

**Sea Grant Files 8.3, Oct. 23, 2018**  
**National Seafood Month: Sustainable Fisheries in Minnesota**

Hi. I'm Jesse Schomberg and you're listening to the Sea Grant Files. If you're a seafood fiend like me, you might already know that October is National Seafood Month. Now when I say seafood, I'm talking about everything from sea vegetables like the kelp surrounding a sushi roll to the cisco fresh out of Lake Superior, which is one of my favorites.

I'd like to localize National Seafood Month today by talking about commercially harvested wild fish, farm-raised fish and shellfish from Minnesota.

Let me start with wild-caught fish. Lake Trout, Lake Whitefish, Ciscoes, Bloaters, and Rainbow Smelt are commercially caught in Lake Superior. The populations are managed sustainably by the tribal, state and provincial natural resource agencies around the lake along with the Great Lakes Fishery Commission. And dig this: An 8-oz. fillet of fish from the Great Lakes typically surpasses the daily dose of heart-healthy omega-3 fatty acids recommended by health experts. The omega-3 fatty acids found in fish oil have been shown to decrease the risk of abnormal heartbeats, dampen triglyceride levels, slow the growth rate of plaque in the arteries and slightly lower blood pressure. That's why the American Heart Association suggests putting two servings of fish on your plate each week.

Ready to sink your teeth into a Lake Trout? You're in luck. The Lake Trout population in Lake Superior is doing quite well these days ... so well, in fact, that in 2007, for the first time in decades, the Minnesota Department of Natural Resources implemented a limited commercial fishery for Lake Superior Lake Trout that was expanded in 2010 and again in 2017. Most of the commercial catch is consumed locally; find it in north shore restaurants, smokehouses and some markets.

Don Schreiner, Minnesota Sea Grant's fisheries specialist, points out how remarkable the Lake Trout recovery is. He said, "It took over 50 years for wild lake trout to recover from overfishing and sea lamprey predation in Minnesota. The hard work of many individuals and the sacrifices of both the early and contemporary commercial fishing families have allowed the fishery to rebound."

Don Pereira, Minnesota Sea Grant advisor and U.S. commissioner to the [Great Lakes Fishery Commission](#) also commented, saying, "The recovery of wild lake trout populations in Lake Superior is considered a major success among North American fisheries. It provides a positive example of what can be accomplished when fish management agencies, user groups and citizens work together toward a common goal."

Sea Lamprey control, overseen by the Great Lakes Fishery Commission, and restrictive harvest regulation by state and provincial management agencies remain essential to the future of Lake Superior's Lake Trout population. Having funded Lake Trout research since the 1970s, and helping to facilitate Minnesota's Lake Superior fisheries management plan meetings, the story of Lake Superior's Lake Trout recovery is one Sea Grant is honored to share.

I've talked about Ciscoes before on The Sea Grant Files but, as I said, they are one of my favorite fish so it's hard for me to think I've talked about them enough. Around Lake Superior, Ciscoes are also called Lake Herring. The Minnesota DNR does a fabulous job of managing this fishery using a quota system to determine commercial catch that is based on the estimated Cisco population size averaged over the last three years. We are approaching the Cisco spawning season when the fish are concentrated, so Minnesota's commercial fishermen, are out harvesting, primarily because the roe is worth quite a bit when packaged and sold as golden caviar in Europe.

Lake Whitefish are mainly harvested along the south shore of Lake Superior in Michigan and Wisconsin. Like the Cisco complex, which includes the bloaters and chubs you might find in the region's markets, whitefish feed lower on the food chain than Lake Trout. This means they are less likely to accumulate mercury and PCBs in their fillets. The meat is white, light and delicious.

Smelt? They are typically a spring delicacy carrying nostalgic cachet for some. Rainbow smelt are a non-native species that had their heyday in the 1970s. Four decades later, the smelt numbers in Lake Superior appear to be up, with netters catching plenty and anglers finding more of them in the stomachs of larger fish. But the runs are nowhere near the historical levels of 70s.

About 200 miles west of Lake Superior, the Red Lake Band of Chippewa operate a commercial fishery for Walleye. The operation, which includes a fish processing plant, is very productive and harvests Walleye from three quarters of the Red Lakes, which lie within the Red Lake Reservation boundary. The band sells the wild-caught walleye in Minnesota. In addition to Red Lake Walleye, some of the frozen wild-caught Walleye you might encounter comes from provincial commercial fisheries in Canada's Lake Winnipeg.

One of the lesser-considered seafood options for locavores is crayfish. "I think they taste better than lobster," says Minnesota Sea Grant's Aquatic Invasive Species Program Coordinator Doug Jensen. "The meat is sweeter, it just takes a little more work to get at it." Doug helped coordinate a crayfish boil involving invasive rusty crayfish. Thousands were harvested in Cook County's Dumbbell Lake and eaten by 2500 hungry patrons.

The U.S. has a 16-billion-dollar seafood deficit. To help reduce this, Sea Grant is involved in aquaculture research throughout the United States. Minnesota Sea Grant is also part of a national aquaculture push to examine new ways to raise fish. In April 2017, Minnesota Sea Grant hosted the first ever food-fish aquaculture workshop to examine how to develop a sustainable aquaculture industry in Minnesota that didn't jeopardize the state's abundant wild fish stocks. Land-based aquaculture seems like a promising option as technology improves in an environmentally friendly direction. As a spinoff from the workshop, Don and Minnesota Sea Grant's new business and industry liaison extension educator Ashley McFarland are proposing to undertake a market study that will find out what locally grown seafood Minnesotans might want to purchase, at what price and how much it costs to raise that seafood. Supply and demand. What is the consumer willing to pay and what is the wholesaler willing to pay ... how much it does it cost to raise a fish? Or, a shrimp? Yes, there are a few Pacific shrimp farms here in Minnesota!

Are you interested in becoming a fish farmer? The 24th Annual Wisconsin Aquaculture Conference is happening in February in Eau Claire. Don will be there and Minnesota Sea Grant is a supporting collaborator. It is a way to connect with the industry, learn from the experts, and become educated on new systems, techniques and best management practices.

In the meantime, be daring, step away from the salmon and try a Minnesota fish for dinner! You might try Minnesota Sea Grant Advisory Board Member Nelson Thomas's recipe for [Baked Lake Trout with Shrimp Stuffing](#) or keep it simple with [Dan's Lake Trout Hors D'oeuvre](#).

For more information on aquaculture, Lake Superior fisheries, or to find local fish recipes, explore Minnesota Sea Grant online or contact us by email at [seagr@d-dot-umn-dot-edu](mailto:seagr@d-dot-umn-dot-edu) or by phone at (218) 726-8106 ... ask for fisheries specialist Don Schreiner.

This episode of the Sea Grant Files was produced by Sharon Moen, Don Schreiner, Chris Harwood, KUMD and, me, Jesse Schomberg. For more information, or to listen to other episodes of the Sea Grant Files, visit Minnesota Sea Grant at [w-w-w-dot-sea-grant-dot-u-m-n-dot-e-d-u](http://w-w-w-dot-sea-grant-dot-u-m-n-dot-e-d-u). Thanks for listening!