

Moose Resource Report

Wildlife Management Unit 56

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 56 Description

Wildlife Management Unit (WMU) 56 is located in central Ontario with Minden at its center. It borders the Gull River, Hwy. 35 and the Black River to the north, the western border of Dalton Township to the west, County Roads 45 and 503 to the south and County Roads 648 and 15 to the east. The unit is approximately 2,340 square kilometres in size and is part of Cervid Ecological Zone (CEZ) D₂. The unit is roughly 40% Crown land and 60% private.

Cervid Ecological Zone D₂

Moose, white-tailed deer and elk live in this zone. For moose, the goal is to maintain a moderate to high density population. The summer and winter habitat of white-tailed deer are both managed to maintain a moderate density population. Elk are found in parts of this zone and management of their habitat is considered at the local level as needed. The ministry's management objective for this CEZ is to have moose, white-tailed deer and elk on the same land base, and to maintain densities which reflect natural ecological conditions.



Map of WMU 56



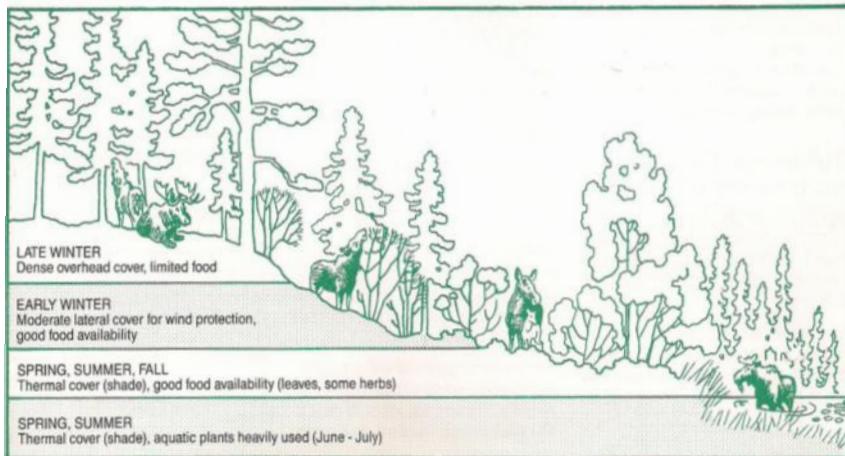
Map of Cervid Ecological Zone D2

ontario.ca/moose

Moose Habitat Suitability

The forest in WMU 56 is dominated by tolerant hardwoods, such as yellow birch, sugar maple and beech. The hardwoods tend to found on hilltops and coniferous species, such as eastern white pine, white and black spruce, balsam fir, eastern hemlock and eastern white cedar, tend to be in lowland areas and side slopes. Moose aquatic feeding areas are found throughout the unit.

Using a range of landscape habitat analysis models, the ministry has calculated the overall average carrying capacity, or number of moose that the habitat can support, for WMU 54 as about 31 moose per 100 square kilometres. This considers growing season browse, aquatic feeding areas, and both early and late winter habitats.



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 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 56

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 2010, resulted in a total population estimate of 459 moose resulting in a density of 18 moose per 100 km². The population was composed of 23 per cent bulls, 55 per cent cows and 22 per cent calves.

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. Generally, calf recruitment has been good since 2001 despite the high harvest of calves this unit sustains (Figure 1).



