DECEMBER 2020

Trout Unlimited Great Lakes Program Update

Despite the challenges of the past nine months, Trout Unlimited was able to continue its progress in improving fisheries in the Great Lakes basin. The coronavirus pandemic hit just as we were beginning our field work, and while some projects had to be postponed due to permitting delays and other restrictions, we were still able to work with our partners to protect, reconnect, and restore habitat on numerous rivers and streams. We also embarked on exciting projects to map all brook trout habitat in the Great Lakes basin and begin a multi-year brook trout monitoring program to gain a better understanding of how fish populations are responding to habitat improvements.

As the pandemic fueled a surge in the number of anglers, we were reminded of the importance of our work to provide clean water and productive habitat to support thriving fisheries. We greatly appreciate your support that makes this work possible.





A salmon makes its way through a newly reopened section of Bigelow Creek.

Muskegon River: Much of TU's focus in the Muskegon has been on Bigelow Creek, one of two major coldwater tributaries. In 2020, we completed our fourth and fifth culvert barrier removal projects on Bigelow Creek. We have now reconnected 20 miles of Bigelow Creek to the mainstem Muskegon and with three more culvert projects we will have reconnected the entire Bigelow Creek watershed for resident and migrating fish. On the mainstem Muskegon River, TU is working to address sedimentation and analyze water temperatures. This year we continued assessment of sites that are contributing excess sediment to the river and completed a streambank stabilization and habitat improvement project on one of the identified sites. The Schrems West Michigan TU Chapter continues conducting temperature monitoring to get a better understanding of coldwater habitat availability during the summer months.

Manistee River: TU is working on the Manistee River to reconnect tributaries to the mainstem, expanding the available spawning and rearing habitat to boost the productivity and resiliency of the fishery. To date, we have reconnected 35 miles of tributary habitat. Permitting delays and some unfavorable late-season weather prevented us from completing the two culvert replacement projects that were lined up in 2020, which means 2021 will be busy as we undertake 6 projects that will reconnect another 20 miles of tributary habitat.





Culvert replacement sites for improved aquatic organism passage in the Manistee River watershed.

Rogue River: TU continued to protect and restore this important watershed by engaging community members and implementing restoration practices in urban, rural, and agricultural areas to address various threats to the Rogue's coldwater fisheries. TU was instrumental in enrolling agricultural lands into conservation programs through Natural Resources Conservation Service, resulting in 8,550 acres of farmland adopting practices like cover crops, grassed waterways, and tree and shrub establishment to protect water quality of the Rogue River. Through a new initiative funded by the U. S. Forest Service, TU planted over 17,000 trees along the Rogue River and its tributaries, ensuring that the coldwater stretches will have shade, woody debris, and reduced flooding for many decades to come. TU also secured funding to plant an additional 31,000 trees over the next two years.



2020 tree planting locations throughout the Rogue River watershed.

<u>Pere Marquette River:</u> TU continued its partnership with the U.S. Forest Service to maintain fish habitat provided by large wood and logjams while enabling safe boating to continue. Absent this careful management, we could see critical fish habitat removed in order to maintain navigability. TU also completed a streambank restoration and tree planting project on the mainstem Pere Marquette near Baldwin, and worked the Pere Marquette Chapter to continue yearly spawning redd surveys and establish the first two sites in a network of real-time water monitoring stations.



Ontonagon River: TU's work in the Upper Peninsula has advanced to the point where we are now hiring a new staff position to manage projects in the Ontonagon and other UP watersheds. On the Ontonagon River, TU worked with partners to advance a remnant dam removal project on the East Branch Ontonagon (near Kenton, MI), which will be completed in early 2021, reconnecting over 9 miles of habitat. This project is part of a larger effort that includes the removal of Lower Dam (located 8 miles southeast of Kenton) which will reconnect nearly all 67 miles of the East Branch Ontonagon from its headwaters to its outlet for the first time since 1965. Culvert barriers still exist on Ontonagon tributaries, which will be our next focus starting with a project on Trout Creek in 2021. TU is also planning habitat improvements using large wood additions and selective brush bundle placement to complement the reconnection work.



Site of the East Branch Ontonagon dam removal project.

