

Moose Resource Report

Wildlife Management Unit 9A

Moose Management in Ontario

In Ontario, the moose population and its habitat is managed using an ecological approach. This approach takes into account a wide range of factors related to moose and uses the best available science and information on moose populations and harvest. Ontario's Cervid Ecological Framework and Moose Management Policy give specific direction on how to manage moose across the province. They can be found online at ontario.ca/moose.

As part of managing moose, an objective is set for the number of moose that should be in an area. Ecological, social, cultural and economic factors related to moose are incorporated when making decisions about harvest allocation and what management actions are needed to help achieve that objective.



WMU 9A Description

Wildlife Management Unit (WMU) 9A is located in Fort Frances District. The southern boundary is an east-west line between the Territorial Districts of Rainy River and Kenora. The Turtle River system defines the eastern boundary from Eltrut Lake north to Highway 17. After proceeding northwest along Highway 17, the unit boundary angles southwest, intercepting several lakes in the Manitou system. Highway 71 forms western boundary of the WMU.

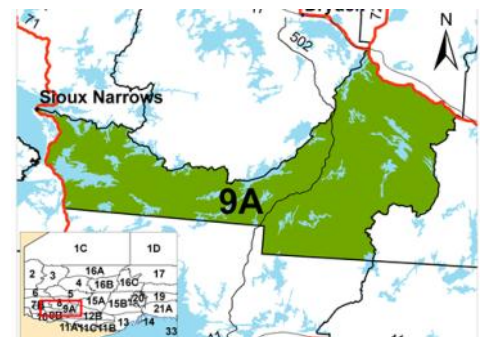
WMU 9A has a total area of 4,640 km² and is part of Cervid Ecological Zone (CEZ) C1.

ontario.ca/moose

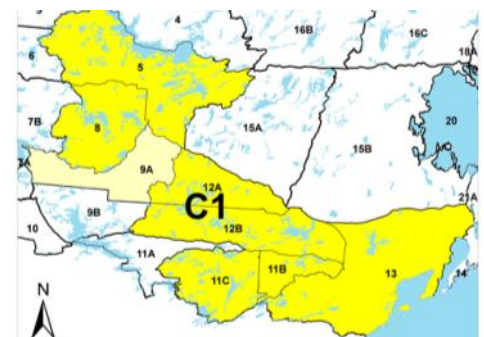
Cervid Ecological Zone C1

Moose and white-tailed deer are the main cervid species that live in this zone, but there may also be small numbers of elk and woodland caribou. For moose, the goal is to maintain a moderate to high density population and habitat may be managed as appropriate to achieve this. White-tailed deer are managed to maintain a low population density.

The ministry's cervid management objective is to have both moose and white-tailed deer on the same land base, and to maintain densities which reflect natural ecological conditions.



Map of WMU 9A

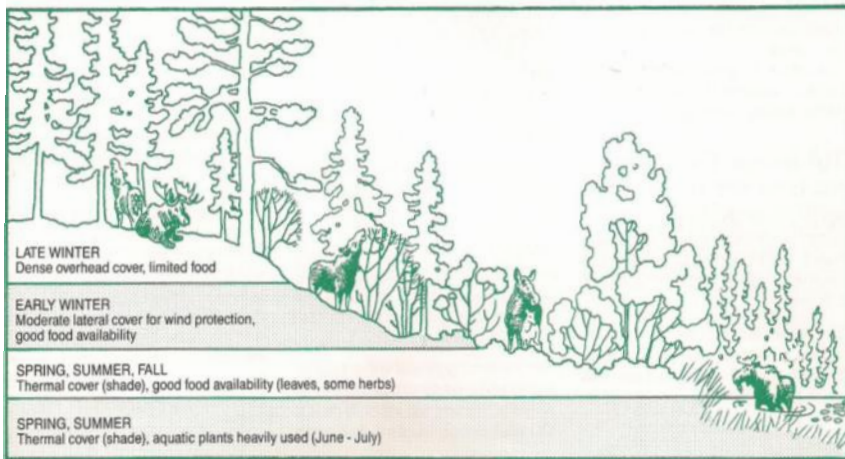


Map of Cervid Ecological Zone C1

Moose Habitat Suitability

WMU 9A contains elements of both the Boreal and Great Lakes - St. Lawrence Regions but is dominated by mixedwood boreal forest. The northern portion of the unit is more conifer-dominated with stands of jack pine. Poplar mixedwood stands are characteristic of the southern portion of the unit. Moose aquatic feeding areas are abundant among the numerous lakes, rivers and beaver ponds found throughout the unit. Timber harvesting does occur in the unit under the guidance of approved Forest Management Plans.

