

1994 NWS&GC MANAGEMENT WORKSHOP QUESTIONNAIRE RESPONSE: ALASKA'S DALL SHEEP MANAGEMENT PROGRAM

WAYNE E. HEIMER, Alaska Department of Fish and Game, 1300 College Road, Fairbanks, Alaska 99701

QUESTION: Does your state or province have an identifiable sheep management program?

Yes.

QUESTION: What is your guiding policy statement?

The Alaska Department of Fish and Game (ADF&G) Dall sheep management policy (most recently revised in 1980) says:

1. The department recognizes the constitutional mandate of the state of Alaska to manage Dall sheep on the sustained yield principle for the benefit of the resource and the people of the state, and also recognizes that national and international interests must be considered.
2. The department recognizes that responsible Dall sheep management must be based on scientific knowledge. An active department program will be maintained to increase knowledge of the population status and the biological and ecological requirements of sheep.
3. Maintenance of suitable habitat is of foremost importance in Dall sheep management. The department will seek land-use designations and controls that will maintain sheep habitat. Introduction of domestic animals which may compete with Dall sheep for available forage or which may introduce diseases or parasites will be opposed.
4. It is recognized that management techniques for sheep may change with future advances in knowledge of sheep biology.
5. Transplanting Dall sheep for restocking former ranges or stocking vacant habitat may

be a useful management tool. However, because transplants often have unforeseen detrimental effects, introductions of sheep will be generally opposed.

6. Dall sheep will be managed to provide sustained yields of animals for humans and for wild carnivore populations that depend on them for food.

QUESTION: How do/did you do management planning?

Early management planning efforts (1976) consisted of species teams composed of area management biologists, regional managers, and regional researchers agreeing on the biological capacities, limitations, and existing uses of Dall sheep in each management unit of the state, and selecting appropriate management goals for each population.

QUESTION: What are your management goals?

These planning teams identified 2 types of goals relating to uses of Dall sheep.

1. Hunting was the dominant use of Dall sheep when statewide management plans were drafted. Consequently, Dall sheep management plans centered primarily on hunting management. Three types of hunting experiences were identified.
 - 1A. Maximum opportunity to participate in Dall sheep hunting: In some areas, providing the opportunity to go sheep hunting was the primary goal. Harvest success rate, size of animals harvested, commonality of transportation type used, and hunter density were secondary considerations. Hunters were advised that these conditions may be

less than desirable under some circumstances, but consistent opportunity to participate without requirements beyond purchase of a hunting license was assured. An unlimited number of resident licenses are available at \$25. An unlimited number of nonresident licenses are available at \$85, and an unlimited number of nonresident sheep tags are available at \$425. Harvest is limited to 1 full-curl ram per year.

- 1B. Opportunity to hunt under aesthetic conditions: In areas with this goal, plans were made to provide high quality hunting experiences in terms of uncrowded opportunities where a hunter could reasonably:

- 1) Expect an increased measure of solitude with freedom from constant involvement with alternate transportation types other than he or she used.
- 2) Anticipate a higher harvest success from a less-intensively harvested resource.
- 3) Enjoy an enhanced opportunity to be selective in ram harvest.

Hunters have been given many chances to understand that providing the opportunity to hunt under aesthetically-pleasing conditions may require limiting participation through lottery permit systems. In areas not limited by permit requirement, any appropriately licensed hunter may participate. Aesthetic quality goals are most often achieved because the areas where these goals apply are remote.

- 1C. Opportunity to harvest trophy rams: In a few select areas, the goal was to provide a hunting experience where each hunter has the opportunity to take an unusually large, trophy ram. Hunters understand this requires limiting participation by lottery permit and submaximal ram harvests. Originally, legal standards in trophy management areas were higher than in other areas. With passage of the statewide full-curl minimum for ram harvests, the legal definition for harvest is now uniform. The full curls are just larger in trophy management areas. Anyone may apply for a permit in trophy management areas except in the Tok Management Area, where successful hunters may not reapply for 4 years.

- 1D. When subsistence hunting was institutionalized, providing the opportunity to participate in subsistence harvest of Dall sheep became a further hunting management goal.

2. Although hunting was the dominant use of sheep when management plans were drafted, recognition of other types of sheep use was formally institutionalized. These uses included viewing, photography, and scientific study of Dall sheep. They were provided for by special areas reserved for them throughout the year, and by restricting hunting activities to a 42-day fall season statewide.

QUESTION: What methods do you use to reach them?

1. A research program was established to increase knowledge.
2. Once knowledge was available, capacities and abilities of sheep in each area were matched with the appropriate management goal. High-density populations with well-developed access, a history of high human harvest, and production of small-to-average rams were designated for "maximum opportunity." Areas where it was reasonable to expect low hunter effort were designated "aesthetic," and only a couple areas where rams typically produced large horns were established for "trophy management."
3. As knowledge increased, regulations were changed appropriately as needed.
4. A statewide harvest monitoring system was developed using Pittman-Robertson money under the Survey and Inventory program. Population monitoring programs were developed by each area management biologist consistent with his or her interest in, or ability to monitor, sheep population size, composition, and productivity.
5. Area management biologists were encouraged to be vigilant with respect to habitat concerns in their assigned areas and coordinate responses to land-use planning efforts with habitat specialists.

