

THE MYTH OF ALASKA'S SHEEP HUNTERS: RICH, EXPERIENCED, SUCCESSFUL, AND DEDICATED?

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Abstract: A mail survey of 2,079 Dall sheep (Ovis dalli dalli) hunters in 1983 has provided demographic insights. Some common perceptions about sheep hunters are compared with survey results. Findings suggest sheep hunters had higher than average (for Alaska) annual household incomes and spent 5-17% of their annual income on the hunt. Hunters in low income categories spent proportionally more for their hunts. Resident hunters tended to be inexperienced and relatively new to Alaska. Success rate was higher for hunters with experience or a guide. A high level of interest was shown by most hunters in hunting sheep again in Alaska.

Who hunts sheep? Are sheep managers familiar with the characteristics and potential needs of their hunting public? Many of us probably have some general ideas about who hunts sheep in Alaska, but it is seldom that we have the ability to compare our ideas with data. It can be useful to check our perceptions to make sure we are still in touch with all of the hunting public, not just aware of the views of a vocal few. We can serve the public better if we understand their attitudes and needs.

When I first began Dall sheep (Ovis dalli dalli) research and management work, I had little idea who hunted sheep. But within 6 months, I acquired some general perceptions about sheep hunters. My subjective perceptions were derived largely from listening to co-workers and meeting hunters.

I thought sheep hunters must have high incomes. After all, weren't hunters who usually flew into hunting areas rich? Certainly, the amount of sheep meat obtained could not balance the cost of the hunt and the amount of effort expended climbing mountains. Therefore, I reasoned that sheep hunters had to be rich.

I also thought sheep hunters were likely to be successful at getting a sheep. Harvest information collected by the Alaska Department of Fish and Game (ADF&G) showed sheep hunters had higher success rates than hunters of any other common big game species such as moose, bears, or caribou. Even though sheep hunting is generally difficult, the success rate appeared to be high.

It seemed to me that sheep hunters had to be experienced to be so successful. From my time in the field, I knew sheep hunting required strength, stamina, and knowledge about sheep habits. One rarely just stumbled onto a group of legal rams. One had to spend time in the mountains to learn about sheep or go with someone, such as a guide, who had already taken the time and who had the minimum 5 years of experience required by Alaska law.

I also believed that sheep hunters were dedicated to sheep hunting. They seemed to really enjoy sheep hunting and they hunted because they couldn't stay away. Some individuals were openly enthusiastic when coming by the ADF&G office for information and help in planning a trip to the mountains. Other hunters, especially those whom I knew were experienced, had an attitude that suggested sheep hunting was an integral part of their lives. The Alaska National Interest Lands Conservation Act (ANILCA), which put 25% of the huntable sheep into unhuntable National Parks in 1980, was still fresh in many sheep hunters' minds and many were concerned about the future. Dedication was also shown by their interest in and support for good research and proper management. Some sheep hunters, such as members of the Foundation of North American Wild Sheep went so far as to put their money and time into supporting these efforts.

These ideas about income, success, experience, and dedication have been either reinforced or eroded since I began sheep work. It was not until results from the Dall sheep hunter questionnaire provided more objective insights into the characteristics of sheep hunters, that I reexamined my initial impressions.

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METHODS

In February 1984, ADF&G mailed a questionnaire to all of 1983's Dall sheep hunters in Alaska to determine economic values of Dall sheep hunting in Alaska (Watson 1984). The questionnaire asked hunters to provide demographic information to aid in the analysis of the economic results (Appendix 1). This information is not available from hunter harvest report forms.

RESULTS AND DISCUSSION

Income

Eighty-three percent of the year's Dall sheep hunters (82% of the residents, 89% of the nonresidents) returned completed questionnaires. The following results are based on this sample group.

Some sheep hunters do have relatively high incomes, especially some of the nonresidents (Fig. 1). This is not surprising when, by law, nonresidents must hire a guide unless hunting with a resident relative within the second degree of kindred. A professional guide generally costs at least \$4,000-5,000. Twenty-one percent of the nonresident respondents said they had incomes over \$140,000. However, the remaining 79% of the nonresidents had income levels similar to residents.

I compared the income levels of resident sheep hunters with the incomes of all Alaska residents. Alaska census data from 1980 lists the average income for all households in Alaska in 1979 as \$29,789 (U.S. Dep. Commerce). The average income for the state was probably higher by 1983 but probably not as high as the average income for resident sheep hunters, at least \$46,000.

