

# Moose Resource Report

## Wildlife Management Unit 32

### 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](http://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 32 Description

Wildlife Management Unit (WMU) 32 is located in the Wawa and Chapleau Districts of the Ministry of Natural Resources (MNR). The unit consists of two discrete portions: the western portion where licensed hunting is allowed and the eastern portion is Chapleau Crown Game Preserve (CCGP) where licensed hunting is not allowed. The western portion is 4,375 square kilometres and is bounded by: the CP rail line to the north and east; Hwy. 101 and the Michipicoten River to the south, and Hwy. 17 and the old ACR rail line to the west. The CCGP is 7,175 square kilometres and is bounded by the CP rail line on the southwest, the ACR rail line on the west, the CNR rail line on the northeast, and the Chapleau river on the east. The unit is part of Cervid Ecological Zone C<sub>2</sub>. This report provides status and trends for moose population, habitat, and licenced moose hunts for the western portion of WMU 32.

### Cervid Ecological Zone C<sub>2</sub>

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 32

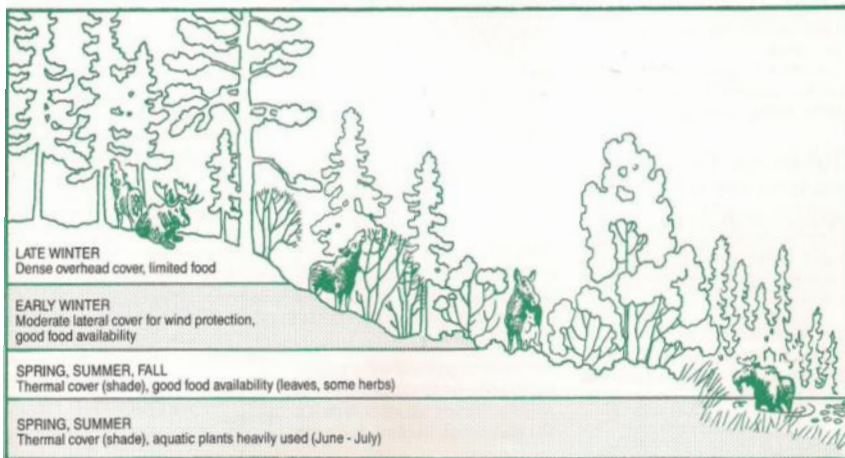


Map of Cervid Ecological Zone C<sub>2</sub>

## Moose Habitat Suitability

WMU 32 is located in the Boreal Forest. The area is dominated by conifer species such as spruce, jack pine, balsam fir and tamarack, and deciduous species such as white birch and poplar.

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 32 at about 37 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 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 32

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 total population estimate of 1243 +/- 237 moose with a density of 28 moose per 100 square kilometres. In 2009 the population was composed of 26 percent bulls, 60 percent cows, 9 percent calves and 5 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 two estimates of calf recruitment were below the desired minimum threshold.