QUESTION: How much effort is devoted to reaching them?

There are 12 area management biologists who have sheep in their assigned management districts. These biologists are generalists who are expected to perform data gathering and management functions for all wildlife populations and habitats in their respective areas. It is reasonable to suggest that each of these "journeyman-level" management biologists spends 1 month per year involved with sheep management. This translates into roughly \$75,000 in salary and benefits for management biologists.

In addition, the harvest monitoring function requires about 4.5 months of "technician-level" work. This comes to approximately \$17,000 in salary and benefits.

Finally, approximately 4 months per year of additional time has typically been devoted to sheep management by a regional management specialist in the most "sheep-rich" region (the Interior) of Alaska. At the same pay grade as for area management biologists, this requires an additional \$19,000 in salary and benefits.

Thus, the total person-months allotted by ADF&G to sheep management comes to an average of about 20.5 person-months per year. Sixteen of these are at the management biologist level for a total of \$94,000 in salary and benefits. The remaining 4.5 person-months are associated with harvest statistics compilation and analysis at the technician level for about \$17,000 and benefits. The total expenditure for personnel is approximately \$111,000.

QUESTION: What is your operating budget for sheep management?

Over the last 5 years, ADF&G's operating budget for sheep management (including research) has been approximately \$6,000 for harvest reporting and up to \$10,000 for survey-inventory work throughout the state. Plans for the next fiscal year call for an increase of 85 to 100 thousand dollars in sheep operational funds. It appears unlikely that this increase will be sustained.

Other Agency Participation in Sheep Management in Alaska

The National Park Service (NPS), the U. S. Fish and Wildlife Service (USFWS), the Bureau of Land Management (BLM), and the U. S. Forest Service (USFS) are also active in sheep research and habitat management in Alaska. NPS activities center in the Noatak National Preserve, Gates of the Arctic National Preserve, and the Wrangell-St. Elias National Park and Preserve. NPS expends approximately \$70,000 annually (\$30,000 on about 6 person-months per year and \$40,000 on field operations).

USFWS activities are primarily centered on the Arctic National Wildlife Refuge; in a cooperative program with the state, USFWS has expended approximately \$100,000 per year there, averaged over the last 5 years. Expenditures on the Kenai National Wildlife Refuge were high last year with \$36,000 disbursed to conduct a bounded population estimate of Dall sheep numbers.

BLM sheep interests are focused on the Tanana/Yukon uplands where about \$10,000 are spent annually on survey work and habitat research, assessment, and manipulation in areas used by Dall sheep.

USFS activities are limited to the Kenai Peninsula where interpretive programs and some habitat research studies are underway. Costs to USFS are not known at this time.

Total other agency expenditures over the last 5 years have probably averaged \$160,000 to \$190,000.

Additional Funding and Foundation for North American Wild Sheep Participation

The state of Alaska does not consistently ask the Foundation for North American Wild Sheep (FNAWS) for funding. Grants to ADF&G from FNAWS have been primarily from the Alaska FNAWS Chapter, and have averaged about \$4,000 per year over the last 5 years (including a fairly large grant of approximately \$12,000). The national FNAWS organization reports spending almost \$400,000 in Alaska since its organization. Less than 10% of this money has gone toward biological management of Dall sheep. More than 90% of it has gone to political action.

The state of Alaska has yet to participate in donation of a governor's permit to FNAWS to raise

funding for sheep management. Legislation which would make this possible has been submitted.

DISCUSSION

While the Alaska Department of Fish and Game has a well-structured management program which is currently in a state of flux there are 3 factors which influence the program.

The first is critical need. The biology of Dall sheep in Alaska allows adequate management of this species with less effort than other Alaskan species. Dall sheep in Alaska exist in stable, climax habitats which are still in pristine condition. Consequently, habitat protection is the priority, and enhancement projects are considered of little utility. In Alaska, land ownership patterns and mandated review render habitat protection relatively inexpensive. Also, limiting harvest of Dall sheep in Alaska to fully mature rams is currently understood to have no deleterious effects on Dall sheep population performance. Simply put, in the past, managers inferred that harvest of truly surplus animals required minimal monitoring and management. Consequently, commitment of funding to this species, which has required little "conventional management" to meet human demands, made it a lower funding priority than other species which are

more labile as a result of their biology, habitats, and harvest management. With recent declines in Dall sheep abundance, increased funding is being committed to Dall sheep.

A second complicating factor is Alaska's legislatively-mandated provision for subsistence use and the conflicting federal subsistence priority on federal public land. Subsistence use as it is presently defined in terms of historic aboriginal harvest practices may not be sustainable. Still, subsistence harvest of Dall sheep is practiced at variable levels of intensity in remote areas. In addition, most subsistence use of Dall sheep is focused on federal public lands where state management options are limited and in dispute at this time. Finally, the general wildlife curriculum under which managers train makes it difficult for managers to deal with ewe harvests. I think this is because most population management training is based on examples from cervid populations in temperate zone ecosystems where natural predation has been reduced and density-dependent food limitation is demonstrable. Consequently, acceptance of the idea that Dall sheep biology in intact arctic ecosystems may be an exception to the general ungulate case has been slow among Alaskan managers.