Work Task C31: Razorback Sucker Genetic Diversity Assessment

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate
$0	$0	$0	$0	$125,000	$125,000	$125,000

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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, AZ.

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 restorations sites (for example, E14).

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 has been wholly funded by Reclamation through research grants awarded to ASU in 2001 and again in 2004. A sum of $200,701 was obligated in August 2004 for data analyses through September 30, 2007. Not all of the funds were expended during this period, so a no-cost extension was awarded in summer 2007 to extend the period of work through FY08 (to September 30, 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.

FY07 Accomplishments: Subsamples of all larval RASU were provided to ASU under FY04 agreement.

FY08 Activities: Continue to provide subsamples of larval RASU collections to ASU to be analyzed under FY04 agreement.

Proposed FY09 Activities: Collect larvae RASU from all spawning areas within the LCR MSCP area and provide to ASU. This includes river reaches, reservoirs, and off-channel habitats.

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