

WHAT I LEARNED ABOUT PALLID STURGEON ON MY SUMMER VACATION ... A SUMMARY OF FINDINGS FROM RECLAMATION-SPONSORED RESEARCH IN THE MISSOURI AND YELLOWSTONE RIVERS IN MONTANA

Susan L. Camp, USDI Bureau of Reclamation, Montana Area Office, P.O. Box 30137, Billings, MT 59107, scamp@gp.usbr.gov

In support of Endangered Species Act consultation, Reclamation's Montana Area Office has been involved in several activities furthering the knowledge of pallid sturgeon (*Scaphirynchus albus*) in relation to Reclamation projects in the Missouri and Yellowstone Rivers. In the Upper Missouri River basin, responses by fish to a high spring flow in the Marias River in 2006 were measured and compared to a flat base flow in 2007. Responses included fish movements into the Marias River, movements in the Missouri River and increased production of larval fish and eggs in the Marias. Physical habitat monitoring showed a response in habitat formation via natural ecological processes such as sediment transport and woody debris movement in 2006. Radio telemetry data is indicating an area of the Missouri river that appears to be important to shovelnose and pallid sturgeon, possibly for staging or spawning that will be studied further. Sturgeon were captured on video in the Marias River using DIDSON technology, and information on spiny softshell turtles is also being collected. Other research efforts have been focused on developing fish passage on the Lower Yellowstone River near Glendive, Montana, and protecting fish from entrainment into the irrigation canal. Some of this work includes engineering design and sturgeon swimming studies. Larval pallid sturgeon were studied to investigate swimming endurance, impingement survival, screening effectiveness, and recovery of impinged fish from traveling fish screens.