful “extinction” word to attract publicity and draw people, and funding, towards their cause.

From a wolf ecology perspective, there are also plausible, completely natural explanations for a perceived decrease in wolf numbers. For example, there could never be a lot of wolves in Algonquin Park anyway, since all large carnivores live at low population densities. In addition, since the wolf is at the top of the foodchain, any disturbance in the ecosystem – via the foodchain below them, or the environment around them - means it is the first to be impacted. Thus, large fluctuations in the already small wolf population, which could be due to natural causes, could make the population “unviable” at any given point in time. Along these lines, it has been argued that data Theberge collected may represent a blip on the graph – a temporary fluctuation.

In order to really know what is going on, scientists need a longer study and more data. The question remains – what is causing the fluctuation in wolf numbers? If it *is* due to hunting and trapping, then, theoretically, the recent moratorium on wolf-killing in 39 townships surrounding the park should increase the number of wolves. Yet, will scientists be able to collect enough information to judge whether or not the moratorium was successful?

Interestingly, as reported in *The Raven*, previous to 1960, there were approximately 300 wolves in the park, and it was lawful to kill wolves in the park itself (Conservation Breeding Specialist Group 2000). After 1960, wolves could be killed *only* outside of the park, yet the population is now around 150. Thus, why has the mortality jumped so high when the protection was increased? Were other factors involved, aside from human-based mortality? This suggests that human mortality has not changed or sampling and measurement is not accurate enough to detect changes in the population. However, this observation may be due to the fact that the “population of 150” is only for the east portion of the park. Nevertheless, according to *The Raven*, it is possible for the wolf population to fluctuate between 300 to 150 wolves *within one year* due to pup mortality alone (Conservation Breeding Specialist Group 2000). Thus, how can scientists detect this variation within a year?

One of the risks inherent in proposed studies to see the impact of the moratorium is that not enough pups will be sampled. Thus, again, the high mortality that the Theberges’ noted may be an isolated incident. Since there is no way to replicate their study, a strong spatial and temporal study is needed. In addition, scientists should collect data on beaver populations, since they are such an important source of food for wolves in the park and they have not been studied previously.

Fluctuations in wolf populations, and the wolves’ complex behavior, make them very difficult for scientists to study and model. Since wolves can emigrate and immigrate, it should not be assumed that the Algonquin Park wolf population is a closed population either. Thus, it is difficult to predict their future. Scientists are also depending primarily on Theberge’s data – even though it is restricted to the east side of the park. While scientists strive for consensus, and vested interests feud, the public interest hangs in the balance – not to mention the wolf! Yet, large carnivore conservation poses special challenges from the get go. For example, wolves require large land areas, they can be difficult to co-exist with (e.g., threat to farm animals), and they require land that is relatively inaccessible to humans – not to mention the psychological, sociological, cultural baggage our society attaches to wolves.

It’s thought that since the Algonquin Park wolf lives so close to civilization, population viability will be adversely impacted. As urban areas press north, and people seek cottage real-estate, this presses in on their

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territory. It is possible that tourism is also having a negative impact. Along these lines, in order to designate the wolf as endangered, its relationship to the park must be known. For example, is there something special about the park that the wolf can not find elsewhere? That is, is the habitat highly specialized, and therefore must be protected too? In addition, hunting and trapping are not the only impacts on the wolf. Logging and farming alter the wolves' habitat, thus their role must be understood as well.

Ultimately, the value of the Algonquin Park wolf to humankind must also be weighed. Locally, what are the economic values of the wolf? Are the values *only* economic? Are there values that compete with or are antagonistic to hunting and trapping interests? While it is a challenging task, these questions must be answered and some attempt at achieving a "balanced" use of the resource must occur.

Lastly, from an ecological perspective, species change is normal. For example, reduced wolf numbers may cause great increases in deer, beaver, and rodents. The ecological integrity of the park would not be changed since something new would come in to replace whatever disappeared (e.g., eastern wolves replaced by eastern wolf / grey wolf and eastern wolf / coyote hybrids). It will be interesting to see if the general public understands the natural flexibility of ecosystems. Or do they believe the doomsayers?

Existing Documentary Work

To my knowledge, there is only one documentary specific to Algonquin Park wolves - John LaRose's *Language of Wolves – The Rare Red Wolf in Ontario's Algonquin Park*. A 2000 production by Canadian Geographic, the documentary claims to focus on Algonquin Park wolf howls. I had many reservations about the film.

Early into the film, I thought it lacked focus. I could not tell if it was about wolves or if it was a tourism advertisement for Algonquin Park. Yes, it was replete with lots of beautiful, expertly shot footage, but it all seemed like filler to me. I was even more critical of the film's one-sided approach to Algonquin Park wolves. The film was about John and Mary Theberge - period. The scant footage of Michael Runtz did not compensate for this glaring error. Accordingly, the film was heavily biased and, in my opinion, poorly researched. It completely failed to even hint at the complexity of wolf management – let alone strive for a balanced view of the topic.

The film functioned as an intimate, very emotional portrait of the Theberges. It included how they met and the strong relationship they had with the park wolves. This family motif - husband and wife studying wolves - fits in nicely with the reoccurring familial imagery the Theberges' impose on the wolves. Along these lines, the film was not very scientific. It had a general, simplified, naturalist tone.

Interestingly, the film contained a lot of misinformation. Firstly, it insinuated that the Theberges studied the entire park, when they did not. Secondly, it claimed that "wolf populations are plummeting to dangerously low levels" due to "merciless hunting outside of the park". This is not true either, and it reflects the film's no-holds-barred anti-hunting and trapping bias. In one scene that really bothered me, the Theberges came across a dead radio collared wolf.

