

“Predator Management in Alaska” A Critique



Defenders of Wildlife



In January of 2008, the Alaska Department of Fish and Game published several documents regarding its predator control programs. These materials can be found online at <http://www.wildlife.alaska.gov/index.cfm?adfg=control.main>. This paper is a review of these materials.

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In January 2008, the Alaska Department of Fish and Game (ADFG) released a report titled “Predator Management in Alaska.” It is a 30-page report intended as an overview of the issues surrounding predator control. It describes the information used by ADFG and the Board of Game to devise and adopt programs designed to reduce predators. These programs aim to increase moose and caribou for human hunters.

Although the report contains much useful information, much of it seems designed to promote predator control rather than to assess the basis of this highly controversial practice. It attempts to persuade readers rather than inform them. And some of the science presented in support of predator control is inaccurate, incomplete or misleading.

There is virtually no discussion of the numerous recommendations made by the National Research Council’s 1997 report that evaluated past predator control programs in the U.S. and Canada and provided suggestions, guidelines and standards for future programs. Chief among these was that control programs should be conducted as experiments within an adaptive management context. This extensive review remains the definitive reference on predator control in the sub-arctic and should have been prominently cited in the report but was not.

Generally, the report tends to overstate the impact of predation on moose and caribou populations and fails to recognize the importance of other limiting factors. One example of overstating appears on page 8 where each wolf is claimed to eat 12-13 moose per year and/or 30-40 caribou. These estimates are much higher than those from field studies and assume wolves eat nothing else. In fact, wolves in most areas eat a diverse diet including beavers, hares and even salmon--this reduces their intake of larger animals. And it is well documented that wolves and bears scavenge carcasses and kill older animals that would soon die from other causes.

It is also an overstatement and misleading to claim that wolves often kill 70-80% of the moose and caribou that die (page 4) and predators kill four times as many moose as hunters in some areas (page 18). These are extreme examples—there are many moose and caribou populations in Alaska that experience light mortality from predation. Many of the animals killed by predators are calves that hunters don’t shoot. Comparing numbers of animals taken by hunters versus predators is therefore misleading.

Overstating the impact of predation is combined with understating the extent of predator control programs in the report. A prominent example is the estimate given on page 18 that predator control programs involve only 9% of the state. This is calculated from the state’s total land area and does not exclude areas in southeast Alaska with no moose or caribou, islands, including Kodiak, with no wolves, high mountains and glaciers with no moose or caribou, and federal lands not subject to control. When these areas are excluded, predator control occurs on at least 18% of the state—nearly one square mile in every five available.

Throughout the report there are several references to predator population viability and the claim that control programs don’t affect it. But there is no definition of viability other than the assertion that predators will always increase following control. It is claimed that there are no permanent adverse effects (page 14). However, past control programs eliminated wolves on the Kenai Peninsula and it took several decades for them to

reappear. Wolves on the North Slope were nearly eliminated in the 1950s and still had not fully recovered two decades later. The long-term genetic effects of reducing wolves to very low numbers are unknown. Claiming that predators will always rebound after control is understating the impact of predator control and an effort to persuade us not to worry.

Discussion in the report of habitat for moose and caribou in relation to predator control is an example of incomplete science. While it may be true that no populations are limited at low density by poor nutrition (page 13), it is unmentioned that many areas of interior Alaska contain low quality moose habitat. Moose would not increase greatly there even if predators were totally eliminated.

It is misleading to claim that predator control is only implemented in areas where habitat will support additional moose (page 6). It is well known among wildlife biologists that reducing limiting factors may cause moose and caribou to increase, at times to levels where they damage their own habitat and decline sharply. Pushing moose beyond the carrying capacity of their habitat is possible but not wise. The issue is not whether habitat will support more moose, but rather how many moose are optimal.

Similarly, precious little information in the report relates to the interaction between habitat quality and severe winters that often is far more limiting for moose than is predation. During the past two decades, deep snow in several of the predator control areas has resulted in starvation of thousands of moose and sharp declines in moose populations. Studies in several areas, including the Kenai Peninsula, have documented the importance of this interaction which may outweigh the effects of predation.

It is disappointing that the report dismisses non-lethal predator control as too expensive, logistically impractical, and publicly unacceptable. This despite a past program of surgical sterilization and translocation of wolves in the Fortymile area that was widely praised as successful and resulted in increased caribou numbers.

The greatest scientific weakness in the report may well be the attempt to evaluate the results of the five current predator control programs. It is stated that each of the five areas shows positive effects including moose or caribou population growth (page 25). While there have likely been increases in moose calf survival following predator control, it is far too early to declare success, as the ultimate measure of success is more moose being harvested by human hunters. In fact, in certain areas including McGrath, hunters are taking fewer moose now than before predator control began. It will be several more years before the control programs can be objectively evaluated.

The report also fails to explain why the annual wolf removal targets were not met in most areas during most years. Lack of suitable snow cover occurred in certain areas during some years but not others. High aviation fuel costs did not hamper pilots prior to 2007. These factors were thought to reduce the take of wolves. But it could be that wolf numbers were grossly overestimated. The report might also explain that hunting effort by private pilots is entirely voluntary, i.e., pilots determine their own effort with no requirements mandated by the state. Control by state employees could be more efficient as well as safer and more humane.

This report was prepared as part of a \$400,000 special appropriation to provide the public with information about predator control during a time when the voters have the opportunity to vote on an initiative on aerial shooting on the August 2008 primary election ballot, yet there is little discussion of past ballot measures. In fact, in 1996 voters passed a similar initiative by a wide margin, and a successful referendum in 2000 repealed the legislature's reinstatement of aerial shooting by private citizens.

Finally, the report is mostly silent on costs of predator control while emphasizing instead its numerous, unproven benefits. ADFG indicated two years ago it had spent \$1.7 million at McGrath alone. The state legislature recently supplemented ADFG budgets with several million dollars for predator control. It would be reasonable to compare costs and benefits to assess the wisdom of such large expenditures on controversial programs that may or may not succeed.