Social Dynamics of the Montane Vole, Microtus montanus

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Field work commenced in early June when a trap sample of animals from several sites showed that breeding was well underway. Population densities at the different sites varied widely; trap-night yields ranged from 0 to 33 percent. Behavioral tests of field trapped animals were made in the laboratory. A second sample of animals was collected starting in late September to assess breeding. Although it is not yet complete, it is obvious that densities again vary widely between fields within a seven mile radius. Material for aging is saved from all animals and some voles are being caged for behavioral observations in the laboratory during the winter.

In late June one experimental field was enclosed and then trapped out. Small numbers of animals were introduced to determine their home ranges and nesting patterns under controlled, low densities. In July and August two grids were set up. All animals in one grid were removed and the grid was similarly run twice more during the summer to determine the sex and ages of animals moving into the grid. After the initial trapping period in the second grid, home ranges were determined by tagging the animals with irradiated tantalum (Ta-182) wire and following them with a scintillation probe. Knowing the home range of an animal I proceeded with observations on territoriality and nesting. Animals were often removed for behavioral tests in the laboratory. Similar observations were made in a second grid set out in September, and in another study area in which some animals were followed beginning in early August. These and two other fields will be trapped throughout the winter by using large wooden trap stations positioned before permanent snow cover to get data on winter home ranges, social interactions, and breeding conditions.

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