

Project Returns Fish Passage to a Chippewa National Forest Lake

By Pat Rivers, Midwest Glacial Lakes Partnership Coordinator

On April 22, 2011, U.S. Forest Service (USFS) Fisheries Technician Greg Whaley and I sampled fish at the outlet of Pigeon Lake. Two trap nets would confirm what we suspected: the fish passage project completed last fall was a success. The Chippewa National Forest (CNF) partnered with the Minnesota Department of Natural Resources and the Leech Lake Band of Ojibwe (LLBO) to design and construct a natural channel through the Pigeon Lake Impoundment, a natural lake with elevated water levels due to a constructed dam. The completed channel is approximately 15 feet wide and designed to allow for passage of fish and other organisms, yet maintain the water level of the lake. The trap nets contained a sampling of these fish, including northern pike up to 33 inches in length.



Greg Whaley and a 33-inch northern pike.

Pigeon Lake is located north of Lake Winnibigoshish on the Chippewa National Forest in Itasca County, Minnesota. Funded by the American Recovery and Reinvestment Act, the survey and design phase of this project was awarded in October of 2009 with actual surveying starting in the spring of 2010. The goal was to naturalize the channel and provide water flows suitable for fish traveling upstream. With the start of summer, work on the ground began at the Pigeon Lake Impoundment in July. As a family of trumpeter swans watched on, 4000 tons of rock was hauled in, taking over three weeks. Construction on the passage began on August 18. Delicately, a backhoe operator placed each rock in the passage and rapid change and improvement were noted on a daily basis. The existing outlet structures were removed and replaced with eight rock weirs that were strategically placed to ensure fish passage. From one weir to the next, there is a gradual drop in elevation to reach the final water elevation level of the river. The new passage slows the water velocity so that fish can navigate more easily to the lake. As vegetation establishes between the rocks, the banks of the Pigeon River will return to a natural stream bank appearance. The Pigeon Lake Fish Passage project will help improve the over-all health of the Lake Winnie watershed by providing passage for all aquatic organisms which include northern pike, walleye, yellow perch and forage fish. Long-term, the project may also increase fish populations throughout this area.



Pigeon Lake outlet before project.



The newly created channel.

The Chippewa National Forest has approximately 45 impoundments that are maintained by the LLBO and the USFS. Additional fish passage opportunities are being explored. For more information, please contact Todd Tisler, Chippewa National Forest Fish and Wildlife Program Manager, at 218-335-8629.