

Work Task D12: Lowland Leopard Frog and Colorado River Toad Surveys

FY14 Estimate	FY14 Actual Obligations	Cumulative Expenditures Through FY14	FY15 Approved Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate
\$25,000	\$29,627.44	\$402,792.37	\$25,000	\$35,000	\$35,000	\$35,000

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Start Date: FY10

Expected Duration: FY55

Long-Term Goal: To document the existing populations of the lowland leopard frog and Colorado River toad along the LCR and understand their habitat requirements

Conservation Measures: LLFR1 and CRT01

Location: Within Reaches 3–7 of the LCR MSCP boundary and the Bill Williams River

Purpose: To better define the distribution, habitat requirements, and factors limiting the distribution of the lowland leopard frog and Colorado River toad using a system-wide monitoring approach

Connections with Other Work Tasks (Past and Future): Populations that are found during system-wide surveys may be included in the habitat study conducted under Work Task C62.

Project Description: System-wide surveys for the lowland leopard frog and Colorado River toad will be conducted along the LCR and the Bill Williams River. It is unknown if any populations still exist along the LCR. The lowland leopard frog has been observed on the Bill Williams River, and surveys will help determine the distribution of this population. Habitat characteristics will also be gathered in conjunction with surveys where the presence of either species is confirmed.

Previous Activities: In FY11, 139 locations along the LCR and Bill Williams River were surveyed. Six Colorado River toads were found at Planet Ranch, and no lowland leopard frogs were found. Lowland leopard frogs and Colorado River toads were found on the Bill Williams River, east of Planet Ranch, in FY12 and FY13. Neither species was documented on the main stem LCR.

FY14 Accomplishments: Presence surveys for Colorado River toads were conducted in the summer of FY14 along 4.3 miles of the Bill Williams River east of Planet Ranch. Visual encounter surveys, tape-playback surveys, digital automated recorders (frog loggers), funnel traps, and eDNA sampling were used.

A total of fifty-four visual encounter and tape-playback surveys were conducted. Eleven Colorado River toads were captured, with one male recaptured once. Four captures were on the same night at a recently created ephemeral pool. Callbacks were heard during seven of the surveys from five of the plots. All call responses came from outside the surveyed plot except for one on Plot 5. Two pairs were observed breeding on Plot 5 on August 5, 2014, and two egg masses were recorded on that plot on August 7, 2014. There were calling males on Plot 6, but no females or egg masses were observed.

The digital automated recorders detected Colorado River toads calling on 23 nights. All calling and breeding activity occurred between August 3 and September 17, 2014. There were 84 detections of Colorado River toads using this method. Detections occurred from all plots except Plots 7 and 8.

Funnel traps were deployed on August 7 and 8 and September 3, 23 and 24, 2014. Traps were only deployed on dates when and at locations where water was present. No lowland leopard frogs or Colorado River toads were captured.

A total of 11 water samples were collected for eDNA and sent for analyses. Samples were taken where ample water was available for lowland leopard frogs and Colorado River toads. Samples were collected on August 8 and September 3, 2014, on Plots 5 and 6. Samples for Plot 10 were collected on October 3, 2014.

FY15 Activities: Species presence data will be collected within the Bill Williams watershed using visual encounter surveys, tape-playback surveys, digital automated recorders (frog loggers), funnel traps, and eDNA sampling. Surveys for the lowland leopard frog will begin in February, and surveys for the Colorado River toad will be conducted in the summer and fall.

Proposed FY16 Activities: Species presence data will be collected within the Bill Williams watershed using visual encounter surveys, tape-playback surveys, digital automated recorders (frog loggers), funnel traps, and eDNA sampling. Surveys for lowland leopard frog will begin in February, and surveys for the Colorado River toad will be conducted in the summer and fall.

An analysis will be conducted comparing the five monitoring methods to identify the best methods to use in subsequent years. The project budget will increase in FY16 to fund this analysis.

Pertinent Reports: The FY13 annual report will be posted on the LCR MSCP Web site upon completion.