
BASELINE INDICES FOR CALLING AMPHIBIANS AND WESTERN TOADS ACROSS MONTANA

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Amphibian populations are undergoing global decline, and nearly one-third of the world's amphibian species are threatened. Structured surveys can use a variety of invasive and non-invasive techniques to assess the status of a species while repeatable surveys allow for long-term monitoring to identify population trends. To establish baselines for species occupancy and indices for abundance we conducted two projects to inventory amphibians during May and June of 2016. We conducted roadside calling surveys for species that advertise breeding through calls and lentic surveys at known breeding locations of the Western Toad (*Anaxyrus boreas*). Roadside surveys were broken into west and east regions based on species distributions. We detected two species at seven of the eight western transects, Pacific Tree Frog (*Pseudacris regilla*) and American Bullfrog (*Lithobates catesbeianus*). The Pacific Tree Frog was identified at 19% of the stations sampled, but at low densities. In the east, we detected five species of amphibians at 18 of the 19 transects, Boreal Chorus Frog (*P. maculate*), Northern Leopard Frog (*L. pipiens*), Great Plains Toad (*A. cognatus*), Woodhouse's Toad (*A. woodhousii*), and Plains Spadefoot Toad (*Spea bombifrons*). The Boreal Chorus Frogs were most commonly detected (39%) followed by Woodhouse's Toad (13%) and Plains Spadefoot (12%). Of the 76 sites we surveyed for Western Toad, 63% had evidence of breeding. These surveys can be used as primary indices for future surveys to determine trends in abundance and occupancy through time and inform state status ranks.