

Work Task C53: Sonic Telemetry of Juvenile Flannelmouth Suckers in Reach 3

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
\$120,000	\$112,559.64	\$159,629.18	\$120,000	\$120,000	\$0	\$0

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

Start Date: FY12

Expected Duration: FY15

Long-term Goal: Support flannelmouth sucker (FLSU) conservation.

Conservation Measures: FLSU1 and FLSU3.

Location: Reach 3, Arizona/Nevada/California.

Purpose: Determine habitat use and preference for juvenile FLSU in Reach 3. Provide resource managers with recommendations to enhance juvenile flannelmouth sucker habitats as a requirement for LCR MSCP habitat creation goals.

Connections with Other Work Tasks (past and future): Work conducted under this task is related to C15 and C45.

Project Description: Flannelmouth sucker were reintroduced into the Colorado River below Davis Dam by AGFD in 1976 by transfer of fish captured at the confluence of the Colorado and Paria rivers at Lee's Ferry, Arizona. This stock has persisted for three decades and now represents the only known population of this native species in the Colorado River downstream of Davis Dam.

The LCR MSCP completed five years of research on this population. The study contacted all life stages of flannelmouth sucker and telemetry of adults gave us great insight as to movements and habitat use of adult flannelmouth suckers. However, only nine juvenile flannelmouth suckers greater than 100 mm and less than 350 mm total length were contacted during this study. Previous studies by U.S. Geological Survey in the 20 river miles above Lake Havasu had similar difficulty contacting juveniles, but found that while flannelmouth sucker contacts were rare, the majority (85%) of flannelmouth sucker captured consisted of these smaller size classes. This study will define the habitats used by these younger fish and provide managers a complete life history of FLSU within Reach 3.

Previous Activities: This study will build upon the previous work accomplished through work task C15. Juvenile RASU and FLSU tagging studies were accomplished under D8 in preparation for this project. Larval FLSU were captured near Laughlin, Nevada, and are currently being reared at Lake Mead Fish Hatchery as a potential source of juvenile

fish. Fish of sufficient size were not available from the wild population in Reach 3 and a surrogate population from Lake Mead will be used to facilitate an appropriate sample size.

FY13 Accomplishments: A surrogate population of flannelmouth suckers from the Colorado River at the Lake Mead inflow was utilized to initiate telemetry work in FY13. Twenty sub-adult fish were surgically implanted with a 90 day sonic transmitter, held at the Lake Mead Fish Hatchery until healthy, then released downstream from Laughlin, NV in March 2013. Manual tracking was initiated immediately following release accompanied by stationary submersible receivers (SURs) to help determine fish locations. Fish were tracked and habitat data were recorded until mid-June. Fish proved difficult to track with manual equipment and the majority of detections were from SURs. Seven fish were either mortalities or never detected and the majority of active tags (10 of 13) were only detected on SURs. Fish were detected using a mix of backwater and riverine habitats, and at least one instance of continuous backwater use was observed at the Big Bend Conservation Area; this fish was contacted repeatedly for 10 days.

FY14 Activities: Subadult flannelmouth sucker surrogates will again be collected from the Lake Mead Inflow. Up to 30 subadult flannelmouth suckers will be surgically implanted with sonic tags and released at the end of February. Additional radio tags with a trailing whip antenna will be tested and implanted into flannelmouth sucker and released in March, these may provide habitat use data where sonic tags are lacking. Tagged fish will be released near Laughlin and tracking will commence immediately following their release. More SURs were purchased and they will be strategically deployed to help bracket fish locations and increase detectability. Habitat data will be collected throughout the tracking process to determine habitat utilization.

Proposed FY15 Activities: Activities will be similar to those from FY13; specifics may vary depending on FY14 results.

Pertinent Reports: A study plan was developed in FY11 and is available upon request. A report summarizing the first year is in draft and will be posted to the MSCP website upon completion.