While it was not made clear how the wolf died, Mary's overdubbed narration insinuated it was due to hunting or trapping. The image contained no evidence, but the narrative implied that there was evidence. For the average viewer, this subtle use of narrative over image would likely slide by undetected. While I can see through the bias, and the technique, the general public would likely accept it at face value.

The film also drove home the erroneous idea that Algonquin Park is a "fortress of one of the world's rarest animals". Likewise, I was shocked when the narrator said that "until 1958, park wardens hunted wolves almost to extinction". This is flatly false. As demonstrated by Pimlott's early studies, there was *never* any evidence that bounties on wolves had a negative impact on the park's wolf populations. Based on my conversation with Lou Hodgson, park wardens knew the location of each wolf den within the park. They could have easily exterminated all of them, if they wanted to. Obviously, they chose not to.

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Ironically, the film's preoccupation with showing animal carcasses, complete with spooky music, worked against wolf appreciation, in my mind. In one such scene, Mary looks at a wolf carcass and quickly determines that it has a lot of coyote in it (!). As

Dr. Bradley White mentioned during my interview with him, you can not just look at these animals and tell what their genetic make-up is! Again, the lay person would not be aware of these arguments. They would likely accept the Theberges' *opinion* regarding the coyote hybridization threat at face value.

In my opinion, the most shocking aspect of the film was the narrator's assertion that John and Mary Theberge were responsible for the major genetic discovery of the eastern timber wolf's red wolf connection. NO credit was given to Dr. Bradley White at all. In fact, he was not even thanked in the closing credits. To me, this is inexcusable. Watching the closing credits, I was surprised to see Dan Strickland's name appear. Yet, keeping with the simplified tone of the film, and not wanting to feature anyone with views that contradicted the Theberges, Dan was not interviewed on-camera.

On the plus side, I thought the film did a good job of describing beaver ecology. I was also interested in the segment where the Theberges explained their trapping techniques. This interested me because locals I spoke to around the park had reservations about how the Theberges were trapping their wolves. Unfortunately, these moments of greatness were few and far between. Whenever the film started to generate some good will, it would take a dive. Much like the expanded carcass coverage, the last image in the film turned me off.

In that scene, we see Michael Runtz attract a small wolf towards the camera via howling. However, the wolf looks so frail, thin, and sickly, that I believe it misrepresents park wolves in general. Despite the best intentions, this scene should have been cut. I think they kept it in simply because it is so difficult to get footage of the elusive Algonquin Park wolves. It was probably the only live wolf that this particular production captured on film. Judging by the closing credits, most of the wolf footage was stock footage from other productions.

Having watched the film, it became apparent how the general public came to believe the wolves were endangered. The film's simplified view of a complex problem, complete with wolf "saviours" and the eminent threat of "extinction", undoubtedly appealed to audiences in search of drama and heroism. The narrator even stated at one point that there was support for the Theberges' idea that Algonquin Park wolves were on the brink of extinction. On top of that, John and Mary *briefly* mention that their views are controversial, without any qualification. Overall, I believe the film contributed to the misinformation swirling around the information vacuum.

Aside from the lack of documentaries on Algonquin Park wolves, documentaries about wolves in general are often more wildlife films than documentaries, in that they merely illustrate the lives of wolves without asking a question or exploring social, cultural, and scientific aspects. Films like Jim Dutcher's *The World of Discovery – Wolf: Return of a Legend* (1993) and Bob Landis' *Wolves: A Legend Returns to Yellowstone (AKA Return of the Wolf)* focus on the reintroduction of gray wolves to Yellowstone National Park. Unfortunately, they both "Disneyfy" the wolves by naming them and providing narrative that proposes to know their thoughts. Again, these are characteristics of wildlife films – not documentaries.

Documentaries differ from wildlife films in that wildlife films place emphasis on dramatic action, storytelling, and the creation of animal characters. The result is most often a quest type narrative, often characterized by a young animal that must travel great distances, avoid great danger, and overcome hurdles to return to its family. In addition, wildlife films often occur under controlled conditions, with dramatic events created through editing or deliberate staging. Classically, wildlife films rely too heavily on voice-over narration. Often they are shot without sound, so that narration can be added later. According to D. Bousé (1998), wildlife films have suffered a history of critical neglect. Thus, major issues (i.e., the ethics of filming, representing and interpreting "powerless" animals – their "right to privacy") are going by the way side.

Another problem with Jim Dutcher's *The World of Discovery – Wolf: Return of a Legend* is that it focuses on captive wolves that are given names. The film highlights how the keepers care for the wolves, before and after they are released into the wild. Thus, perhaps unintentionally, the film works against developing sustainable natural populations. It is ultimately harmful to demonstrate to the public that a “good wolf” is a captive wolf. Also, captive wolves tend to over-romanticize wolves in general, making them look more benign and domesticated than they really are. In the end, the documentary walked a very fine line between alleviating negative cultural perceptions of wolves and anthropomorphising and/or over-romanticizing them.

The few actual wolf documentaries that exist include Bill Mason's National Film Board of Canada (NFB) production *Death of a Legend* (1971). The film demonstrates that the wolf is threatened by man largely because of unfounded myths that have grown up around wolves. The film disproves many of the fallacies. Studies by wildlife biologists reveal that the wolf helps maintain the balance of nature. The film also focuses on the wolf's life cycle and the social organization of the pack, and includes information on other animals: caribou, moose, deer, and buffalo. The only problem with Mason's film is that it is outdated. Yet, to this day, I still see footage from it popping up in other productions about wolves – particularly the footage of hunters on snowmobiles chasing down wolves.

David Suzuki, host of the Canadian Broadcast Corporation's *The Nature of Things*, released his documentary *Crying Wolf* (1996) to criticize the Yukon Wolf Kill, a government run predator control program that was supposed to increase caribou and moose numbers. The documentary used the old NFB footage of bounty hunters killing wolves, which is no longer relevant today. The same footage appeared in the World Wildlife Fund TV campaign video, featuring the Theberges.