Not all sheep hunters spent the same amount on their hunt. They spent anywhere from 25¢ (the cost of a hunting license for the head of a welfare-assisted household) to \$62,400 (for one nonresident) on their sheep hunt in 1983. To determine if the amount a hunter spent was related to income, I calculated the percentage of income applied toward the hunt.

Residents spent an average of 5% of their annual household income on sheep hunting in 1983 (Table 1). Resident hunters with less than the average annual income for Alaska spent more than 5% rather than reducing their costs. Six percent of the resident hunters had incomes over \$100,000 and spent only 3% of their income on their sheep hunt.

Nonresidents spent an average of 17% of their income hunting Dall sheep in Alaska. Again, those in the lower income categories spent proportionally more money on their hunt. Compared with residents, only a small (17%) percentage of the nonresidents had incomes under \$30,000, but these hunters spent over a third of their incomes on their hunt. Some, especially those with incomes of less than \$10,000, may have had their hunt paid for by someone else (e.g., teenagers accompanying parents). But for most, their Dall sheep hunt was probably a once-in-a-lifetime experience.

One third of the nonresidents had incomes of over \$100,000. These hunters spent only about 7% of their income hunting sheep.

Success and Experience

Forty percent of those who answered the questionnaire said they killed a ram. (General harvest statistics show that only 37% of all sheep hunters in 1983 were successful, so the questionnaire data may be slightly biased in favor of those who were successful.) It is interesting to note who got a ram. Seventy percent of the nonresidents killed a ram while only 33% of the residents were successful. The most likely reason for this is that most nonresident hunters were professionally guided. The residents' 33% success rate is good compared to other types of hunting, but I would have thought residents would be more successful given my perception that sheep hunters are supposed to be experienced.

