Moose Resource Report

Wildlife Management Unit 31

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.

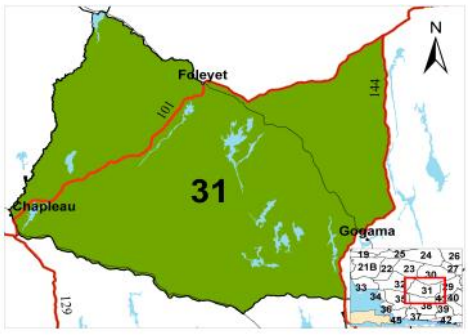
As part of managing moose, an objective is set for the number of moose that should be in an area. Ecological, social, cultural and economic factors related to moose are incorporated when making decisions about harvest allocation and what management actions are needed to help achieve that objective.

WMU 31 Description

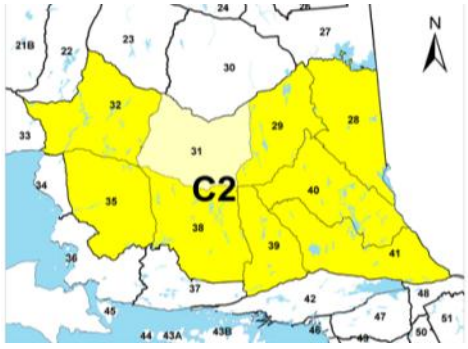
Wildlife Management Unit (WMU) 31 is managed by the Chapleau District of the Ministry of Natural Resources (MNR). The unit is bounded to the east by Hwy. 144 and to the west by the Chapleau Crown Game Preserve. The southern boundary extends from highway 144 to Ramsey, and then follows the CP Railway to Chapleau. The northern boundary follows the CN Railway from Kapuskasing Lake to Foleyet, and then continues along Hwy. 101 until intersecting with Hwy. 144 to Ramsey. The unit covers an area of approximately 10,475 square kilometres and is part of Cervid Ecological Zone (CEZ) C_2.

Cervid Ecological Zone C_2

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 density population, although management of winter habitat can be considered in the most southern portions of the zone. The ministry's management objective is to have both moose and white-tailed deer on the same land base where appropriate, and to maintain densities which reflect natural ecological conditions.



Map of WMU 31



Map of Cervid Ecological Zone C_2

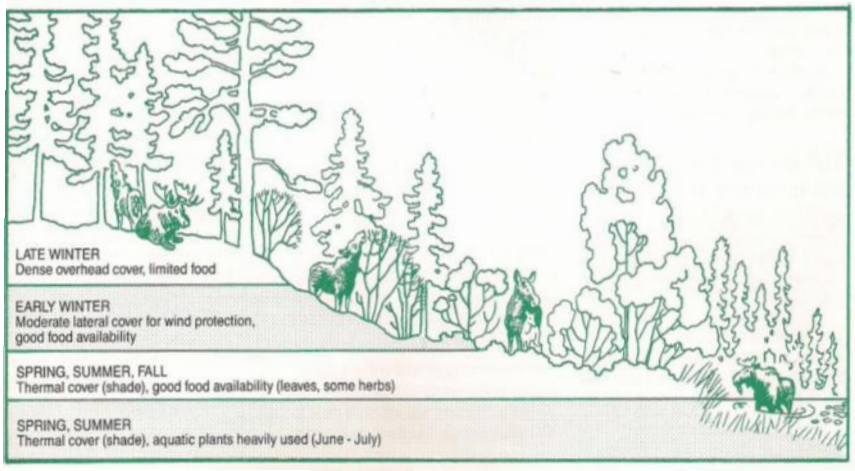
ontario.ca/moose

Ontario

Moose Habitat Suitability

WMU 31 is located in the Boreal Forest of northern Ontario. The area is predominantly coniferous forest with interspersed areas of mixed woods and pure hardwoods. The main tree species are jack pine, black spruce, balsam fir, poplar, and white birch.

