

What Actions Are Being Taken to Help the GHA 26 Moose Population Recover?

The following actions are being taken by Manitoba Conservation:

Licensed Hunting:

Licensed moose hunting has been suspended and will not resume until the moose population has recovered enough to support a sustainable harvest. Information sessions with stakeholder groups are being held to provide information on the status of the moose population and actions that are being taken to address population recovery.



Rights-based Hunting: Over the winter & spring of 2010/11, Manitoba Conservation will be engaging First Nations & Aboriginal communities in consultations on the issue of low moose numbers and recovery of the GHA 26 moose population. Any actions that may be considered to address impacts of rights-based hunting on the moose population will be developed through these consultation sessions.

Wolves: Hunting regulations have been revised to increase the harvest of wolves. Licensed big game hunters can now take two wolves. Other options may also be considered.



Parasites & Disease: Hunting regulations have been revised to increase the harvest of white-tailed deer. Licensed deer hunters may take up to 5 deer - one deer in each of the archery, muzzleloader and general rifle seasons, as well as, two additional antlerless deer in any one of these seasons.



Partnership Actions

Access Management:

Three local First Nations are working with Manitoba Conservation to carry out short term decommissioning on a number of roads in GHA s 26 and 17A. This work includes removing culverts, digging trenches & berms, and placing barricades at river crossings. These actions are intended to restrict truck travel, reduce ATV traffic and reduce hunting pressure on moose, particularly during the vulnerable fall mating period. The work done to date has made a significant contribution to conserving the moose population.

Hollow Water First Nation, Black River First Nation and Sagkeeng First Nation are carrying out this work in their traditional areas.

Wolf Trapping Workshops:

An expert was brought in from Alberta to conduct a series of wolf trapping workshops across Manitoba. A session was held in Lac du Bonnet on Oct. 23 & 24, 2010. Funding partners included the Manitoba Model Forest, Manitoba Trappers Association, Manitoba Cattle Producers Association and Manitoba Conservation.



Predator Diet Analysis: Studies are being started to assess the impact wolves and bears are having. Data is being collected on wolf numbers, and the proportion of moose in the diets of wolves and bears. Samples of wolf and bear hair, muscle and bone will be analyzed using a technique called Stable Isotope Analysis, which identifies the presence and proportion of various prey items in the samples. Wolf samples are being collected by R.T.L. trappers. Outfitters will provide bear samples. Prey items are also needed - these are being collected by trappers, deer hunters and a variety of volunteers. A wolf survey will be flown this winter to estimate wolf numbers.

Partners include the Manitoba Model Forest, the Committee for Moose Management, Manitoba Hydro, Manitoba Conservation, Manitoba Trappers Association and the University of Manitoba.

MOOSE NEWS

February, 2011

This newsletter provides information on the Game Hunting Area (GHA) 26 moose population:

- The alarming decline in moose numbers,
- The factors influencing moose populations,
- What will happen if nothing is done to address the factors impacting the population,
- Actions being taken to help the population recover



Committee for
Moose
Management

People from a diversity of backgrounds who have a common interest in moose conservation.

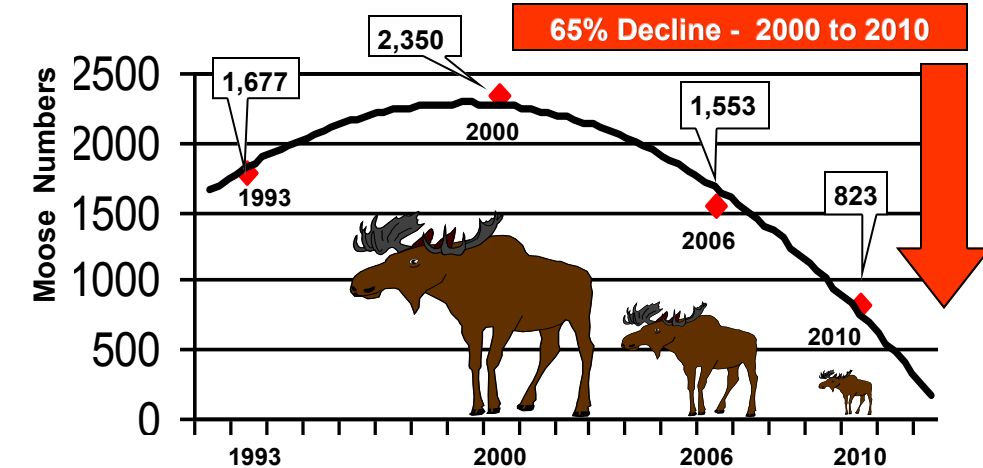
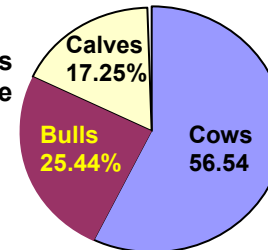
Aerial Survey Results:

