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## **BAT USE OF BRIDGES IN MISSOULA, RAVALLI, AND MINERAL COUNTIES IN WESTERN MONTANA (ORAL PRESENTATION AND POSTER)**

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Many North American bat species are declining as populations face increasing pressure from disease and degradation or loss of habitat. Bats roost in natural and artificial structures with adequate crevices. It is important to document the structural and thermal characteristics of these roosts across the landscape in order to provide natural resource managers with tools to protect and conserve these species. Bat use of bridges has been well documented in the southwest United States, but bridges in northwest Montana were not surveyed because temperatures were thought to be insufficient for bats. This lack of knowledge was the basis for our survey of roadway bridges in Missoula, Ravalli, and Mineral Counties. In May-October 2014 we visited 412 bridges and categorized them as day roost, night roost, maternity colony, or no detectable use. We detected widespread use of bridges (45.9%) as night roosts used between foraging flights. Bats were detected in day roosts at a smaller number of bridges (2.7%) with use ranging from solitary bats to hundreds of females and offspring. Bridge type and structure appear to be significant in predicting bat use, and initial temperature data indicate that day roosts have a slightly higher temperature regime than unoccupied bridges. Survey and bat detection information is available to resource managers via the Montana Natural Heritage Program's MapViewer web application (<http://mtnhp.org/mapviewer>). In consideration of the potential importance of these artificial roosts to bat species, we encourage the evaluation of roadway bridges for bat use prior to maintenance or replacement activities.