



Hundreds of young sturgeon released into mid-Michigan rivers

Five hundred young sturgeon reared from a facility opened by the Michigan DNR and Michigan State U were recently released at four locations in the Saginaw River system.

Five hundred juvenile sturgeons were released into the Saginaw River system as part of an ongoing effort to bring the giant fish back from the brink of extinction.

For more than 20 years, Michigan State University and the Michigan Department of Natural Resources have partnered to rebuild Black Lake's sturgeon population. Together, they opened the [Black Lake Stream Side Rearing Facility](#), located in Onaway, Michigan, and have supplied sturgeons to a variety of hatcheries.

Each spring, researchers, graduate students and undergraduates alike catch newly hatched sturgeons that are less than 1 inch long and raise them until August, when they've grown to a less vulnerable size, about 7 inches. Then, they stock the Black Lake as well as rivers around the state with the 3-month-old sturgeons. On August 16, the community was invited to watch as the fish were set free in four locations along the Saginaw River.



Michigan State University graduate student Max Majinska and MSU Professor Emeritus Kim Scribner pose for a picture with an adult sturgeon caught during spawning season. Photo credit of Max Majinska.

MSU Professor Emeritus [Kim Scribner](#) has helped lead the program for more than two decades and, when he retired in January, he passed the torch to [Scott Colborne](#), assistant professor in the Department of Fisheries and Wildlife's Quantitative Fisheries Center. Scribner said the rearing facility gives sturgeons a better chance of surviving so that the Great Lakes sturgeon populations can grow. They're also conducting research that's led to important discoveries in the sources and levels of mortality during sturgeon early life stages and levels of sturgeon genetic diversity, helping the DNR make more informed management decisions.

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Change the Water

Even water that's cool and aerated won't keep fish alive if it gets loaded with fish poop and regurgitated bait. Every few hours during the day, it's a good idea to pump fresh lake water into the well and get rid of the dirty water. Of course, you have to add more ice and turn on the aeration immediately after you do this to keep the fish healthy. ✧

Hunting Season

Continued from Column 3

• From Wis; [Get Ready For Hunting Seasons Opening In September](#) ✧

Get ready for the hunting season

• A new Illinois law allows hunters to use centerfire, single-shot rifles in certain calibers for deer hunting. For additional information, please review the following: [Getting Started with Hunting and Trapping in Illinois: The Who-What-Where-When-How](#).

Travel to species-specific information by [clicking here: List of Frequently asked questions and answers](#). If you have any questions just [Ask DNR](#)

- From Ind: www/reserved-hunt-applications-open-aug-19.htm
- From Mich: [Waterfowl hunting regulations summary information](#)
- From Minn: [Waterfowl hunting seasons on the horizon](#)
- From NY; [New York State 2024-25 Hunting and Trapping Licenses Now On Sale](#)
- From Ohio: [Ohio's fall hunting seasons begin in September](#)
- From PA; [DMAP permits available on 41 state game lands](#)

continued on Column 2

2024 Hook & Line Sturgeon Season is open

MADISON, Wis. – The Wisconsin DNR reminds anglers that the 2024 hook and line season for lake sturgeon takes place on [certain waters](#) from September 7 through September 30.

All anglers looking to harvest a lake sturgeon must have their general 2024 fishing license and a valid hook and line lake sturgeon tag. Licenses and tags may be purchased online through [Go Wild](#) or from one of our [license vendors](#). [All license requirements and regulations apply](#).

Anglers are reminded that only one sturgeon with a minimum length measurement of 60 inches may be harvested during the season. Anglers who have harvested a lake sturgeon must validate their tag immediately upon harvesting and before moving it.

All harvested sturgeon must be registered at a [designated registration station](#). Please note that most registration stations are not open 24/7, so if anglers plan on harvesting a 60-plus inch lake sturgeon outside registration station hours, they must be prepared to keep their fish on ice.

A hook and line sturgeon tag is not required if an angler plans to release the sturgeon they catch in the open season. The DNR urges anglers to [practice responsible catch-and-release](#) when releasing any fish they do not wish to keep. Please note that it is illegal to fish by snagging, foul hooking and attempting to hook fish other than in the mouth.

Some sturgeon may have a tag near their dorsal fin with information about the movement and growth of lake sturgeon. If a tagged sturgeon is caught, please submit the following information to the [county's fisheries biologist](#) to help the DNR in future management practices:

- Where the fish was caught (county, waterbody and location)
- The date of the catch
- Tag number, color and material composition of the tag (i.e., metal or plastic)
- Overall fish length

Please leave the tag attached to the fish if you release it.

Season Predictions

Anglers will have an opportunity to catch sturgeon from shore in the tailwaters of almost all the dams on the Flambeau River, except in the fish refuges downstream of the Turtle-Flambeau Flowage and Upper Park Falls Flowage dams. A higher abundance of sturgeon will likely be found in the deep pools in the free-flowing reaches between dams accessible by canoe or kayak. However, sturgeon can also be found in any of the eight impoundments from Park Falls to the Chippewa River.

DNR fisheries biologists predict that anglers will likely catch plenty of juvenile lake sturgeon while fishing the lower Chippewa River near Eau Claire, signaling that this population will be around for generations to come. Legal-sized lake sturgeon inhabit all six of the lower Chippewa River impoundments, so there are opportunities to hook a “keeper” lake sturgeon in west-central Wisconsin.

