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Comparison of Montane Ant Communities

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Comparison of Montane Ant Communities
Gerald and Coral Scherba
Chico State College
Project Number 80

The summer's work was concerned with three problems; sagebrush ant populations, a census of mound building ants on Moose Island, and the ecological life cycle of Formica opaciventris.

Study of the sagebrush ant population was concluded with a re-examination of 20 quadrats established and examined in 1957.

On Moose Island, the population of mound-building ants was recensused, and the diameter of each mound recorded, so that there is a record of the change in distribution, abundance and growth for three successive years.

In the Formica opaciventris studies, some of the factors affecting thatching behavior were examined. Relationships between adjacent mounds were observed, and the reproductive pattern was studied, for individual nests, and for the entire population of mounds.

Supported by the New York Zoological Society.

Regeneration in Amphibia
Charles S. Thornton
Kenyon College
Project Number 68

The following projects were investigated:

1. Skin Transplantation. It is known that head or body skin of salamanders will, when grafted to the limb, inhibit regeneration of the limb on subsequent amputation. The mechanism of inhibition is unknown. Using the very favorable Amblystoma tigrinum melano-stictum of Jackson Hole, I have uncovered evidence that head skin will inhibit, or fail to inhibit, limb regeneration depending on whether an epidermal apical forms or not. When the head skin graft forms an apical cap, regeneration occurs; regeneration failure, in limbs with head skin grafts, is correlated with failure of an apical cap to form.

2. Deafferentation of Limbs. The influence of motor nerves on limb regeneration was investigated by means of removing the sensory complement of the left fore limbs of A. tigrinum larvae. This was accomplished by means of a dorsal incision which bared the dorsal spinal ganglia II through VI. These were removed along with the