

# Sturgeon Spawning Habitat Creation

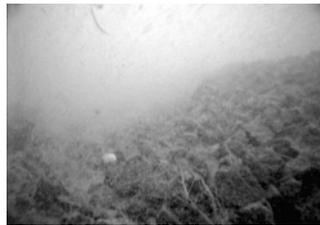
Historically, lake sturgeon were abundant in the DTR and Lake St. Clair. In 1880, lakes Huron and St. Clair produced over 4 million pounds of lake sturgeon per year and, in June 1890, people from a "caviar factory" located at Algonac, MI captured 4000 sturgeon in Lake St. Clair and the Detroit River.



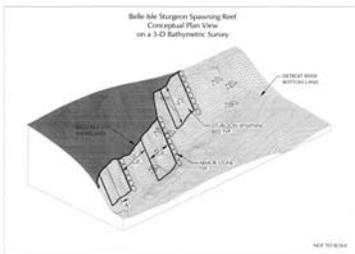
Photos Courtesy of the Great Lakes Fishery Commission



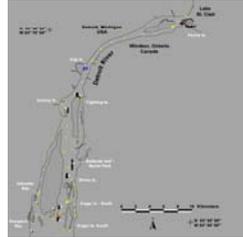
After years of work, only one sturgeon spawning site was located in the river near Zug Island where they spawn on man-made bed of coal cinders. Owing to waste water discharges upstream of this site, we suspect little sturgeon reproduction takes place at the Zug Island spawning site.



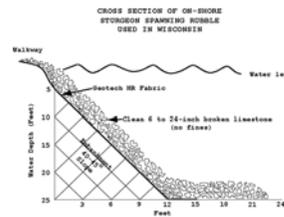
In 2001, plans were made to enhance the lake sturgeon population of the DTR by creating spawning habitat for lake sturgeon in the DTR, modeled after such habitat created in Wisconsin. Habitat requirements for spawning success by lake sturgeon are: 1) rock-on rock substrate with interstitial depth greater than 2 feet; 2) water velocity over the substrate of at least 1.5 feet/second; 3) water temperature in the range of 9-15 degrees Centigrade; and 4) accessible to adult sturgeon.



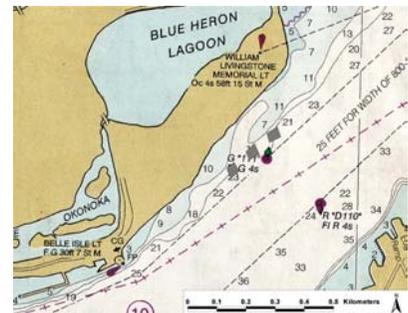
Surveys of the nine historic reputed spawning sites of lake sturgeon in the DTR and of 84 other suspected sturgeon spawning sites with an underwater camera and side scan sonar revealed little rock-on-rock substrate with enough interstitial space for successful incubation of sturgeon eggs.



In Wisconsin, lake sturgeon were once scarce but are now abundant in the Fox and Wolf Rivers, because spawning habitat was created for the sturgeon at over 60 locations by placing large, broken limestone down the stream bank on outside bends of these rivers.



Because sturgeon won't spawn on rocks covered with plant growth and plants grow everywhere in the DTR at water depths less than 15 feet, spawning substrate will be placed at water depths of 20-28 ft. Before construction the area off Belle Isle was hard-pan clay with a few embedded boulders.



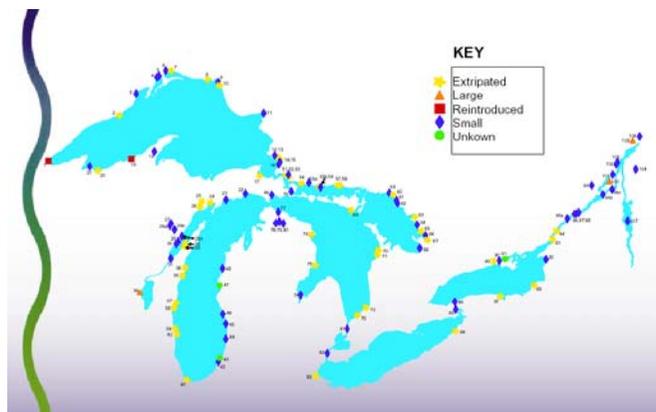
Three substrates used by spawning lake sturgeon elsewhere in the Great Lakes basin will be used: limestone "shot rock" 6-24 inches in diameter, a mixture of coarse gravel and cobble, and coal cinders.



Adequate law enforcement to protect the spawning sturgeon will be essential to project success.



Results of this demonstration project will provide a model for creation of spawning habitat to enhance and restore lake sturgeon throughout the Great Lakes basin.



**KEY**  
 Yellow star: Extirpated  
 Red triangle: Large  
 Blue square: Reintroduced  
 Purple diamond: Small  
 Green circle: Unknown

Source: Holey et al. 2000.

Research and Assessment Needs to Restore Lake Sturgeon in the Great Lakes.

Results of lake Sturgeon workshop.

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