

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

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate
\$80,000	\$92,893	\$242,918	\$80,000	\$80,000	\$80,000	\$25,000

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Start Date: FY05

Expected Duration: FY11

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

Conservation Measures: FLSU2 and FLSU3.

Location: Reach 3, AZ/NV/CA.

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): Since FY06, the FLSU work is now being done under C15 and the RASU portion of the work has been included under D8.

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 will conduct FLSU research efforts in Reach 3 below Davis Dam to determine habitat use, habitat preferences, and recruitment, and support decisions on habitat management activities for river channel and backwater habitats in Reach 3. Research support will be provided for 5 years (FY06-10). 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 (scheduled for FY11).

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: 6 larvae, 4 juveniles, and 350 adults. This produced a population estimate of 2,437 adults. Fyke netting proved ineffective and was

discontinued; the results of this are included in the FY06 annual report. 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 with regards to dispersal, and habitat use.

FY07 Accomplishments: Numerous sampling events were conducted throughout the year, the majority of which were from March through July. These trips focused primarily on FLSU spawning aggregations and the young fish that resulted. Sampling consisted of small meshed trammel netting, backpack and boat electrofishing, seining, snorkeling, larval light trapping, and DIDSON camera surveys. These resulted in the capture of 104 adults, 7 juvenile, and 19 larvae; additionally, numerous schools of young fish (25-60mm) were visually identified and numbered in the hundreds. A population estimate of 2,471 adult FLSU was generated based on the mark recapture data from the electrofishing and trammel netting.

An additional 20 adult FLSU were surgically implanted with 36-month sonic tags; 10 were females and 10 were males. There were also eight sonic tags still active from the 2006 field season, which provided valuable data with regards to habitat use, site fidelity, and home ranges. Sonic fish were tracked at least monthly throughout the year; this totaled 127 detections by manual tracking. These contacts allowed for the collection of specific habitat data that will be used to determine habitat preferences and availability. The use of submersible ultrasonic receivers (SURs) was increased this year with a particular focus on backwater use.

FY08 Activities: Continuation of sampling is planned, using larval nets, electrofishing, and trammel netting with smaller meshed nets to increase contacts with juvenile life stages. Beach seining and backpack electro-shocking will be expanded to assess the numbers, distribution, and dispersal of juvenile life stages. Telemetry work will continue, and additional habitat data will be collected and incorporated into maps of available habitats. Sampling trips will occur throughout the year to provide data on seasonality of habitat use. We will also begin aging this population to develop population modeling and structure.

Proposed FY09 Activities: Monitoring and research actions from FY08 will be continued, and model criteria will be developed and modified as data are compiled and analyzed. Stomach content analyses and macroinvertebrate sampling from known habitats where FLSU have been observed over the course of the study will be incorporated throughout the year.

Pertinent Reports: The annual report for FY07 has been posted to the LCR MSCP Web site and is currently available.