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## **\*\*HABITAT SELECTION, MOVEMENTS, AND SURVIVAL OF DISPERSING JUVENILE BEAVERS IN SOUTHWEST MONTANA**

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North American Beaver (*Castor canadensis*) colonies provide a variety of benefits to stream systems by capturing and storing water and sediment, expanding riparian habitats, and increasing habitat heterogeneity. Land and wildlife managers are increasingly interested in implementing beaver restoration projects with the goal of improving stream health and landscape water storage capacity. However, most research on habitat selection by beavers does not address habitat requirements when beavers form new colonies in novel areas, as is the objective of most beaver restoration efforts. We radio-marked juvenile beavers in the upper Gallatin and Madison River drainages to investigate dispersal, survival, and settlement site selection with the goal of improving the ability of managers to identify beaver restoration sites with the highest probability of success. Following the first year of data collection, we found the dispersal rate was low ( $0.16 \pm 0.084$ ) and the survival rate was high ( $0.82 \pm 0.082$ ) among our radio-marked beavers. Out of 50 active beaver colonies discovered in the study area in 2016, only 5 were new settlement sites. Newly-settled sites generally had a higher proportion of willow-dominated habitat types than unsettled sites while all other measured habitat variables were similar between settled and unsettled sites. Our observations indicate old beaver structures are frequently used by dispersing beavers when establishing a new colony. We assert that examination of local beaver densities and the spatial distribution of active colonies are essential components of a successful beaver restoration project, and should precede evaluations of habitat quality at potential restoration sites.