



ENDANGERED SPECIES

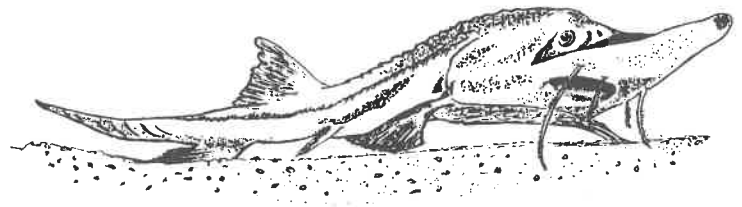
Status: Federal Endangered
State Endangered

PALLID STURGEON

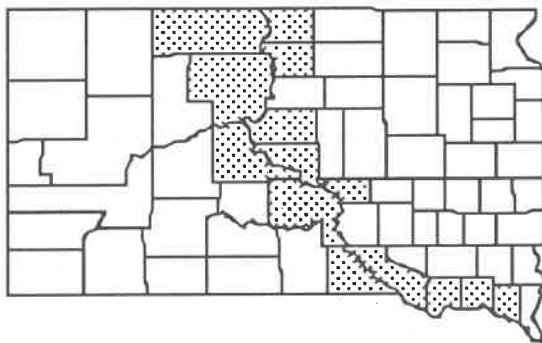
(*Scaphirhynchus albus*)

Description

The scientific name for the pallid sturgeon is *Scaphirhynchus albus*. *Scaphirhynchus* is a Greek word meaning spade snout and *albus* is Latin for white. The pallid sturgeon is one of the largest fish found in the Missouri River. This bottom dwelling fish has a distinctive flattened, shovel-shaped snout with fleshy chin *barbels* dangling just in front of the mouth. The dorsal side is protected by a region of bony plates from its dorsal fin to the tail. Pallid sturgeons range from 30 to 60 inches (76.2 to 152.4 cm) in length and weigh up to 85 pounds (38.6 kg). South Dakota's record pallid sturgeon weighed 28.8 pounds (13.1 kg) and was caught in Lake Sharpe in 1971.



Distribution



Pallid Sturgeon Collection Sites

The pallid sturgeon historically ranged the entire length of the Missouri, into the Mississippi River south to New Orleans, Louisiana. They prefer sand-covered portions of rivers with strong currents and high *turbidity*. Today's sturgeon populations are severely restricted due to dam construction along the length of the Missouri River.

Natural History

Pallid sturgeon are slow growing fish that feed primarily on small fish and immature aquatic insects. This species of sturgeon is seldom seen and is one of the least understood fish in the Missouri and Mississippi River drainages.

The species has experienced a dramatic decline throughout its approximately 3,500 (river) mile (5,725 kilometer) range

over the past 20 years. Nearly all of the pallid sturgeon's habitat has been modified through river channelization, construction of impoundments, and related changes in water flow. These changes have blocked the pallid sturgeon's movements, destroyed or altered its spawning areas, reduced its food sources or its ability to obtain food, and altered water temperatures and other environmental conditions necessary for the fish's survival. Commercial fishing probably also has played a role in the decline. The flesh of sturgeon is considered highly palatable and the eggs are used as caviar. Another threat to the species' survival is an apparent lack of reproduction. Potential threats include further loss of habitat, *hybridization* with the more abundant shovelnose sturgeon (*Scaphirhynchus platorynchus*), and the continued alteration of remaining spawning or nursery areas.

Conservation Measures

The pallid sturgeon was added to the Federal list of threatened and endangered species on September 6, 1990. Federal protection became effective on October 9, 1990. Among the conservation benefits authorized for threatened and endangered plants and animals under the Endangered Species Act are: 1) protection from adverse effects of Federal activities; 2) restrictions on take and trafficking; 3) the requirement for the Fish and Wildlife Service to develop and carry out recovery plans; 4) the authorization to seek land purchases or exchanges for important habitat; and 5) Federal aid to State and Commonwealth conservation departments that have approved cooperative agreements with the Service. Listing also lends greater recognition to a species' precarious status, which encourages other conservation efforts by state and local agencies, independent organizations, and concerned individuals. Pallid sturgeon caught on hook and line by anglers must be released immediately and should be

reported to the S.D. Game, Fish & Parks or U.S. Fish & Wildlife Service.

In early 1991, Galen Buterbaugh, U.S. Fish and Wildlife Service Regional Director for Region 6, formed the pallid sturgeon recovery team. Although its role is strictly advisory in nature, the team's recommendations normally guide the Fish and Wildlife Service (and other Federal agencies) in recovery activities. The recovery team has developed a draft plan that is goal, objective, and task oriented.

Little is known about the biology of the pallid sturgeon or specific causes for the species' decline. This lack of information makes it difficult to design an effective plan for recovery of the species. Much of the plan will focus on research to answer the unknowns. Once the causes of decline have been correctly identified the recovery plan will be updated. Recovery of the pallid sturgeon may take years to achieve because of social and economic obstacles that must be overcome, including lack of sufficient funding. It is often difficult to reverse all the threats that have caused decades of population decline. The short-term goal of recovery, as determined by the team, is to prevent extinction of the species. Initially this may be possible only through artificial propagation in hatcheries. Hatcheries can also artificially diversify genetic stocks for reintroduction. The Gavins Point National Hatchery at Yankton, SD is being prepared for pallid propagation.

The S.D. Game, Fish and Parks Department and S.D. State University jointly conducted a study on movement and habitat selection of pallid sturgeon in Lake Sharpe on the Missouri River. Project researchers tagged and have tracked eight pallids since 1989. Over 400 relocations of tagged fish have been made from the mouth of Cedar Creek upstream to Oahe Dam. Habitat data are compared between these relocation sites and other areas known to be frequented by pallid sturgeons.

Glossary

Barbels - fleshy projections that serve as sensitive organs of touch and hang from the lips or chins of some fish.

Hybridization - the production of young as a result of cross-breeding between two different species.

Turbidity - cloudiness of water caused by the sediments suspended in it.

References

Churchill, Edward P., and William H. Over, 1938. Fishes of South Dakota. S.D. Department of Game, Fish and Parks.

Tomelleri, Joseph R. and Mark E. Eberle, 1990. Fishes of the Central U. S. Univ. of Kansas Press.

Resources for Teachers

Ancient Survivors of the Missouri, video. 1990 by Cottonwood Productions, Available from the South Dakota State Library, Pierre.

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