

# Winter 2019 Cape Breton Moose Survey

May 2019

## Summary

An aerial moose population survey was undertaken between March 5<sup>th</sup> and 15<sup>th</sup>, 2019. This survey was a cooperative operation led by the Nova Scotia Department of Lands and Forestry, and included Parks Canada, the Unama'ki Institute of Natural resources and the Confederacy of Mainland Mi'kmaq. The study area within the Greater Highlands Ecosystem (GHE) includes Nova Scotia Moose Management Zones one, two, five, most of three and Cape Breton Highlands National Park. A less detailed survey was undertaken on Moose Management zone four. The purpose of the survey was to gather data to answer the question on how many moose are in the GHE.

The moose survey in Cape Breton follows a stratified random sample design based on the method developed in Alaska (Gasaway et al. 1986). This method is used with modifications by most jurisdictions in North America to estimate moose populations. Transects across the entire study area are flown to determine moose density on survey units (low, medium and high). A selection of survey units from each density class are chosen at random to be further examined. A similar survey was completed in the GHE during the 1990s. The moose population in the highlands rose from 18 animals introduced in the late-1940s to densities considered hyper-abundant in the early 2000s. Over-browsing by moose may have contributed to altering the forest habitat in the central highlands replacing it with a grassland "moose savannah". In 2014, Parks Canada embarked on the Bring Back the Boreal project in Cape Breton Highlands National Park to study the impacts of moose on the Boreal forest and help restore the health of this important ecosystem. The pilot project tested different techniques to determine the most effective approaches to restoring the boreal forest, including the removal of moose from a small area of the park, fencing and tree planting. While the results are still being analyzed, there has been a positive impact on vegetation and over 57,000 trees were planted.

The results from the 2019 winter survey are still being analyzed and there are indications that the population has declined from previous levels of hyperabundance. The current Greater Highlands Ecosystem estimate is around 1,300 animals. However, the four agencies are in agreement and advise that these results are estimates and caution that moose are difficult to survey under ideal conditions. The Cape Breton Highlands is an extremely difficult area to survey because of the rugged terrain and weather conditions unique to the GHE. The average density of moose for the GHE is 0.33 moose per km<sup>2</sup>. This is in line with the densities found in other jurisdictions with hunted moose populations in eastern North America.

Based on this one year of survey data available no change has been made to the 2019 moose licence allocations. Aerial surveys, biological and reported harvest data from licensed harvesters along with traditional knowledge provided by Mi'kmaq harvesters, suggest that the population as a whole is still

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healthy. Recommendations on moose management are made jointly by representatives of the Province and the Mi'kmaq of Nova Scotia.

The Department of Lands and Forestry and the Nova Scotia Mi'kmaq are committed to completing another similar moose survey in 2020 and implementing enhanced monitoring of all moose harvesting in the highlands. Nova Scotia Environment is working to assess changes in ecosystems and habitat in relation to moose in Polletts Cove Aspy Fault Wilderness Area. With this collaborative effort enough, information could be analysed to put together an adaptive moose management strategy to ensure that a sustainable harvest will be possible for all Nova Scotians in the future.

The annual moose draw opens at 7:00 am on May 17<sup>th</sup> and will close on June 7<sup>th</sup> at midnight. The electronic draw takes place June 27 and winners will be contacted on or after that date.