Yellow Lake in Burnett County continues to provide a trophy lake sturgeon fishery, with many sturgeon in the 40 to 60” range. It's possible some anglers could reel in a sturgeon over 70 inches. Anglers should be on the lookout for yellow dangler tags on the dorsal fin of lake sturgeon in Yellow Lake. Often covered in algae, these tags contain a five-digit # that anglers should report to DNR fisheries biologist Craig Roberts at Craig.Roberts@wisconsin.gov or 715-416-0351. Anglers may need to clean the tag to read the number and should leave the tag on the fish.

The Lower Menominee River is also expected to provide good catch and release opportunities, and the open portions of the Upper Menominee River will also have plenty of fish available, with a few sturgeon reaching the 60-inch length limit. Biologists predict large numbers of juvenile and adult sturgeon will be caught in the Wisconsin River if water levels remain stable.

[Anglers can find additional information on the inland hook and line sturgeon webpage.](#) ✧



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Position Statement

Representing a major interest in the aquatic resources of the Great Lakes states and the province of Ontario, the Great Lakes Sport Fishing Council is a confederation of organizations and individuals with a concern for the present and future of sport fishing, our natural resources and the ecosystem in which we live. We encourage the wise use of our resources and a search for the truth about the issues confronting us.

Inland Seas Angler

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Bass Tournament permit application

A permit is required to *conduct* a black bass tournament in New York. Black bass tournament permits are only required for fishing tournaments where black bass are the targeted species, and the tournament has 10 or more participants. Fishing tournament directors can begin applying for black bass tournament permits via an online permitting system on **September 9** for tournaments that begin on or after January 1, 2025.

Definition

For purposes of this permit, a black bass tournament is defined as:

- an organized competition among anglers or teams of anglers that is based on a measure of fishing success, such as the cumulative weight or length, where black bass are the targeted species;
- operated on one day or a set of contiguous days; and,
- has 10 or more competitors.

Required Information

The following information is required when applying for a black bass tournament permit:

- Organization name
- Tournament director contact info
- Information on the tournament, including:
 - Location (waterbody and anticipated access site)
 - Size (maximum number of boats and participants)
 - Scoring procedure (access site scoring or catch/score/immediate release)
 - Scoring basis (weight, length, count)

Note: A permit may be denied if the requested location, date(s) and/or tournament type does not comply with [freshwater fishing regulations](#).

Application Deadlines

The permit application must be completed by the director (organizer) of each tournament and **must be received no sooner than 365 days, and no later than 45 days, prior to the scheduled event**. Once submitted, it may take up to 30 days for DEC to perform a complete review and issue a permit ✧

Michigan contractor to build new \$5.8M DNR fisheries vessel

ONAWAY, MI – A Presque Isle County steel fabricator has won a contract to build a new fisheries research boat for the Michigan DNR. [Moran Iron Works](#) of Onaway will build the R/V *Steelhead II* at a cost of \$5.85 million, the DNR announced Wednesday, Aug. 28.

The 66-foot, steel-hulled vessel will replace the venerable S/V *Steelhead*, a 56-year-old survey vessel the agency uses to gather Great Lakes fishery management data. The Legislature [approved](#) funding for the new DNR vessel in its fiscal 2023 and 2025 budgets.

The boat will conduct surveys to quantify the abundance of prey fish that sustain Lake Michigan trout and salmon fisheries. The R/V *Steelhead II* should be on the water in 2026, the DNR said. Like its predecessor, it will be home-ported at the agency's Charlevoix Fisheries Research Station.

The new vessel has a 50-year lifespan and will be powered by two EPA Tier 3 emissions-controlled diesel engines coupled with rooftop solar panels. The boat will feature modern navigational systems, a watertight compartmental hull design and gyro stabilizer to minimize roll in rough seas. A mechanical platform will facilitate diving and equipment maintenance by lowering to water level. Crew safety features and accommodations are being upgraded.

“Advanced, modern hydroacoustic technology will be adopted on the R/V *Steelhead II*— technology that will support improved data collection from a more reliable, modernized platform,” said Ben Turschak, DNR research biologist in Charlevoix. The boat was designed by Boksa Marine Design of Lithia, Fla. The original *Steelhead* will likely be sold at auction. ✧

Salmon season causes problems for S.S. Badger

Chinook salmon are running up Michigan rivers to spawn. That makes river mouths prime fishing spots.

Off the coast of Ludington, several fishing boats in the harbor refused to move for the S.S. *Badger*, a ferry that shuttles passengers between Michigan and Wisconsin.

“Multiple situations occurred with the *Badger*, one in particular where they had to shut down their engines and change course to avoid striking one of these small boats,” said Chris Jones, Ludington Chief of Police.

Jones issued a temporary fishing prohibition on Ludington's harbor in late August which was quickly rescinded once anglers agreed to move for the ferry.

“When you have a 16, 17-foot little fishing boat that's in the way, there is the opportunity for some bad things to happen when you take that up against a 410-foot steel vessel,” he said.

Jones said only one boat refused to move for the *Badger* over Labor Day weekend and police have increased their presence at the harbor.

“There's been an increase [in] the number of vessels on the water because of the amazing fishing,” Jones said. “The struggles are not new. They go back years. I talked to some folks that have been fishing for 50 years out in the harbor, and they say this happens ... every time we have a good season.”

State fishing reports say it's been a particularly good summer for salmon fishing in northwest lower Michigan. That should continue as the fish run up rivers this month to spawn.

