## A Study of the Plant Ecology of the Willow Flats William C. Edwards University of Nebraska Project Number 121

This was the initial summer of a proposed three summer research project on the Willow Flats area west of the Research Station on Second Creek. The majority of the work consisted of field observation, collecting specimens, and identification of specimens.

The literature at the Station was reviewed and much valuable information was obtained from papers written by Dr. John Craighead and Dr. Frank Craighead, Neil Bassett, and Dr. John Reed on the plant ecology of the area. <u>Willows of Wyoming</u> by Dr. George Argus was used especially for identification of the willows. <u>Flora of Idaho</u> by Dr. Ray J. Davis and <u>Flora of Colorado</u> by Dr. H. D. Harrington were used.

Some work was done at the Yellowstone Park Herbarium and the Grand Teton Park Herbarium. A four day trip was made to the Rocky Mountain Herbarium where positive identification was made of some of the specimens collected. Three trips were taken to the subalpine and alpine areas to collect willows.

Twenty-five willows, most of them different species, were permanently tagged with aluminum tags and with a red tag for quick location. Several collections were made from each specimen through the summer and collections will continue next summer. One hundred thirty specimens were collected representing twenty-eight plant families with concentration of collecting on the Willow Flats and of the willows themselves.

Tentative sites for an intensive ecological plant study were selected in the Willow Flats, and next summer these sites will be studied intensively.

Assisted by Warren Schimpff and Michael Kersten, SCP students. Supported by a grant from the New York Zoological Society.

## An Ecological-Physiological Study of Moose Douglas B. Houston University of Wyoming Project Number 125

An ecological-physiological study of the Shiras moose population in the Jackson Hole area was initiated in August of 1963. Moose population dynamics will be one phase of the study, and will involve calculations of population productivity, sex and age structure of the population, and factors regulating population numbers and success. Measurements of physiological condition of the population as related to forage conditions, sex and age, and behavior will be attempted. Other phases of the study involve moose-habitat relationships and spatial distribution and mobility of the population.

6

1