Suzuki's *Crying Wolf* video documentary made heavy use of old stock footage, including some disturbing footage of wolves in snares, and voice-of-god narration. The film was obviously pro-Theberge. For the Theberges, all the problems with Algonquin Park wolves were linked to hunting and trapping. No mention was made of habitat, prey availability, or disease. Obviously, it presented a very one-sided view.

Overall, I found the documentary confusing. It lacked focus and it did not differentiate between different types of wolves around Canada. It slipped between the Yukon, Algonquin, and Yellowstone with one common message - hunting and trapping are major threats to wolves. The section on Algonquin Park wolves was very small and focused only on the Theberges. In accordance with the confines of TV, the documentary was too general, lacked depth, had too many quick edits, and was too reliant on stock footage and voice-of-god narration. I got the impression it was assembled quickly by several different people – with limited knowledge of the science.

In 1999, CBC's *The National* news magazine broadcast *The Wild Bunch*. The short (22 min.) documentary focused on the reintroduction of gray wolves, imported from Canada, into Yellowstone National Park. The documentary was more balanced than previous efforts. It featured interviews with advocates, biologists, and ranchers - who looked forward to wolves being removed from the endangered species list, so they could shoot them to protect their livestock. Unfortunately, the documentary was marred by some misplaced attempts at humour and imagery that actually helped perpetuate negative stereotypes of wolves.

To my knowledge, there has never been a documentary that attempts to collect research information about wolves using the camera as a scientific surveying instrument - let alone one that focuses on Algonquin Park wolves. In addition, the survey techniques employed in *Crying Wolf - Perceptions and Realities of Algonquin Park Wolves* have rarely been used in documentaries *period*. The exception is *CBS Reports – Sixteen in Webster Groves* (1966). Based on a survey designed and administered by the National Opinion Research Center, University of Chicago, the documentary explored the attitudes towards self, parents, school, marriage, and society of sixteen-year-olds living in an affluent suburb of St. Louis. Thus, with regards to exploring the attitudes towards wolves, my documentary is an original, provocative effort.

To my knowledge, *Crying Wolf - Perceptions and Realities of Algonquin Park Wolves* is the first documentary to place the science into a social and cultural context. It did so by soliciting input from the public, and getting them to comment on the final product at future screenings (the film's final scene is

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designed to let viewers ruminate on what they have seen and heard, not to mention the wolves themselves). In addition, to my knowledge, there are no other documentaries that deal with the perils of scientific communication – exploring the tensions between science and the general public. Along these lines, my documentary is a conscious effort to communicate the science of Algonquin Park wolves in a more balanced manner. Based on my discussions with scientific experts, there is a great need for this, although my evidence suggests that effective science communication has not been attempted previously.

Unlike previous efforts that have anthropomorphised or over-romanticized wolves – captive or otherwise – my documentary *is not* a wildlife film. It is about *our* perceptions of wolves – not wolves themselves. Thus, the documentary did not concentrate on trying to film wolves in the wild, explain their behaviour, or generate narratives based on their behaviour. In addition, many of the aforementioned documentaries are outdated and/or they focus on wolves in the USA. Thus, there is a genuine need for a thorough, feature-length documentary that explores the wolf populations in Canada's Algonquin Provincial Park. *Crying Wolf- Perceptions and Realities of Algonquin Park Wolves* fulfills that need.

Results of *Crying Wolf* Focus Group

On October 29, 2003, I convened a focus group to test the effectiveness of the documentary and suggest improvements. Two people attended - Julia Esrom and Michelle Nelson - although a total of six people were initially interested. Both Julia and Michelle have science backgrounds. Only Julia was previously familiar with my work, having attended Hierarchy Theory and Protected Area Management with me. Michelle told me that she was interested in my film because she was considering doing a brief documentary of her own.

Overall, comments from the group were very positive and encouraging. Michelle commented that she liked my methodology. In general, their comments helped me edit out slack moments and redundancies. They also suggested that I add footage where more explanation was needed. It was interesting to hear them suggest edits, because they did not agree on all of them. What interests one person does not interest another!

Regardless, I was glad when they both agreed that I had treated everyone I interviewed fairly and objectively. The only place I seemed “subjective” was when I appeared on camera to ask questions that furthered conversation and/or expanded on key points, but we agreed that this was unavoidable and was not a major breach of objectivity.

It was interesting when they commented that I might need subtitles for my interview with Bob Anderchuk (farmer from Round Lake Centre). It was ironic that I was trying to introduce viewers to another culture (i.e., northern peoples around the park), yet their language seemed so different from urban language that we can hardly understand them. I thought subtitles might be too much. They might mock Bob's manner of speaking. We agreed that, to be fair, maybe I should just cut out the places where he was hard to hear.

Another contentious issue was Michael Pecarskie's description of eating lynx at a wild game supper he attended. This echoed a previous conversation I had with Barbara Evans. I was concerned that the scene would paint Michael in such a negative light that some viewers would be completely turned off by him. While the scene was part of the social context I intended, I thought it would – in fact - work against any understanding I had hoped to generate. Yet, we agreed that some of the conversation should stay in; after all, it was part of his life and the film was just being honest. Julia sided with that conclusion. She said he knew he was being interviewed on film, so it should stay in. Michelle recommended that I cut it down a bit, just so my good intentions, and objectivity, are not misinterpreted by urban audiences. In the end, I removed the entire sequence. To be honest, I was attracted to it because it was provocative and somewhat humorous – albeit in a dark vein. To keep it in would mean that I was willing to place cinematic effects over fair, balanced, ethical treatment of my interview subjects.

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At the end of the screening, I posed nine questions to Julia and Michelle. Only Julia could remain to view the entire film. Michelle had to leave after viewing the Science Communication section. Below are the questions, and a synopsis of their responses to each question:

1) Is the documentary multidisciplinary?