The Pere Marquette River, which empties into Lake Michigan in Ludington, has a naturally reproducing salmon population. Those fish briefly rest in the lake before heading up the river, making the location especially popular for fishing this time of year. ✧

Yellow perch populations in Great Lakes' bays and open waters

Michigan DNR Fisheries Biologist David Fielder is one of many regional DNR specialists who monitors the Great Lakes perch population.

“Saginaw Bay, arguably, has historically been the single biggest source of yellow perch in Lake Huron,” said Fielder.

Saginaw Bay’s 2020 estimate of yellow perch abundance was 76,596 yellow perch in their recreational fishery and about 44,000 in their commercial. “Both sound like large numbers,” said Fielder, “but are actually a fraction of what these fisheries used to harvest.” Fielder said the Saginaw’s perch population has trended downwards since a late 1980s boom all thanks to a roughly 10-inch herring.

Alewives, an invasive herring species, came to Lake Huron in the 1950s from the Atlantic Ocean and would feed on newly hatched yellow perch. He said in the early 2000s complex food-web changes caused the alewives to virtually disappear overnight.

“We saw a lot of changes in our native fish population,” said Fielder. Once alewives were out of the picture, the walleye population—yellow perch’s bigger cousin also suppressed by alewives—exploded in Saginaw Bay. “We formally met our walleye recovery targets in 2009,” said Fielder.

While walleye abundance has grown sustainability in recent years, Fielder said yellow perch’s place in the food chain has not caused a similar increase. “Everything’s feeding heavily on these young yellow perch, and that seems to be a bottleneck,” said Fielder. Fielder said the decline is a manageable problem.

The Michigan DNR reduced bag limits for yellow perch from 50-a-day to 25-a-day in 2015 and expanded the bag limit reduction statewide in 2019. According to internal briefing documents provided by the MDNR,

most anglers supported the statewide bag limit and recognized they were facing lower population levels and invasive species. Before the reduction, the MDNR found that only 3.5% of Saginaw Bay anglers were meeting previous 50-fish-per-day limits. Most anglers do not catch the bag limit, catching few to no yellow perch.

Low but stable

MDNR Charlevoix Fisheries Research Station Manager David Clapp said the often talked-about perch shortage is based on a not-quite-accurate understanding of the fish’s changing ecosystem.

“We’re seeing really sort of stable numbers for adult fish right now in Michigan waters, but much lower than what they were. People always compare what we’re seeing now back to what it was back in the ‘80s,” said Clapp. Clapp said there was roughly 2 to 3 million fish a year in Michigan waters during past perch booms. He said it would be difficult to get those numbers back as current recreational harvests total half a million. “I don’t think we’re gonna see that with the way the lakes have changed,” said Clapp.

Clapp said a major factor are zebra mussels, an invasive species that feed on phytoplankton and zooplankton—a necessary young perch diet component.

MDNR and other agencies monitor fish populations through the [Great Lakes Fishery Commission](#). Clapp said more yellow perch are in higher productivity areas like Saginaw Bay, Lake Erie and Green Bay, than Lake Michigan where productivity is likely lower now than it was in the ‘80s.

Down by the bay

Life of a yellow perch in Green Bay—Wisconsin’s Lake Michigan arm—is drastically similar to their Saginaw Bay fish-friends, except that badger state perch can be plucked by commercial fisheries. Green Bay is the

only commercial harvest location on Lake Michigan besides Michigan tribal fisheries.

Wisconsin DNR Senior Fisheries Biologist Tammie Paoli said Green Bay’s warmer, shallower waters alongside increased vegetation for egg-laying and juvenile fish nursery habitat helped the perch population stabilize. “The condition of the Bay compared to Lake Michigan is really night and day,” said Paoli, who works for the WDNR in Peshtigo.

Wisconsin’s Lake Michigan waters see roughly 60 commercial fishing licenses, but Paoli estimates less than a dozen active yellow perch commercial fishers in Green Bay. Green Bay saw a yellow perch population of roughly 268,000 in 2020. Despite a stable perch population, Green Bay’s commercial fishing has been overshadowed by the productive nature of Lake Erie. “There’s a lot of fish that come out of Lake Erie so that really drives the local market here, and prices might influence whether a local fisherman even bothers to go fishing,” said Paoli.

At its peak, there were an estimated 34 million perch in Green Bay during 1984. Lake Erie had an estimated [75 million in the ‘80s](#), but is currently facing a [population decline spawning harvest cuts and frustrated Ohioan anglers](#). Paoli estimated that Green Bay currently bobbles between one to two million adult yellow perch. “It’s definitely down drastically, but still maintaining its own enough to sustain a sport and commercial fishery,” said Paoli.

While scrappy yellow perch fight for survival, many anglers cling to nostalgia and memories of big hauls over empty buckets. “People that lived through the peaks in the ‘80s still ask ‘When are the perch coming back?’” said Paoli. “Obviously I don’t have an answer to that and in my lifetime, they may never.” ✧

DNR inland lake and stream surveys critical to managing Mich fisheries

If you spent any time on the water last year, you may have seen Michigan DNR fisheries management units at work conducting fisheries surveys across the state. Crews completed 171 surveys of Michigan's lakes and 110 surveys of streams in 2023.

These surveys are valuable, helping track inland fisheries populations, evaluate stocking efforts to increase angler opportunities and address concerns from anglers.

Collecting key data on Michigan's world-class fisheries is critical for successful management of the state's diverse fisheries resources, but what exactly do crews look for? According to Jim Francis, DNR Lake Erie basin coordinator, surveys fall into three categories:

- Evaluating management actions.
- Understanding status and trends.
- Finding answers to new questions.

