

Work Task C62: Lowland Leopard Frog and Colorado River Toad Habitat and Ecology Study

| FY13 Estimate | FY13 Actual Obligations | Cumulative Expenditures Through FY13 | FY14 Approved Estimate | FY15 Proposed Estimate | FY16 Proposed Estimate | FY17 Proposed Estimate |
|---------------|-------------------------|--------------------------------------|------------------------|------------------------|------------------------|------------------------|
| \$0 | \$0 | \$0 | \$200,000 | \$180,000 | \$150,000 | \$15,000 |

Contact: Allen Calvert, (702) 293-8311, acalvert@usbr.gov

Start Date: FY14

Expected Duration: FY17

Long-term Goal: To gather data on the ecology and habitat of the lowland leopard frog and Colorado River toad to evaluate the feasibility of implementing a pilot introduction into unoccupied habitat.

Conservation Measures: LLFR1, LLFR2, LLFR3, CRT01, CRT02, and CRT03

Location: LCR MSCP program area, the Bill Williams River, Agua Fria River, and Verde River.

Purpose: To determine habitat characteristics and other ecological factors that limit each species distribution which can then be used to determine the feasibility of establishing lowland leopard frog and Colorado River toad in unoccupied habitat, along with implementing a pilot introduction into unoccupied habitat.

Connections with Other Work Tasks (past and future): Preliminary data collected under D12 will be expanded upon in this study.

Project Description: Surveys for these species in the past have located very few populations. Additional habitat surveys need to be collected on multiple populations in order to get a robust sample size for a detailed habitat analysis. This analysis will in turn be used to determine if it is feasible to establish either species in unoccupied habitat.

Researchers will go to known occupied areas for each species and collect detailed habitat information, especially in confirmed breeding areas and where egg masses are found. Vegetation and other habitat variables will be collected on each species' ecological needs such as presence of non-native predators, minimum and maximum water depth and temperature, substrate type (e.g., gravel, sand), water temperature, pH, turbidity, stream discharge, vegetation composition, etc. Due to the Bill Williams River being the only known occupied area (within the program area) for either species, other similar river systems may be surveyed so that the sample size is statistically robust.

Previous Activities: Data collected from work task D12 will be utilized to help select study areas and variables to analyze.

FY13 Accomplishments: This is a new start in FY14.

FY14 Activities: The study plan will be finalized. Field work will begin in February 2014 for the lowland leopard frog and at the start of the summer monsoons for the Colorado River toad. Study areas will be surveyed and habitat characteristics will be collected at three scales. Three different watersheds with known presence of each species will be included in order to gain a sample size based on multiple populations.

Proposed FY15 Activities: The FY14 annual report will be completed and the second survey season will begin, collecting same data as in FY14.

Pertinent Reports: Once finalized, the study plan will be available upon request.