

## Work Task C29: Age Characterization of Reach 3 Razorback Sucker Population

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	\$0

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**Start Date:** FY09

**Expected Duration:** FY11

**Long-term Goal:** Assess effectiveness of the fish augmentation program.

**Conservation Measures:** RASU6.

**Location:** Colorado River in vicinity of Needles, CA, and Laughlin, NV, and other sections of LCR MSCP Reach 3 where spawning RASU are encountered.

**Purpose:** To characterize the age structure of the RASU spawning population in Reach 3.

**Connections with Other Work Tasks (past and future):** This work is related to B2, B3, B4, and B5 as fish from these facilities may be encountered and data collected will help assess potential survival and population structure resulting from RASU stockings. This study began under G3 to evaluate the ageing technique developed by Bio/West Inc. for RASU on Lake Mead under C13.

**Project Description:** This study will characterize the age structure of the spawning RASU in Reach 3 of the Colorado River. Under the Lake Havasu Fishery Improvement Project, more than 31,000 RASU were stocked into this reach over a 10-year period (1993 to 2002). In 2005, researchers located concentrations of spawning RASU just upstream of Needles, CA. This group of RASU is believed to have resulted from the earlier augmentation stockings by the Lake Havasu Fishery Improvement Project. Unfortunately, few if any of those fish were PIT-tagged prior to release.

BioWest, Inc. developed a non-lethal technique to remove fin-ray sections from the pectoral fin of RASU and to then age the fish under microscopic examination of the sections. The technique has been used on RASU from Lake Mead with more than 132 fish successfully aged so far.

This study will aggressively capture adult RASU from Reach 3 during the spring 2009 and spring 2010 spawning periods and remove fin-ray sections in the field. The fin-ray sections will be analyzed in the laboratory, and researchers will build an “age structure” of the spawning stock. These data will then be compared with stocking records for the Lake Havasu Fishery

Improvement Project. Attempts will be made to isolate individual stocking events and to assess differential successes or failures. (For example, did summer stockings show better survival than winter stockings? Did fish stocked near Parker Dam show better survival than fish stocked near Davis Dam?) The final report will summarize these data and provide recommendations and guidance to the LCR MSCP Fish Augmentation Program.

**Previous Activities:** New start in FY08 under G3.

**FY07 Accomplishments:** None.

**FY08 Activities:** See G3.

**Proposed FY09 Activities:** Field activities to capture RASU at spawning sites in Reach 3, removal of fin-ray sections, analyses of sections in laboratory, compilation of RASU stocking data for the Lake Havasu Fishery Improvement Project, and preparation of annual progress report.

**Pertinent Reports:** Study plan in preparation, to be available July 2008.