

ONTARIO FEDERATION OF ANGLERS & HUNTERS



Ontario Conservation Centre

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June 25, 2014

Ms. Deb Stetson, Manager
Wildlife Policy Section
Ministry of Natural Resources
300 Water Street
Peterborough, Ontario
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Dear Ms. Stetson:

The Ontario Federation of Anglers and Hunters (OFAH) is Ontario's largest non-profit, conservation-based organization, representing 100,000 members, supporters and subscribers and 720 member clubs. Our membership includes thousands of dedicated moose hunters who are understandably concerned about the health of Ontario's moose populations. In response to the significant decline in moose hunting opportunities for 2014, the OFAH Big Game Advisory Committee (BGAC), OFAH Board of Directors, and OFAH staff have discussed the issue at length. We respectfully submit the following comments and recommendations for your consideration. Our comments cover the entire spectrum of moose management tools currently available to the Ministry of Natural Resources (MNR).

POPULATION ASSESSMENT

The OFAH (and many moose hunters) has several concerns about recent population assessments. There is a widespread lack of confidence among moose hunters in Moose Aerial Inventory (MAI) results for many WMUs, particularly WMU 28. For example, MAI results suggest that the WMU 28 moose population has declined by 48% over the past five years. Many hunters question how a population can decline so precipitously over a short period of time. According to raw data provided by the MNR to the OFAH, WMU 28 MAI was completed over a period of 26 days. The MNR's MAI protocols are based on stratified random sampling design, as described by Gasaway et al. (1986), which recommends completing a survey over a short time period. We acknowledge that inventory flights are only conducted under strict conditions for the sake of crew safety and observability. However, when a survey extends over such a long period, changes in temperature, snow depth, and moose activity can create distinctly different moose distributions (and associated stratification designations) over the course of the survey. For this reason, the MAI should have been re-started after the initial delay or abandoned altogether.

The OFAH has been informed that some district biologists have apparently changed the stratum designation of the sample plot *after* surveying it. If true, this is a clear violation of the experimental design, and results in a false estimate of precision. We are unsure if this occurred in any of the 2014 MAIs, but biologists must be made aware of the consequences. Gasaway et al. (1986) states that a plot's stratum designation can be changed during the survey, but is also clear that it should only occur rarely and *cannot* be done after a plot has been sampled. The MNR must ensure that MAIs are flown according to established experimental designs, and that statistical assumptions are not violated.

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The OFAH is also concerned about the sampling level in recent MAIs. It is our understanding that MAIs have a target precision level of +/- 20% at a 90% confidence level. The raw data provided to the OFAH shows that only 25 of 360 plots (7%) were flown in WMU 28, and the final precision was 22%. The optimal allocation procedure recommended flying two more plots in each of the "High" and "Medium" strata in order to achieve the target precision of 20%. For some reason, these four plots were not flown, despite the negligible increase in cost that would have been required to reach the target precision.

The OFAH contends that there is greater value in ensuring high-quality, defensible results for fewer surveys than increasing the total number of MAIs flown, at the cost of precision (i.e. funding is best spent ensuring that MAIs reach the target precision level of +/- 20%). In response to past funding reductions, the MNR dropped the confidence level from 95% to 90%. This allowed the MNR to reach the target precision level at a lower cost per survey. It also makes it more difficult to detect a change in the population's status due to the wider confidence interval.

Recommendations:

1. *Increase funding for Moose Aerial Inventories.*
2. *Ensure that MAIs achieve the target precision level of +/- 20% at a 90% confidence level.*
3. *Re-assess population status in WMUs 8, 13, and 28 via Moose Aerial Inventory in winter 2015.*
4. *Ensure that all MNR biologists adhere to the principles of the stratified random sample design and Moose Aerial Inventory guidelines.*

TOURISM INDUSTRY ALLOCATION

The Moose Tourism Industry Program states that the MNR allocates approximately 12% of provincial adult validation tags to moose tourist outfitters; however, there is little consistency in how this directive is employed between MNR regions. In most areas, the first step in the tag allocation process is to remove the projected calf harvest from the Total Allowable Harvest (TAH), leaving only adult validation tags to be allocated. This helps to ensure the sustainability of the licensed hunt, and uses the MooseHarv program as it was originally designed to be used. The tourist industry argues that, because they cannot sell calf hunts, the Tourist Industry Allocation should not be reduced by the projected calf harvest for that WMU. This means that only the resident allocation is penalized, creating an inconsistency between the resident and non-resident harvest planning processes. A similar inconsistency exists when accounting for Aboriginal and Métis harvest. In many WMUs, the district biologist only applies the reduction to the resident allocation, and not to the Tourist Industry Allocation. It is not our intent to eliminate the moose hunting tourism industry, but resident moose hunters must be given a higher priority allocation than non-residents.