Julia said it *was* multidisciplinary, but we both agreed that I should add a bit more genetics to enhance the science – especially to explain the wolves’ range.

2) Does it communicate effectively?

Michelle thought I did a good job of communicating interest groups’ values and thoughts regarding the wolf. She thought I avoided stereotypes, except – interestingly – when I showed the classic scientist-behind-a-desk shots of Tom Nudds. Yet, she felt Tom was a good person to end each section with. She appreciated the little details that viewers would have to look for, throughout the film. She enjoyed the ironic, humorous moments – especially Jamie Honderich digging a hole while being interviewed. She asked me if viewers will ever know what it was that Jamie was working on. When I answered ‘no’, we all had a good laugh. I said it was an absurd, “Beckett moment” - a man working for no apparent reason, with no end in sight.

Julia felt I had a good balance of opposites. The north / south comparison was good. She also liked how I created a scientific project that demonstrates how science works. She felt the structure of the film would introduce people to the scientific process, without them being aware of it. Originally, she thought my film would be boring (!), since “science can be boring” (with a nervous laugh), yet the film was not. She seemed surprised at that.

3) Does it educate?

Michelle felt it educated her more on who the people involved are and their concerns and feelings regarding wolves. Julia felt the documentary delivered on the promise of its title. I was glad to hear that – it also answered my question – “Is the title appropriate?” In this regard, she learnt about the realities and the perceptions of Algonquin Park wolves.

4) Will it have any real world implications (i.e., for resource management)?

Both Julia and Michelle felt this was difficult to answer. To know for sure, it must be screened for a wider audience. Yet, Michelle felt that - yes – it will have implications, since it educates viewers about the various groups involved.

5) Does it work as a documentary film?

Both Julia and Michelle said “yes, definitely”. They were impressed at what I created using very few resources, and funded out of my own pocket. Michelle felt the film made sense. She liked the informal tone, and the fact that I was not controlling. I let people present themselves. She also liked the humour sprinkled throughout. Julia said it was a respectful movie.

6) Who do you think the audience is?

Michelle felt that it should not alienate anyone. Julia felt it could appeal to high school students. However, she felt it would appeal mainly to Ontario audiences, who know where the park is. If I was going to show it in Europe, I’d have to show a map of North America to demonstrate the locale.

On the Street Interviews

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These brief interviews provided a general comparison how people perceive the wolf in both urban and rural communities, close to and far removed from the park. Accordingly, three questions were asked of all participants:

1. What is the first thing that comes into your mind when you hear the word 'wolf'?
2. Where do you get your information about wolves?
3. Do you feel that scientists have kept you well informed regarding Algonquin Park wolves?

Table 1 - Percent on- and off-camera interviews refused across communities

	Toronto	Bracebridge	Huntsville	Barry's Bay
% Refusals	58.1	50.0	19.1	46.4

A refusal occurred when a person refused both on- and off-camera interviews. The resulting % Refusals for each community were calculated as follows:

refusals / total interviews conducted (both on- and off-camera)

Where possible, reasons for the refusals were recorded.

Refusals were highest in Toronto (Table 1). Reasons were diverse and included "no time for it", "don't know anything about wolves", or "I don't speak English". There was no evidence that individual views of wolves had anything to do with the refusals.

In Barry's Bay, one person was too busy and one did not know enough about wolves. One young man refused to be interviewed then said "shoot them all" as he walked away. Another man, who identified himself as a hunter, asked me if I was for or against the wolves. When I said I was "in between", he laughed and refused to be interviewed. This brief exchange exemplifies how polarized the wolf issue is in Barry's Bay. Nine people gave no reason for their refusal.

Unfortunately, the Bracebridge sample size was limited (Table 1), since few people were on the streets. This facilitated a move to Huntsville. In Huntsville, there were very few refusals (Table 1). People were very friendly and willing to talk, even after the interview had stopped. Several interview subjects expressed interest in my project. There was no indication that people refused to be interviewed because of their view of wolves.

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Table 2 – Primary sources of information regarding wolves, expressed as a percentage of responses across communities

Where do you get your information about wolves?					
	Toronto	Bracebridge	Huntsville	Barry's Bay	Haliburton Wolf Centre
Sample Size	13	7	17	15	8
TV	38.5 %	14.3 %	23.5 %	26.7 %	25 %
Radio		14.3 %			
Newspapers	7.7 %		5.9 %	6.7 %	
Magazines		14.3 %		6.7 %	
Articles					12.5 %
Books	23.1 %		11.8 %	6.7 %	25 %
Media		14.3 %	5.9 %		
Childhood Stories / Folklore	15.4 %				
Peers/Family		14.3 %		20 %	
Personal Experience	7.7 %	14.3 %		20 %	
Local Literature			17.7 %		
Algonquin Park			17.7 %		12.5 %
Haliburton Wolf Centre			5.9 %		25 %
Non-government Organizations		14.3 %			
School	7.7 %		5.9 %	6.7 %	
Do not have information about wolves			5.9 %	6.7 %	

For each source of information in Table 2, the percentages represent the number of interviewees that mentioned *only* that source combined with the number of interviewees who mentioned it as their *first* source. It is assumed that, for those individuals who mentioned more than one source, whatever source was mentioned first would be the individual's foremost source. Some comparisons between communities are difficult since answers were recorded as is, without forcing them into preconceived categories. For example, if someone answered "media", it was not divided into TV or newspapers.

Based on both on- and off-camera interviews, results suggest that TV is the main source of information regarding wolves, except in the Bracebridge and Haliburton Wolf Centre samples (Table 2). Due to the small sample sizes in Bracebridge and the Haliburton Wolf Centre, more sampling should occur there to see if the results reflect an actual trend.

