

Work Task C15: Flannelmouth Sucker Habitat Use, Preference and Recruitment Downstream of Davis Dam

FY08 Estimates	FY08 Actual	Cumulative Accomplishment Through FY08	FY09 Approved Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate
\$80,000	\$81,892.97	\$324,810.97	\$80,000	\$80,000	\$25,000	\$0

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

Start Date: FY05

Expected Duration: FY11

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

Conservation Measures: FLSU2 and FLSU3

Location: Reach 3, Arizona/Nevada/California

Purpose: Provide funding to support existing FLSU conservation and research below Davis Dam, and develop a management needs strategy for this species.

Connections with Other Work Tasks (past and future): Work conducted under this task is related to C29, C31, and D8 as all FLSU and RASU captured are providing tissues for aging and for genetic analyses, and the capture data are covered in the System Monitoring program.

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 Grand Canyon.

Under conservation measures FLSU2 and FLSU3, LCR MSCP is conducting research in Reach 3 below Davis Dam to determine habitat use, habitat preferences, and recruitment, and to support decisions on habitat management activities for river channel and backwater habitats. Studies will continue through FY11. Once completed, research results will be used through the adaptive management process to assess main channel and backwater management needs and to develop management strategies to benefit the FLSU.

Previous Activities: Spring field sampling was conducted in FY05; this work was combined with monitoring activities for RASU. Results of this work are included in a report covering a 3-year period from 2003 to 2005, which is posted to the LCR MSCP Web site. Field sampling in FY06 resulted in the contacting of all life stages of FLSU. This produced a population estimate of 2,437 adults. Fifteen adult male FLSU were surgically implanted with 14-month sonic tags.

These fish were tracked throughout the year and were instrumental in locating additional spawning sites, as well as providing data on dispersal and habitat use. More results are available in the FY06 annual report. Field sampling in FY07 focused primarily on FLSU spawning aggregations and the young fish that resulted. We captured a total of 104 adults, which generated a population estimate of 2,471 adult FLSU, similar to the 2006 estimate. Additionally, 7 juveniles and 19 larvae were collected. Numerous schools of juvenile fish (25-60 mm) were visually identified and numbered in the hundreds. An additional 20 adult FLSU were surgically implanted with 36-month sonic tags; 10 were females and 10 were males. One hundred and twenty-seven detections from manual tracking added additional information to our habitat use database.

FY08 Accomplishments: Telemetry work continued with tracking of about 15 active transmitters. Ninety-six detections provided valuable data on habitat use, site fidelity, and home ranges to add to the habitat use database. We also conducted sampling for all life stages of FLSU with an emphasis on early life stages. These sampling trips focused on the locations and habitats used by aggregations of young-of-year FLSU. Sampling methods consisted of small mesh trammel nets, boat electrofishing, beach seining, snorkeling, larval lights, and dip nets. This effort resulted in the capture of 28 adults (fin clipped for aging purposes), two sub-adults (321 and 365 mm) captured in the backwaters of Topock Gorge, and hundreds young-of-year (12-33 mm). More than a dozen rearing areas for larvae and early juveniles were located in backwaters and slackwater habitats. Fin-clipped adults averaged 15 years of age (range 7-26).

FY09 Activities: Continuation of FY08 sampling is planned. This includes telemetry, larval collections, electrofishing, and trammel netting with smaller meshed nets to increase contacts with juvenile life stages. Relative abundance surveys will expand south of the California state line. Additional fin clips for aging will be collected.

Proposed FY10 Activities: Monitoring and research actions from FY09 will be continued, habitat maps will be critiqued, and the ratio of FLSU habitat used to habitat available will be evaluated.

Pertinent Reports: The annual report for FY08 is in preparation and will be posted to the LCR MSCP Web site.