other small rodents indicated that those populations were non-existent or extremely low in density on the high altitude study areas.

Considerable variation in phenological development caused some problems with the collection of plants and plant parts at comparable growth stages from one study area to the next. This may be one of the most difficult aspects of future field work in this investigation.

Analysis of soils, plants and animals collected during the course of the summer's field work will be completed at the University of Wyoming during the current school year.

Assisted by Floyd Sandford and Walter Brown, Student Conservation Program.
Supported by the New York Zoological Society, National Park Service, Olympic Natural History Association, and the University of Wyoming Research Council.
Cooperators were Grand Teton National Park, Teton National Forest, Yellowstone National Park, and the U.S. Geological Survey.

Population Study of Canada Geese in Jackson Hole, Wyoming

Ralph W. Dimmick
University of Wyoming

Project Number 113

General Objectives of Study:

1. To conduct a physical inventory of the Snake River drainages in Jackson Hole to determine the seasonal distribution, size and productivity of the resident goose population.

2. To evaluate the various factors influencing Canada Goose habitat and productivity, i.e. variable stream flow, proposed water impoundments, hunter concentrations, etc.

3. To formulate a management plan suitable for protection of the habitat, optimum productivity, and wise harvest of the Canada goose population in Jackson Hole, Wyoming.

This study will continue through the summer of 1964. The study area includes the Snake River drainage in Jackson Hole Wyoming from South Park to the Flagg Ranch north of Jackson Lake. Extensive surveys into Yellowstone Park will be made to determine sources of geese migrating through Jackson Hole.

Periodic censuses of the post-reproductive population throughout the study area were taken during the period July 24-September 2, 1961. The maximum population occurred during late August when 733 individuals were counted. The major concentrations of geese occurred near the mouth of Berry Creek in the north end of Jackson Lake and in the Third Creek-Pilgrim Creek area near Jackson Lake Dam. These areas offered

large expanses of mud flats which were used by geese for feeding, loafing and roosting.

Noticeable changes in the social structure of the population occurred. During late July, family groups predominated, and juvenile geese could usually be distinguished from older individuals. As the season progressed, family groups merged into larger units and juveniles could not be identified.

A pre-hunting season census was taken October 19-20; 532 geese were observed. The more widely dispersed population encountered increased the difficulty of obtaining a complete count. Small numbers of geese were in areas open to public hunting; the observed harvest totaled five geese for the first two days of the goose season.

Supported by the Wyoming Game and Fish Commission.

The Alpine Insects of the Teton Range

J. Gordon Edwards
San Jose State College

Project Number 105

As a result of my activities on this research in 1960 I became familiar with many routes affording access to the trailless valleys, high passes, and major summits in Teton National Park, Wyoming. During that summer I also discovered that some of these alpine areas support a much richer insect fauna than do others at comparable elevations. These extremely favorable localities were kept in mind for more detailed taxonomic, biological and ecological studies in the future, if possible. This summer, therefore, many nights were spent in "high camps" in the highly favorable localities, including the head of Stewart Draw, Timberline Lake, Alaska Basin, below Schoolroom Glacier, and high in Garnet Canyon. Evenings in camp were usually devoted to observations of insects on and near the snowfields and glaciers or on the barren slopes above tree-line in these great mountains.

In late July a "black-light" was carried up and used at night in an effort to attract alpine insects in large numbers. It was believed that if certain insects were really attracted toward the mountain-tops in response to the greater concentration of ultra-violet light there (as has been suggested) then they might be strongly attracted to the black-light at night. Unfortunately, this did not prove to be the case in the field tests above tree-line in the Tetons this summer. The light was operated one night at the head of Stewart Draw (10,000 feet), one night on the summit of Static Peak (11,294 feet), and a third night at Sunset Lake in Alaska Basin (9,700 feet). A few moths were attracted each night, but they were only the common kinds that abound at dusk above tree-line. These three attempts to lure alpine insects to "black light" seem to indicate that the method is not worthwhile, although further attempts under favorable conditions should be made before completely rejecting it. It is a safe conclusion, however, that ultra-