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 31 at about 42 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 31

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 2012, resulted in a total population estimate of 2142 +/- 608 moose with a density of 20 moose per 100 square kilometres. However, in comparison with the previous two surveys, the actual population is believed to be about 1200 moose. In 2012 the population was composed of 32 percent bulls, 53 percent cows, 13 percent calves and 2 percent unknown.

Calf moose generally experience higher mortality from a variety of sources, including predation and harvest. The minimum desired calf recruitment each year is at least 30 calves per 100 cows to help ensure the population is maintained. The last three estimates of calf recruitment were below the desired minimum threshold (Figure 1).

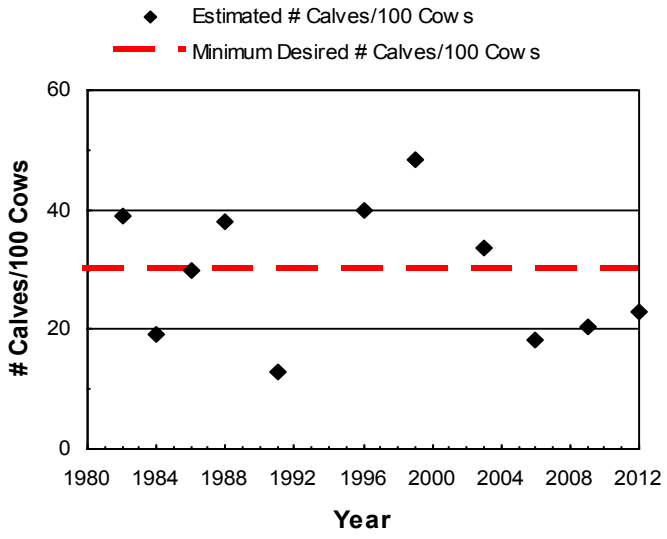


Figure 1: Calf recruitment (# Calves per 100 Cows) trends estimated from moose aerial inventories compared to lowest desired level.

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.

Most years the moose population for WMU 31 has been below the lower limit of the desired ecological density (20 - 40 moose per 100 square kilometres) for Cervid Ecological Zone C2 (Figure 2).

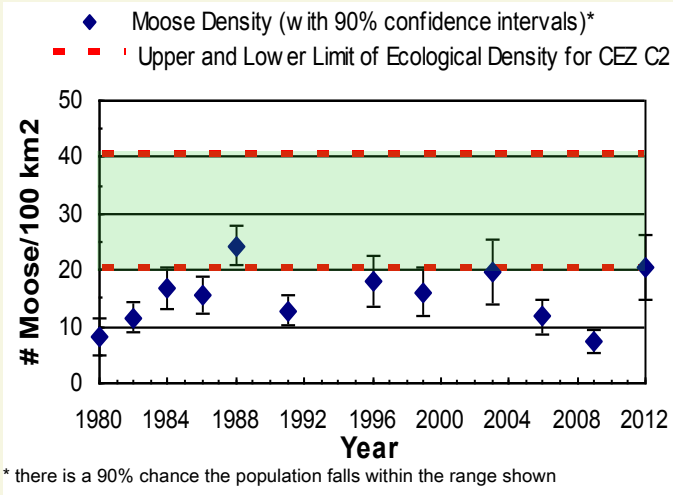


Figure 2: Moose Density (with upper and lower limits of the ecological density for CEZ C2)

Moose Management in WMU 31

Harvest Management

There are two moose hunting seasons in WMU 31. The bows-only season begins on the Saturday closest to September 17 and continues to the beginning of the resident rifle season on the Saturday closest to October 8. The gun season is open until November 15 each year. Non-resident gun season starts two days after the resident gun season start date. In WMU 31, the licensed harvest is allocated with 75 percent to the resident hunt and 25 percent to the tourist industry hunt.

