

St. Marys River habitat restoration to encourage nesting, IFWD targets invasive aquatic plants

By BRENDA AUSTIN

Sault Tribe Biologist and Inland Fish and Wildlife Department (IFWD) Manager Eric Clark and his staff have been working on a collaborative project with Dartmouth College, Loyola University, Oregon State University and a colleague at Boise State University doing migratory bird habitat restoration and prioritization planning on the upper St. Marys River in Michigan's Upper Peninsula.

Clark's department received a Great Lakes Restoration Initiative Grant for \$111,000 last year, and has hired a full time assessment biologist (Joseph Lautenbach, ornithologist), who will be overseeing the entire project.

Clark also applied for a Coastal Program Grant from the U.S. Fish and Wildlife Service and was awarded \$99,000 for implementation work and to identify places in the upper St. Marys River where there are invasive plant species, focusing on hybrid Cattail, non-native Phragmites and Purple Loosestrife.

Sault Tribe and Dartmouth were working together initially on the project, but quickly formed professional working relationships with other organizations doing similar work in the Upper Great Lakes; such as Loyola University, who already had cattail harvesting equipment and was also doing work through the Great Lakes Restoration Initiative.

In the past month, Clark and his team treated about 10 acres of an 85-acre stand of invasive cattails on Sand Island and will re-vegetate the area with native bulrush, an important species for migratory birds and fish. "We chose to start on Sand Island because we knew it was probably the biggest invasion north of Munuscong Bay of invasive cattails," he said. "The grants are being used for habitat restoration, and our hope is that by creating better breeding habitat we will get more breeding birds."

Clark said, "Native cattails are great; they grow at low densities and grow with a whole suite of other plants. If you see an invasive cattail stand, they are very dense and there are only cattails in it. Invasive Phragmites behaves in the same way. These plants outcompete native plants and completely change the ecology of wetlands, which also impacts the fish and wildlife species that use those areas."

Assistant Professor of Environmental and Native American Studies at Dartmouth College and Sault Tribe member Nick Reo is a partner on this project. He says, "These new plant species can cause rapid transformations of coastal wetlands from diverse, high functioning ecosystems to near monocultures in a matter of 10-20 years." You can see the after effects of these changes in places like Cheboygan Bay where hybrid cattail has taken over and on the St. Claire River and Lake St. Claire, where invasive Phragmites now domi-



IFWD staff haul their equipment with them through the marshy areas near Sand Island.

nates. "When I first started visiting Bkejwanong (Walpole Island First Nation) 20 years ago, their coastal wetlands were some of the most biologically diverse and beautiful places I had ever laid eyes on, and ducks took to the air by the thousands. I recently took a boat ride around Bkejwanong and rarely saw any plants other than Phragmites, and very few ducks whatsoever," said Professor Reo.

The ways these plants can affect wetlands is quite complex, and so are Anishinaabe perspectives about new plant and animal introductions. Professor Reo is interested in the ecology and management of invasive species, but he is equally interested in understanding how these new species fit into the Anishinaabe worldview. "It's very interesting if you think about it. Anishinaabek regard all plants and animals as part of our extended family. So how do we respond when brand new species show up and start taking over habitats? Are these new 'family members?' If so, is it okay to just start removing them? Is that just a way of defending the plants and animals we have more than 1,000-year-old relationships with? It's pretty complicated and just about everyone I've spoken to seems to have a slightly different perspective."

The IFWD will spend this winter doing prioritization and planning work, which includes holding public meetings and forming and working with a technical advisory committee composed of experts on migratory bird habitat. The scope of the project includes the upper St. Marys River from the north end of Sugar Island to Munuscong Bay. Within that area there are over 190 islands with a lot of places that are potential work sites.

Clark said the upper St. Marys River is a biologically diverse area that has very healthy coastal wetlands and ecosystems where targeted efforts to kill new invasions of cattails can help maintain the ecological health of the river.

"This is all geared on trying to maintain places and opportunities for members to harvest sustenance species," Clark said. "This all started because of a gentleman

who has hunted Lake George off of Sugar Island since the '60s. He walked into our office and made a comment about how things have changed in the last 50 years that he has been hunting there. Our impetus to go down this road came directly from the membership who use these areas."

Shane Lishawa, a wetland ecologist who plays a leading role in this project for Loyola University in Chicago suggests that, "St. Marys River wetlands are at a crucial juncture; many have relatively recently been invaded by non-native cattails and other invasive plants, which have the potential to cause serious harm to biodiversity including fish and wildlife. But, because of their recent arrival, we are also at a point where targeted ecological restoration efforts have great potential to successfully control these invasive plants and maintain high habitat values in the St. Marys. These issues make the St. Marys very important for conservation and make it a truly interesting place to study restoration ecology."

Clark is proud of the accomplishments of the IFWD and said he thinks it speaks very well for the department that big name research universities are approaching them wanting to be engaged in their project.

"I also think there is a lot of interest generated because Sault Tribe has a lot of members who harvest in these areas and have interest in seeing these ecosystems healthy. Loyola can go cut cattails anywhere, but they want to cut cattails here with us because it is more then just about the cattails — there is a cultural connection to these places. They see and value that and see it as something worth investing time and effort into and being a part of," Clark said.

Lishawa said, "We are very excited to be working with the Sault Tribe to protect and restore St. Marys River wetlands. As someone who not only studies, but also cares deeply about the fate of the Great Lakes, I can't think of a better group to partner with to achieve long-term conservation goals."



Photos courtesy of Loyola University

Partner universities, including Loyola, offer the use of their equipment and staff to assist Sault Tribe's IFWD to clear areas on the upper St. Marys River of invasive plant species and re-vegetate with native plants that will provide better nesting opportunities for migratory birds.



Work crews remove invasive cattails and re-vegetate the area with native species such as bulrush.



IFWD and Loyola University working together to restore native vegetation to about 10 acres in the Sand Island area.