

DEDICATION

This story is dedicated in honor of JODY RILEY, who was tragically killed in a vehicle accident just days after this story was written and photos taken. She loved dredging and was a very competent dredge operator on the evening shift and will be remembered by all as a happy, loving, enthusiastic person.

FOR IMMEDIATE RELEASE

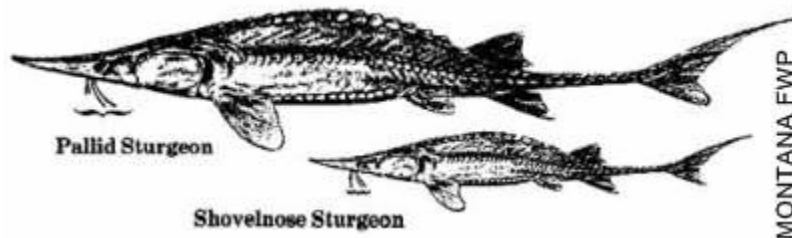
NEW HABITAT FOR ENDANGERED PALLID STURGEON

A Success Story for Western Contracting Corporation and Their New 18" X 16" Swinging Ladder Barracuda Dredge

MOUND CITY, MO (July 13, 2007) – What unites the endangered pallid sturgeon with a swinging ladder dredge on one of the largest river mitigation projects in the history of the *US Army Corps of Engineers*? It is the restoration of this rare species' habitat by dredging side channels or chutes so the fish can spawn in shallower water with varied flow conditions.

The pallid sturgeon, also known as one of the ugliest fish in North America, is similar in appearance to its more common aquatic cousin, the shovelnose sturgeon. This unique fish evolved from a group of fishes that were dominant over 70 million years ago, when dinosaurs roamed the earth. A native to the Missouri River, the pallid sturgeon has a flattened shovel-shaped snout, bony plates, and a long reptile-like tail. It can weigh more than 80 pounds while reaching up to 6 feet in length, making it one of the largest inhabitants of the river system.

Thousands of years ago natural side chutes ran adjacent to the 735-mile Missouri River system, allowing the pallid sturgeons to reproduce in an ideal environment. Since manmade river channels all but eliminated these critical waters for fish and other habitat, the pallid sturgeons now risk extinction.



This mitigation project, located two miles north of Rulo, NE, is called the Rush Bottom and Tarkio River Chutes. A chute is being dredged using a swinging ladder dredge (DSC 18" x 16" *Barracuda* Class) that is on the leftover bank of the river. The chute will be 8,200 feet long when completed. The chute cross-sectional design has a 75-foot bottom width and 1 vertical to 1.5 horizontal side slopes designed to erode to a maximum width of 200 feet. Devin Rowland, project manager for Western Contracting Corporation of Sioux City, Iowa said "The swinging ladder dredge is perfect for this job because the dredge cut is approximately 100 feet wide at the top and the channel self-erodes to 200 feet with time. We can easily shape the side slopes with minimum over excavation". In fact, the pallid sturgeon likes a habitat of turbid water, so erosion is necessary. The dredge is taking one center-line cut, followed by one to the port and one to the starboard side, thus never having to back up, just dredge forward.

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The chute is connected to the river at both ends so flow is continuous. The Tarkio River Chute is just up-stream, is smaller in size, and also includes widening the mouth of the Tarkio River at the Missouri River convergence.



Devin Rowland of Western Contracting

The swinging ladder dredge is unique in that it has two stern kicking- spuds, one on the port side, and one on the starboard side. This insures that the dredge will not move when kicking forward and allows for true surgical dredging. The material being dredged is a combination of sand, silt and tough gumbo clay that may have been the original river channel hundreds of years ago and then silted in.

So far, approximately 4,000 feet have been dredged, and the sediment is discharged 3,600 feet through an 18" SDR 17, HDPE pipeline fastened to a barge in the river down-stream of the chute. The average dredging depth is 10.5 feet. The non-contaminated material is discharged directly back into the river to enhance the river bottom, which is severely scoured. The USACE designates exact locations in the river to discharge and the locations vary with the dredge's position along the chute.

The dredge is moving the majority of the material, but a 17 cubic yard scraper being pulled by a CAT rubber-track tractor is assisting the operation by scraping off approximately 2-3 feet of top material to remove clay, small trees, vegetation, and roots. Judson Rowland, Devin's son, is in charge of the scraper operation and said, "This operation is really speeding up the dredging process by allowing us to get to the good dredging material, faster". The USACE permits dry excavation. The material is stockpiled and then dozed into the river for bottom enhancement. Judson said, "No material is left on land except for the trees and vegetation for wildlife habitat".



Sand Breaking Off as Dredge Advances

The dredge is being operated in two, 12-hour shifts, 7 days a week, and the dredge day shift operator is Devin's wife, Robin



Dredge Crew (from left to right) Wayne Riley, Jody Riley, Judson Rowland, Robin Rowland, & Devin Rowland

Rowland, a veteran dredge operator. Robin loves the electric switch controls and said, "This dredge is my baby and I don't mind at all sitting at the controls for 12 hours". She has been observing a female beaver swimming in the new channel or chute cut by the dredge, but noticed she is now on land and assumes she is having babies. Both shifts are being operated by women, which is probably a first for any dredge contractor. Mrs. Jody Riley operates the dredge on the late shift. She has been operating dredges for 7 years and recently began working for Western Contracting Corporation. Her husband, Wayne Wiley, is also on the dredge during the evening shift and has many years experience as a dredge operator.

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Already many fish species are returning to the cut channel and this is the goal of the USACE, cooperating state, federal and other local agencies. They do not just perform habitat restoration for one species, but for as many species as possible in any given project.

Innovative dredging technology, excellent dredge operators, good habitat planning, overall project supervision, and safety are all key factors attributed to this project's success. As the pallid sturgeons revive, the people involved with the restoration project hope they will be instrumental in taking them off the endangered list.

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