



Public Input Coordinator
Ministry of Natural Resources and Forestry
Policy Division
Species Conservation Policy Branch
Wildlife Section
300 Water Street
Peterborough, Ontario

September 20, 2019

Dear Species Conservation Policy Branch – Wildlife staff,

Re: EBR posting 019-0406, Proposed changes to wolf and coyote hunting regulations in Northern Ontario

On behalf of the David Suzuki Foundation and Ontario Nature we are writing to express our strong opposition to the Ministry of Natural Resources and Forestry's (MNRF) proposal to amend coyote and wolf hunting regulations in northern Ontario. The proposal is highly unlikely to benefit moose, as it purports to do, and may well have other unintended ecological consequences.

Founded in 1990, the David Suzuki Foundation is a national, bilingual non-profit organization headquartered in Vancouver, with offices in Toronto and Montreal. Through evidence-based research, education and policy analysis, we work to conserve and protect the natural environment, and help create a sustainable Canada. We regularly collaborate with non-profit and community organizations, all levels of government, businesses and individuals.

Ontario Nature is a charitable conservation organization that protects wild species and wild spaces through conservation, education and public engagement. We represent over 150 member groups, including 16 in northern Ontario, as well as 30,000 members and supporters across the province.

We urge the MNRF to abandon the proposed changes for the reasons outlined below.

1. The proposal lacks scientific justification and evidence

Under the guise of moose conservation, MNRF is proposing to allow anyone with a small game hunting license in northern Ontario to kill up to two wolves and an unlimited number of coyotes per year. MNRF

presents no scientific justification for its proposal and provides neither population management targets nor a rationale for the proposed bag limits. The proposal is based, ostensibly on a recommendation in the report of the Big Game Management Advisory Committee report (BiGMAC), which is not supported by, nor does it reference, science. Appointed by the Government of Ontario in 2019, the BiGMAC based its recommendation with regard to wolf and coyote hunting on consultations with hunters, not on scientific evidence.

2. Science shows that wolf kills are not effective

Here's what the government's own science¹ tells us about the relationship between wolf and moose numbers:

Predation rates on moose by wolves tend to increase in tandem with moose numbers. This naturally regulates the density of the moose population and is ultimately beneficial to moose and the ecosystems they rely on.

The same document indicates that the proposed changes are unlikely to have the intended impact:

The number of moose killed per wolf pack will not significantly decrease as the pack size is reduced, so removing just a few wolves from each pack will not decrease overall predation on moose. [...] Only in limited circumstances may small reductions in pack size result in minor reductions in predation that benefit moose populations in localized areas.

Only removing an entire pack can substantially reduce predation, and the proposed changes are (thankfully!) unlikely to remove an entire pack. Even where intensive removal has been tried, (Alaska, British Columbia, Yukon, Quebec), the impacts have been short-term and wolf populations and moose populations returned to pre-control levels over time.

3. Eastern coyotes do not predate upon moose in significant numbers

MNRFP proposes to allow unlimited killing of coyotes across northern Ontario. Yet science reveals that coyotes are not a significant threat to moose, as outlined in the peer reviewed paper, *Ungulate predation and ecological roles of wolves and coyotes in eastern North America*.² This fact is also underlined in the government's own materials, which cite wolves, and not coyotes, as predators of moose.³ Even the proposal itself identifies that it is addressing "hunter concerns about the impacts of wolf predation on moose." There is no rationale whatsoever for amending the hunting regulations to target coyotes. They are merely scapegoats in this proposal.

¹ *Factors that affect moose survival*, province of Ontario, as found at: <https://www.ontario.ca/page/factors-affect-moose-survival#section-4>

² Benson, John F.; Loveless, Karen M.; Rutledge, Linda Y.; and Patterson, Brent R., "*Ungulate predation and ecological roles of wolves and coyotes in eastern North America*" (2017). *Papers in Natural Resources*. 618. <http://digitalcommons.unl.edu/natrespapers/618>

³ *Factors that affect moose survival*, Province of Ontario, as found at: <https://www.ontario.ca/page/factors-affect-moose-survival#section-4>

4. Killing keystone predators could have negative ecosystem-wide impacts

Scientists caution against the removal of so-called “apex predators” such as wolves and coyotes. These predators “can regulate the structure of entire communities.”⁴ They are “disproportionately significant for the survival of native species and ecosystems.”⁵ Their removal can have drastic unintended consequences. On one hand, their disappearance “can lead to profound changes in ecosystem composition, structure, and diversity”⁶ and on the other their presence could enhance the “ability of ecosystems, and of the species inhabiting them, to adapt to a changing climate.”⁷