TV use is particularly high in Toronto (Table 2), easily dominating all other sources. The heavy reliance on media in general (TV, newspapers, and books amount to a total of 69.3 %) suggests that Toronto residents would be more susceptible to advocacy – be it for or against wolves. This is probable, since Torontonians do not feel that scientists have kept them well informed regarding Algonquin Park wolves (Table 3). Thus, it can be assumed that most of the information being presented to them must be less objective, more value driven, and most likely unrealistic. Along these lines, Toronto was the only community sampled in which individuals stated that childhood stories / folklore was a source of information (Table 2). On-camera interviews with grade seven students from the Toronto area also suggested that childhood stories and myths were having an impact on their perceptions of wolves. Thus, it seems that in heavily mediated urban centres, people are more susceptible to extreme views of the wolf - positive or negative – as portrayed in popular culture and mass media.

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In Huntsville, local literature and Algonquin Park become very important secondary sources of information (Table 2). This makes sense since the community is closer to the park's west gate. In addition, MNR offices in Bracebridge and Minden mean that local papers have easier access to MNR staff who are actively involved in wolf management (e.g., articles on Dr. Brent Patterson's work in the *Muskoka Forester*). Both the *Muskoka Sun* and the *Muskoka Forester* covered my documentary when I was in Huntsville, so the local media are definitely interested in the Algonquin Park wolf issue.

In Barry's Bay, family/peers and personal experience are important secondary sources of information. This makes sense since small, tight-knit communities like Barry's Bay (population 1500) probably rely more on traditional story telling and word-of-mouth communications. Essentially, everyone knows everyone else, so stories about wolves can spread quickly. Also, since Barry's Bay is near Wilno and Round Lake Centre, where the deer migrate out of the park in the winter, they have the wolves literally in their backyards. Thus, residents would be exposed to a lot of wolf howling and other interactions, which may have positive or negative impacts on their views of wolves.

Aside from sampling urban and rural communities, on-camera interviews were conducted with visitors at the Haliburton Wolf Centre. It can be assumed that visitors to the centre are predisposed to liking wolves. While media in general was still their main source of information on wolves, both Algonquin Park and the Haliburton Wolf Centre combined provided an important secondary source. When seven visitors were asked "Do you think there is lots of good scientific information available about wolves?" 57.1 % of participants answered "Yes" and 42.9 % were undecided. The perception that there is lots of good scientific information available may be due to the effectiveness of the Haliburton Wolf Centre in communicating balanced information regarding wolves.

Based on my interview with the owner of the centre, Peter Schleifenbaum, it became clear that he had a very balanced view of wolves, with a strong knowledge of the science. While filming in the centre, I also overheard conversations that the staff had with visitors. It became apparent that, overall, the centre is not over-romanticizing the wolves. On the contrary, it strives towards a balanced view, combining ecology with both positive and negative cultural portrayals of the wolf. Significantly, when I initially requested permission to film at the wolf centre, on a day that Earthroots was going to present its wolf play, Peter replied as follows:

"I do not have any problems with your project. However I do not want Haliburton Forest or the Wolf Centre associated with Earthroot's view of wolves (whatever it may be) and therefore insist that any public showing does not refer to the Earthroots presentation in the context of Haliburton Forest or the Wolf Centre. I trust that you can appreciate this." (Schleifenbaum 2002)

Even Lou Hodgson, a former hunter and politician I interviewed in Haliburton, appreciated the centre's dioramas, thus speaking to the centre's balanced approach. Unfortunately, it is unlikely that people who do not like wolves (for whatever reason) will invest the time and energy to visit Algonquin Park or the Haliburton Wolf Centre. Thus, they miss an opportunity to develop a more balanced view of the animals. Worst still, information they are exposed to in the media will most likely be antagonistic with their local knowledge, thus furthering the divide between interest groups.

Table 3 – Effectiveness of science communication, expressed as a percentage of interviewee responses across communities

Do you feel that scientists have kept you well informed regarding Algonquin Park wolves?				
	Toronto	Bracebridge	Huntsville	Barry's Bay
Sample Size	12	7	17	15
Yes	16.7 %	14.3 %	58.8 %	40 %
No	58.3 %	85.7 %	23.5 %	53.3 %
Undecided	25 %		17.7 %	6.7 %

Both the Toronto and Bracebridge samples suggest that science communication has not been effective (Table 3). This may be due to a lack of science (either the process or the end result – reliable knowledge) in the media, a lack of good quality science (i.e., reliable knowledge), or distance from the park – or some combination of these factors.

Interestingly, Huntsville was the only community sampled that felt strongly that the science was being communicated effectively (Table 3). No doubt, this is linked to the proximity to the park and the number of people who get their information at the park's visitor centre. In particular, several people told me they read *The Raven*, a publication by The Friends of Algonquin Park and Ontario Parks, authored by Dan Strickland. The publication was highly regarded across interest groups. During on-camera interviews, a logger, trapper, former hunter, and a tourism operator referenced it. In addition, Huntsville's local papers – *The Muskoka Sun* and *The Muskoka Forester* – were mentioned as good sources of information on the wolves. The only article I saw on Dr. Brent Patterson's current study was in *The Muskoka Forester*. Thus, proximity to the park, and three strong local publications, provide residents with adequate scientific information.

The small difference between "Yes" and "No" responses (i.e., 13.3 %) in the Barry's Bay sample may reflect the highly polarized views within that community (Table 3).

On-camera interviews revealed people who greatly appreciated the wolf, but also those who feared or disliked wolves. Mistrust or rejection of the science may be due to negative personal encounters with wolves, mistrust and hatred of related bureaucracy, feelings of disenfranchisement from the decision making process, a mistrust of John Theberge's science, or the science may be generally antagonistic with local experience and knowledge – or any combination therein. These sentiments were captured during my interviews with Stanley Pecoskie and Michael J. Pecarskie.