Photo: MNR Northeast Region

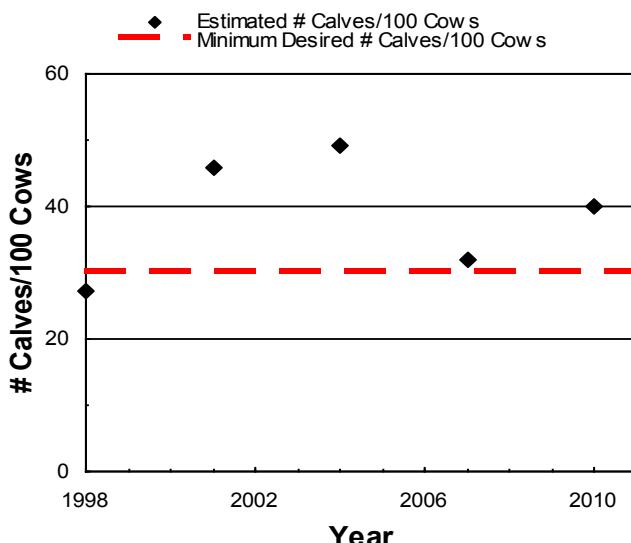


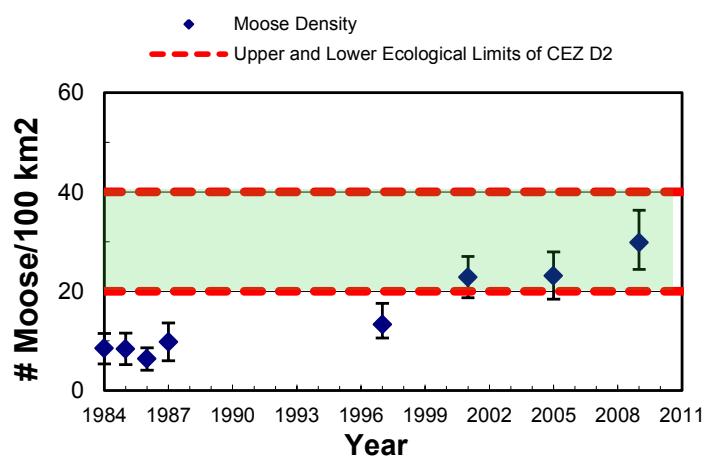
Figure 1: Calf recruitment (# Calves per 100 Cows) trends estimated from moose aerial inventories compared to lowest desired level.

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.

Since 1998, the moose population for WMU 56 has been growing and is now within the desired ecological density (20 - 40 moose per 100 km²) for Cervid Ecological Zone D2 (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 D2)

Moose Management in WMU 56

Harvest Management

The six day hunting season, for Ontario residents only, begins on the third Monday of October and ends the following Saturday. In this unit, 100 per cent of the licensed harvest is allocated to the resident hunt. There is no allocation to the tourist industry.



Harvest Statistics

The estimated number of moose harvested by residents has gone from a high of 174 to a current average of about 100 animals (Figure 3). Calf harvest makes up about 50 percent of total licensed resident harvest, and has been as high as 64%. High calf harvests are responsible for lowering the number of adult tags available.

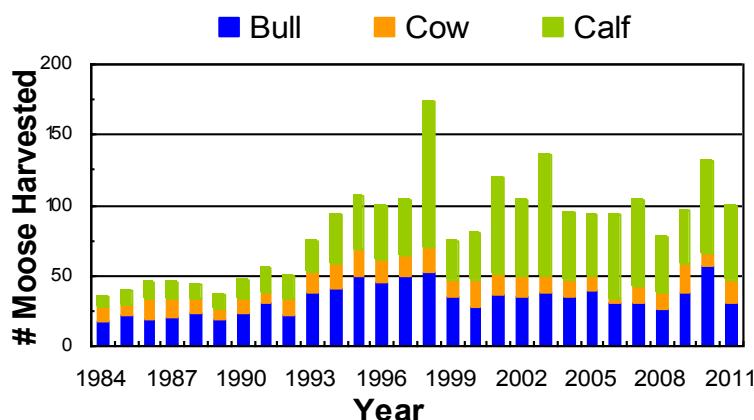


Figure 3: Resident Harvest

In addition to harvest data, information on the past success rates of hunters in filling their moose tags is used when planning the harvest. Tag fill rates by residents in WMU 56 have been reasonably consistent over the years. They generally range between 40 and 60 per cent for bulls and 40 to 70 per cent for cows.

Adult Validation Tag Quotas

Harvest planning, including adult validation tag quotas, is done annually to reflect the most recent population survey and harvest information. Tag quotas historically were very high. In 1999 and again in 2004, tag quotas were adjusted to better reflect the population and meet objectives. This action has allowed the population to grow to the point where it is now just below the minimum desired ecological density for CEZ D2 (Figure 2).

Hunter Interest

Hunter interest in WMU 56 is high. The unit is a relatively short drive from southern Ontario and has moderate road access on Crown lands. As in most of Ontario, the number of hunters interested in hunting this unit greatly exceeds the amount of available adult tags. In 2011, resident gun tag quotas were 78 bull and 23 cow with 1880 Choice 1 applicants resulting in an average of one tag for every 19 applicants (Figure 4). Tags for 2012 were 76 bull and 19 cow. Aboriginal harvest of moose in this unit is not significant at this time.

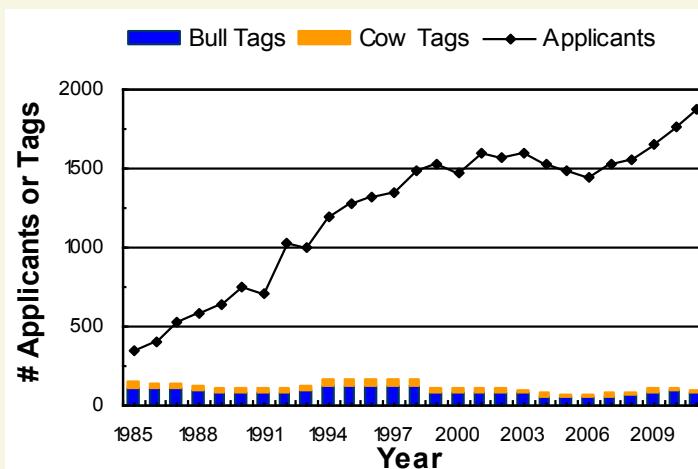


Figure 4: Resident Gun Tag Supply



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