Soule et al provide many examples of the “ecological chain reactions” precipitated by the loss of predators including wolves and coyotes. These include:

1. The local absence of coyotes in California leading to an increase in house cats which then led to the reduction of native scrub-requiring bird species;
2. Coyote removal with resulted in the decline of native rodent diversity from 12 to just one species;
3. The absence of wolves in Yellowstone and in Rocky Mountain National Parks which led to excessive ungulate herbivory that changed habitat structure.⁸

They summarize with the following assessment of over a century of wolf eradication efforts in North America:

Among the many harmful consequences of wolf eradication have been increased costs for agricultural producers in the Midwest and East, the widespread degradation of forests and other ecosystems, and the decline of many species of plants favored by ungulates.⁹

Another possible unintended consequence of predator removal is what Wasser et al describe as the “predator release effect of deer.”¹⁰ While they considered wolf removal in Alberta likely to achieve the management objective of reducing caribou mortality in the short term, they cautioned that:

The current management priority of wolf removal is likely to reduce caribou mortality in the short term. However, a predator release effect of deer is also likely. The resultant rapid expansion of deer populations could, in turn, lead to a cascade of problems that are much more difficult to manage than current concerns (e.g., disease transmission, high-amplitude predator-prey oscillations, or marked alterations in vegetation; Ripple and Beschta 2006; Krumm et al 2010).

⁴ Sala, Enric. *Top predators provide insurance against climate change*. 2006. *Trends in Ecology and Evolution*, 21 :9.

⁵ Soule, M. E. et al. 2005. *Strongly interacting species: Conservation policy, management and ethics*. *Bioscience*, 55:2.

⁶ Ibid.

⁷ Sala, Enric.

⁸ Soule, pp. 170-171.

⁹ Soule, p. 173.

¹⁰ Wasser, S.K. et al. 2011. *The influences of wolf predation, habitat loss, and human activity on caribou and moose in the Alberta oil sands*. *Frontiers in Ecology and the Environment* 9(10). p. 551.

Given this likely undesirable outcome, they offered the following recommendation: “Management should prioritize and exhaust feasible actions to control human use on this landscape before triggering more extreme actions, such as predator removal.”¹¹ A similarly cautious approach should be taken in Ontario, especially given the evidence that the expansion of deer populations could have a negative impact on moose populations, as noted in the province’s materials.

At the same time, MNRF should be attentive to the potential impacts of opportunistic hunting on wolves and coyotes. For example, could the removal of wolves with high fitness have long term effects on population dynamics? As noted in MNRF’s “Backgrounder on Wolf Conservation in Ontario”:

The information currently available in Ontario is not sufficiently sensitive to predict changes in the populations of canids except at the largest of scales. Therefore, there is the risk that conservation measures may not be appropriate or timely to respond to changes in local wolf populations.¹²

The proposed changes are going forward with an incomplete knowledge of both the number of wolves in Ontario and the full extent of wolves killed by hunters (pp. 7, 21). Yet, as acknowledged in the same report, Ontario has an international responsibility to conserve these animals.

From a global perspective, a paradigm shift in wildlife management is desperately needed when it comes to large predators. As noted by researchers at the Raincoast Conservation Society, humans hunt and fish adult prey at a rate that is 14 times higher than the median rate for non-human predators. They argue that “to restore Balance, managers can use exploitation rates by natural predators—true models of sustainability—as guidance.”¹³

5. The proposal weakens monitoring capacity

The government plans to eliminate requirements for tags and reporting for both wolves and coyotes hunted in northern Ontario (Wildlife Management Units 1A, 1C, 1D, 2-10, 11A, 11B, 12-37 – see map below). As a result, any ability to monitor and scientifically assess the impacts of the policy and manage accordingly is seriously undermined.

Although MNRF claims that it will “collect information about wolf/coyote hunting and harvest activities in areas where there is no mandatory reporting requirement through periodic surveys of small game licence holders,” responding will not be mandatory nor tied to a tag, greatly undermining the likelihood of gathering comprehensive information in a consistent fashion which is needed to inform adaptive management.

¹¹ Wasser, p. 551

¹² As found at: <http://www.ontla.on.ca/library/repository/mon/11000/254534.pdf>

¹³ Raincoast Conservation Society “Humans are superpredators like no other species” as found at: <https://www.raincoast.org/2015/08/the-human-super-predator-revealed/>



6. *There are many uncertainties around the causes of recent moose declines*

MNRF's backgrounder on factors that affect moose survival highlights many unknowns.¹⁴ Predation by wolves is only one possible cause. (Coyotes are not discussed.) Climate change (resulting in decreased reproductive fitness, increased tick infestations, increased numbers of white-tailed deer accompanied by higher rates of transmission of parasites), parasites (brain worm, winter ticks, liver fluke), and black bear predation (in some limited, localized circumstances) could be factors, while habitat availability is "not likely" implicated. One thing that is certain, however: hunting by humans has an important effect on moose populations.

