

## **YOUNG AND RESTLESS - A GUIDE TO GETTING YOUR OWN COLONY AS A JUVENILE BEAVER**

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Interest in using beavers (*Castor* spp.) as an efficient riparian restoration tool has increased dramatically in recent decades. The ultimate goal of most beaver-mediated habitat restoration projects is to establish a self-sustaining population of beavers that can occupy new habitats over time. Therefore, dispersal is a key process to understand when evaluating the potential for project locations to be settled by beavers. We radio-marked juvenile beavers in the Gallatin and Madison River drainages in southwest Montana to investigate dispersal characteristics, survival, and settlement site selection. Our goal was to improve identification of restoration sites with the highest probability of colonization by beavers. The annual probability of dispersal in our study area was low ( $0.26 \pm 0.24-0.29$ ), and distances and timing of dispersal were highly variable. The probability of a beaver dispersing decreased as local colony density increased, suggesting delayed dispersal. Few radio-marked beavers started new colonies in previously unoccupied habitat during our study. Instead, most dispersers settled in stream segments already modified by previous beaver activity. The low number of new settlement sites and evidence of delayed dispersal suggests most of the suitable habitat in our study area was occupied. We recommend land and wildlife managers assess the density and distribution of beaver colonies around proposed restoration sites prior to project design to evaluate the potential for dispersal into the project area. Beaver dispersal is an important factor in the success of riparian restoration projects, and our work highlights aspects of dispersal that may influence beaver settlement in this context.