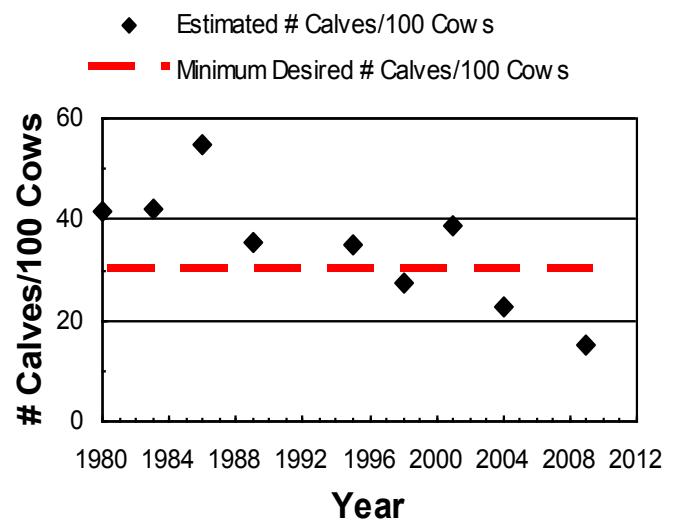


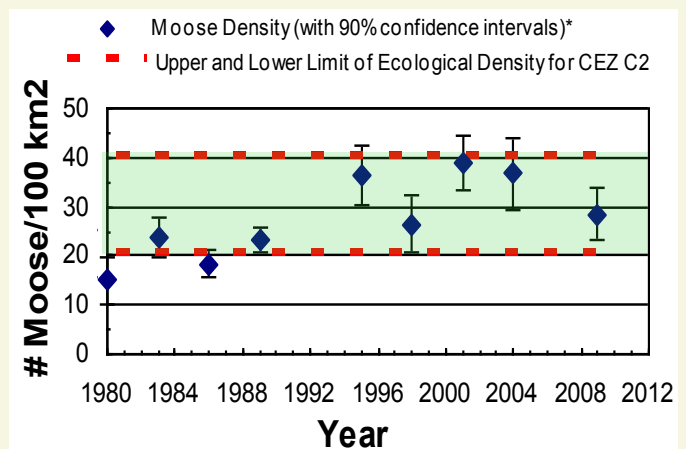
Figure 1: Calf recruitment (# Calves per 100 Cows) trends estimated from moose aerial inventories compared to lowest desired level.

### 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 for WMU 32 has remained within the limits of the desired ecological density (20 - 40 moose per 100 square kilometres) for Cervid Ecological Zone C2 (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 C2)

# Moose Management in WMU 32

## Harvest Management

There are two moose hunting seasons in WMU 32. 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 32, the licensed harvest is allocated with 86 percent to the resident hunt and 14 percent to the tourist industry hunt.

## Harvest Statistics

The estimated number of moose harvested by residents has ranged from 44 to 204 animals (Figure 3). Over the past five years, annual average harvest by 1,100 resident hunters (7,800 hunter days) has been 71 moose with clients of the tourist industry taking 9 moose. Calf harvests comprise about 25 percent of total licensed resident harvest.

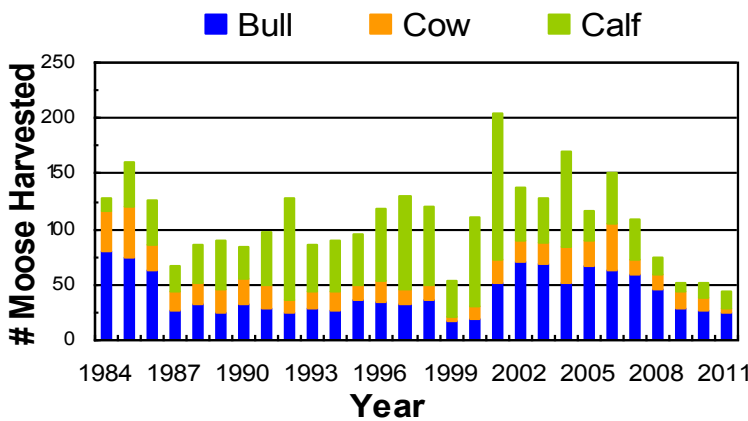


Figure 3: Resident Harvest

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 been in a downward trend since 2007. The past five year gun tag fill rates have averaged 38% with a range from 7 to 62 percent. In 2011, the resident gun bull tag fill rate was 33 percent and the resident gun cow tag fill rate was 7 percent.



## 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 numbers have decreased since 2007 because of low calf recruitment and high tag fill rates.

## Hunter Interest

Hunter interest in WMU 32 is moderate. The unit can be reached within one travel day from several 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 77 bull and 36 cow, with 1,238 Choice 1 draw applicants and there was one adult tag available for every 11 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.

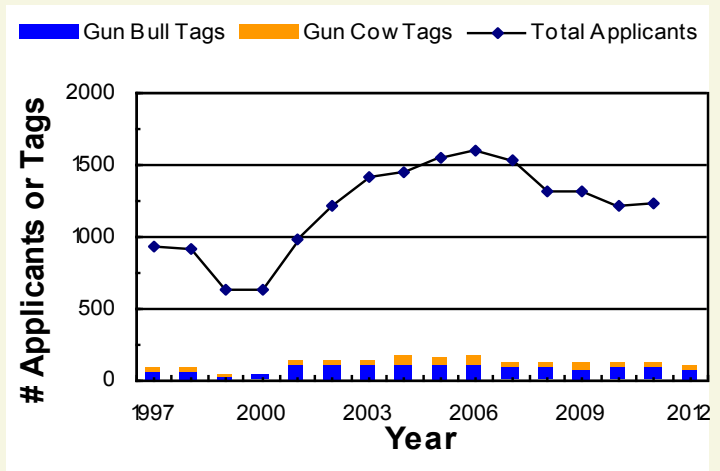


Figure 4: Resident Gun Tag Supply



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