

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

FY12 Estimate	FY12 Actual Obligations	Cumulative Expenditures Through FY12	FY13 Approved Estimate	FY14 Proposed Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate
\$0	\$0	\$0	\$0	\$200,000	\$200,000	\$200,000

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**Start Date:** FY14

**Expected Duration:** FY20

**Long-term Goal:** To gather statistically robust data on the ecology and habitat of the lowland leopard frog and Colorado River toad to implement a pilot introduction into unoccupied habitat.

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

**Location:** LCR MSCP program area and the Bill Williams River and its tributaries.

**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. It is estimated that this will be a three year project.

**Previous Activities:** N/A

**FY12 Accomplishments:** This is a new start in FY14.

**FY13 Activities:** This is a new start in FY14

**Proposed FY14 Activities:** The study design will be completed. Sites will be selected and presence/absence surveys will begin in February for lowland leopard frogs and at the start of summer monsoons for the Colorado River toad. Habitat analyses will take place as each species is detected to quantify habitat requirements. Surveys will continue through August or until the end of the monsoon season each of the three years of the project.

**Pertinent Reports:** N/A