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## **\*\*UNDERSTANDING MOVEMENT PATTERNS OF CHIRICAHUA LEOPARD FROGS TO PROMOTE SPECIES PERSISTENCE IN DESERT ECOSYSTEMS**

Ross K. Hinderer,\* Ecology Department, Montana State University, Bozeman, Montana 59717

Andrea R. Litt, Ecology Department, Montana State University, Bozeman, Montana 59717

Magnus McCaffery, Turner Endangered Species Fund, Bozeman, Montana 59717

Robert Garrott, Ecology Department, Montana State University, Bozeman, Montana 59717

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, habitat for the Chiricahua leopard frog generally is restricted to anthropogenic sources of water, including tanks maintained for livestock. Movement habits of this frog and patterns of dispersal between disjunct water sources are not well understood. On the Ladder Ranch, a working bison ranch in southern New Mexico, we constructed pitfall traps to capture frogs leaving stock tanks. We attached radio transmitters to 14 individuals during the summer of 2013 to study the potential for movement between widely-spaced tanks. Individuals captured in stock tanks ( $n = 11$ ) showed very high site fidelity, never leaving their source location while carrying transmitters up to 18 days. Individuals captured in a nearby creek ( $n = 3$ ) moved as much as 2800 m over a 17-day period. Daily movements of these individuals varied greatly (mean = 121 m, SD = 249) and do not appear to be related to temperature or precipitation. During the 2014 field season, we will attempt to track a larger number of animals moving along the creek corridor and to nearby tanks. Quantifying movement abilities of native amphibians will allow biologists to manage anthropogenic water sources to support movement between habitat patches and maintain functioning metapopulations, while preserving important features of the Ranch for livestock use.