Furthermore, there are certain situations (e.g. WMU 28 in 2014) where the Tourist Industry Allocation is greater than the resident tag allocation. The OFAH acknowledges that this has resulted from a difference in the timing of allocation, but the MNR must recognize that this leaves a bad taste in the mouths of resident hunters who are faced with repeated tag declines.

Recommendation:

5. *Ensure that the Tourist Industry Allocation is calculated in a fair, consistent, and transparent manner across all MNR regions and districts (Moose Management Policy, Strategy 2.2).*

WMU-SPECIFIC POPULATION OBJECTIVES

There seems to be little consistency between districts with respect to WMU-specific population objectives. Many districts use established and approved population objectives (some of which are admittedly outdated), while others are using "draft" objectives that have not been subject to public consultation.

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Recommendation:

6. *The MNR conduct an immediate review of all WMU-specific population objectives, followed by meaningful public consultation (Moose Management Policy, Strategy 1.2). This will ensure that all MNR districts are working from a common set of final, approved population objectives and will help ensure that moose hunting opportunities are being maximized.*

PREDATOR MANAGEMENT

Moose populations are influenced by the combined effects of predation, harvest, habitat quality, disease, and weather. Of particular concern is the impact of predators on calf survival and recruitment. Low mid-winter calf:cow ratios have been documented in several northern WMUs. Unfortunately, the MNR continues to marginalize the impact of predators on moose populations despite overwhelming evidence that wolves and black bears can be significant predators of moose calves (Keech et al. 2011; Nilsen et al. 2005; Patterson et al. 2013; Zager and Beecham 2006). The MNR has claimed repeatedly that it cannot manage predator populations, while simultaneously upholding the cancellation of the spring bear hunt, and restrictions on wolf hunting in northern Ontario. The harvest of black bears in the spring has the ability to reduce moose calf predation by lowering bear numbers immediately prior to moose calving. Furthermore, the MNR limits wolf harvest in northern WMUs by maintaining overly-restrictive bag limits of two wolves/coyotes per hunter per year, and requiring hunters to purchase individual seals.

Recommendations:

7. *Re-instate the spring bear hunt, for residents and non-residents, across all of bear range in Ontario.*
8. *Liberalize predator hunting in northern Ontario by creating a single wolf licence with a daily and/or annual bag limit.*

HABITAT MANAGEMENT

Moose have a range of habitat requirements, which change according to season and various life history events. Aquatic feeding areas, mineral licks, upland deciduous, early successional forests, clear-cuts, and heavy conifer stands are all important to moose at various times of year. Moose rely on forest disturbance, including natural disturbances (wildfires) and logging practices that emulate natural disturbances, to provide their habitat requirements. Over the past few decades, the MNR forest fire suppression efforts have limited the amount of natural disturbance on the landscape. As a result, logging practices that sought to emulate natural disturbance, became increasingly important for the provision of moose habitat (although some researchers have concluded that Canadian logging practices fail to emulate natural disturbance; McRae et al. 2001). The government has timber management guidelines for moose habitat for the purpose of assisting resource managers in maintaining or creating the diversity of age classes and species of vegetation that provide habitat for moose. Since its peak in 2001-2003, the total hectares of forest harvested in Ontario has declined dramatically (State of Ontario's Forests). For instance, the Lakehead Forest in WMU 13 is currently in its sixth year of a 10-year plan, but has only harvested 26% of the planned harvest (34% lower than expected) due to mill closures and reduction in timber demand (MacIsaac 2013). Combined with continued fire suppression efforts, this could be limiting the amount of moose habitat that is being created. Over time, the lack of disturbed habitats will reduce the carrying capacity of the landscape. Several researchers have concluded that moose productivity is directly linked to habitat quality, with more calves being produced in areas of highest habitat quality (Bjorneraas et al. 2009; Boertje et al. 2006; Boertje et al. 2007; Keech et al. 2000).