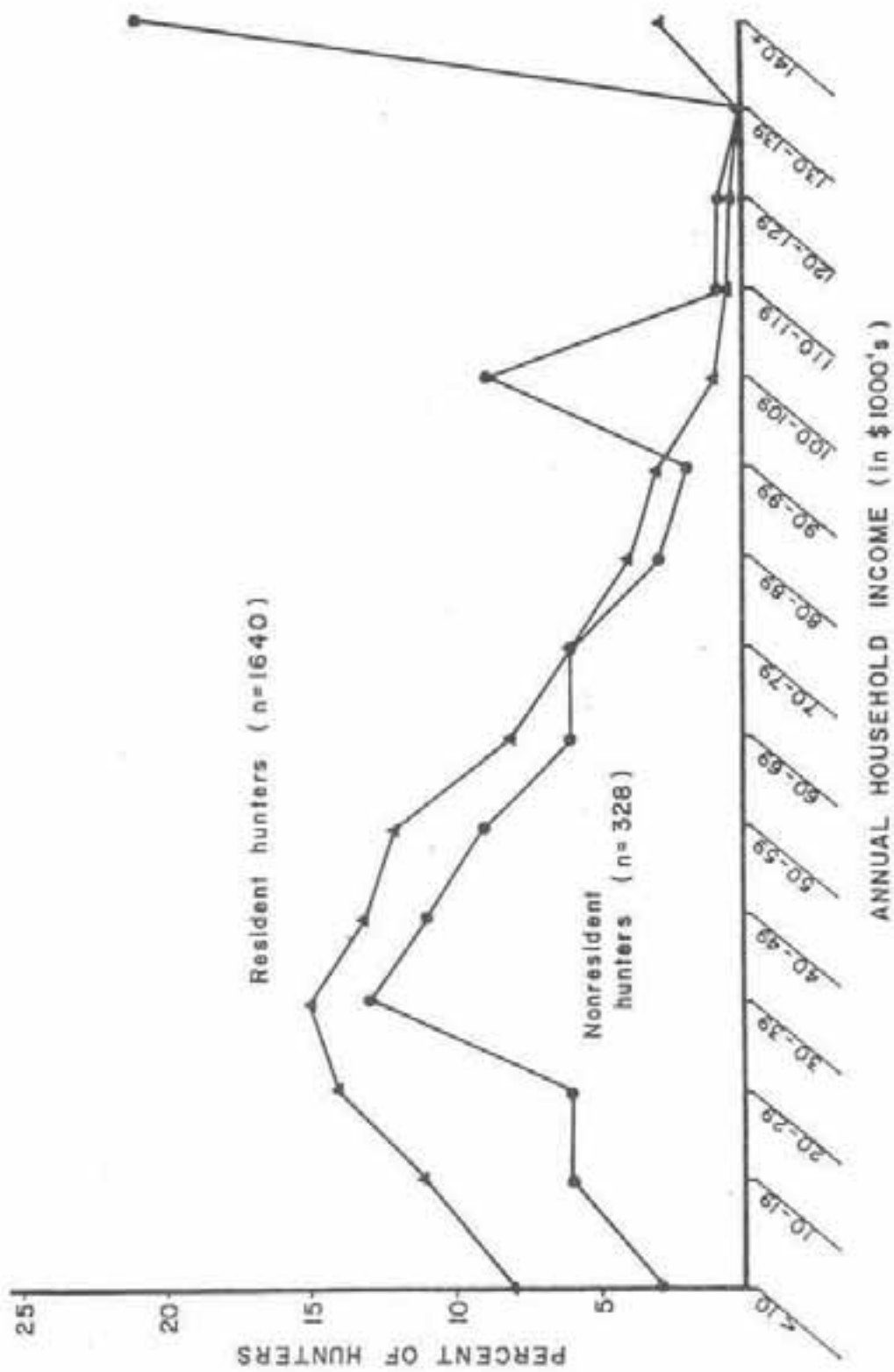


Figure 1. Percent of the sample of Alaska's 1983 Dall sheep hunters who claimed one of the above categories for annual household income.

Table 1. Percentage of annual household income spent on hunting Dall sheep in Alaska in 1983 as reported by resident and nonresident respondents to Dall sheep hunter questionnaire.

Percentage of Annual Household Income Spent on 1983 Dall Sheep Hunt		
Income (in \$1000's)	Residents (n = 1613)	Nonresidents (n = 315)
<10	.16	1.01
10-19	.07	.34
20-29	.05	.30
30-39	.04	.17
40-49	.03	.17
50-59	.03	.14
60-69	.03	.12
70-79	.03	.09
80-89	.02	.12
90-99	.03	.09
100-109	.03	.08
110-119	.06	.05
120-129	.03	.07
130-139	.03	.09
>140 ^a	.03	.07
\bar{x} =	.05	.17

^a \$145 was used as the midpoint.

