

## Work Task C57: Sonic Telemetry of Lake Mead Juvenile Razorback Suckers

FY12 Estimate	FY12 Actual Obligations	Cumulative Expenditures Through FY12	FY13 Approved Estimate	FY14 Proposed Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate
\$0	\$0	\$0	\$250,000	\$250,000	\$250,000	\$0

**Contact:** Jim Stolberg, (702) 293-8206, [jstolberg@usbr.gov](mailto:jstolberg@usbr.gov)

**Start Date:** FY13

**Expected Duration:** FY15

**Long-term Goal:** Support razorback sucker (RASU) conservation.

**Conservation Measures:** RASU 6.

**Location:** Reach 1, Lake Mead, Arizona/Nevada.

**Purpose:** Investigate habitat use of immature RASU and determine conditions that allow for natural recruitment of Lake Mead RASU.

**Connections with Other Work Tasks (past and future):** This work task is related to the Lake Mead Razorback Sucker Study (C13) and Razorback Sucker and Bonytail Stock Assessment (D8).

**Project Description:** From 1996 to 2011, 95 sonic-tagged adult RASU have aided researchers in locating spawning populations of RASU in Lake Mead and understanding the habitat use and spawning preferences of the adult population. Trammel-netting efforts during this time also provided valuable information on Lake Mead RASU demographics and included the capture of over 100 juvenile/sub-adult RASU. To date only limited effort has been expended trying to capture this young life stage, which is an important element in understanding why RASU recruitment is occurring in Lake Mead. This project will investigate habitat use of immature RASU through sonic telemetry.

**Previous Activities:** This study builds upon work conducted on the Lake Mead adult RASU population (C13 and D8).

**FY12 Accomplishments:** New start in FY13.

**FY13 Activities:** This project will investigate the habitat use of juvenile RASU by implanting hatchery reared, and potentially wild-caught fish with sonic tags and monitoring their movements. A variety of sampling techniques including trammel nets, minnow traps, hoop nets, fyke nets, and seines will also be used in conjunction with

tracking efforts to sample specifically for juvenile RASU throughout appropriate portions of the year. Tissue samples will be taken from any RASU captured during the course of this effort for genetic analyses, and the age of all captured RASU will be determined through appropriate nonlethal techniques. In addition to these activities, the physicochemical environment including water quality parameters, substrate types, and vegetation of any potential recruiting habitat or areas where juvenile fish are tracked or contacted will also be identified. Information gathered from this study will provide resource managers with recommendations for enhancing juvenile RASU habitat.

**Proposed FY14 Activities:** Investigation and identification of juvenile RASU habitat will continue. Additional hatchery reared juvenile RASU will be sonic tagged for the purposes of tracking, and follow up sampling will be conducted with the goal of capturing wild juveniles for inclusion in the tracking portion of this work. All other project elements will also continue.

**Pertinent Reports:** N/A