TURNER INSTITUTE *of* Ecoagriculture

MOVEMENT AND HABITAT USE OF REINTRODUCED BOLSON TORTOISES IN SOUTHERN NEW MEXICO

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Rationale. The Bolson tortoise is the largest and rarest of the six Gopherus species native to North America. Today, however, fewer than 2,500 individuals remain in the wild, all of which are restricted to discontinuous basins in the Mapimí sub-province of north-central Mexico, representing >90% extirpation from their Pleistocene range. The Turner Endangered Species Fund (TESF) operates the only large-scale ex situ breeding program aimed at conserving Bolson tortoises and establishing assurance populations within their Pleistocene range in the United States. TESF biologists released 101 transmittered juvenile tortoises to the wild on the Armendaris Ranch in 2021 and 2022 and intend to release an additional 70 individuals between fall 2023 and spring 2024. Since this translocation project is taking place in the historical range of Bolson tortoises, there is a large gap in our understanding as to what constitutes ideal habitat for this species. To begin to address this knowledge deficit, we will conduct a habitat selection study at multiple spatial scales that focuses on juvenile tortoises at the translocation site. Additionally, we will compare home ranges and movement rates to evaluate the effects of release timing on settlement patterns. Both studies will provide vital information for reestablishing Bolson tortoise populations throughout the Chihuahuan Desert.

Species:	bolson tortoise, tortoise
Topic:	ecology, conservation, restoration
Researcher:	Lawson, McCaffrey, Zimba
University:	New Mexico State
Year Completed:	Ongoing