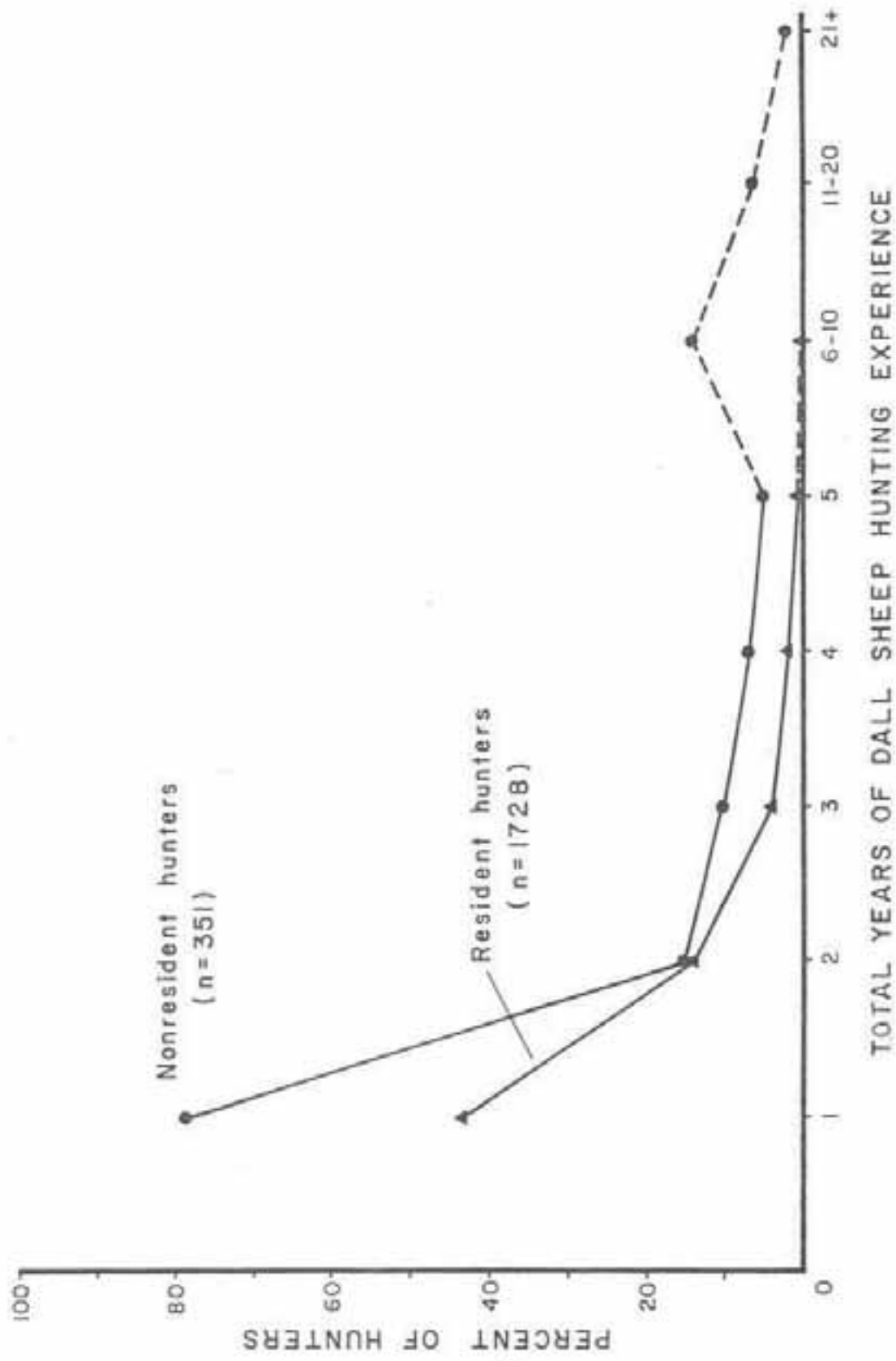


Figure 2. Number of total years of Dall sheep hunting experience of the sample of Alaska's 1983 Dall sheep resident and nonresident hunters (by percent).

The questionnaire asked hunters to list the years they had hunted sheep in Alaska. I was surprised to find that 43% of the residents were hunting Dall sheep for the first time in 1983 (Fig. 2). Another 35% had 2-5 years of Dall sheep hunting experience. Those with even more experience, including one hunter with 44 years, composed only 22% of all the resident sheep hunters.

Nonresidents had less experience (although most were hunting with an experienced guide). Seventy-eight percent were hunting Dall sheep for the first time in 1983. Given the cost and the percentage of their income they put toward their hunt, it is not surprising that many nonresidents have not made Dall sheep hunting in Alaska an annual affair. Nonresidents who had hunted in Alaska before (the maximum from this group had 6 years of experience) may have been fortunate to have hunted with a resident relative and avoided the cost of hiring a guide.

I was intrigued by the large number of resident first-time hunters. I separated residents into two groups; these included first-time hunters and those with more than 1 year of experience. On the average, first-time hunters were the same age as other hunters (30-39 years) but had lower incomes, had lived in Alaska half as long (7 years), and tended to spend less on their sheep hunt. The difference in costs can probably be attributed to fewer taxidermy bills (due to lower success rate) and cheaper transportation (due to choosing modes other than aircraft).

If a hunter had more prior sheep hunting experience, he or she was not necessarily apt to be successful in 1983. I examined the success rate of resident hunters who had more than 1 year of experience. The success rate increased as the total number of years hunted increased until experience equaled 10 years. Hunters with this much experience had a success rate in 1983 of 45%. But for hunters with more than 10 years of experience, the success rate decreased to 31%. This decrease could be due to an increase in age and/or to an increase in hunter selectivity. Success rate may not be a good indication of hunting ability.

Dedication

Is sheep hunting as important to sheep hunters as I had presumed? An indication of strong interest in sheep hunting is whether hunters planned to hunt Dall sheep in Alaska again, and, if so, how often. Ninety-five percent of the residents (including 90% of the first-time hunters) did plan to hunt sheep again, and 67% of the nonresidents were willing to again bear the cost of hiring a guide or hunting with a relative (Fig. 3). Only 1% of the residents (which were all first-time hunters) and 10% of the nonresidents did not intend to hunt sheep in Alaska again. The remainder did not know if they would hunt sheep again.

The frequency with which hunters intended to hunt sheep in the future was different for residents and nonresidents. More than half of the residents claimed they would go every year while over half of the nonresidents said "only once or twice in the future."

