



THE WILDLIFE SOCIETY ALASKA CHAPTER

The Alaska Chapter of the Wildlife Society strives to enhance the ability of wildlife professionals to conserve biological diversity, sustain productivity, and ensure responsible use of wildlife resources in Alaska for the benefit of society.



March 7, 2025

Hon. Jake Fletcher
Chair, Alaska Board of Game

RE: Alaska Chapter of The Wildlife Society comments on proposal 101

Dear Alaska Board of Game members,

The Alaska Chapter of The Wildlife Society (TWS) is a professional society founded in 1971. With over 200 members, the Alaska Chapter is one of the largest chapters of The Wildlife Society, an international organization representing wildlife biologists and managers employed by state, federal, and borough resource agencies, academic institutions, non-governmental organizations, and private industry. Our science-based mission is to enhance the ability of wildlife professionals to conserve biological diversity, sustain productivity, and ensure responsible use of wildlife resources in Alaska for the benefit of society.

The Alaska Chapter of TWS has reviewed proposal 101, which proposes to add Dall sheep to the list of species identified as important for providing high levels of human consumptive use. This would place sheep under the 1994 intensive management law. After due consideration of the scientific evidence, the Alaska Chapter of TWS recommends that **Dall sheep should not receive a positive IM determination** for the following reasons:

1. Sheep do not provide “high levels of human consumptive use”.

Positive determination of intensive management (IM) and setting of IM objectives has been applied only to moose, caribou, and deer over the last 31 years largely because those species represent about 91% of the game meat harvested by hunters in Alaska (2001-2005 data). Sheep, in comparison, provide about 1 percent of wild terrestrial meat yield from big game. The primary management goal for sheep is the opportunity for harvesting trophy animals first, and meat second. This is reflected in hunting regulations tailored almost exclusively to full-curl rams.

The Department periodically publishes management reports on individual species, by area. Each report includes an estimate of the number of sheep “reasonably necessary for subsistence uses”. In 9 of the recent reports the answer is “none”. Four reports include non-zero sheep numbers (Caikoski 2018, Hatcher 2018, Pierce 2018, Osburn 2025). Totaling these (using the high end of each range estimate) yields 261 animals reasonably necessary for subsistence.

Although Dall sheep were likely never a staple food in northwestern Alaska such as caribou or salmon, they did fill an important niche in some seasons, years, and circumstances (Georgette and Loon 1991). That fact acknowledged, the number of sheep harvested primarily for human consumptive use in Alaska is very small. Such harvest occurs primarily in national parks and wildlife refuges under Federal subsistence guidelines. Intensive Management is unlikely to be authorized in these areas without significant biological concerns and other alternative management actions exhausted.

The Department's own characterization of sheep hunting is accurate: "Dall sheep produce excellent meat but are relatively small in size ... and it is difficult to retrieve meat from the rugged alpine areas which they inhabit. These factors have limited sheep hunting to a relatively few, hardy individuals whose interest is more in the challenge and satisfaction of mountain hunting and the alpine experience than in getting food" (online Dall sheep species profile, ADFG).

The full-curl regulations and management strategy used by the Board and the Department limits harvest to mature rams in most areas of Alaska, which is recognized as a conservative management approach. The full-curl management strategy does not result in harvest that is near the maximum sustained yield for Dall sheep populations as is intended for IM populations. At times of relatively high Dall sheep abundance, the Board and the Department do not liberalize harvest, such as including ewe hunts or additional less than full-curl ram opportunities. If there was a change to offering high levels of Dall sheep harvest for consumption, then that would likely take development of new survey and monitoring methods by the Department. The minimum counts currently used by the Department to track Dall sheep populations are not appropriate for managing populations for maximum sustained yield.