Four (4) aerial moose surveys have been flown since 1993. These surveys provide information on changes in moose numbers and distribution over time.

The 2010 estimate of 823 moose indicates that moose numbers are declining at a rapid rate.

Aerial surveys also provide data on the proportion of cows, calves & bulls in the population.

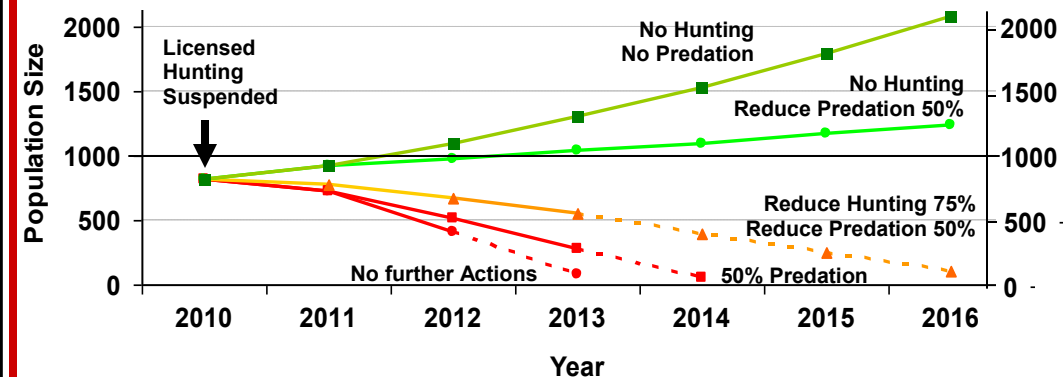
This information is used to project the potential growth rate of the moose population.



The number of calves seen during the 2010 survey was low - only 31 calves per 100 cows. This ratio is not enough to maintain population numbers in view of current death rates.

Estimating Death Rates... Predation and Hunting account for the majority of moose deaths. Between 2006 and 2010, wolves have killed about 400 moose /year, and hunters have harvested about 275 moose /year. These death rates would explain the drop in moose numbers between the 2006 & 2010 surveys, after birth rates have been taken into account. The graph below shows projected outcomes for the moose population using these death rates. e.g. "50% Predation" shows the outcome if wolf predation is reduced from 400 to 200 moose / year.

What does all this tell us ...? The information is fed into a computer program, which "models", or projects future outcomes for the moose population, depending on the actions taken.

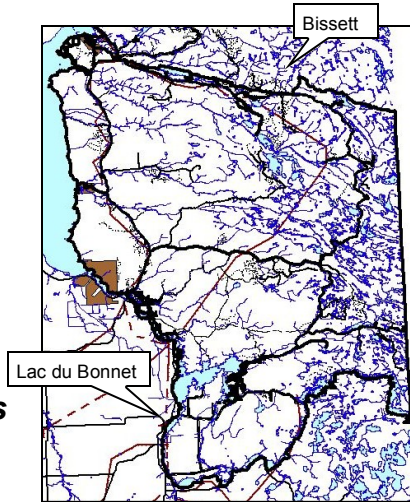


The model projects that moose numbers will continue to drop if no further actions are taken to reduce death rates. If numbers fall below 500, it may not be possible for the population to recover.

