

## Work Task C31: Razorback Sucker Genetic Diversity Assessment

FY08 Estimates	FY08 Actual	Cumulative Accomplishment Through FY08	FY09 Approved Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate
\$0	\$0	\$0	\$125,000	\$125,000	\$125,000	\$125,000

**Contact:** Ty Wolters, (702) 293-8463, twolters@usbr.gov

**Start Date:** FY09

**Expected Duration:** FY15

**Long-term Goal:** Maintain genetic quality of RASU utilized in LCR MSCP.

**Conservation Measures:** RASU2, RASU3, RASU5, RASU6.

**Location:** Arizona State University, Tempe, Arizona.

**Purpose:** To maintain a sound genetic management program for RASU within the LCR MSCP.

**Connections with Other Work Tasks (past and future):** This work is related to larval RASU collections (B1) and to management of fish habitat restoration sites (for example, E14). Fin-clips were collected from RASU captured during the Age Characterization Study (C29).

**Project Description:** This study will monitor genetic structure of RASU communities in reservoirs, river reaches, and off-channel habitats within the LCR and characterize the various RASU stocks relative to the founder population from Lake Mohave.

Larval fish from each stock will be captured, preserved, and delivered to ASU's genetics research laboratory for analyses. Results will be used to determine the genetic health of these communities, to assess effectiveness of the Fish Augmentation Program, to continue monitoring of the Lake Mohave repatriation effort, and to provide guidance on management of RASU populations developing in newly constructed floodplain habitats within the LCR MSCP area.

**Previous Activities:** Genetic evaluation of the Lake Mohave Razorback Sucker Repatriation Program, funded by Reclamation prior to the LCR MSCP, was completed in 2008. These studies resulted in genetic characterization of the Lake Mohave RASU population, including the larval fish being used by the LCR MSCP Fish Augmentation Program. This base of information will be the reference point against which the genetic diversity of all future RASU populations will be measured.

**FY08 Accomplishments:** New start in FY09

**FY09 Activities:** Reclamation and Arizona State University initiated a study to assess razorback sucker genetics for the LCR. RASU fin clips, and larvae collected from all spawning areas, reservoirs, river reaches, and off-channel habitats within the LCR MSCP area will be sent to ASU for analysis.

**Proposed FY10 Activities:** Collection of larval RASU from all spawning areas within the LCR MSCP area will continue and larvae will be provided to ASU. This includes collection from river reaches, reservoirs, and off-channel habitats.

**Pertinent Reports:** The study plan is available upon request. A progress report for the 2004 research grant has been received, reviewed, and accepted. The report, *Continued Studies of Razorbacker Genetics*, has been posted to the LCR MSCP Web site.