"The management units stepped up this year and were able to safely conduct inland fisheries surveys to evaluate if management actions, like fish stocking or habitat improvement projects, had the desired effect,"

Francis said. "Surveys help us understand whether or not our management actions resulted in better recreational fishing in certain areas or improved a lake's overall health."

Francis explained that, at fixed status and trends sites, the DNR annually estimates fish population abundance—usually trout in coldwater streams and smallmouth bass in warmer waters—on a three-year rotation, while random site surveys are intended to give a species snapshot and show relative abundance. The DNR collects in-stream habitat data at all status and trends sites.

Fisheries managers use the third category, discretionary surveys, to answer questions or address current concerns, perhaps something raised by a local biologist, an angling group or a lake association. Such surveys, typically accounting for 50% of the department's annual survey effort, might be conducted to assess habitat suitability for a threatened and endangered fish species.

Such surveys are critical to an accurate understanding of state

fisheries and aquatic health, and the DNR's ability to regularly complete the surveys is dependent on sufficient, sustainable, long-term funding.

DNR Fish Chief Randy Claramunt said that under the current funding level, an inland lake in Michigan is likely to be surveyed only once every 90 years, which isn't viable. Fisheries managers use the information from surveys to strategize their actions, detect early indicators of invasive species, recognize developing threats to fish and habitat health, and other important activities.

"Additionally, anglers rely on this information when planning fishing trips, and many DNR partners depend on these surveys to inform strategic efforts such as habitat protections," Francis said. "Well-managed, high-quality aquatic habitats and waters are things all residents benefit from."

If you'd like to learn about the DNR's lake and stream surveys, contact the [fisheries management unit](#) in your area. For more on how the DNR takes care of fisheries, visit the [fisheries management webpage](#). ✧

13th Annual Becoming an Outdoors Woman Workshop **November 1-3**

Mansfield, GA— Calling all eager-to-learn women interested in furthering their awareness of outdoor activities! The 13th Annual Becoming an Outdoors Woman (BOW) Workshop, scheduled for November 1-3, 2024, at the Charlie Elliott Wildlife Center, provides a practical introduction to a wide variety of outdoor recreational skills and activities, according to host agency Georgia DNR's Wildlife Resources Division.

"Women from all backgrounds are given the opportunity to develop outdoor skills such as backpacking, fishing, shooting sports, outdoor cooking and nature photography all while in a safe and structured environment. The atmosphere is positive and non-competitive where all participants can feel confident and have fun," said Kim Morris-Zarneke, CEWC Program Manager.

Weekend workshops begin on Friday morning and end on Sunday. Participants can choose from more than 30 professionally led classes between meals and special presentations and events. Sessions range in intensity from leisurely to rugged (strenuous).

Participants can RV or tent camp on site (reservations required), or stay at the conference center lodge at Charlie Elliott, part of a popular complex including a wildlife management and public fishing area.

"From beginner participants to the advanced, classes are tailored with both skill sets in mind. Those with little to no experience can learn the basics of the outdoors while the more seasoned participants can benefit by building on their existing skills and trying out new activities," says Morris-Zarneke. "The workshop strives to

ensure all participants receive enough instruction to further their outdoor interests before the end of the workshop. We want to give you all the tools to take your new skills to the next level."

Registration for BOW opened September 2, 2024, and runs through October 15, 2024. Don't wait, spots go fast! The cost per person, which includes food and programming, ranges from \$255-\$300 (dependent on lodging choice). A limited number of scholarships are available to assist individuals with registration costs.

For more information, including registration details and a complete listing of classes offered, visit GeorgiaWildlife.com/BOW or call (770) 784-3059 or email cewc.info@dnr.ga.gov. ✧

Study: How wind turbines may affect ocean floor

August 14, 2024 – Over the next ten years, thousands of wind turbines will be installed along the Atlantic coast of North America. This will be the biggest change to the sea floor in the area since the last Ice Age ended about 14,000 years ago.

A new research study, conducted by [Kevin D. E. Stokesbury](#), [N. David Bethoney](#), [Felipe Restrepo](#), [Bradley P. Harris](#), and sponsored by the [Commercial Fisheries Research Foundation](#) has been conducted to:

1. Understand the differences between the sea floor in areas where wind turbines will be built and other locations;
2. Help scientists predict how the ecosystem might change when the turbines are installed;
3. Provide a detailed picture of the current sea floor, so future changes can be measured accurately after the turbines are in place.

To understand what the sea floor is like now, scientists combined two large sets of data. One set comes from underwater camera surveys done from 2003 to 2019, and the other set is from geological studies dating back to 1966. They used this information to create detailed maps of the sea floor from Virginia Beach to the Gulf of Maine, down to a depth of about 300 meters. These maps show the probability of finding different types of materials on the sea floor, like rocks or sand.

Background

Offshore wind energy development goals are set to bring thousands of wind turbines to the North American Atlantic coast over the next decade. Such rapid development will significantly change the underwater environment. For example, currently soft seabeds (mud, sand, etc.) will have new hard structures introduced by wind farms (towers, foundation base materials, etc.). To understand the impact of wind farm development on marine habitats, we need to gather baseline information on the current state of these underwater areas.

What We Did

We studied the ocean floor along the East Coast of the United States using historical data. This involved using data collected from 2003 to 2019 by camera surveys from the University of Massachusetts Dartmouth School for Marine Science and Technology and marine sediment data from the United States Geological Survey dating back to 1966. We wanted to map the composition of the ocean floor before wind farm development began, so we looked at the percentages of mud, sand, gravel, cobble, shell, and rock in different areas. Then, we created maps to show where each of these types of substrate are found.

