

Searching for The Horny Toad - Trials and Tribulations to Document Greater Short-Horned Lizards in Montana

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Greater short-horned lizards (GSHL) are a fascinating and cryptic lizard that are poorly documented in Montana. In the State Wildlife Action Plan, they are identified as a Species of Greatest Conservation Need (SGCN3) and a Species of Greatest Inventory Need (SGIN). With recent declines in reptile populations globally, it is important to establish baseline information about occurrence and a way to monitor population trends in the state. We developed a model to identify suitable habitat based on previous studies, existing observations, and expert opinion. We used standard methods for amphibian and reptile visual encounter surveys (ARVES) with sites randomly sampled within suitable habitat across the GSHL range as defined by the Montana Natural Heritage Program. We sampled 70 sites and observed 18 GSHL from 2016 to 2019 at 6 sites. Our efforts did not produce enough detections to support site occupancy analyses nor examination of variables that affect occupancy or detection probability. We are currently refining our habitat model and adapting our survey protocol based on recent studies and conversations with herpetology specialists to increase detections. In addition to standardized surveys, we also used outreach to request incidental observations from the public. These efforts produced more than 100 additional observations and have proven quite valuable in understanding range and habitat used by GSHL. We will continue to solicit help from the public and ask that if YOU encounter a GSHL, please help us out and let us know!