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SOUTHCENTRAL MT. GOAT STUDIES

by
Lyman Nichols

Volume I
Project Progress Report
Federal Aid in Wildlife Restoration
Project W-17-7, Job 12.1R

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JOB PROGRESS REPORT (RESEARCH)

State: Alaska

Cooperator: Lyman Nichols

Project No.: W-17-7 Project Title: Big Game Investigations

Job No: 12.1R Job Title: Mountain Goat Study
Area Selection

Period Covered: July 1, 1974 through June 30, 1975

SUMMARY

A literature review was initiated. Aerial surveys were conducted on several Kenai Peninsula goat herds both in summer and winter to determine relative distribution and abundance in both coastal and interior habitats. Herds in two areas, one coastal and one interior, were tentatively selected for expanded future studies.

BACKGROUND

Little comprehensive research has been conducted on the mountain goat (*Oreamnos americanus*) in Alaska. Hunting pressure has been relatively light and constant but is expected to increase with the increase in human population and demand for more hunting. Hunting pressure has shifted in recent years to the relatively accessible Kenai Mountains where goat numbers appear to be declining (LeRoux, 1973). Whether this decline is related to hunting or to other controllable factors is unknown.

This study is intended to determine the habitat requirements and basic life history of the mountain goat on the Kenai Peninsula and elsewhere in southcentral Alaska, and to learn what factors limit goat distribution and numbers.

Before such a study can be commenced, suitable herds must be located and their seasonal ranges roughly defined. Ideally, these herds must be of adequate size to furnish meaningful population data; they should be restricted, if possible, to discrete habitats and be accessible for year-round study. Both coastal and inland habitats should be represented. It would also be beneficial to locate at least one herd near or overlapping Dall sheep (*Ovis dalli*) range so habitat requirements could be compared between pure goat habitat, habitat shared by both species, and pure sheep habitat (already being examined under other jobs).

OBJECTIVES

To select goat populations and habitats suitable for further study, to delineate seasonal ranges within these areas and to establish automatic weather-recording instruments within the selected areas.

PROCEDURES

A review of literature on goat ecology in Alaska and elsewhere was initiated, and available data on distribution and abundance and hunter-harvest were examined.

Aerial surveys of several inland and coastal Kenai Peninsula goat-count areas were conducted during summer 1974. These were flown in a float-equipped Piper PA-18-150 airplane with the pilot-observer recording all observations with a portable tape recorder for later transcription.

Further aerial reconnaissance surveys of goat habitat were flown during the winter and early spring to search for and plot winter ranges. These were located by the presence of goats and/or tracks and plotted on 1:63,360 topographical maps.

One mechanical weather station was purchased but has not yet been established in goat habitat.

FINDINGS

With the exception of two excellent but limited studies (Klein 1953, Hjeljord 1973), no significant literature specific to goat research in Alaska could be found. Periodic publications, such as the annual reports of survey and inventory activities by the Alaska Department of Fish and Game, cover the results of annual goat harvests and aerial surveys. Results of several studies of various phases of goat ecology in Canada and the Western states have been reviewed. Additional reports are yet to be obtained.

As a means of becoming familiar with goat distribution and densities in the Kenai Mountains, surveys were flown in count areas 8, 17, 18 and 31 during summer 1974. Problems in obtaining an airplane, frequent bad weather and press of other duties precluded further such surveys. Count results will be reported in the Annual Report of Survey-Inventory Activities Project W-17-7, Job 12.0.

Additional aerial surveys flown during the winter and late spring resulted in the location and plotting of specific winter ranges in the areas from Day Harbor to Nellie Juan Lake and from Grant Lake to Spencer Glacier.

Two herds were tentatively selected for further study: that in the vicinity of Day Harbor, and that ranging from Grant Lake to Trail Glacier. The former occupies generally coastal habitat, while the latter occupies more interior mountains. Some historical population data are available for both herds and animal numbers in each appear adequate for meaningful studies. The Day Harbor area contains only goats, while that around Grant Lake contains both goats and sheep, making possible a direct comparison between habitat requirements of each species. An important consideration in the selection of these areas is access to both summer and winter habitats. Access to both appears possible by float-plane in summer, and probably by ski-plane in winter, although a helicopter may prove necessary during much of the winter. Foot travel, a problem in most goat ranges, appears difficult but possible in both selected areas.

Plotting of specific winter ranges within the tentatively selected areas was begun but has not been completed. Purchasing delays precluded establishment of the one mechanical weather station on site during this segment. Further work on this job was limited in scope due to other required duties and lack of available time.

RECOMMENDATIONS

In view of the very limited amount of time available for this job during the current segment, I recommend it be continued for one more year to enable the selection of suitable herds for intensive study.

LITERATURE CITED

Hjeljord, Olav. 1973. Mountain goat forage and habitat preference in Alaska. J. Wildl. Manage. 37(3):353-362.

Klein, David R. 1953. A reconnaissance study of the mountain goat in Alaska. Unpub. MS Thesis, Univ. of Alaska, Fairbanks. 121 pp.

LeRoux, Paul. 1973. In McKnight, D. E. (Ed.) Annual Report of Survey-Inventory Activities, Vol. III. Annu. progress rep., Fed. Aid in Wildl. Rest. Alaska Dept. of Fish and Game. pp: 155-157.

PREPARED BY:

Lyman Nichols
Game Biologist

SUBMITTED BY:

Karl Schneider
Regional Research Coordinator

APPROVED BY:

Frank Jones
Director, Division of Game

Donald E. McKnight
Research Chief, Division of Game