



## Commentary

# Science and Values Influencing Predator Control for Alaska Moose Management

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**ABSTRACT** We encourage informed and transparent decision-making processes concerning the recently expanded programs in Alaska, USA, to reduce predation on moose (*Alces alces*). The decision whether to implement predator control ultimately concerns what society should value; therefore, policymakers, not objective biologists, play a leadership role. From a management and scientific standpoint, biological support for these predator-control programs requires convincing evidence that 1) predators kill substantial numbers of moose that would otherwise mostly live and be available for harvest, 2) low predation can facilitate reliably higher harvests of moose, 3) given less predation, habitats can sustain more moose and be protected from too many moose, and 4) sustainable populations of Alaska's brown bears (*Ursus arctos*), black bears (*Ursus americanus*), and wolves (*Canis lupus*) will exist in and out of control areas. We reviewed 10 moose mortality studies, 36 case histories, 10 manipulative studies, 15 moose nutrition studies, and 3 recent successful uses of nutrition-based management to harvest excess female moose. Results of these studies support application of long-term, substantial predator control for increasing yield of moose in these simple systems where moose are a primary prey of 3 effective predators. We found no substantive, contradictory results in these systems. However, to identify and administer feasible moose population objectives, recently established moose nutritional indices must be monitored, and regulatory bodies must accept nutrition-based management. In addition, the efficacy of techniques to reduce bear predation requires further study. Predicting precise results of predator control on subsequent harvest of moose will continue to be problematic because of a diversity of changing interactions among biological, environmental, and practical factors. In Alaska, the governor has the prerogative to influence regulations on predator control by appointing members to the Board of Game. At least annually, the Board of Game hears a wide spectrum of public opinions opposing and favoring predator control. We summarized these opinions as well as the societal and cultural values and expectations that are often the primary basis for debates. Advocates on both sides of the debate suggest they hold the higher conservation ethic, and both sides provide biased science. We recommend a more constructive and credible dialogue that focuses openly on values rather than on biased science and fabricated conspiracies. To be credible and to add substance in this divisive political arena, biologists must be well informed and provide complete information in an unbiased and respectful manner without exaggeration.

**KEY WORDS** Alaska, *Alces alces*, bear, *Canis lupus*, moose, predator control, *Ursus americanus*, *Ursus arctos*, values, wolf.