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Recommendations:

9. *Model existing and predicted moose habitat to verify the carrying capacity of the landscape (Moose Management Policy, Strategy 1.12). This will aid in setting population objectives, help direct forestry activity, and could allow districts/regions to reduce fire suppression efforts in areas where moose habitat is lacking.*
10. *Re-evaluate fire suppression policies in areas where the amount of moose habitat is insufficient to meet population objectives (recognizing the need to protect human and natural heritage values from destruction).*
11. *Ensure current forestry practices (type and amount) are sufficient to create high-quality moose habitat, and that forest regeneration favours species beneficial to moose. This includes adhering to timber management guidelines and auditing of forestry practices to ensure guidelines are effectively creating moose habitat as expected.*

HARVEST MANAGEMENT

With an equal number of moose and licensed moose hunters, the moose hunt is arguably Ontario's premier big game hunt. The hunt's popularity necessitates an adaptive and highly-regulated harvest management system that provides sustainable benefits to all resource users. In order to be effective, this system must account for all factors influencing the provincial moose population. The MNR currently collects harvest information from licensed hunters that is sufficiently accurate to make management decisions, but many districts have little confidence in their estimates of subsistence harvest levels. Without a reasonably accurate estimate of Aboriginal harvest, it is impossible to know if the licensed hunt is sustainable.

The MNR has repeatedly assured moose hunters that the "Moose Project" is a high priority, but little progress has been made over the past four to five years. Moose hunters are growing frustrated with this lack of progress. We are pleased that the MNR has taken the first step by soliciting input from moose hunters in 2013 but, to date, no results have been released publicly. Many big game hunters in Ontario complain about the lack of transparency in how postcard survey information is used – they feel that their contributions disappear into a void and remain unused. A similar feeling has developed among respondents to the 2013 moose management questionnaires, and further delays will only add to this feeling of futility. This may ultimately limit hunter participation and the overall effectiveness of surveys.

Recommendations:

12. *Engage all First Nation and Métis communities in confidential discussions to obtain reliable estimates of subsistence moose harvest, and to request Aboriginal involvement in moose management (Moose Management Policy, Strategies 1.8 and 1.11).*
13. *Finalize and release publicly the results of the two moose management questionnaires that were distributed to moose hunters in 2013 (Moose Management Policy, Strategy 1.11).*
14. *Begin immediate province-wide public consultation on proposed moose management tools (all of which are currently available to the MNR), including changes to season length, season timing, implementation of calf tag allocations, etc. (Moose Management Policy, Strategy 1.4).*

DEER MANAGEMENT

The North American range of white-tailed deer is expanding northward into habitats that have historically supported high density moose populations. Several North American jurisdictions have documented moose population declines as deer density increases. Whether moose populations decline as a result of increased predation or as a result of disease spread from white-tailed deer, is the subject of intense debate and research (Whitlaw and Lankester 1994; Lenarz 2009; Nudds 1990).

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Regardless, Ontario's deer population is also expanding northward into core moose range, bringing with it concerns about the future health of those moose populations. The *Cervid Ecological Framework* (CEF) provides strategic direction for managing co-existing ungulate species. The Framework directs the MNR to manage for high moose and low deer densities in Cervid Ecological Zones C1 and C2.

Recommendation:

15. *Assess white-tailed deer population status in core moose range to ensure populations are being maintained at sufficiently low densities to ensure healthy moose populations (Moose Management Policy, Strategy 1.7).*

The general feeling among Ontario's moose hunters is that, for too long, the MNR has been ignoring the impact of various factors on moose populations. This deliberate blindness has resulted in the MNR managing only moose hunters. We believe it is time for the MNR to acknowledge their ability to manage Ontario's moose population itself.

Recommendation:

16. *Re-establish Provincial/Regional Moose Technical Committees tasked with managing moose populations, and identifying data and science gaps that need to be filled, in order to ensure the continued sustainability of Ontario's moose populations. Membership could include MNR biologists and foresters, as well as representation from the OFAH and other stakeholder groups.*

Ontario moose hunting is economically very important, especially in northern Ontario, where hunters annually contribute tens of millions of dollars to local and provincial economies. The moose hunt is also culturally significant, not just for the healthy meat and the recreation it provides, but also because it signifies an annual gathering of friends and family. The OFAH looks forward to working with the MNR to ensure healthy and sustainable moose populations across their range in Ontario for current and future generations.

Yours in Conservation,



Mark Ryckman
Senior Wildlife Biologist

MR/gh
Attach.

cc: Honourable Bill Mauro, Minister of Natural Resources and Forestry
Rosalyn Lawrence, Assistant Deputy Minister, MNRF
Carrie Hayward, Assistant Deputy Minister, MNRF
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