A 50% reduction in wolf predation & a temporary stop to all hunting, by all people, is needed to stop moose declines and allow the population to recover.

Why are Moose Declining in GHA 26?

Annual Death Rates are Exceeding Birth Rates...



While moose die from many causes, the primary sources of deaths are predation, hunting, and parasites & disease.

Access is a significant contributing factor:

Hunting: In GHA 26, the vast network of resource roads and trails provides hunters with easy access to moose, thereby increasing hunting pressure and moose harvests.

Predation by Wolves: These same roadways are used by wolves. As with human hunters, roads and trails reduce the time and effort needed for wolves to locate and kill moose. In winter, kill rates by wolves can be 2-3 times higher where packed surfaces are created by trucks, quads or snowmobiles.

Disease Transmission: White-tailed deer prefer "edge" habitats where forests are broken up by meadows, willow swales and other openings. The cleared right-of-ways along GHA 26's many roads & trails are attractive to deer, providing pathways for movements, and expansion of deer range into moose habitats.

For copies of the Moose News, or information on the Committee for Moose Management, go to:
www.manitobamodelforest.net

or

Call Manitoba Conservation, Lac du Bonnet
345-1444 or 345-1427

You Can Help Report Poachers to the Turn in Poachers (TIP) line: 1-800-782-0076

What Influences Moose Population Numbers?

The health of a moose population is determined by annual productivity (births) and mortality (deaths). In a stable population, the number of moose born each year will be equal to the number of moose that die.

A moose population will increase if the number of births is greater than annual deaths.

If annual mortalities exceed the birth rate, the population will decline.

When deaths exceed births, the rate of population decline will depend on the degree to which the birth and death rates differ.

Various factors influence births and deaths in a moose population. Some are more easily managed than others.

Hunting:

Uncontrolled hunting can be a significant factor affecting moose populations. The effects of hunting should always be looked at in combination with natural sources of mortality. When added to natural mortalities, hunting can start a population decline and keep a moose population low for long periods of time. As the numbers of moose decline, the effects of hunting become increasingly significant.



Harvest Strategies for a Sustainable Moose Population:

Sustainable harvest strategies consider the overall number of moose, as well as, the proportions of bulls, cows and calves that may be harvested. Since mature cows represent the reproductive "units" of a population, they need to be protected for the long term good. The calves represent the reproductive future of a moose population and also need protection.



Predation:

Wolves & bears can both be significant causes of deaths for moose calves in some areas.



In eastern Manitoba, the wolf is the main predator of adult moose. Each wolf eats about 8-10 large prey items each year. Information on an area's wolf population is needed to estimate the number of moose eaten by wolves.

The impacts of predation will increase if the moose population is declining. This is because wolves will continue to kill moose at a high rate until moose numbers become very low.

Climate:

Moose are well adapted to the boreal forest. Even so, specific events, such as harsh spring weather, can effect calf survival. Deep snow can effect nutrition and condition, thereby influencing susceptibility to predation, accidents and disease.

Parasites & Disease:

White-tailed Deer are carriers of a parasite, which causes a fatal disease in moose called **brainworm**. The parasite is harmless to white-tailed deer.



Moose afflicted with brainworm

Another significant parasite associated with white-tailed deer, the **liver fluke**, can cause liver failure and death in moose.

Habitat:

Moose need food and cover. Their foods include aquatic plants, willows, alders, dogwood and other plants that grow best in rich soils with ample sunlight. These types of conditions are found along creeks and marshes, in young, regenerating forests, and at the edges of mature forest stands of aspen, spruce, fir and pine. Moose also need nearby mature trees for cover from predators and hunters, to provide shade in summer, and for wind relief and lower snow depths in winter.

Habitat beneficial to moose can be created by wildfires, as well as, by the removal of trees through logging activities. Good moose habitat offers a mix of plant species and forest stand ages. The presence of young, regenerating patches of forest is important, as the foods in young forests are more nutritious than in older forests. Higher nutrition is linked to higher numbers of cow moose giving birth to twins.