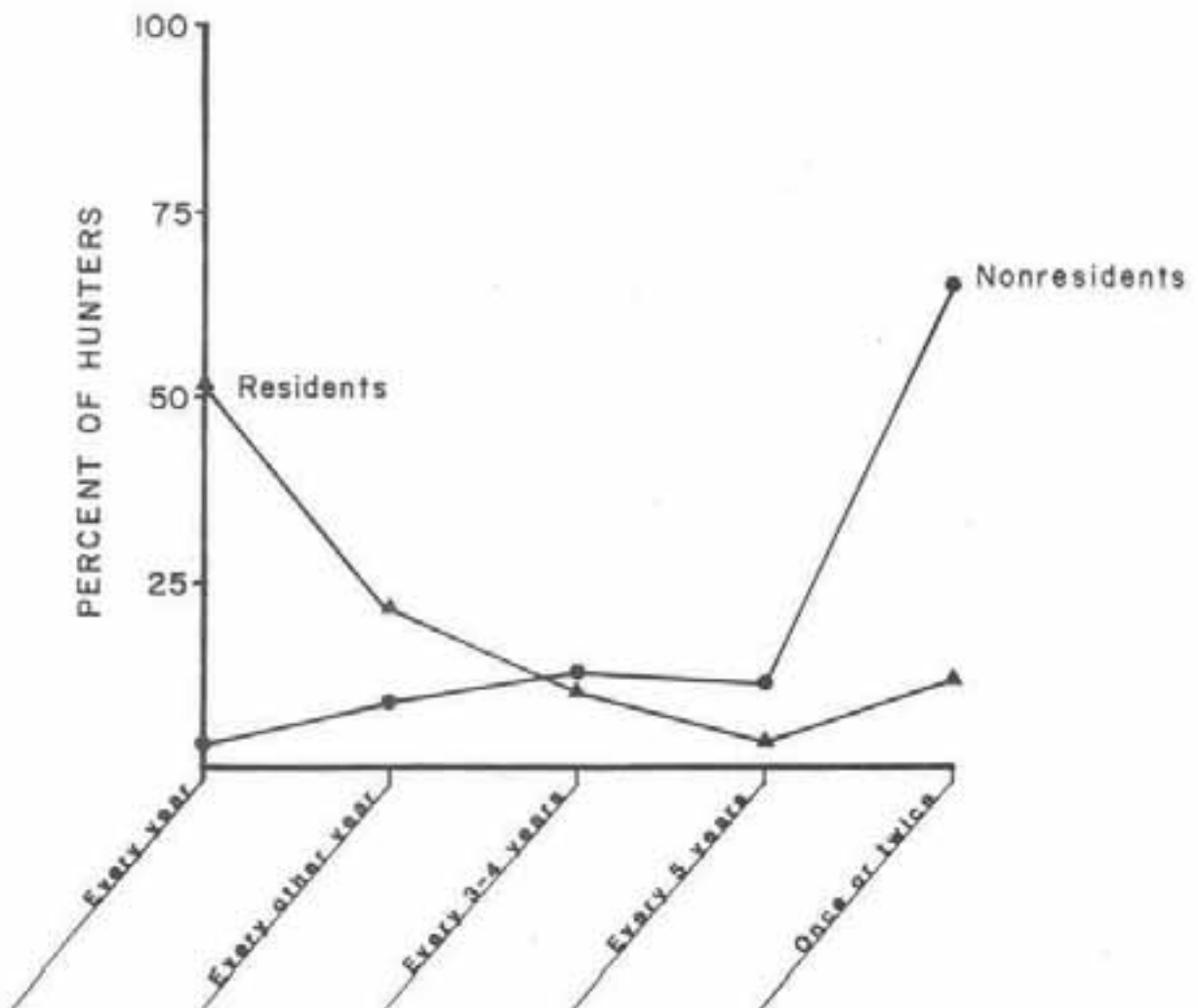
First-time resident hunters did not display as much enthusiasm as residents with even one additional year of sheep hunting experience. Only

Figure 3. The future plans for Dall sheep hunting in Alaska from the sample of Alaska's 1983 Dall sheep hunters.

PLAN FUTURE HUNTS?

	YES	NO	DON'T KNOW
RESIDENTS	1640 (95%)	12 (1%)	72 (4%)
NONRESIDENTS	235 (67%)	35 (10%)	81 (23%)

**IF YES,
HOW OFTEN ?**



34% said they would go sheep hunting annually while 60% of the hunters with more experience said they would hunt sheep annually.

Another indication of the value of sheep hunting was the economic value hunters placed on their hunt and future hunting opportunities. The results of this evaluation show that hunters only pay about 60% of what the experience is worth to them (Watson, in press).