What We Found

1) Across all of the areas we mapped, sand was the dominant bottom type (found in 59% of areas), followed by mud (34%), and gravel (6%).

2) Areas slated for wind farm development had different substrate types than the rest of the continental shelf. For example, wind farm lease areas predominately had a mix of sand (99% of areas) and shell (92%) as their substrates.

Looking Forward

Wind farm lease areas currently consist mainly of soft-bottom habitats with low percentages of harder substrates such as gravel, cobble, and rock. Wind farms will add a lot of hard structures to these areas, potentially altering the habitat and species that inhabit these areas, which will likely affect fisheries. The maps created in this study will help us monitor changes to the substrate after wind farm construction. This will provide a more comprehensive view of the impacts of offshore wind on ocean ecosystems.

The published paper on this research, led by Dr. Kevin Stokesbury. Dean of the University of Massachusetts Dartmouth School for Marine Science and Technology, is available here: [“Anticipating the winds of change: A baseline assessment of Northeastern US continental shelf surficial substrates.”](#) ✧

DNR hauls in 6’ 3” lake sturgeon during annual survey

DETROIT – The largest [lake sturgeon](#) in the history of the annual state survey was captured last week. The monster fish was 75.2” long, or about 6-foot, 3 inches, which made it the largest sturgeon by length that the survey has ever recorded, [Michigan DNR](#) announced. It weighed 125 pounds.

The DNR Fisheries Division conducts the survey. This year, they were trawling on Lake St. Clair, capturing, gathering data, tagging and releasing the fish.

“These activities provide our biologists and technicians with information on how lake sturgeon are doing,” officials said. “This helps track abundance, survival, movement, habitat use and more. Sturgeon are an amazing and unique species, and efforts like this help us keep up [conservation practices](#) to help them thrive.”

It’s difficult to estimate the age of the fish, but DNR staff say, “It wouldn’t be surprising to find out some of these fish are knocking on 80 years old.”

The four-day survey wrapped with 17 sturgeon caught and tagged, said [DNR Fisheries Biologist Andrew Briggs](#). None of the fish were recaptures from previous surveys. That’s the norm despite the fact that the DNR has tagged about 1,300 sturgeon in Lake St. Clair and 2,400 in the St. Clair River over the past three decades, he said.

“This indicates that there is a very large number of Lake Sturgeon that utilize Lake St. Clair,” Briggs said.

Native lake sturgeon are prehistoric fish evolved more than 100 million years ago, widely considered living fossils of the dinosaur age. They can grow up to seven feet long and weigh more than 300 pounds, living as many as 100 years and more in the Great Lakes watershed. ✧

Fisheries research over-estimates fish stocks

The state of fish stocks in the world's ocean is worse than previously thought. While overfishing has long been blamed on fisheries policies that set catch limits higher than scientific recommendations, a new study by four Australian research institutions reveals that even these scientific recommendations were often too optimistic. The result? Far more global fish stocks are overfished or have collapsed than we thought.

Dr. Rainer Froese from the GEOMAR Helmholtz Centre for Ocean Research Kiel and Dr. Daniel Pauly from the University of British Columbia have provided their insights on the study. In their *Perspective Paper*, published in the journal *Science* alongside the new study, the two fisheries experts call for simpler yet more accurate models and, when in doubt, a more conservative approach to stock assessments.

Many fish stocks around the world are either threatened by overfishing or have already collapsed. One of the main reasons for this devastating trend is that policymakers have often ignored the catch limits calculated by scientists, which were intended to be strict thresholds to protect stocks. But it has now become clear that even these scientific recommendations were often too high.

In the European Union (EU), for example, fisheries are primarily managed through allowable catch limits, known as quotas, which are set by the European Council of Agriculture Ministers on the basis of scientific advice and recommendations from the European Commission. A new study by Australian scientists (Edgar et al.) shows that already the scientific advice has been recommending catch limits that were too high.

For the study, Edgar et al. analyzed data from 230 fish stocks worldwide and found that stock assessments have

often been overly optimistic. They overestimated the abundance of fish and how quickly stocks could recover. Particularly affected are stocks that have already shrunk due to overfishing. The overestimates led to so-called phantom recoveries, where stocks were classified as recovered while, in reality, they continued to decline. "This resulted in insufficient reductions in catch limits when they were most urgently needed," explains Dr Rainer Froese. "Unfortunately, this is not just a problem of the past. Known overestimates of stock sizes in recent years are still not used to correct this error in current stock assessments."

The research by Edgar et al. also shows that almost a third of stocks classified by the Food and Agriculture Organization (FAO) as "maximally sustainably fished" have instead crossed the threshold into the "overfished" category. Moreover, the number of collapsed stocks (those with less than ten per cent of their original biomass) within the overfished category is likely to be 85 per cent higher than previously estimated.

But what causes these distortions in stock assessments? Standard stock assessments use models that can include more than 40 different parameters, such as fish life history, catch details, and fishing effort. This large number of parameters makes the assessments unnecessarily complex, write Froese and Pauly. The results can only be reproduced by a few experts with access to the original models, data and settings. Moreover, many of the required input parameters are unknown or difficult to estimate, leading modelers to use less reliable values that have worked in the past. Froese notes: "Such practices can skew the results towards the modelers' expectations."

