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## **BAT ACTIVITY PATTERNS AND ROOST SELECTION IN MANAGED FORESTS**

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The recent introduction and subsequent westward spread of white-nose syndrome (WNS) has decimated hibernating bat populations in eastern North America and created an urgent need for scientists to understand basic information about bat ecology, especially during the winter season. White-nose syndrome has killed between 5 and 7 million bats and continues to

spread westward from the eastern U.S. and southern Canada, primarily affecting bats during hibernation. Acoustic monitoring has been suggested as a potential surveillance tool for detecting WNS; however, baseline information must first be collected to test this technique. We initiated a pilot project in June 2014 by deploying 2 remote acoustic monitoring stations in western Montana's managed forests collecting baseline acoustic information. We also conducted radio telemetry to determine characteristics of roosts used by bats during the fall season. Thus far we have recorded 11 of Montana's 15 bat species, and observed extremely high activity levels during the summer. We radio-tagged 5 bats of 3 different species (California myotis, Western small-footed myotis, Silver-haired bat) and tracked them in late October and early November. Identifying the characteristics of roost sites used during the pre-hibernation period, and the annual activity patterns determined from acoustic monitoring, begin to form the foundation for understanding basic aspects of bat ecology during the season when Montana bats will be most susceptible to WNS.