Since the 1980s, the length of the hunting season, road access, the use of all-terrain vehicles, wireless communication, calf harvesting and party hunting have all increased. During that time, the success rate of hunters has jumped significantly (from 20 – 30% to 40-50% with guns and from 5-10% to 20-30% with bows).

Given the uncertainties about many factors that might be implicated in moose decline, coupled with MNRF's inability to actually control most of these factors, it would seem that the most reasonable management option available is to control human activity - in this case, most obviously, hunting.

¹⁴ *Factors that affect moose survival*, Province of Ontario, as found at: <https://www.ontario.ca/page/factors-affect-moose-survival#section-4>

7. Wolves target different moose than those desired by hunters

Though wolves are the main non-human predators of moose, according to government sources, they generally “prey mostly on young moose and older moose past their prime, and consume few prime-breeding-age moose.”¹⁵ Thus they prey upon different moose than those preferred by hunters, and should not be viewed as competitors.

8. The proposal fans the flames of intolerance against wolves and coyotes

We must never forget the long history of persecution of wolves and coyotes in North America. In the case of wolves, it led to their extirpation from large areas of their range, including southern Ontario, and to the at-risk status of the eastern wolf in this province. While public opinion about these predators has improved dramatically in recent years, fear and prejudice persist. Coyotes in particular are still commonly regarded as vermin in rural areas, and, as noted in the MNRF backgrounder, their expansion in northern Ontario is “an increasing concern for livestock farmers.” Weakening the protections for wolves and coyotes may foster an attitude that it is open season on these animals. No doubt it will lead to an increase in opportunistic hunting.

It is the job of MNRF to apply conservation science to steward wildlife and the complex ecosystems that they inhabit, and to educate the public about ways to maintain healthy, functioning ecosystems. The proposed changes, and lack of accompanying monitoring, will spur antipathy towards wildlife that was more typical of unenlightened times. The decreased oversight and removal of limits to the number of coyotes that can be killed feeds a regrettable and indefensible narrative that predators are vermin as opposed to an integral and crucial part of natural communities that have evolved over thousands of years.

The fact that there is a limit of two wolves, but no limit on coyotes also raises the issue of potential misidentification and whether hunters could readily distinguish coyotes from timber wolves under typical field conditions. While MNRF believes that hunters can generally distinguish between northern wolves and coyotes, is this true of all hunters, or just of experienced hunters? How likely is it that the animals will be shot first and identified afterwards?

Ultimately, MNRF should be managing for large mammals, including apex predators, with a much bigger picture in mind, recognizing humanity’s deplorable legacy worldwide in species decline, as described by Soule et al.:

On land, many large animals and other strongly interactive species are completely missing from vast areas that they occupied a century or two ago [...] Globally, many, if not most, large-bodied, strongly interacting species are increasingly rare, even if they persist in parts of their former

¹⁵ *Factors that affect moose survival*, Province of Ontario, as found at: <https://www.ontario.ca/page/factors-affect-moose-survival#section-4>

range. A reasonable hypothesis is that ecosystems that have lost one or more strongly interactive species are destined to undergo profound degradation and simplification over time.¹⁶

Conclusion

The government has presented an astonishingly weak rationale to increase opportunities to kill apex predators such as wolves and coyotes. Given that the proposed changes are highly unlikely to address moose decline in northern Ontario, we are left wondering about the real purpose of this proposal: is it simply to make it easier for hunters to opportunistically shoot wolves and coyotes? Is it a political move to please northern voters? Is it just a shot in the dark?

Whatever the reason, it appears to constitute a gross abandonment of MNRF's mandate to protect Ontario's biodiversity and sustainably manage Ontario's fish and wildlife resources.¹⁷ Further, the proposal is certainly not "neutral," as claimed by the ministry in its Regulatory Impact Statement¹⁸ regarding the likely environmental and social impacts of the proposal. We urge you to repeal this proposal and to adopt a science-based approach to wildlife management.

Thank you for the opportunity to comment – we would be happy to discuss any of these points further with you at your convenience.

Yours truly,



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¹⁶ Soule, p. 172.

¹⁷ As found at: <https://www.ontario.ca/page/ministry-natural-resources-and-forestry>

¹⁸ As found at: <https://ero.ontario.ca/notice/019-0406>