The authors therefore call for a revision of current stock assessment

models. They advocate simpler, more realistic models based on ecological principles. They also call for greater use of the precautionary principle: when in doubt, conservative estimates should be used to protect stocks. "In essence, sustainable fishing is simple," says Dr Rainer Froese. "Less fish biomass should be taken than is regrown." Fish must be allowed to reproduce before they are caught, environmentally friendly fishing gear must be used and protected zones must be established. The functioning of important food chains must be preserved by reducing catches of forage fish such as anchovies, sardines, krill or herring—these are the principles of ecosystem-based sustainable fishing. Froese adds: "Four of these five principles can be implemented even without knowledge of stock sizes." ✧

Reschedule Your Tournaments

For local bass clubs, it's wise to reconsider holding tournaments in August and early September. We've all seen multiple dead bass floating near release sites in late summer tournaments. Though the fish might swim off when they're dumped out of the tank, they soon succumb to the combination of stress and injury resulting from being hooked, dehooked, hauled around at 60 mph and then weighed in.

The only way to avoid dead fish floating is not to put them there to begin with—fish catch-photo-release events where the fish go right back into the water after a quick photo on a measuring board and those fish will be there to greet you next time out. The MLF system of on the water electronic weigh-ins and immediate release is also great, though not possible for local events. While the weigh-ins will lack some of the drama of live weigh-ins, saving a lot of quality fish for the future is well worth the change. ✧

NOAA Fisheries reports progress on Recreational Fishing Survey

We may be in the dog days of summer, but we're pleased to share that progress continues on two high-visibility recreational fishing data collection initiatives—our Fishing Effort Survey study and the collaborative initiative to re-envision the partnership. Earlier this summer, an [initial update](#) was provided sharing the desire and need for our recreational fishing data collection partnership to be “nationally coherent and regionally specific” and for improvements to be informed through our partners and the recreational fishing community.

The most important takeaway right now is that both of these initiatives remain on track.

First, the Fishing Effort Study. We are entering the eighth month of survey administration as part of our year-long [large-scale study](#) to determine differences in respondent recall and resulting recreational fishing effort estimates between the current Fishing Effort Survey design and a revised design. The revised FES design being tested is producing improved data quality in alignment with [prior pilot studies](#). Two main points: We continue to see a large reduction in reporting errors and illogical responses. Also, respondents have been less likely to indicate more trips for the 2-month fishing reference period than for the 12-month reference period. Please note that there is still a large amount of data to collect and analyze before fully informed comparisons can be made, including the direction and magnitude of differences in effort estimates. However, we are optimistic this study will inform considerable, near-term improvements to the Fishing Effort Survey and resulting effort estimates.

Regarding the timeline, we plan to conclude data collection for the study by the end of the year. In summer 2025, we will produce report outlining key findings. Ultimately, in 2026, we will determine if and how a new design will be implemented in

collaboration with our partners and pending favorable study results and peer review.

For our second major initiative, we continue to re-evaluate our recreational fishing data collection partnership approaches. As many of you know, the goal is to transition to a new, collaboratively developed vision for the state-federal partnership in 2026—one that better meets regionally specific data needs for sustainable, adaptive fisheries management.

So far this year, we've held four virtual briefings with approximately 150 key partners and members of the recreational fishing community across the nation to introduce the effort and garner initial feedback on the re-envisioning process and objectives. Out of these sessions, a few key themes emerged, including the need to:

- Build trust and credibility with state partners and the angling community
- Acknowledge and seek regional data collection flexibility
- Determine allocation of limited resources through regional data collection priorities
- Make sustainable fisheries decisions based on more timely, precise, and accurate data
- Properly integrate and compare different data streams to best inform stock assessments
- Develop adaptive management frameworks that better consider data uncertainty and limitations
- Continue work to improve recreational fishing effort estimates, and consider novel technologies to track or compare recreational fishing effort estimates
- Establish transparent, consistent, and centralized data management programs for all partners

This summer and fall, we will host additional discussions with key

partners and schedule listening sessions during specific regional fishery management council meetings. If you are interested in participating in one of these listening sessions, please reference your [regional Council website](#) for information. In early 2025, we plan to designate working groups, and in summer 2025, we anticipate hosting a series of regional workshops to develop a shared vision and action plan for release by the end of the year.

As we work through the re-envisioning process, we will continue to incorporate immediate, positive changes along the way. ✧

Tour anglers help cleanup at St. Lawrence River

MASSENA, N.Y. – Professional anglers from the Bass Pro Tour, Major League Fishing (MLF) staff and the Louisville (N.Y.) Recreation & Maintenance department participated in the Johnson Outdoors Clean Earth Challenge, Monday. The event—held in conjunction with the MLF Bass Pro Tour Minn Kota Stage Seven at the St. Lawrence River Presented by Humminbird—challenges people to get outdoors and take simple conservation actions to help preserve and restore the outdoor spaces we all love.

Pro anglers, MLF staff and workers from the Louisville (N.Y.) Recreation & Maintenance Department worked together in the rain at the Massena Intake Boat Launch in Massena to help clean the surrounding park and boat launch area. Fortunately, not a lot of trash needed to be picked up as the park was deemed one of the nicest and cleanest facilities that the Bass Pro Tour has visited, according to MLF Operations Manager Kim Edwards. ✧

Great Lakes States Angler Demographics

Each year, approximately 1.8 million recreational anglers fish the Great Lakes. Millions more fish inland lakes and streams across the Upper Great Lakes region. Anglers play a critical role affecting the region's fisheries, their related ecosystems, and fisheries management practices and policies. However, a growing body of research suggests that anglers across the Upper Midwest are declining in number and aging, which could have dramatic implications for agency funding, habitat programs, and fisheries policy and management strategies.