In conclusion, the effectiveness of science communication appears dependent mainly upon where you live, and to a lesser extent upon your sources of information. This suggests that, if science communication is to be improved, the communication strategies must differ across urban and rural communities, both close to and far removed from the park. The only way to effectively develop tailor made communication strategies for each community is to conduct surveys, similar to the methodology I have used for this project. In this manner, key social, cultural, and communications factors will become evident, and they can inform the strategies.

Based on analyses of Tables 2 and 3 - and my experience with on-camera and off-camera interviews - the Algonquin Park visitor centre, *The Raven*, and the Haliburton Wolf Centre are the best sources of good scientific information regarding wolves that are easily accessible to the general public. However, as suggested during interviews in Barry's Bay and Round Lake Centre, personal experience with wolves takes precedence over all else – and it may be positive or negative. Dispelling negative perceptions of wolves brought on by negative experiences with them is not only extremely difficult, it might not be a practical concern. It must be accepted that wolves are wild creatures that are bound to have some negative interactions with human kind. Understanding must be extended to those who have discovered this the hard way.

Mail-out Surveys

Some drawbacks in documentary film practice include the bias inherent in filming (i.e., choosing participants for cinematic reasons) and the debate over whether or not the camera alters people's responses to questions. The use of mail-out surveys, alongside my on-camera interviews, helped reduce any such bias.

In two cases (an environmentalist and a former hunter and politician), individuals who were interviewed on camera also completed a survey form. Comparing the two mediums, there was no evidence suggesting that their on-camera interviews were impacted by the presence of the camera. In addition, many interview subjects spoke to me at length off-camera, before and after interviewing began. Their views on wolves remained consistent, regardless of whether or not the camera was on them. This suggests that, at least on the topic of wolves, the camera had

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no impact on how people answered the questions. This is probably due to the fact that I went through great pains to inform people about the intentions of my research, including providing interviewees with questions beforehand. I strove to remain as fair and objective as possible, and I believe I gained the trust of the people I interviewed. In addition, the wolf issue is highly politicized, emotional, and people have entrenched views. Subsequently, people who do agree to an interview are not afraid to express their views; they feel a need to defend their side of the debate. If the issue was of a more personal nature, then the presence of a camera would likely impact interviewee responses.

Table 4 – Number of mail-out survey forms completed across interest groups

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Sample Size	1	2	1	1	2	2
Total Number sent out: 40						
% Not returned: 77.5						

Table 5 – Percentage of mail-out survey forms not completed across interest groups

	Environ- mentalists	First Nations	Tourism	Loggers	Hunters	Scientists	Media	Politicians
% of total not returned	6.5	3.2	16.1	3.2	3.2	29.0	3.2	35.5

In all, a total number of 40 survey forms were sent out, and 22.5 % of persons contacted completed the forms (Table 4). Thus, sample size was limited. However, for the purposes of this project, the mail-out survey forms are meant to provide a general comparison how interest groups value and perceive wolves, thus complimenting the documentary footage.

Due to time and financial constraints, a large scale randomized mail-out strategy, with thorough quantitative analyses of survey results, was not practical or possible.

In the future, larger scale mail-out studies should occur. Results would further illuminate how culture, social aspects, and communications impact resource management - and vice versa. More reliable knowledge would translate into more informed recommendations, and results could be published in peer reviewed journals. However, as I learned in *Qualitative Methods and Political Communications and the Environment*, the results of mail-out surveys can be misleading and they are often user-unfriendly. Thus, much like I attempted, survey forms should be used alongside person-to-person interviews that allow people to expand on their thoughts and ideas.

The high number of refusals may be due to the length of the mail-out survey form (Table 4). However, it is possible that some respondents did not complete a form for political reasons. Out of eleven politicians contacted, only one offered to complete a survey form, yet never did (Table 5). The large number of scientists that did not respond may be due to the fact that they are too busy. Yet, they may not want to jeopardize their objectivity. One scientist in particular, John Vucetich, did not complete my survey form, yet sent me an extensive e-mail summarizing his views and findings, inviting me to call him for further comment. My sense was that he was being very careful to present his stance without my guiding it along, via a survey form. Similarly, in my documentary, Dr. Tom Nudds told me that he did not have an answer to the question “What is the first thing that comes into your mind when you hear the word ‘wolf’?” because he wanted to remain as objective as possible.

Two members of the Ontario Federation of Anglers and Hunters (OFAH) offered to complete forms but never did. More effort was made to get the OFAH to participate in this project than any other group. At one point, after considerable effort, an on-camera interview was granted with a OFAH biologist, only to have it canceled at the last minute. No doubt, a reluctance to participate on the part of local politicians and the OFAH is symbolic of the highly politicized nature of Algonquin Park wolf management. To be fair, other

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correspondents also promised to complete forms but never did, including tourist operators and two environmentalists.

Feedback from persons who completed the forms was positive. Respondents told me that the survey was easy, it encouraged thought, and they were interested in the final outcome of the project.

Attitudes Towards Wolves

Table 6 – Results of mail-out surveys across interest groups: How do you feel about Algonquin Park wolves?

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Strongly like them	1				1	1
Like them		1		1		
I neither like nor dislike them		1	1		1	1
Dislike them						
Strongly Dislike them						

It is interesting that no one responded that they “Dislike” or “Strongly Dislike” wolves. In addition, a trapper, logger, scientist, and a former hunter and politician all seemed to have a more balanced view of the wolf - neither liking nor disliking them. These limited data suggest that various interest groups do have something in common regarding the wolf. Therefore, a participatory management plan that engages these groups in a common wolf management goal seems practical.

Table 7 – Results of mail-out surveys across interest groups: Taking up a position on Algonquin Park wolves based on emotions and/or politics alone is OK.

