THE UINTAH GROUND SQUIRREL IN JACKSON HOLE: A COMPARISON OF TWO POPULATIONS IN DIFFERENT HABITATS

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Uinta ground squirrels occupy a variety of habitats in Jackson Hole. This study has been investigating squirrel populations in two conspicuously different habitats in order to evaluate the manner in which these populations respond to different combinations of environmental factors in a natural situation. In this case the habitats differ significantly with regard to soil texture, the abundance of edible vegetation, the nature of the overstory, and the amount of available space.

Data gathered over four summers (April-August 1969-1972) will permit a comparison of the two populations with regard to: 1) population density and structure; 2) food habits in relation to available vegetation; 3) net productivity; 4) general behavior; 5) the timing of activity (daily and seasonal); 6) the general nature of predation and interspecific competition; 7) burrow structure and distribution; and 8) the distribution, dispersal movements and activity ranges of individuals.

The study is essentially a live-trapping operation in which captured squirrels are classified as to sex and age, weighed, examined as to condition (of pregnancy, of general vigor, etc.) toe-clipped and dye-marked for individual identification, and followed to a burrow upon release.

Burrow entrances have been marked and mapped. Different types of burrows have been excavated and the ability of squirrels to dig in different soil textures has been studied experimentally.

Reproductive tracts have been collected: embryos counted and measured, placental scars counted; testes measured and weighed.

Regular observations have been made concerning the timing of activity, general behavior, the activity of possible competitors and the nature of predation.

Stomach contents are being examined and compared to canopy coverage analyses of available vegetation. Caloric values and crude fiber content will be determined for most important plant species.

The trapping operation is now complete. During the summer of 1973 additional observations were made to supplement the present data.