This website brings together detailed demographic data on the angler population across the five US states (Illinois, Indiana, Michigan, Minnesota, and Wisconsin) that border the Upper Great Lakes (Lake Huron, Lake Michigan, and Lake Superior). It includes data and analysis at both the state-level and the lake-level for each of the Upper Lakes. Supported by funding from the [Great Lakes Fishery Commission](#), researchers in the [Great Lakes Research Center](#) at Michigan Technological University partnered with representatives of each state's Department of Natural Resources to pull together consistent data (based on fishing license sales records) that can be compared across states/lakes, by sex (male/female), and by single-year of age over time.

These data (and related analysis and maps) are available for public download. We hope that users, from fisheries managers to fishing club members and charter boat captains to researchers and anglers themselves, will find these reports, maps, and data useful for understanding how angler populations are changing over time and how they might be expected to change further in the coming years.

What You Will Find on this Site
Data, maps, and reports are available at the lake-level (Great Lakes), for each state, and for the five-state region as a whole by clicking on the links below:

- [Great Lakes Angler Data, and Maps](#)
- [State Level Angler Data, Reports, and Maps](#)
- [Regional Angler Data, Reports, and Maps](#)
- [Great Lakes Anglers Mapbook](#)

Reports

Brief reports that summarize, analyze, and interpret key demographic trends by age, sex (female/male), time period, and birth cohort (generation) are available for each of the five states in PDF format. These are a great place to get an overview of how angler populations are changing, how newer generations are different from prior ones, characteristics of anglers who fish the Great Lakes for salmon/trout, differences between males and females, geographic patterns of fishing participation, and projections of future angler populations.

Maps

A [Mapbook](#) includes a set of 49 maps which show county-level patterns of angler participation across the Upper Great Lakes states, in PDF format. The maps show the number of anglers, numerical change in anglers, angler participation rates, Great Lakes salmon/trout angler participation rates, and change in participation rates over time by county of residence and sex. Each of the individual maps are available for download as a .jpg file. Maps for download are organized by state, Great Lake, and into those that show the region as a whole.

Data

Data include estimates of the number of in-state resident recreational anglers from the states of Illinois, Indiana, Michigan, Minnesota, and Wisconsin. They also include estimates of the smaller subset of anglers who fish the Upper Great Lakes (Lake Superior, Lake Michigan, or Lake Huron) or their tributaries for salmon/trout by state of residence and separately by lake fished. All estimates are broken down by single year of age, sex, and

year (2000-2016, varies by state). Data are provided in .csv format which is compatible with Microsoft Excel and other data management and statistics programs. Data are also provided in .dta format for use in Stata Data Analysis and Statistical Software. Metadata, including variable names and labels, are provided in .csv for importing into statistics program. Metadata are intended to be machine readable data labels but not a replacement for the complete information provided in the documentation.

A Word of Caution

Data are most accurate for total anglers residing in each state, and for Great Lakes salmon/trout anglers in Wisconsin and Illinois. We believe those data to be of high enough quality that they can be used without reservation. Great Lakes (GL) salmon/trout anglers in Minnesota and Indiana are estimated based on models (but controlled to observed trout stamp sales), and likely underestimate the real number of GL salmon/trout anglers in these states. Estimates for Michigan GL salmon/trout anglers are likely less accurate, as there are no trout stamp sales data available in Michigan for a control. Finally, estimates of GL salmon/trout anglers by lake (especially for Lake Huron) should be taken as an approximation. Please review the documentation for explicit details on the construction and limits of these data.

Acknowledgements

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Angler Demographics

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Great Lakes Fishery Commission, Michigan Technological University, or any of the State Departments of Natural Resources with whom we worked. Rozalynn Klaas of the Applied Population Laboratory at the University of Wisconsin-Madison provided cartography for the maps included here.

The authors would like to thank staff at the Illinois, Indiana, Michigan, Minnesota, and Wisconsin DNRs who helped us by providing access to fishing license and other key data. This includes Vic Santucci at the Illinois DNR; Jeremy Price, Brian Breidert, and Matt Burlingame at the Indiana DNR; Tracy Claramunt, Randy Claramunt, Kristen Kosloski, Phil Schneeberger, Nick Popoff, Jay Wesley, Kristen Shuler, and Jim Francis at the Michigan DNR; James Thompson, Jenifer Wical, Heather Kieweg, Lyn Bergquist, Melissa Trembl and Don Pereira at the Minnesota DNR; and Justine Hasz, Kate Strom-Hiorns, Karl Scheidegger, Keith Warnke, Ben Beardmore, and Brad Eggold at the Wisconsin DNR. In addition, we would like to thank staff, especially Marc Gaden, at the Great Lakes Fishery Commission for their support. ✧

Hundreds of young sturgeon

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So far, the hatchery has helped to double the adult population of lake sturgeons in Black Lake, and its increased populations in other Michigan bodies of water. The goal is that one day sturgeons will be self-sufficient so that the rearing facility isn't needed anymore, said Ed Baker, manager for the DNR Marquette Fisheries Research Station. The DNR wants recreational sportsmen to enjoy the annual sturgeon fishing season without putting the population at risk.

