

# Sturgeon Surveys in the Lower Mississippi River

by Paul Hartfield

In September 2001, the Fish and Wildlife Service's Jackson Field Office and the Mississippi Museum of Natural Science, with assistance from the Lower Mississippi River Conservation Commission, initiated a multi-year program of trawl surveys for sturgeon in the lower Mississippi River. A trawl is a large fishing net that is towed along the bottom of the river. The trawl surveys are being used to identify pallid sturgeon (*Scaphirhynchus albus*) and shovelnose sturgeon (*Scaphirhynchus platorynchus*) habitat use over a range of river stages and conditions in the vicinity of Vicksburg, Mississippi.

In 20 days during September-November of 2001, we made 5 to 17 trawl pulls per day, with an average pull time of about 10 minutes. Eleven pallids (endangered) and 376 shovelnose (nonlisted) were collected. Extended high spring and early summer river stages limited sampling in 2002 to 11 days, with 2 to 18 pulls per day. This year, 5 pallids and 239 shovelnose were collected. We hope to continue our surveys for at least another year.

One of our objectives has been to determine the value and efficiency of trawl surveys for sampling sturgeon and other big river fishes. Fortunately, we've found trawling to be effective for sampling shovelnose and pallid sturgeon in the lower Mississippi, although it is somewhat limited at depths below 40 feet (12 m). All sturgeons captured have been associated with moderate to strong currents, depths of 13 to 45 feet (4 to 14 m), a sand or sand and gravel substratum, and structure in the form of sand reefs, dunes, or secondary channels. Pallid captures seem to be associated



with greater depths, ranging from 25 to 45 feet (7.5 to 14 m).

The 2001 surveys were conducted by Paul Hartfield of the Service's Jackson Field Office (601/321-1125, paul\_hartfield@fws.gov); Daniel J. Drennen, also of the Service's Jackson Office (601/321-1127, daniel\_drennen@fws.gov); Dr. Todd Slack of the Mississippi Museum of Natural Science in Jackson (601/354-7303, todd.slack@mmns.state.ms.us); and Ron Nassar of the Lower Mississippi River Conservation Commission (601/629-6602, ron\_nassar@fws.gov).

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*Paul Hartfield is a wildlife Biologist in the Service's Jackson Field Office (601/321-1125, paul\_hartfield@fws.gov)*

## **Pallid sturgeon**

Photo by Jim Rathert/USFWS



**The Mississippi river, in the vicinity of Vicksburg, Mississippi, was the site of sturgeon surveys.**