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Strongly Agree						
Agree	1					
Undecided						1
Disagree			1	1	2	
Strongly Disagree		2				1

Perhaps unsurprisingly, only the environmentalist agreed. The undecided “other” is a person who chose three groups that she belonged to: scientists, tourists, and environmentalists. Based on my experience, trappers, loggers, and hunters place more emphasis on personal experience with the wolves, as opposed to preconceived notions. Science, on the other hand, strives for objectivity and seeks to generate reliable knowledge. Since residents I interviewed around the park feel disenfranchised by the moratorium, and considering the divisions over whether or not science communication has been adequate (Tables 3 & 10), the major driving force behind current wolf management must be emotions. As I discovered while shooting my documentary, the moratorium had very little to do with science – it was brought on purely by pro-wolf advocacy and the resulting social pressure.

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Sources of Information on Algonquin Park Wolves

Table 8 – Results of mail-out surveys across interest groups: The wolf has been treated fairly by North American and European culture (i.e., art, fables, stories, films, etc.).

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Strongly Agree						
Agree		1				
Undecided					1	
Disagree		1	1	1		
Strongly Disagree	1				1	1

Again, these limited data suggest that various interest groups have something in common regarding the wolf. All groups agree that wolves are not well represented – whether it be negatively or over-romanticized. Perhaps if all these groups got together, each with its own brush, they could paint a more accurate, balanced portrait of the wolf.

Table 9 – Results of mail-out surveys across interest groups: Where do you get most of your information about Algonquin Park wolves?*

	Environment- alists	Trappers	Loggers	Hunters	Scientists	Tourism	Farmers	First Nations	Other
TV					1				
Papers									
Magazine									
Books									1
Internet	1								
Scientific journals					2				
Family / Peers								1	
Conferences			1						
Personal		3	1		1				
Other							1		

* Supplemented with on-camera interview results (additional sample size = 6).

In general, this table points to complex sources of information across groups, which is reflected in the different biases that my documentary highlighted. No one source of information can be considered *the* correct one. Instead, all sources have to be considered. While it is easier for northern peoples to have personal experiences with the wolves – good or bad – people in urban areas should be made more aware of those experiences. Perhaps more natural resource-related non-government organizations (NGOs) should be formed around Algonquin Park, so that residents can have a platform to communicate their thoughts and experiences with the rest of Ontario – particularly the urban areas. In this manner, urban based NGOs would not be able to dominate the discourse with their values and perceptions – values and perceptions that have been generated while standing at a distance from the wolves. This would allow for a more balanced exchange of information regarding the wolves.

Currently, I do not think that northern rural peoples have the same access to media and outreach that urban based NGOs have. In the absence of their thoughts and experiences regarding wolves, it is easier for urban based groups to “pull the wool over the eyes” of urban peoples who rely heavily on the media for their information regarding wolves. Thus, it becomes much easier to sway urban peoples’ opinions one way or the other.

Science Communication and Algonquin Park Wolves

Table 10 – Results of mail-out surveys across interest groups: Scientists have kept me well informed regarding Algonquin Park wolves.

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Strongly Agree						1
Agree	1		1			
I’m not sure		2				1
Disagree				1	2	
Strongly Disagree						

Three agree, three undecided, three do not agree. This mixture of views on the effectiveness of science communication is similar to the Barry’s Bay sample (Table 3), and other on-camera interviews. Combined with Table 3, I would conclude that the effectiveness of science communication is dependent upon where you live, your sources of information, and what interest group you belong to. This suggests that, if science communication is to be improved, the communication strategies must differ across communities *and* interest groups.

Table 11 – Results of mail-out surveys across interest groups: Science can change the way people think about Algonquin Park wolves.

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Strongly Agree		1		1	1	2
Agree	1					
I’m not sure		1			1	
Disagree			1			
Strongly Disagree						

The effectiveness of science communication is one thing– whether or not it can dismiss misconceptions and change values regarding the wolf is quite another. When I first began this project, I thought science was the end-all be-all. I thought if it was communicated effectively, then it would naturally generate a more balanced view of the wolf. Table 11 suggests that a similar sentiment exists across interest groups, but I no longer think it is possible.

To qualify this conclusion, for people that have been exposed to the science, it does not mean that they take it at face value. Thus, improving the communication will not matter if the knowledge is unreliable - as were some of the Theberges’ findings. In this regard, the science must not be antagonistic with local views of the “reality” of the situation. If it is, then local peoples should become involved with data collection, to help them understand and trust the findings.

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More importantly, science can only change values or misconceptions as the reliable knowledge generated by science finds its way into popular culture. The process by which reliable knowledge makes its way into popular culture is very slow. Also, its impact is unpredictable. However, the process is not possible unless there is a commitment in the mainstream media to properly represent all the interest groups and debates that swirl around environmental issues. Currently, to my knowledge, no such commitment exists – despite the importance the public places on science (Table 12). If anything, Table 12 suggests that there *is room* for more science in mainstream media and popular culture; people *are* interested in it.

Contrary to what I initially thought, I think that values are causing people to choose whichever science supports their cause – as opposed to science having the upper hand. A good example is the genetics issue. According to what side you are on in the wolf debate, you can pretty much choose your own genetic argument to support your cause (Table 16 suggests this). If you are pro-wolf, then the Algonquin Park wolf is the “red wolf” - endangered in the USA. If you are anti-wolf, then the Algonquin Park wolf is just a hybrid between a grey wolf and a coyote.

Table 12 – Results of mail-out surveys across interest groups: How important do you think the science of Algonquin Park wolves is?

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Very important	1			1	2	1
Important		2	1			
Minor importance						
Not important						
I’m not sure						1

Table 13 – Results of mail-out surveys across interest groups: How much importance do you think that scientists place on your opinion of wolves?

