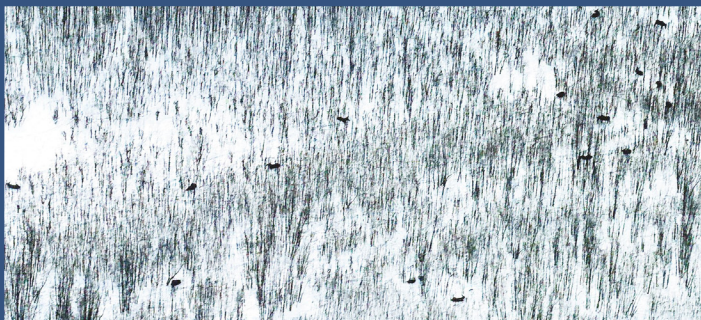


Tracking Numbers & Trends



Once enough snow is on the ground, researchers conduct aerial moose surveys. Moose are more visible during the winter when their dark fur contrasts with the snow, as shown in the photo above. These yearly surveys provide data about population trends in an area. Information gathered can include:

- Estimates of the moose population over a large area.
- The distribution of moose across an area.
- The bull to cow ratio to ensure breeding success and hunter satisfaction.
- Antler size to estimate the age structure of bull moose in the population.

* Spring surveys are also conducted to gather data about:

- The calf to cow ratio to estimate birth rates and survival.
- Number of cows that are having twins.

Checks and Balances

Antlerless moose hunts are closely monitored because of their potential to alter a population. ADF&G biologists receive input from local hunters about the hunts and all antlerless hunts are reviewed annually and require approval by local fish and game advisory committees and the Alaska Board of Game.



Each year ADF&G receives approximately 75,000 applications for antlerless moose drawing hunts.

Changes in Populations

Antlerless moose hunts may be used to alter a population. Because of this, hunters could see changes in some hunt areas. Reasons why hunters might observe a shift include:



- **Behavior change** – Moose may change their behavior due to human activity. They may avoid trails or flee after hearing a boat, ATV, or snowmachine.
- **Fewer moose** - There could be fewer moose if that was the goal of the antlerless hunt. Hunters might notice this especially in high-access areas where hunting pressure is not evenly distributed across the population.
- **Habitat shift** – Moose numbers do not remain constant in a specific area forever. As habitats change so do local moose numbers. Generally, forest fires increase quality moose habitat for a decade or two and moose often move into these areas to take advantage of the new food source. As areas that were burned by wildfire regenerate to forest over time, they lose the quality browse that attracted moose.

For more information, contact your
Local ADF&G Office

Hunters are important founders of the modern wildlife conservation movement. They, along with trappers and sport shooters, provide funding for this publication through payment of federal taxes on firearms, ammunition, and archery equipment, and through state hunting license and tag fees.



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Antlerless Moose Hunts

Why harvest cows?



2021

Why Harvest Cow Moose?

In portions of the state with high moose populations, cow harvest is sustainable and often necessary to protect habitat and maintain healthy moose populations. In general, cow harvest is permitted to increase harvest opportunity in a population showing signs of nutritional stress and/or to keep a growing population from becoming too large.

Other benefits of cow harvest include:

- Increased hunting opportunities.
- Possible reduction of moose-vehicle collisions in some areas.

Defining Antlerless

A moose without antlers. The term "antlerless" refers not only to cow moose, but also to bulls without antlers that may be harvested during these hunts.

There are some hunts that specifically allow the taking of cows only.

Less is More...

It is hard to imagine that having fewer moose on the landscape can provide more moose over time. When moose populations become larger than the available food resources can support, cows reduce their productivity by giving birth to fewer calves and produce calves at a later age. In a healthy moose population, cows produce more calves and start giving birth at a younger age. This makes more moose available to harvest.

ADF&G strives to manage moose populations so they do not grow larger than the habitat can support and retain a high rate of productivity. This provides long-term benefits to the habitat and hunters alike.

Did you know?

Harvesting females of other wildlife species has occurred for many years in Alaska. When appropriate, wildlife managers allow the harvest of female animals of many species, including bison, caribou, sheep, goats, deer, and bear.

Too many Moose



When moose densities exceed what the habitat can support they show signs of nutritional stress and are prone to disease, parasites, predation, and other mortality. The problem compounds during the winter when moose revert to woody browse, snow reduces the availability of food sources, and moose must use more energy to find food. If food is not readily available, a severe winter can send a herd in poor nutritional condition into a sharp decline. Moose populations with access to abundant browse during severe winters are more likely to be in good body condition, use less energy to find food, and survive until spring.

When is a Population Too Large?



ADF&G biologists closely monitor moose populations to assess overall health and productivity. Research has shown that specific indicators provide important insight into the declining health of the population including:

- A decrease in the proportion of cows having twins (twinning rate). When this number drops below 15-20%, it is a strong indicator of poor nutrition.
- Increase in the age that cows first give birth.
- Decrease in calf weights.
- Winter food sources (willow, birch, aspen) show heavy use.

Habitat Matters



Biologists conduct browse surveys to assess the extent to which moose are using food sources in their habitat. The amount of browse removal allows biologists to determine whether the area can support more moose or if the population is too large. Heavy browse in an area generally coincides with nutritional stress indicators such as lowered twinning rates and lowered calf weights.

How many cow moose are Harvested?

Every moose population is different, but typically only a small percentage of cows are harvested.

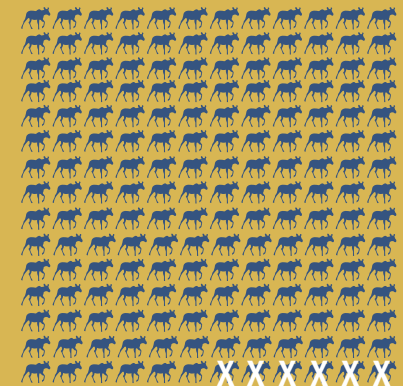
It is important to consider the population size, herd growth rate, and size of the area.

Example:

GMU 20A: 5,000 mi² had almost 18,000 moose.

An annual harvest of **approximately 500-600 cow moose** was enough to reduce the herd size over several years and is **less than 5% of the population**. To keep the herd size stable, cow harvest continues at 1-1.5% of the population size.

↓
🐾 = 100 moose X = Harvested



The number of cows harvested during an antlerless hunt depends on management objectives. This number will change as the herd size and habitat change, but managers ensure that the harvest rate of cows remains low.