Harvest Statistics

The estimated number of moose harvested by residents has ranged from 25 to 224 animals (Figure 3). Over the past five years, annual average harvest by 1,550 resident hunters (11,300 hunter days) has been 53 moose with clients of the tourist industry taking 13 moose. Calf harvests comprise about 33 percent of total licensed resident harvest.

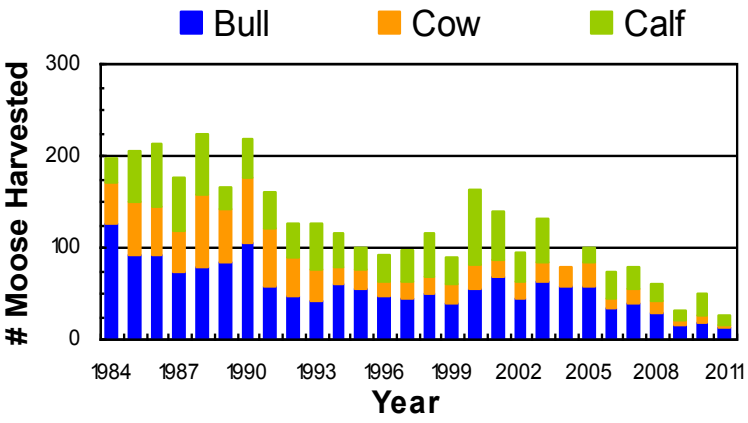


Figure 3: Resident Harvest

In addition to harvest data, information on the past success rates of hunters in filling their moose tags is used when planning the harvest. Tag fill rates for adult moose harvested by residents have shown considerable variation over the years but have been relatively high especially for bulls. The past five year gun tag fill rates have averaged 54% with a range from 17 to 73 percent. In 2011, the resident gun bull tag fill rate was 62 percent and the resident gun cow tag fill rate was 17 percent.

MNR 51953

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 were reduced in 2006 when a more conservative harvest strategy was implemented to help address the declining moose population in WMU 31. Further population declines resulted in additional tag reductions for resident hunters in 2009. The recent increase in the moose population estimate resulted in tag increases for 2012.

Hunter Interest

Hunter interest in WMU 31 is moderate. However, a decline in hunters has been observed in recent years. The unit can be reached within one travel day from many larger population centres and has extensive road access which allows hunters to more readily reach the moose population. As in most of Ontario, the number of hunters interested in hunting this unit greatly exceeds the amount of moose available for harvest. In 2011, resident gun tag quotas were 20 bull and 13 cow, with 1,159 Choice 1 draw applicants and there was one adult tag available for every 35 resident hunter applicants (Figure 4). There are 16 tourist outfitters that offer moose hunting packages. This unit is also where moose are harvested by Aboriginal community members.

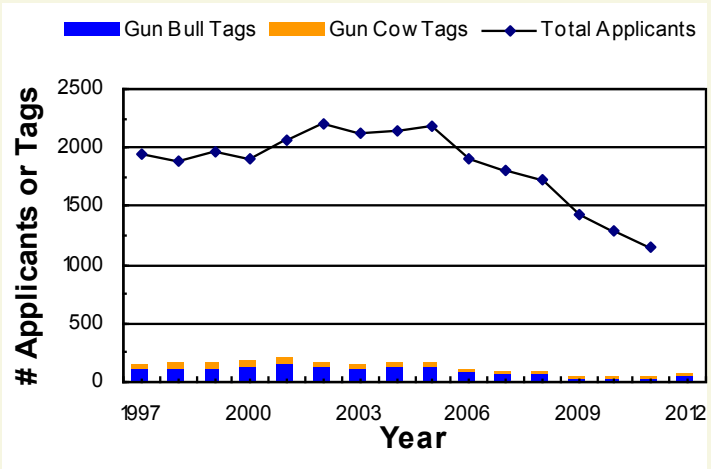


Figure 4: Resident Gun Tag Supply