

Ecology of the Uinta Ground Squirrel  
in Jackson Hole  
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In the summer of 1968 a preliminary survey of areas inhabited by the Uinta ground squirrel (Spermophilus armatus) was conducted in order to indicate the nature of variation among the local environments inhabited by ground squirrels in Jackson Hole.

In order to investigate some aspects of the relationship of squirrel populations to significantly different environment types, two areas were chosen for intensive study in the summer of 1969. Area #1, located adjacent to the Jackson Hole Research Station, consisted of a mesic blue-grass meadow with relatively fine soil, and supported a comparatively dense squirrel population. Area #2 was located on a coarse-textured glacial outwash plain amidst a xeric sage-forb-grass community, and supported a relatively sparse squirrel population.

Each area was systematically live-trapped every other day from early June through late August. A total of 270 squirrels was caught in Area #1 (over approx. 4.6 acres) and a total of 35 squirrels in Area #2 (over approx. 11.5 acres). Each squirrel was classified as to sex and age class, toe-clipped for individual identification, and weighed. The capture location was noted in each case. Since some squirrels were captured as many as 20 times throughout the summer, it was possible to obtain information on the degree of ranging and weight increase for individuals, as well as data on population density.

Eighty-four reproductive tracts and 78 stomachs were collected from squirrels trapped adjacent to both study areas between early May and late August. Reproductive tracts will be analyzed to indicate the timing of activity in each area and, combined with data on weight gain, to indicate the net production of squirrel populations in each area. Stomach contents will be analyzed to reveal food habits throughout the season in each area in relation to available vegetation.

In addition, observations were made in each area concerning food use and general behavior. Analyses of vegetation and soil texture have also been made. An additional season of study, beginning in April when the squirrels emerge from hibernation, is planned for 1970.

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