

**DEER MOUSE POPULATION STABILITY, SYNCHRONY, AND BIOMASS LOSS
IN WESTERN MONTANA, 1994-1996** ^{TWS}

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Small mammal abundance has been speculated to have causal links to ecological processes ranging from human outbreaks of Hantavirus Pulmonary Syndrome (HPS) to predation on cervid fawns. During a study of hantavirus and deer mouse (*Peromyscus maniculatus*) ecology, we live-trapped 18 one-hectare grids at six sites in western Montana. We trapped monthly during the summers of 1994-1996. During 1994, the monthly minimum number alive (MNA) of deer mice on all grids ranged from 207 to 498 mice and monthly site average MNAs ranging from 0 to 66.7 mice. In 1995 populations were much lower, with monthly grid total MNAs ranging from 84 to 119 mice and monthly site average MNAs ranging from 0 to 16.7 mice. In 1996, populations increased with monthly grid total MNAs ranging from 141 to 452 mice and monthly site average MNAs ranging from 0 to 71.7 mice. In 1994 and 1996 the peak grid MNAs were at Polson and most grid populations increased to a peak in August or September. In 1995 the peak grid MNAs were at Cascade and most grid populations were bimodal with early and late summer peak MNAs. Within-site and between-site population synchrony will be examined. Values for monthly deer mouse biomass loss will be presented and discussed in terms of population stability.