
HABITAT SELECTION BY CHIRICAHUA LEOPARD FROGS DURING SUMMER MONSOONS

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One-third of the described species of amphibians worldwide are threatened with extinction, including the Chiricahua leopard frog (*Lithobates chiricahuensis*). This frog is highly aquatic, found in portions of Arizona and New Mexico, and listed as threatened under the Endangered Species Act. Currently, the Chiricahua leopard frog is restricted to anthropogenic sources of water, including tanks maintained for livestock, throughout most of its range. Movement habits of this frog and patterns of dispersal between disjunct water sources are not well understood. We attached radio transmitters to 44 total frogs on the Ladder Ranch in southern New Mexico during summer 2014 and located each frog daily for up to 8 weeks (mean = 29 days). We quantified habitat characteristics at each frog location and a random location 5 meters away. We assessed fine-scale habitat selection using conditional logistic regression and also explored the degree of variation in selection among individual frogs. Frogs chose areas with more low-lying cover (especially aquatic vegetation and woody debris), less overstory cover, and a mud substrate. Whether the location was far from or close to water and the amount of overstory cover did not appear to be important for selection, suggesting that frogs are able to find areas that provide habitat away from water

bodies. The variation among individuals was low, suggesting that tracked were selecting similar habitat characteristics. The findings of this study will inform active management of amphibians in anthropogenic settings, where managers can enhance amphibian habitat characteristics between occupied sites to improve population connectivity.