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
None at all		1				1
Not much			1		1	
Some						1
An acceptable amount	1				1	
I’m not sure				1		

Table 13 suggests that, while interest groups think the science is important, they do not think that the scientific community has embraced them. This sentiment exists regardless of the fact that interest groups have had opportunities to share information with scientists (Table 14). As I discovered while shooting my documentary, internal science projects (like the one currently being conducted by Dr. Brent Patterson for the MNR) leave people around the park feeling disenfranchised. Worst still, if people are not permitted to participate to some degree, they will not trust the final data. Thus, if the results of the research grate against their local knowledge, they will harbour feelings of resentment and mistrust towards scientists in general. This would have negative implications for future resource management projects, since once trust is lost it is very difficult to win it back.

Crying Wolf – Perceptions and Realities of Algonquin Park Wolves

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Table 14 – Results of mail-out surveys across interest groups: How often have your thoughts, experiences, or information regarding Algonquin Park wolves been shared with scientists?

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Never				1	1	1
Once						
Twice						
Three or more times	1	2			1	1
I'm not sure			1			

Table 15 – Results of mail-out surveys across interest groups: The provincial & federal governments have done a good job of communicating information regarding Algonquin Park wolves to the general public.

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Yes		1				
No	1	1	1	1	2	2

This question was meant to uncover the government’s role in science communication and if science, regardless of its source, was acceptable to all interest groups. As it turns out, in the eyes of the majority, the MNR has not been communicating what is going on with Algonquin Park wolf management. In addition, when the science is attached to politics, it becomes suspect to the majority of interest groups.

Because of a general mistrust of the government, and the hesitancy of the government to provide information, the environmentalist commented on her survey form that she went to independent scientists for information. A trapper pointed out that the information provided by the government is biased towards interest groups who provide financial support to the politicians. These results also point to how closed-off the provincial government has been post moratorium. People are hungry for information – they want to know if the moratorium is working. They want to know the status of wolves in the park. Yet, the province has retreated into itself and appears reluctant to release information to the mainstream media. This sort of attitude is only increasing the information vacuum, allowing for more advocacy to fill the void.

Genetics

Table 16 – Results of mail-out surveys across interest groups: It is OK for Algonquin Park wolves to mate with coyotes.

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Strongly Agree						
Agree						
I'm not sure			1	1	1	
Disagree		1			1	1
Strongly Disagree	1					

Based on my interview with Bradley White, and my own research, I’d say that the answer to the above question is “Agree” or “Strongly Agree”. I believe that hybridization is perfectly normal and makes for a

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healthy ecosystem. However, to be fair, I had time to wade through all the scientific information and come to a conclusion. Some people may be unsure about wolf genetics because they have not been exposed to the science. On the other hand, some people are apparently taking up stances based on emotional responses to the notion of “purity” and its loss through interbreeding.

By choosing a genetic argument to suit their values, pro-wolf advocates can give the impression that the wolf population is at risk, due to coyote hybridization. Also, the sexual imagery of wolves interbreeding with coyotes can have a powerful emotional impact on members of the general public who do not understand canid ecology and genetics.

Interestingly, the hunter mentioned on his survey form that he would leave it to the wolves to make up their minds who they wanted to mate with. A trapper did not answer the question, except to add that he had no control over it, since the wolves and coyotes would not respect his opinion on the matter. A scientist answered “We must not ‘play god’”.

These findings suggest a need for improved science communication regarding the genetics of Algonquin Park wolves. I found during my interviews that genetics was a very confusing issue for the general public. Thus, they are susceptible to any type of advocacy that takes a limited, misinformed view of Algonquin Park wolf genetics.

Wolf Mortality

Table 17 – Results of mail-out surveys across interest groups: greatest potential threat to Algonquin Park wolves.

	Environ- mentalists	Trappers	Loggers	Hunters	Scientists	Other
Logging						
Hunting	1				1	
Farming						
Trapping						1
Aging forest Fires			1			
Roads						
Disease				1	1	
Mining						
Lack of food		1				1

Perhaps more so than any other question, asking interest groups about the greatest potential threat to Algonquin Park wolves reveals their values and biases. For example, the trapper thinks lack of food is a major threat, since his livelihood is directly connected to the wolves’ prey base (i.e., beaver). The logger thinks an aging forest is a major threat, no doubt because his livelihood depends on clearing the forest. The environmental group chose hunting, which is not surprising since they side with the Theberges.

Parting Shots

Table 18 – Results of mail-out surveys across interest groups: What are the chances that you will completely change your current view of wolves?

	Environ-	Trappers	Loggers	Hunters	Scientists	Other
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	mentalists					
Very low						1
Low	1	2			1	
I'm not sure			1	1		
High					1	
Very high						

Keeping with my original misguided notion that science could change the way people view wolves, I was interested in the outcome of this question. It confirms what I now know to be the truth – the chances of science having any impact are slim. Again, change would occur very slowly, and unpredictably, over time. This suggests that a long term, sustained effort at science communication and participatory management is needed to achieve a more balanced view of wolves across all interest groups. In addition, long term monitoring of the process is needed to see if the reliable knowledge generated is being communicated effectively and is having a positive impact on how people perceive the wolves.

Presentations

Straughan, C.A. Crying Wolf – Perceptions and Realities of Algonquin Park Wolves. Faculty of Environmental Studies Wolf Week. October 28 - October 30, 2003. York University, Toronto.

Straughan, C.A. Environmental Film and Video Workshop. E-Action Conference for High School Students. February 21, 2003. York University, Toronto.

Straughan, C.A. 2001 – A Waste Odyssey. 6th Annual Cornell Environmental Film Festival. October 4 - October 10, 2002. Ithaca, New York.

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Straughan, C.A. 2001 – A Waste Odyssey. R/Evolution Conference. March 22 – March 24, 2002. Concordia University, Montreal, Quebec.

Awards

2002-2003 dian marino Award

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