



Alaska Predator Control and Management  
Thinhorn Summit III  
Alaska Department of Fish and Game, Division of Wildlife Conservation  
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- Predators of Dall's sheep in Alaska include wolf, coyote, black and brown bears, lynx, wolverine, and golden eagle.
- There are lengthy harvest seasons with ample bag limits (trapping often unlimited) for all of the mammalian predators listed above throughout the sheep hunting areas in Alaska. Obviously, there is no harvest season for golden eagle.
- Since statehood, we are not aware of any direct predator control programs for sheep. The State of Alaska has not conducted predator control for the specific benefit of sheep. Pre-statehood, predator control was conducted by the Federal Government and trappers/non-government individuals but in general, was not directed for the benefit of any one ungulate. An exception to this is wolf control for the benefit of sheep in Mt. McKinley National Park during scattered periods from the late 1920's through early 1950's.
- Because Dall's sheep are not identified by the Board of Game as an intensive management species (i.e., a big game prey population that is important for providing high levels of human consumptive use), sheep are not eligible for specific funding that could be used for Intensive Management predator control. Unless the BOG modified the regulation there would be far less funding for implementing a predator control program for sheep. Other funding could be prioritized for predator control for the benefit of sheep.
- Alaska Statute, Title 16, Section 5: AS 16.05.255 (e)-(g) and (k) – law that gives authority for Intensive Management to the Alaska Board of Game.
- Title 5, Chapter 92 Alaska Administrative Code: 5 AAC 92.106 – the regulation that identifies big game prey populations. Section 1 lists caribou, deer, and moose as species where abundance objectives are set.
- Consideration of predator control for the benefit of sheep would need to be reviewed through the Alaska Board of Game (BOG) public process.

- Implementation of predator control for the benefit of sheep would be problematic in Alaska because sheep are susceptible to multiple predators, including golden eagles. Scientific design and study would be necessary to understand if reduction of only some of these species (e.g.,  $\geq 1$  canid) would result in increased abundance of Dall's sheep.
- Gasaway et al. (1983:33, Wildlife Monographs No. 120) summarized the Unit 20A (Fig. 1) wolf control effects on 20A sheep in the 1970s: "Wolf predation had a relatively small effect on the sheep population inasmuch as the sheep population showed little response to wolf removal. The scarcity of sheep remains in wolves killed in the experimental area also suggested that wolves did not rely heavily on sheep, at least in winter." Heimer and Stephenson 1982 go into more detail suggest wolf control was beneficial, but the exact effects/mechanisms of wolf predation are not clear as wolf control was preceded by a period low lamb production and mostly "normal" winters. Scotton (1998 MS Thesis, Univ. MT) and Arthur and Prugh (Journal of Wildlife Management 74:1709–1721) found coyotes and golden eagles to be the main causes of lamb mortality, which would have cohort effects. Both Scotton and Arthur-Prugh speculated that coyote populations potentially increased during or after periods of wolf removal and or high hare cycles. It is plausible that wolf removal programs could result in increased predation on lambs as coyote populations respond to lower wolf numbers. Anecdotally, after many years of wolf removal in the Fortymile caribou herd range, we have not seen a numerical response in the sheep populations in the same area.
- Predator control will not offset decline in carrying capacity for Dall's sheep that could possibly result from apparent observed effects of biome shift (shrubs into tundra), frequency of severe/late winters, and potential impacts of pathogens. However, a possible research question could be whether short-term predator reductions following weather events that impact lamb cohorts (and in extreme instances on breeding age females) could improve cohort survival (legal rams in  $\sim 8$  years) and speed recovery of abundance. Maybe this could be a session or topic of emphasis at the next Northern Wild Sheep and Goat Symposium.

Fig. 1. Dall's sheep range and Alaska Game Management Units.

