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Swan Lake Research and Flora of Jackson Hole Area
W. G. Solheim
University of Wyoming
Projects Number 75 and 81

1. Study of the vegetation of Swan Lake
 - a. Phytoplankton
 - b. Algae of the shoreline and attached to water plants
 - c. The aquatic plants of the shoreline
2. Study of the vegetation of Grand Teton National Park and vicinity
 - a. Collection of plants for the check collection at the Station with duplicates for the Park
 - b. Identification of plants for other research workers and interested individuals
3. Study of the fungi of Grand Teton National Park and vicinity
 - a. Collection of and note taking on the fleshy fungi of the area. These are then sent to Dr. Alexander H. Smith of the University of Michigan for further critical study.
 - b. Collection of the parasitic fungi of the area. These are later studied by the undersigned and will eventually lead to publications on the material. The study is of a survey nature as little information is available on the fungi of the area.

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Influence of Nerves on the Regeneration and Regression
of Limbs in Amphibia
Charles S. Thornton
Kenyon College
Project Number 68

The problem is to discover how amphibians are able to replace lost structures, such as limbs and tails, by regenerating new ones. Past work by a host of biologists has demonstrated the great importance of nerves in controlling regeneration. Thus, if one reduces by extirpation the number of nerves entering a limb to a third of the normal number, then subsequent amputation is not followed by regeneration. The adult frog is unable to regenerate a limb after amputation. Nevertheless, when the hindlimb nerves are added, by appropriate deviation, to the forelimb so that the latter will possess the innervation of two limbs, subsequent amputation of this treated frog limb results in regeneration. Thus, we know that the quantity of nerves supplying a limb is of vital importance for its regeneration, but we still do not know how these nerves produce the essential stimulus for regeneration.