Brule River: Tributaries to the Brule have instream habitat impairments associated with former sand trap sites and other impacts. TU worked with the U.S. Forest Service and Fred Waara Chapter to continue habitat improvements in Cooks Run in 2020 and will complete projects on additional Cooks Run sites in 2021. Projects are also planned for the Paint River in 2021 and subsequent years. On the Wisconsin side of this border watershed, TU brought together partners to plan a barrier removal project that will be completed in 2021 and had a team of interns survey additional sites where we can complete habitat improvement projects in the future.



Native brook trout sampled in the North Branch Beaver Creek, a Peshtigo River tributary. Photo credit Chip Long, Wisconsin DNR.

Peshtigo River: In northeast Wisconsin's Peshtigo River watershed, TU partnered with the **U.S. Forest Service, Wisconsin** DNR, and the Town of Beaver to replace culvert barriers, reconnecting over 12 miles of coldwater habitat. Since 2016 TU has completed 18 projects and reconnected 72 miles of tributaries for migratory brook trout in the Peshtigo watershed, providing access to streams that provide critical spawning and cold, headwater habitat required for these populations to persist and thrive. Continuing our focus on this priority watershed, TU has five more crossings planned for replacement in 2021.

White River: TU partnered with the U.S. Forest Service Northern Research Station to deploy a network of temperature loggers and collect environmental DNA samples throughout the White River watershed. This data will be used to evaluate species distribution and thermal habitat suitability to inform project prioritization. TU is working with the Forest Service to stabilize a stream bank and improve access at the Diamond Point Recreation area on the White River downstream of Hesperia. Restoration designs were completed in 2020 and implementation is set to occur in 2021. TU, including the Schrems West Michigan Chapter and Michigan Council, is also working with the Fremont Area Community Foundation and White River Watershed Partnership to develop and basin-wide stakeholder group to facilitate collaboration on watershed-scale restoration.

Oconto River: A relatively new priority watershed in northeast Wisconsin, TU worked with the U.S. F:orest Service to replace 4 culvert barriers to reconnect over 8 miles of habitat. This brings our total reconnected habitat in the watershed to more than 12 miles. We also partnered with the Forest Service, Forest County Potowatomi Community, and two private landowners to remove a remnant logging dam that was degrading habitat in the North Branch Oconto River. In 2021 we have another four culvert replacement projects planned for this watershed.





Restored stream habitat and river banks in the North Branch Oconto River following remnant logging dam removal.

Asian Carp prevention: TU continued its years-long advocacy for measures that will keep invasive Asian carp from taking hold in the Great Lakes. In 2020, Congress introduced legislation to authorize the Brandon Rd. Lock and Dam project, which would block carp moving up the Des Plaines River toward Lake Michigan. The legislation is well positioned to pass Congress, representing another key milestone in the long march toward project construction. In another important development, Michigan legislators included \$8 million in a supplemental budget bill to contribute to the project's non-federal cost-share. With an intergovernmental agreement in place for the transfer of funds, this should help clear the way for Illinois to sign a design agreement with the Army Corps of Engineers and start the initial phases of project design.

Brook trout science: TU relies on science to inform our conservation work. In 2020, we started two exciting projects to improve our understanding of brook trout in the Great Lakes basin. One is a GIS-based map characterizing the locations and habitat quality for all brook trout populations in the Great Lakes basin. In a separate project to be carried out over the next three years, TU will monitor brook trout populations at select project sites to document changes in populations. Finally, TU received funding to obtain the equipment and training needed to conduct drone-based thermal infrared studies, flying over rivers and marking changes in water temperature that indicate the presence of coldwater springs and seeps. Knowledge of coldwater inputs can help TU and our partners determine the best locations for habitat improvement projects.



A Girl Scout participating in TU's 2020 STREAM Girls camp.

Protecting Michigan's groundwater: Groundwater is the lifeblood of Great Lakes tributaries, providing the clean, cold water on which trout, salmon, and steelhead rely. Groundwater is also in high demand for agriculture and other uses. In an effort to improve permitting for water withdrawals, Michigan TU successfully advocated for legislation to reestablish the Water Use Advisory Council, a body of appointees representing a spectrum of water users, conservation and environmental groups, municipalities, and agencies, including TU. The Council has developed its recommendations and TU will now begin working with the Michigan legislature to include the recommendations in legislation that will create a more effective system for managing groundwater withdrawals and protecting groundwater resources in Michigan.

Trout Unlimited thanks the many volunteers, donors, and partners who made this work possible in 2020 and looks forward to building on our progress together next year.

