

GOATS

MOUNTAIN



SPOT CHECK—Telescopic survey of mountain area aids biologists in establishing goat population levels.

ADFG photo by Art Schmidt

NEW SURVEY TECHNIQUES AID HERD MANAGEMENT

By Warren Ballard
Game Biologist
Juneau

Warren Ballard joined the department in 1973. He received a B.S. degree in wildlife management from New Mexico State University in 1969 and an M.S. degree in wildlife management from Kansas State University in 1971.

OF ALL OF ALASKA'S big game animals, the mountain goat (*Oreamnos americanus*) is one of the least understood and each summer and fall Department of Fish and Game personnel spend many hours attempting to census goat populations from the air.

Sometimes, after completing a survey during apparently ideal conditions, biologists ask themselves "Where are all the goats?"

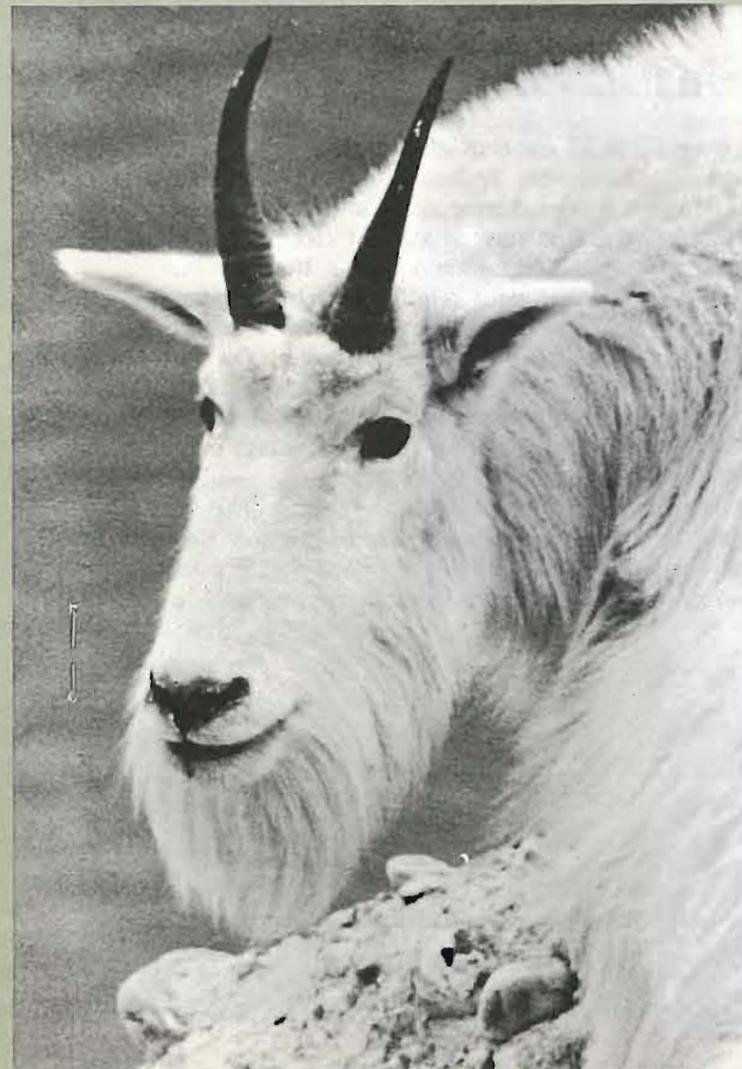
It seems that on occasion, the biologists spot considerably fewer goats than could be expected to be seen in a certain area and because of these differences, they're cautious about basing management decisions on aerial goat surveys.

Efforts to acquire better understanding of survey data and eventually of the goats themselves have led to a research project which is designed to evaluate various techniques of counting goats.

In this project, biologists in fixed wing aircraft fly repeated surveys over separate goat populations on William Henry Mountain and the area between the Endicott and the Sullivan rivers, both on the Chilkat Peninsula in Southeastern Alaska.

By making repeated counts of the same area, biologists hope to measure the variations in total numbers of adults and kids observed. Also, by record-

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ADF&G photos

ALASKA'S FAVORITE ANTELOPE

By Ray Kramer
Game Biologist
Anchorage

WHAT DO YOU CALL a hollow-horned, even-toed ungulate that belongs to the same biological sub-family as the musk-ox, but whose closest relative is the antelope of the Alps, the chamois?

Well, he has been misnamed and is now universally known as the "mountain goat," just as the prong-horn has been mistakenly called an "antelope."

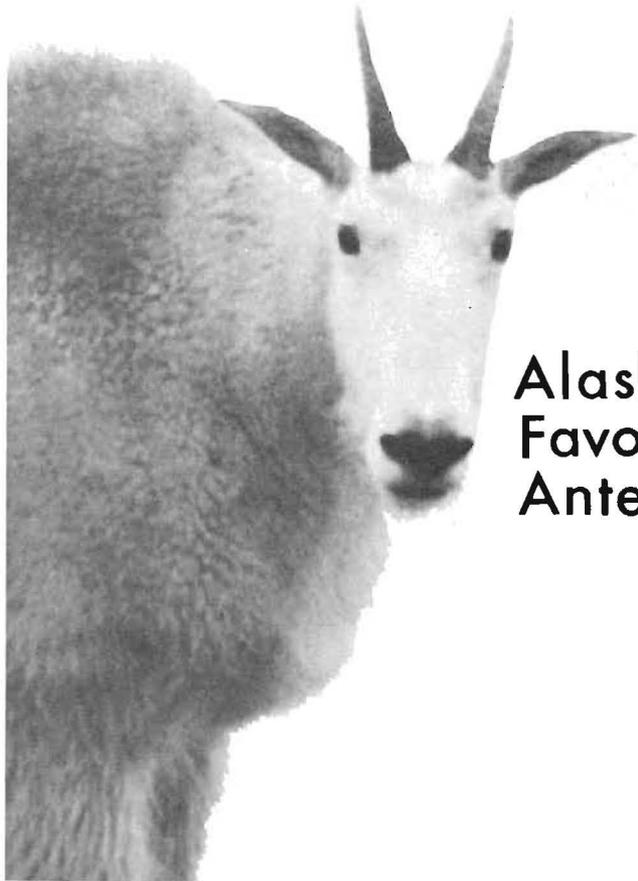
The first written record of this bearded acrobat with the baggy pants was made in 1811 by Alexander Henry in notations of his exploration of what is now Kootenay National Park in Canada, but it wasn't until 1879 that J. C. Merrill made detailed observations in the mountains of Montana. When Captain Cook was exploring Southeastern Alaska, he recorded seeing the hides of "the great white bear" but he had undoubtedly been one of the first white men to see a mountain goat hide.

