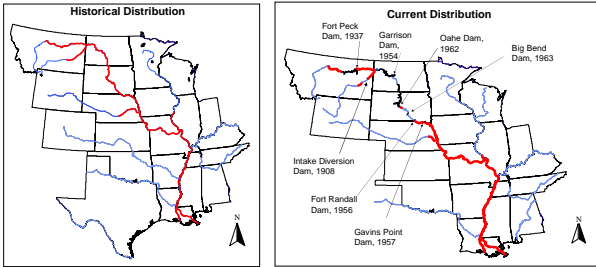




U.S. Fish & Wildlife Service

Pallid Sturgeon Recovery: Aquatic Species Conservation



The pallid sturgeon was historically distributed throughout the Missouri and Mississippi River Basins, inhabiting these larger rivers and several tributaries. As westward expansion continued, large water projects were undertaken by various government agencies to improve navigation and provide flood control. From 1937-1964, the upper Missouri River was converted into a series of large storage reservoirs. These mainstem dams and approximately 80 smaller dams on tributary streams form the Missouri River Basin Project.



Fort Peck Dam, MT (1937) impounds 134 miles.



Garrison Dam, ND (1953) impounds 180 miles.



Oahe Dam, SD (1962) impounds 231 miles.



Fort Randall Dam, SD (1952) impounds 100 miles.



Gavins Point Dam, SD (1955) impounds 25 miles.



Big Bend Dam, SD (1964) impounds 80 miles.

Dams and navigation improvements alter habitats and are viewed as the primary cause of decline in pallid sturgeon abundance within the Missouri River Basin. In the Missouri River dams effectively block upstream fish migrations, flooded riparian and back-water areas, and alter historic temperature and flood profiles in the Missouri River basin, while navigation channels reduce instream habitat like sand bars, side channels, and slack water areas.

Ultimately, reduced fish numbers, no evidence of spawning or recruitment, and substantial loss of habitat resulted in the listing the pallid sturgeon as a Federally endangered species in 1990. Following this listing, the USFWS along with many State Game and Fish Departments have coordinated efforts to help this species.



Pallid sturgeon being captured for spawning efforts.



Stripping eggs from pallid sturgeon.



Pallid sturgeon sac fry.



Tagging pallid sturgeon prior to stocking.



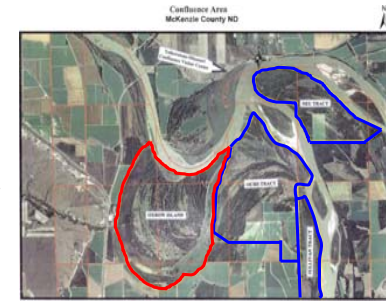
Releasing hatchery-reared pallid sturgeon to augment existing populations.



While the conservation stocking program has reduced the likely hood of localized extirpation, recovery of the species is going to require habitat protection and restoration as well as monitoring!

Habitat Protection:

The aerial photograph identifies the tracts that have been purchased, in conjunction with partners, (outlined in blue) and areas they are working to acquire (Oxbow Island outlined in red) to conserve riverine and riparian habitats in areas known to be important for pallid sturgeon.



Habitat Restoration:

The aerial photograph of the Louisville Bend mitigation project in Iowa. This constructed side channel helps restore important shallow water habitats.



Preventing extinction through artificial propagation has been a cornerstone of the recovery program. Adult pallid sturgeon are collected from the wild and taken to federal and state hatcheries where they are spawned and returned to the river. Collected gametes are then incubated, hatched, and reared in the hatcheries. These progeny are tagged prior to release to aid future identification and monitoring efforts.

Stocking facts:

- First artificial production occurred at Missouri's Blind Pony State Hatchery in 1992.
- First stocking of artificially produced pallid sturgeon into the wild occurred in 1994.
- Over 100,000 hatchery-reared pallid sturgeon have been released into the Missouri River basin.
- Over 2,200 of these fish have been recaptured as part of monitoring and research efforts.

Monitoring & Research:



Crews setting nets in the Missouri River as part of a comprehensive population assessment program.



Researchers mapping habitats at pallid sturgeon collection locations with an hydro-acoustic Doppler profiler.