As part of a long-term study of the structure and interspecific relations of communities, two study areas were selected in the vicinity of the Research Station. One encompassed grassland and sagebrush in approximately equal amounts, while the other was wholly inside the dense willow thicket which lies across the road from the station. Measurements were taken of habitat variables, and of such phenotypic characteristics as feeding behavior and feeding height distributions of all species resident in these study areas. Recognizing three "coexistence mechanisms" as of major importance in avian communities (horizontal and vertical habitat selection, M.M.S. and V.M.S., and food specialization F.S.) community means in these sectors were found to be 43.7%, 80.9%, 49.8% and 21.6%, 81.0% and 41.0% in the grass-sage and willow areas respectively. Some color banding was done not only to facilitate the plotting of territories, but also to provide information on individual life-spans and other variables. It is proposed to revisit these areas in succeeding years.

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Some Aspects of Plant and Animal Distribution as Affected by Geologic Formations
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University of Wyoming
Project Number 112

Final collections of substrate, plant and northern pocket gopher samples from three radioactive formations were made. Comparative studies of anatomical differences were carried out by Jane A. Peterson and have been reported in her research report to the National Park Service. Chemical analyses of the various samples will be completed by early 1967. A report on the findings of the entire project will then be prepared for publication.

Assisted by Jane A. Peterson, Student Conservation Program.
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