SUMMARY

The following generalizations can be made based on the sample of Alaska's Dall sheep hunters in 1983:

Dall sheep hunters tended to have higher annual incomes than the average Alaskan. However, one-third of the resident hunters had lower than average (<\$30,000) incomes. From 5 to 17% of hunters' incomes was spent on sheep hunting. Instead of significantly reducing costs, hunters in lower income categories spent a proportionally greater amount on their hunt than did hunters in higher income categories.

Dall sheep hunters, though generally more successful than other big game hunters in Alaska, nevertheless benefited from increased experience or the services of a guide. Hunter success, however, may be affected by selectivity as well as experience and general hunting ability.

Only 20% of all resident and less than 1% of the nonresident sheep hunters had hunted sheep more than five times. Nearly half (43%) of the resident and four-fifths (78%) of the nonresident Dall sheep hunters hunted sheep for the first time in 1983. First-time resident hunters had lived in Alaska an average of 7 years (or since 1977).

Most resident hunters wanted to hunt sheep every year or every other year. Nonresidents generally did not plan to return to hunt sheep in Alaska more than once or twice.

The Alaska Department of Fish and Game can use this and other available information to improve relations with and services to the public. Information and education programs can be reviewed and enhanced to better suit the needs, for example, of the high number of first-time hunters. The general public, as well as wildlife managers, may also benefit from more accurate perceptions of hunters. Informing and aiding the public can have long-term benefits such as increased cooperation and support for the conservation and careful management of sheep populations.

LITERATURE CITED

- U.S. Department of Commerce. 1983. 1980 census of population, Vol. 1. Characteristics of the population. U.S. Government Printing Office, Washington, DC.
- Watson, S. 1986. Dall sheep hunting in Alaska: What is it worth? North. Wild Sheep and Goat Council. Proc. 5th Bien. Symp., Missoula, Montana. In press.

Appendix 1. Questions from the 1983 Dall sheep hunter questionnaire that provided demographic information about income, success rate, experience, and continued interest in Dall sheep hunting in Alaska.

A. Which of the following categories best describes your household income before taxes in 1983? Please check one.

<input type="checkbox"/> under \$10,000	<input type="checkbox"/> \$50,000 - 59,999	<input type="checkbox"/> \$100,000 - 109,999
<input type="checkbox"/> \$10,000 - 19,999	<input type="checkbox"/> \$60,000 - 69,999	<input type="checkbox"/> \$110,000 - 119,999
<input type="checkbox"/> \$20,000 - 29,999	<input type="checkbox"/> \$70,000 - 79,999	<input type="checkbox"/> \$120,000 - 129,999
<input type="checkbox"/> \$30,000 - 39,999	<input type="checkbox"/> \$80,000 - 89,999	<input type="checkbox"/> \$130,000 - 139,999
<input type="checkbox"/> \$40,000 - 49,999	<input type="checkbox"/> \$90,000 - 100,999	<input type="checkbox"/> \$140,000 and higher

B. How much did your Dall sheep hunt cost? Total cost _____.

C. If you came to Alaska for reasons other than to hunt Dall sheep, what fraction of your expenses can you attribute to your Dall sheep hunt? Circle one: 1/8 1/4 3/8 1/2 5/8 3/4 7/8 (Asked of nonresidents)

D. Please list all the years you have gone sheep hunting in Alaska: 1983, _____.

E. How many times have you killed a Dall sheep in Alaska including your 1983 hunt? _____ times

F. Did you kill a Dall sheep in Alaska in 1983? yes no

G. Do you plan to hunt Dall sheep in Alaska in the future?
 yes no don't know

H. If yes, about how often in your life do you expect to go? Check one:
 once or twice more in my life every other year
 once every 5 years of my life every year
 once every 3-4 years of my life

I. Where do you live? _____

J. Which group below best describes your age?
 under 20 30-39 50-59 70-79
 20-29 40-49 60-69 80 and over

K. Where was your hunting area? Please check the mountain range location(s) where you hunted Dall sheep in 1983? The map of Alaska may help you.

- Alaska Range, east of Denali National Park
- Alaska Range, west of Denali National Park
- Brooks Range
- Chugach Mountains
- Kenai Mountains
- Talkeetna, Chulitna, Watana Mountains
- Tanana Hills-White Mountains
- Wrangell Mountains

L. How many years have you been a resident of Alaska? _____
 (Asked only of residents of Alaska.)