2017 In-Water Structures Project – Mississippi Lake

Mississippi Lake is one of the largest inland lakes in South-Eastern Ontario, less than an hour's drive from our Nation's Capital. With an elevation of 134.4 metres above sea level and a lake perimeter of 55.9 kilometres, its deepest point is 10.5 metres. It is unique in that it is located in four municipalities, Town of Carleton Place, Drummond North Elmsley, Beckwith, Mississippi Mills Townships, in Lanark County. It is the last in a series of lakes in the Mississippi Valley watershed before the Mississippi River reaches the Ottawa River. Mississippi Lake is known for its recreational cool and warm water fishery, particularly: Walleye, Northern Pike, and Smallmouth and Largemouth bass and is a popular destination for year round fishing from over 1200 permanent and seasonal properties, as well as day users.



Photo 1: Mississippi Lake from the air (Photo credit: www.mississippilakesassociation.org)

With confirmed funding for 2017 from Fisheries and Oceans Canada Recreational Fisheries Conservation Partnership Program, Watersheds Canada with support from the Mississippi Lakes Association (MLA), Mississippi Valley Conservation Authority and Lanark County Stewardship Council, determined and mapped out potential enhancement sites for the in-water brush bundle structures.

Underwater woody debris is a healthy component of lake environments. Sunken logs, trees, branches, and root balls provide excellent habitat for wildlife, including fish, turtles, birds, invertebrates, and more. Beaver activity, wind, erosion, or water inflows from rivers or creeks naturally deposit such woody debris into a lake. However, human activity and development have significantly reduced the amount of natural woody debris in lakes.

Communities can promote the health of wildlife populations and improve water quality by creating additional woody debris habitat, such as in-water structure of brush piles or bundles. These brush bundles can provide fish with a food source, as well as shaded areas to rest, spawn, and escape predators.



Photo 2: Brush Bundle sinking into location

The fish habitat on Mississippi Lake was enhanced using this technique of brush bundle placement. These bundles provide enhanced aquatic habitat for a variety of fish species as well as other invertebrates, amphibians and reptiles. Equipment was purchased and/or loaned for use, including 3/8" Derby rope, cement blocks, safety equipment, wire and cutters, chain saws, boat & gas by volunteers and Watersheds Canada.

Watershed Canada and Mississippi Lakes Association recruited volunteers using social media and MLA email subscribers. Over several days, supplies and equipment were gathered and purchased, volunteers collected and cut brush donated by local Mississippi Lake residents. The morning of October 24th, 2017, brought about heavy rain and winds but Melissa Dakers and MLA volunteers persevered and assembled eleven brush bundles.





Photo 9-10: 1st Drummond Scout Tyler Dakers, volunteered for the day and learned about fish habitat



Captained by MLA Boating Committee Chair Dave Duncan, the MLA loaned their pontoon boat, the Miss LA, as well as gas towards the project to deploy the brush bundles into Mississippi Lake.





Photo 11: MLA Captain Dave & Volunteers boat out to enhancement locations Photo 12-13: Attaching brush bundles to anchors



Photo 14-19: Volunteers deploy brush bundles into Mississippi Lake

Fish Habitat Enhancement Project Sign

A fish habitat enhancement project partnership sign was placed at the public boat launch in Riverside Park, Carleton Place, Ontario.



Thanks to Fisheries and Oceans Canada Recreational Fisheries Conservation Partnerships Program and the many volunteers, we were able to successfully enhance the fish habitat of Mississippi Lake with eleven in-water brush bundles structures.



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