A few fossil remains have been found as far south as New Mexico and Arizona, but today the mountain goat's southern limits are roughly correlated to areas where the average summer temperature is 60° or less. The oldest fossils were found in British Columbia in 1932 when a skull with horncores was unearthed 275 feet below ground in a gold mine. That animal was estimated to have lived during the Sangamon interglacial period, more than 100,000 years ago.

Exclusive of Alaska, the present distribution, including several introduced herds in the United States, covers parts of Oregon, Washington, Idaho, South Dakota, Wyoming and Colorado. In Canada, they're found in the Yukon Territory, Alberta and British Columbia. The mountain goats' Alaskan range begins in the coastal mountains at Portland Canal and continues up along the coast to the tip of the Kenai Peninsula. They extend north from these coastal mountains through the Chugach range into scattered bands within the Talkeetna Mountains and the southern slopes of the Wrangells. In addition, sizable herds have been transplanted to Kodiak and Baranof islands.

Until 1972, Alaska's various mountain goat populations received little attention from game managers, as they seemed to be holding their own despite long and liberal seasons. For a number of years, game biologists had "guesstimated" annual harvest to be in the neighborhood of 600 animals per year. Beginning in 1972 when the first mandatory harvest reports system was instituted, the year end tally showed a total of 630 animals taken, thus showing the guesses to be fairly accurate.

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Alaska's Favorite Antelope

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Biologists were at the same time alarmed to find that almost 12,000 persons had picked up harvest reports. Obviously the goat populations could not stand this sort of hunting pressure. However, only 1,586 of these folks actually hunted, with 556 being successful. It is apparent that, although many hunters dream of a high mountain chase after these unbelievably agile animals, most of these dreams remain at home with the hunter and get put off again for another year.

In 1973, much the same pattern was repeated, although this time almost 13,000 persons picked up harvest reports, 1,783 hunted, and 703 were successful in bagging one or two goats for a total of 822 animals harvested.

Thus, we are seeing just what we expect to see — more hunters, with more leisure time, with better access and transport means, are going to put heavier pressure on the mountain goat populations. To preserve this challenging quarry for both the hunter and nonhunter, we are going to have to expect lowered bag limits, changing season lengths and other tools of the game managers bag, but it will ultimately be well worth the effort to know that North America's only real antelope is skittering across an impossibly treacherous skree slope, looking down on us! ●

Photo by Art Schmidt

New Survey Techniques Cont'd. from page 8

ing physical conditions such as wind, temperature and percentage of cloud cover, they hope to determine the best type of day on which to conduct surveys.

In addition to determining the amount of daily variability in the counts, an effort was to be made to find what percentage of the population was actually being observed. Obviously data of that type would be difficult to collect but it was thought that a combination of ground counts and helicopter surveys would give a count as true to the total population as could be achieved with present technology.

At the time this article was written the project was not completed and no firm conclusions could be drawn. Table 1 shows a portion of the count data.

The preliminary results from surveys made with fixed-winged aircraft indicate that biologists may

count from 30 to 97 per cent of the goats which were observed by helicopter. Probably the best time to census goats might be during periods of high cloud cover and on the first day or two of clear weather following a storm. Early data indicate that several days of clear weather with relatively high temperatures send goats scampering for the trees or snowlands where they are less likely to be spotted. On the other hand, on partly cloudy and high overcast days, goats appear to use all elevations, both while feeding and resting, for various intervals. Further findings may support or refute these early indications.

Basic information of the preceding type will allow biologists to refine management decisions and also provide a basis for more in-depth research into goat life history and population dynamics. ●

Table 1. Replicate goat counts on two study areas in Southeastern Alaska.

Survey Area — Endicott to Sullivan					William Henry Mountain		
Survey Vehicle	Date of Survey	No. of Adults Observed	No. of Kids Observed	Total No. of Goats	No. of Adults Observed	No. of Kids Observed	Total No. of Goats
Supercub	6/26/74	32	12	44	28	12	40
Cessna 180	7/28/74	26	9	35	29	7	36
Helicopter	7/29/74	42	19	61	38	17	55
Cessna 180	7/31/74	17	1	18	14	6	20
Ground Count	8/2-3/74	-	-	-	33	15	48
Cessna 180	8/10/74	31	13	44	28	10	38
Cessna 180	8/11/74	44	15	59	25	10	35
Cessna 180	8/19/74	43	14	57	31	10	41

Raymond J. Kramer holds a B.A. degree in conservation from San Jose State College. Before joining the department in 1959, he was employed by the Hawaii Division of Fish and Game and the University of Hawaii.

Alaska

FISH *tales* & **GAME** *trails*

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