Landscape habitat analysis modelling estimates the overall mean carrying capacity, or number of moose that the habitat can support in WMU 9A as about 25 moose per 100 km². This considers the availability of dormant season (early and late winter) browse, growing season forage (i.e., browse and aquatic feeding areas), and both dormant and growing season cover.



Seasonal movements of moose in Ontario



Growing season browse

Moose aquatic feeding areas are generally found in cool water lakes, along medium-sized and shallow rivers and on shallow basins of cold water lakes.



Moose aquatic feeding area

Early winter habitat is primarily made up of mature or over-mature, open canopy, mixed-wood stands with less than 60 per cent tree cover, as well as areas that had been burned or cutover about five to twenty years ago.



Early winter habitat

Late winter habitat consists of denser stands of mature conifer with good overhead cover. Mixed stands made up of less than half mature conifer should also be considered as late winter habitat if pure conifer stands are not available. Upland sites are preferred.



Late winter habitat

Moose Management in WMU 9A

Moose management considers the best available knowledge, including scientific, local and Aboriginal traditional knowledge, as well as social, cultural and economic values. It also respects Aboriginal peoples' unique perspectives and practices related to moose management, including the exercise of constitutionally protected Aboriginal and Treaty rights. The ecosystem based management of moose includes the management of populations, harvest and habitat, with consideration of potential stressors, such as climate change, predator-prey interactions and disease.

Population Status and Trends

Managing moose populations requires information on their abundance, distribution, harvest, and recruitment trends. In Ontario, the size of the moose population is estimated on a WMU basis through the use of Moose Aerial Inventories. Inventories use a consistent method across the province for estimating moose populations from an aircraft, and are generally conducted every three to five years.

The most recent survey, completed in 2009, resulted in a population estimate of 1102 ± 228 moose or a density of 30 moose per 100 km² of land area. In 2009, the population was composed of 26 per cent bulls, 60 per cent cows, 13 per cent calves and 1 per cent unknown.

Calf moose generally experience higher mortality from a variety of sources, including predation and harvest. The minimum desired calf survival each year is at least 30 calves per 100 cows to help ensure the population is maintained. Survey results indicate that calf survival was below this level in both 2005 and 2009 (Figure 1).

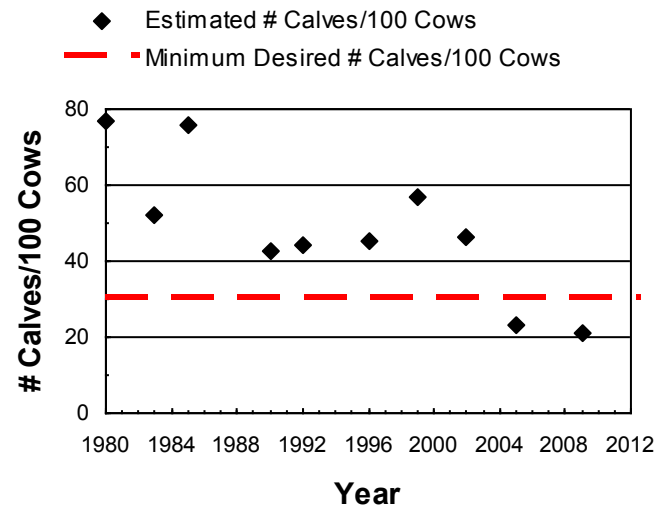


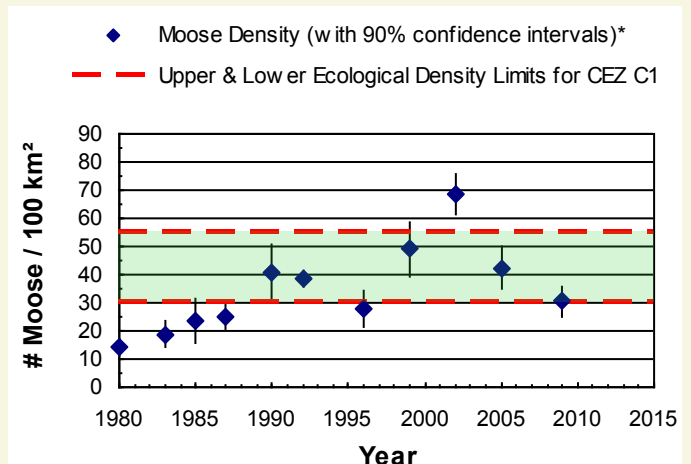
Figure 1: Calf recruitment (# Calves per 100 Cows) trends estimated from moose aerial inventories compared to lowest desired level.

Ecological Population Density

A goal of moose management is to keep the moose density within a range at which they can fulfill their natural role in the ecosystem. The desired ecological population density varies between Cervid Ecological Zones across the province.