2. Winter weather plays a particularly important regulating role in sheep; and in most cases, predation does not.

Of the 15 management area reports for sheep available online, the following are offered as reasons for stable, low or declining populations among Game Management Unit (GMU): "loss or winter habitat and climate change affecting snow conditions" (GMUs 7 and 15), "weather and carrying capacity" (GMU 12), "weather was the primary contributing factor" (GMUs 12, 13C, 20D), "nutrition and stochastic factors" (GMU 13D), "weather related events, old age, and poor body condition" (GMU 14C), weather-related lamb loss in 2013 (GMU 19B and 19C), "winter weather was a primary contributing factor" (GMU 20A), "longer winters persisting into the spring, more frequent and longer icing conditions, and deeper snow" (GMU 20B, 20F and 25C), "near complete failure of lamb recruitment" (GMU 24, 25A, 26B, and 26C). Explicit mention of predation occurs twice. In GMU 11, the management biologist cites "uncontrollable factors, including weather, habitat quality, and predation" as the reason for low numbers. In the Brooks Range (GMUs 23 and 26A), sheep have experienced two major declines. A recent management report states, "Despite being non-hunted populations since 2016, abundance and trend count surveys suggest that sheep populations within the Baird and De Long Mountains continue to remain at low levels. Predator abundance, disease, forage limitation, and direct and indirect competition by caribou (*Rangifer tarandus*) have frequently been suggested as factors preventing the rebound of this nonhunted population but have not been formally investigated" (Osburn 2025). A former Department biologist with extensive experience in the area suggested that the first decline occurred due to several deep snow winters starting in 1989-90, and the second in the late 1990s occurred when winter icing events started being more frequent (4-5 per winter) (J. Dau, Pers. Comm., Feb. 2025).

Survival of males to full curl or an age status legal for harvest is the relevant question. Predation can affect lamb survival (Scotton 1998), particularly when snowshoe hare populations are low and their predators (coyotes, golden eagles) switch to lambs (Arthur and Prugh 2010). However, Nichols (1971) and Bowyer et al. (2000) concluded that under most circumstances, predation does not exert a controlling influence on Dall sheep abundance. Experiments in the Yukon (Barichell et al. 1989, Hayes et al. 2003) and in Alaska (Gasaway et al. 1983) found that intensive wolf reductions can significantly increase moose and caribou numbers but do not substantially increase numbers of sheep.

The steep, mountainous habitat that sheep have evolved in provides a measure of natural protection from predators that moose, caribou, and deer do not enjoy. At the same time, that mountain habitat can present sheep with acute nutritional challenges, especially under prolonged winter conditions and midwinter icing that have become more common with a changing climate. A growing body of research on sheep highlights the role of nutritional limitation on long-term population levels (e.g., Mitchell et al. 2015) and trophy status (Monteith et al. 2018).

3. A positive IM determination under 5 AAC 92.106 is not required for sheep populations to receive active predator management.

The Commissioner of the Alaska Department of Fish and Game may apply any number of management prescriptions to “manage, protect, maintain, improve, and extend” a depleted Dall sheep population per AS 16.05.020(2). These can range from prey habitat enhancement to diversionary feeding of predators (including lamb predators such as golden eagles, which are protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act). In certain circumstances, the Board can authorize Department staff for aerial shooting of predators, as was done on the North Slope to help muskoxen recover from brown bear predation in Unit 26B per 5 AAC 92.126. In turn, the Board can increase hunting season length and bag limits for predators and waive tag fees for predators.

A positive IM determination and subsequent setting of population and harvest objectives per 5 AAC 92.108 is not strictly necessary for a range of active management practices to be applied for Dall sheep. Predator reductions could be considered where Department data indicate that predation is likely the major factor limiting sheep recruitment. A research approach is warranted to better understand the causes and effects of mortality on different age and sex classes and how that affects male cohorts in reaching a harvestable status.

For the above reasons, the Alaska Chapter of The Wildlife Society respectfully asks the Board of Game to reject proposal 101 as unnecessary for management of selected Dall sheep populations.

Thank you for your consideration.

On behalf of the Executive Board and membership of the Alaska Chapter of The Wildlife Society,

Ryan Mollnow

President, Alaska Chapter of the Wildlife Society

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