



U.S. Fish & Wildlife Service

Missouri River

Pallid Sturgeon *Status: Endangered*

Pallid sturgeon evolved within the diverse environments of the Missouri and Mississippi Rivers at a time when flood plains, backwaters, chutes, sloughs, islands, sandbars, and braided main channel waters formed the large-river ecosystem. They were well adapted to living in large rivers where fluctuating environmental conditions, such as river flows, existed. Those same characteristics that enabled the pallid to survive for thousands of years also have made them vulnerable to modern changes in the river that diminished spawning and nursery habitat.

The 2000 Biological Opinion is still in effect. The Corps of Engineers (Corps) has recommended replacing the spring rise/summer low flow portion of the 2000 Reasonable and Prudent Alternative (RPA) with 1) accelerated habitat creation and rehabilitation for birds and 2) flow tests at Gavins Point, Fort Randall, and Fort Peck.

The pallid sturgeon is in dire condition. The Upper Missouri River subpopulation continues to decline from the status described in the 2000 Biological Opinion. Predictive models indicate that the heritage wild adult pallid sturgeon

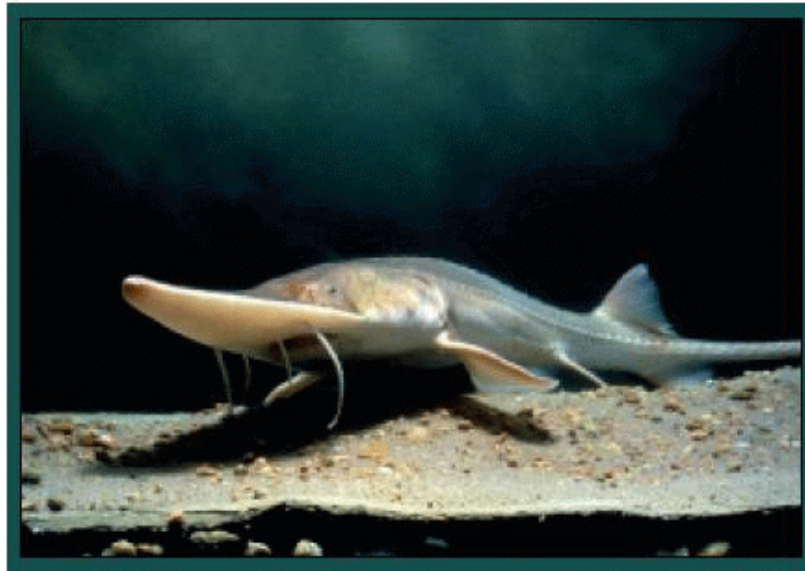


Photo by Ken Bouc, Nebraska Game and Parks Commission

in the Upper Missouri River likely will be extirpated by 2018. The fish in the Upper Missouri River appear to have genetic uniquenesses relative to the rest of the population.

There are few remaining pallid sturgeon in the Middle Missouri River. The habitat fragmentation and hydrology in this reach is precluding pallid restoration.

Pallid sturgeon in the Lower Missouri River and Middle Mississippi River also are in decline for a number of reasons. Lack of reproduction and recruitment due to the loss of spawning cues, habitat fragmentation and loss, reduction in prey productivity

normally associated with low-lying lands are the principle reasons. All of these factors are connected by a highly altered hydrograph.

The altered hydrograph in the Upper Missouri River that affects the timing, magnitude, duration and temperature of the river are affected by the Corps' proposed actions. The lack of commitment by the Corps to implement the flow enhancement measures from the 2000 Biological Opinion will continue to adversely affect the pallid sturgeon to the point of extirpation in this

reach. The removal of the spring pulse and summer habitat flows from the 2000 RPA will appreciably and adversely effect the pallid sturgeon. Loss of spawning cues, impacts to flood plain connectivity and the resultant forage and prey that will be affected, along with the lack of available shallow water nursery habitats under the Corps' proposed action will continue to significantly affect the pallid sturgeon negatively.

As for the Pallid Sturgeon, the Service asked: Does the removal of the flow enhancement from Fort Peck Dam and Gavins Point Dam along with implementing the substitute elements provided in 2003, plus the implementation of the remaining elements of the 2000 Biological Opinion avoid jeopardy to the pallid sturgeon? The answer to this question is no. In response, the Service developed a new series

of RPA elements, which the Corps must implement to avoid the likelihood of jeopardy to the pallid sturgeon.

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