Key factors affecting natural moose ecology are habitat suitability, other cervid species, natural predators such as wolves and black bears, and climate change.

The moose population in WMU 9A is currently near the lower end of the desired ecological density (30 - 55 moose per 100 km²) for CEZ C1 (Figure 2).



* there is a 90% chance the population falls within the range shown

Figure 2: Moose Density (with upper and lower limits of the ecological density for CEZ C1)

Moose Management in WMU 9A

Harvest Management

There are two moose hunting seasons in WMU 9A. The bow season begins on the Saturday closest to September 17 and continues to the start of the resident gun season on the Saturday closest to October 8. Non-resident gun season starts two days after the resident gun season. Resident gun season closes on December 15 and non-resident gun season on November 15. In this unit, 90 per cent of the licenced harvest is allocated to the resident hunt and 10 per cent to the tourist industry.

Harvest Statistics

The estimated number of moose harvested by residents has ranged from a high of 201 to a low of 49 animals (Figure 3). Over the past five years, annual average harvest by residents has been 67 moose with clients of the tourist industry taking an average of 6 moose. Calf harvest makes up about 27 per cent of total licenced resident harvest.

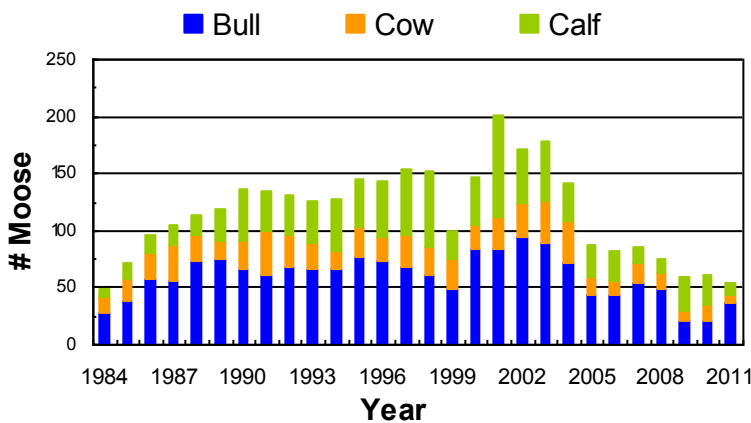


Figure 3: Resident Harvest

In addition to harvest data, information on the past success rates of hunters in filling their moose tags is used when planning the harvest. Estimated tag fill rates for adult moose harvested by residents in WMU 9A have generally ranged between 42 and 58 per cent. The resident bull tag fill rate for 2011 from the gun and bow hunts combined was 52 per cent and the resident cow tag fill rate was 33 per cent.



Report resource abuse. Call the toll free reporting line at any time: 1-877-TIPS-MNR (847-7667)



Adult Validation Tag Quotas

Harvest planning, including adult validation tag quotas, is done annually to reflect the most recent population survey and harvest information. In response to a declining population trend, tag quotas are currently below earlier observed levels.

Hunter Interest

Hunter interest (effort) in WMU 9A is moderate to high relative to other NWR WMUs. WMU 9A has extensive road access throughout the unit which allows hunters to more readily reach the moose population. As in most of Ontario, the number of hunters interested in hunting in this unit exceeds the amount of adult moose available for harvest (Figure 4). In 2011, resident tag quotas were 60 gun bull, 20 gun cow, 7 bow bull and 4 bow cow, with 641 Choice 1 draw applicants (573 gun and 68 bow). There was one adult tag available for approximately every 7 resident hunter applications.

Moose in this unit are also harvested by Aboriginal community members.

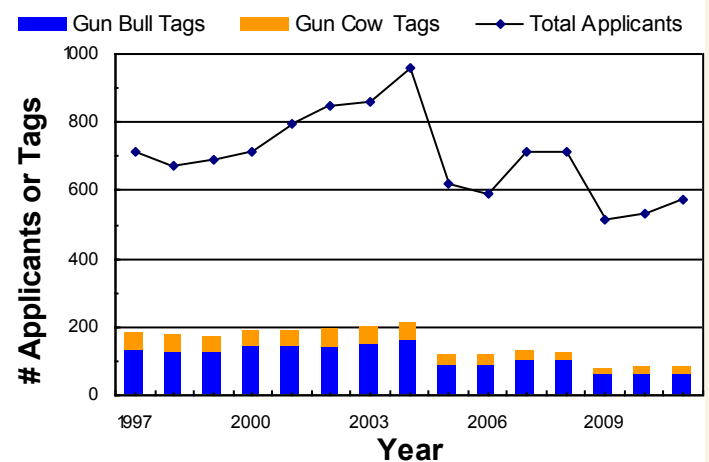


Figure 4: Resident Gun Tag Supply