Life History Study of *Microtus richardsoni macropus* and Physiology of Molting in Mammals

Norman C. Negus

Tulane

Project Number 87

From June 22 through July 20, additional data was gathered on the distribution of *Microtus richardsoni*. Colony sites in the high country of the Teton Mountains were visited for comparison with the colonies situated near Togwotee Pass. Additional information was gathered on the habitat preferred by this species as well as on molting stages in young animals. The results of this study are currently being compiled for publication, the final draft of which will constitute a complete report.

Livetrapping for weasels (*Mustela erminea* and *M. frenata*) was carried on during the period June 22 to July 20, 1958. A total of five live *Mustela erminea* were transported to New Orleans for observation and experimental treatment with reduced photoperiod. These specimens are presently under observation in the laboratory. Experimental treatment with gonadotropins and gonadal hormones will be undertaken in the laboratory when more specimens are available.

Intestinal Protozoa of Mammals

Glenn A. Noble

California State Polytechnic College

Project Number 86

During the summer of 1958 a study of the amoebae of the large mammals of Jackson Hole was continued. Emphasis was placed on finding cysts of coprozoic amoebae in the soil and on culturing these in the laboratory.

Previous studies revealed abundant cysts in droppings of elk, bison, moose and other mammals. Motile forms were absent. The motile stages, however, appeared in large numbers when the feces was stored under refrigerator conditions. Attempts to find amoebae in soil were negative.

Using new techniques in 1958 it was possible to demonstrate the presence of coprozoic amoebae *Wahlkampfia sp.* and *Sappinia diploidea* in soil from the Wildlife Park and from the Elk Refuge near Jackson. Dry soil was covered by a solution consisting of buffered salts plus glucose and proteose peptone. Within a week at room temperature most soil samples thus treated were swarming with motile amoebae. The protozoa were most abundant at the edges of the containers where there was much mold and bacterial growth. Obviously the cysts were