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 3 Description
Wildlife Management Unit (WMU) 3 is located in Red Lake District. The unit starts at Pikangikum Lake in the north, follows the Berens River east, the Woman River system, South Bay Mine road and the hydro line south to the town of Ear Falls. The southeast boundary is marked by the English River to Lower Oak Falls, and Fletcher Lake. The west boundary is defined by Sydney Lake, the northwest portion of Longlegged Lake, Upper Medicine Stone Lake and Pikangikum First Nation.

Cervid Ecological Zone B
Moose, white-tailed deer and woodland caribou live in this zone. For moose, the goal is to maintain a low to moderate density population and habitat may be managed as appropriate to achieve this. White-tailed deer are managed to maintain a low population density in this zone. A key management objective is to minimize impacts on woodland caribou populations through maintenance or restoration activities. Within caribou range, maintaining low densities of moose and deer that reflect natural ecological conditions is consistent with managing the wildlife community and current provincial caribou and moose policy direction.
Moose Habitat Suitability

WMU 3 is located in the boreal forest of northwestern Ontario. Dominant tree species are primarily coniferous, such as black spruce, jack pine, balsam fir and white spruce. White birch and poplar are the dominant hardwoods in the WMU. Moose aquatic feeding areas are found throughout the unit.

Landscape habitat analysis modelling estimates the overall mean carrying capacity, or number of moose that the habitat can support in WMU 3 as about 15 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.

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.

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 cut over about five to twenty years ago.

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.
**Moose Management in WMU 3**

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 2574 ± 524 moose or a density of 25 moose per 100 km² of land area. In 2009, the population was composed of 23 per cent bulls, 58 per cent cows, 18 per cent calves and 1 per cent unknown. The bull to cow ratio observed during the survey was 39 bulls/100 cows and was significantly lower than the guideline of 67 bulls/100 cows.

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. Calf abundance in WMU 3 is currently at this threshold (Figure 1).

**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 2001, survey estimates indicate the moose population in WMU 3 has remained within the desired ecological density (15 - 35 moose per 100 km²) for Northwest Region (NWR) CEZ B (Figure 2).
Moose Management in WMU 3

Harvest Management

There are two moose hunting seasons in WMU 3. 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, 86 per cent of the licenced harvest is allocated to the resident hunt and 14 per cent to the tourist industry.

Harvest Statistics

The estimated number of moose harvested by residents has ranged from a high of 293 to a low of 96 animals (Figure 3). Over the past five years, annual average harvest by residents has been 210 moose with clients of the tourist industry taking 23 moose. Calf harvest makes up about 28 percent 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 3 have generally ranged between 33 and 41 per cent. The resident bull tag fill rate for 2011 from the gun and bow hunts combined was 32 per cent and the resident cow tag fill rate was 26 per cent.

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 allocations in the unit have been relatively stable.

Hunter Interest

Hunter interest (effort) in WMU 3 is moderate to high relative to other NWR WMUs. The unit has a moderate level of road access throughout the unit by which hunters can travel to 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 249 gun bull, 145 gun cow, 30 bow bull and 27 bow cow with 1713 Choice 1 draw applicants (1597 gun and 116 bow). There was one adult tag available for approximately every 4 resident hunter applications.

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

Figure 4: Resident Gun Tag Supply

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