

Work Task C64: Post-Stocking Movement, Distribution, and Habitat Use of Razorback Sucker and Bonytail

FY14 Estimate	FY14 Actual Obligations	Cumulative Accomplishment Through FY14	FY15 Approved Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate
\$0	\$0	\$0	\$700,000	\$700,000	\$700,000	\$700,000

Contact: Jeff Lantow, (702) 293-8557, jlantow@usbr.gov

Start Date: FY15

Expected Duration: FY18

Long-Term Goal: To maintain an effective LCR MSCP Fish Augmentation Program

Conservation Measures: BONY3, BONY 4, BONY5, RASU3, RASU4, and RASU6

Location: Reaches 2–5

Purpose: To provide information on movement, distribution, and habitat use of stocked razorback sucker and bonytail and to use this information to set up an appropriate monitoring network to suggest potential stocking locations and track post-stocking survival

Connections with Other Work Tasks (Past and Future): This work task represents the merger of three previously funded work tasks: C39, C45, and C49. The intent of this combination was to capture these activities with similar purpose and scope into a consolidated, multi-reach effort for both bonytail and razorback sucker. This work task is related to Work Tasks B2, B3, B4, and B6, all of which provide bonytail and razorback sucker for augmentation stocking and may also build on information gained in Reach 1 through Work Tasks C13 and C57. Information collected under this work task will be added to the database used to complete Work Task D8. This work task also has a past relationship with Work Task C8 and is expected to have future interactions with Work Task C61 or other work tasks that can benefit from the information and/or the monitoring network created under Work Task C64. Funds from Work Task G3 were provided in FY14 to accomplish preliminary work in Reach 2 that will be covered by this work task in FY15.

Project Description: The activities covered under this work task both consolidate and build on the work that has been undertaken and accomplished under Work Tasks C39, C45, and C49. The approaches used to identify appropriate stocking locations throughout Reaches 2–5 will be formalized, which will be accomplished through pilot releases of tagged fish to identify dispersal and movement of individuals or groups of fish. Information on preliminary post-stocking habitat selection and use and survival will be provided and can then be used to: (1) establish a more appropriate monitoring network in terms of where to locate remote sensing equipment or other sampling gear with higher probabilities for contacts, (2) indicate locations that may be better suited for stocking fish, and (3) possibly identify additional aggregations of native fish.

The networks that are established under this work task will also provide monitoring information on the effectiveness of different stocking treatments (conducted under Work Task C61) as well as longer-term information on survival, habitat use, and movement of native fishes in these reaches. Eventually, these established long-term monitoring networks may be used for system-wide monitoring and would be covered through Work Task D8.

Previous Activities: Detailed accounts of work and accomplishments covered under Work Tasks C39, C45, and C49 have been reported under these tasks and in their associated technical reports. They include the tracking and monitoring of stocked razorback sucker and bonytail in specific areas in Reaches 3 and 4. Post-stocking movement and habitat use have been documented, and post-stocking survival estimates have been developed for razorback sucker and/or bonytail in these reaches.

FY14 Accomplishments: This is a new start in FY15.

FY15 Activities: The budget estimates reflect the projected costs for FY15 from combined Work Tasks C39, C45, and C49 plus the additional work described below for Reaches 2, 4, and 5.

Reach 2: A study plan and equipment purchases for a pilot release of sonic-tagged bonytail in Lake Mohave were completed in FY14 under Work Task G3. Releases of sonic-tagged bonytail are anticipated to occur in the early spring of FY15, with the total number of sonic-tagged bonytail being dependent on fish availability. Bonytail will be implanted with sonic tags and released at locations in the lake where they were historically found. Following release, they will be intensively tracked to determine dispersal, movement patterns, and habitat selection as well as potential survival rates. Data gathered from this effort will be used to inform managers of future stocking of bonytail in Lake Mohave to meet LCR MSCP commitments. Groups of razorback sucker will also be released and tracked as part of this effort, as this work can be performed concurrently and will help to maximize resources and the use of acquired equipment.

Reach 3: Work previously described under Work Task C45 has been moved and is now covered by Work Task C64. For the final year of the project, razorback sucker will again be released into select backwaters to be monitored via trammel nets and PIT tag scanners. Peripheral limnological and habitat data will be collected to assess which backwater features are most critical to razorback sucker inhabitation.

Bonytail work previously conducted under closed Work Task C39 is now being reported here beginning in FY15. The final iteration for paired releases between a lake environment at the Bill Williams River NWR and a riverine environment near Blankenship Bend are being completed in the fall. An additional experimental release of bonytail will be conducted at the backwater in Park Moabi. Detailed dispersal, survival, and habitat use will be collected via sonic telemetry and remote PIT scanners.

Reach 4: Previous activities funded through Work Task C49 were moved to this new work task. There are no scheduled research projects for razorback sucker or bonytail between Parker and Palo Verde Diversion Dams in FY15.

A study plan encompassing a portion of Reaches 4 and 5 will be developed, and equipment purchases will be made in FY15 to prepare for pilot releases of razorback sucker and bonytail in Reach 4 below Palo Verde Diversion Dam in FY16. Previous surveys performed under Work Task D8 will be used to inform managers of potential release locations in this portion of Reach 4.

A study plan will also be completed to evaluate post-stocking survival of bonytail and razorback sucker below Palo Verde Diversion Dam; this will encompass a portion of Reaches 4 and 5.

Reach 5: A study plan will be developed, and equipment purchases will be made in FY15 to prepare for pilot releases of razorback sucker and bonytail in Reach 5 in FY16. Previous surveys performed under Work Task D8 will be used to inform managers of potential release locations in Reach 5.

Proposed FY16 Activities: Proposed activities for this work task have been summarized by river reach. Paired experimental releases of bonytail and razorback sucker exposed to predator avoidance conditioning and non-conditioned fish will be initiated. The location for the experiment is undecided, but one will be selected based on conditions suited for the experiment.

Reach 2: Continued releases of sonic-tagged bonytail will occur in Lake Mohave and will build upon the results from FY15. Sonic-tagged razorback sucker will continue to be monitored to help identify seasonal movements and potentially new spawning locations.

Reach 3: Experimental releases of bonytail that involve sonic telemetry and remote PIT scanning are expected to continue, adding to the knowledge of post-stocking survival and detailed habitat use for this species in reservoir and riverine environments.

Reach 4: A study plan for additional stocking and monitoring of razorback sucker and bonytail between Parker and Palo Verde Diversion Dams will be developed to evaluate the habitat use and relative survival of fish released into the LCR and backwaters on CRIT lands.

Pilot releases of pit-tagged and sonic-tagged razorback sucker and bonytail will occur in a number of locations in Reach 4. Tracking of sonic-tagged fish will begin in FY16.

Reach 5: Pilot releases of pit-tagged and sonic-tagged razorback sucker and bonytail will occur in a number of locations in Reach 5. Tracking of sonic-tagged fish will begin in FY16.

Pertinent Reports: N/A