

Work Task B1: Lake Mohave Razorback Sucker Larvae Collections

FY06 Estimates	FY06 Actual	Cumulative Accomplishment Through FY06	FY07 Approved Estimate	FY08 Proposed Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate
\$225,000	\$222,391	\$424,214	\$200,000	\$200,000	\$200,000	\$200,000

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Start Date: FY04

Expected Duration: FY55

Long-term Goal: Fish Augmentation

Conservation Measures: RASU3, RASU5, and RASU8

Location: Reach 2, Lake Mohave, AZ/NV

Purpose: Develop the razorback sucker (RASU) broodstock in Lake Mohave, maintain the broodstock, and harvest offspring for rearing as needed to accomplish the LCR MSCP Fish Augmentation Program.

Connections with Other Work Tasks (past and future): Work tasks B2, B4, B5, B6, and B7 are related to this Work Task, as the RASU to be reared under these work tasks originate from Lake Mohave.

Project Description: The RASU broodstock in Lake Mohave represent the remaining genomes for RASU and provide a level of genetic diversity found nowhere else in the world. This project captures wild-born RASU larvae from Lake Mohave, and delivers them to Willow Beach NFH for initial rearing. Work includes helicopter surveys every two weeks to locate spawning groups, night-time larvae collection, and maintaining the boat fleet and field station at Cottonwood Cove. These larvae are captured one at a time, making this a labor-intensive program. Hence, most expenditures are for salary, travel, and fuel.

Work normally commences in mid to late January. Equipment is delivered to and staged at Cottonwood Cove where a field station is established. The lake's shoreline is surveyed by helicopter, and locations of spawning aggregations of RASU are recorded. Crews of two to four staff meet at the field stations at sunset, gather batteries, lights, dip nets, and buckets, and set out by boat to the spawning areas. Razorback sucker larvae attracted to submerged lights suspended from the boat are captured by net and are counted. Crews return to the field station, label buckets of larvae, record their capture success and location, place batteries back on chargers, clean and stow other gear, and place air stones in buckets to maintain adequate oxygen levels. The next morning the larvae are transferred to Willow Beach NFH by either boat or vehicle, where they

are logged in as to date received, number collected, and location. This work is repeated four to six nights per week through mid to late April.

Previous Activities: This work is part of a program started by the Native Fish Work Group (NFWG) in 1989 to rebuild the adult stock of RASU in Lake Mohave so that these fish could be used as brood fish for RASU recovery. The goal of the NFWG was to develop a population of 50,000 adult RASU. Various rearing techniques were tried between 1991 and 1993; in 1994 it was determined that capturing wild larvae from the lake and rearing them in captivity offered the best chance to successfully complete the program.

FY06 Accomplishments: Sixty-three thousand nine hundred seventy-five (63,975) wild larvae were collected from four areas on Lake Mohave during 2006. Contribution of larvae from each zone by month of capture is presented in the following table.

Zone	Jan	Feb	March	April	Total
Nine Mile	0	1,620	4,329	0	5,949
Tequila	30	13,814	19,606	1,950	35,400
Yuma	1,060	6,815	8,219	5,563	21,729
AOP	0	0	525	372	897
Total	1,090	22,249	32,751	7,885	63,975

From 1994 through 2006, some 622,168 wild RASU larvae have been collected from Lake Mohave.

FY07 Activities: High survival for RASU larvae captured in 2005 and 2006, combined with concerns regarding quagga mussel infestation, have resulted in a target of only 20,000 larvae required for 2007. Capturing wild larvae is an issue of quality as well as quantity; no change in cost will be incurred since the same number of trips and helicopter surveys will be conducted. The RASU larvae for Bubbling Ponds SFH that normally come from this venture will be supplied by Dexter NFH until quagga mussel issues are resolved.

Proposed FY08 Activities: Larval RASU will be collected as needed for continued broodstock development/maintenance and for augmentation stockings. The numbers of larvae required will be determined in December 2007, but a tentative target of 50,000 larvae is used here to establish a budget estimate.

Pertinent Reports: *2006 Fish Augmentation Summary* will be posted to the LCR MSCP Web site.