"We don't want to be stocking lake sturgeon in perpetuity," Baker said. "We want to get the population to the

point that it can sustain the recreational harvest that is occurring without that harvest causing the population to decline again."

Letting lake sturgeons go extinct wasn't an option. The DNR decided it was time for two major actions. First, in 2000, angling regulations were changed, and the sturgeon harvest was limited to four bodies of water in Michigan, and the harvest in Black Lake was limited to a lake-wide quote of six sturgeons per year. Second, it gave the sturgeon population a boost with a stocking program.

The Black Lake sturgeon research program began with a partnership between the DNR and Central Michigan University in 2000. MSU's collaboration in the research began in 2002, when Scribner—then a professor in the Department of Fisheries and Wildlife—joined the project. It's been a joint effort between MSU and the DNR ever since.

Undergraduate and graduate students are hired to conduct research and help care for the fish in the rearing facility. That's how [Max Majinska](#), a Fisheries and Wildlife graduate student, first came to the facility. Then a Northern Michigan University student, he helped collect embryos, assisted researchers with projects and made sure the sturgeons were fed and healthy. Since the moment he first held a baby sturgeon, he was hooked. So, when he graduated, Majinska decided to continue his studies at MSU and continue working at the hatchery.

That in-the-field experience was invaluable and helped him decide what he wants to do with his life. "You can learn a lot from a classroom, but until you actually experience it, it's just different," Majinska said.

Each spring, field technicians and hatchery specialists use nets to catch juvenile larvae from the Black River, just as they've emerged from the river bottom when they've used their yolk sac and are hungry. Use of naturally produced larvae captured from the river helps to ensure they're spawned by a large number of parents and are genetically diverse. Researchers also

collect sperm and eggs from adults caught in the river to conduct experiments.

As the juvenile sturgeons grow, they're kept in tanks filled with water that's constantly flowing from the Black River and filtered for sand and particles, Colborne said. They're fed brine shrimp multiple times a day, then bloodworms as they grow larger. Throughout their three months of care, they're tested for diseases to be sure the juvenile fish are healthy.

Each fish is tagged with a Passive Integrated Transponder, or PIT tag, similar to a microchip you'd use for a pet dog or cat. It's placed in their backs, about three to four scutes behind their heads. Then, in August, 500 6-inch baby sturgeons are released into the Black River. Sturgeons are also sent to Mullett Lake in Cheboygan County, the Boardman River in Grand Traverse County and the Cass, Shiawassee, Flint and Tittabawassee Rivers in the Saginaw River drainage.

Meanwhile, every aspect of the sturgeons and their care is studied. Over the years, researchers have learned ways to minimize mortality through feeding and care. They've adjusted the size at which they release sturgeons to give them a greater chance at surviving that critical first year of life when they're most vulnerable, Scribner said.

Scribner estimates that sturgeons reared in the MSU/DNR facility have about a 75% survivorship rate for their first year of life. By the time they're a year old, they've developed their bony armor and grown large enough that few predators remain. Sturgeons that live past one year have about a 95% survivorship rate to adulthood. That boost in survival has allowed the facility to rebuild the sturgeon populations.

"The hatchery is providing a more healthy, robust crop of sturgeons that are able to survive with higher probabilities," Scribner said. "That all came about through research at the facility." ✧

\$12 million available for Great Lakes habitat restoration

NOAA is seeking proposals for new grant awards that will restore habitat for Great Lakes fisheries, helping to support local ecosystems and communities. NOAA is announcing the availability of up to \$12 million in Great Lakes Restoration Initiative funding to continue our work [restoring habitat for Great Lakes native fisheries](#). We are seeking proposals for projects that restore Great Lakes habitats and lead to significant and sustainable benefits for Great Lakes native fish species.

Projects selected through this funding opportunity will help sustain the multiple benefits the Great Lakes provide by:

- Supporting valuable fisheries and coastal resources
- Improving the quality of our water by restoring coastal wetlands
- Providing recreational opportunities for the public's use and enjoyment
- Increasing the resilience of Great Lakes communities

Applications will be accepted and considered on an annual basis. To be considered for funding in the 2025 federal fiscal year, applications are due by **October 28, 2024**. For funding in FY2026 and FY2027, applications will be due by September 5, 2025, and September 4, 2026, respectively. This competition will remain open until 2026.

As the largest freshwater system on earth, the Great Lakes are an important ecological and economic resource. They support valuable commercial, recreational, and tribal fisheries that are collectively valued at \$7 billion per year and support more than 75,000 jobs. They also support industry, transportation, and tourism. The Great Lakes face many threats, however, including habitat degradation, oil spills and other pollution, overfishing, and the spread of invasive species. The quality and quantity of fish habitat in the Great Lakes has declined for decades and

Ontario Conservation Officers Association

New Executive to serve Association Members

The Ontario Conservation Officers Association is pleased to introduce its new executive members for the 2024-2025 term. Elections were held during the association's annual general meeting held on August 7th, 2024. The role of the executive is to manage the affairs of the association. The new executives begin their term September 1, 2024.

The following is a list of executive members; they may be contacted at:

President – Brendan Cote,
bcote@ocoa.ca

Vice President – Davis Viehbeck,
dviehbeck@ocoa.ca

Treasurer – Randy Pepper,
rpepper@ocoa.ca

Secretary – Joe Fralick,
jfralick@ocoa.ca

Past President – Matthew McVittie,
mmcvittie@ocoa.ca

For more information contact:
Matthew McVittie ✧

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continues to be a concern. Without the right habitat, fish cannot build their populations, and that means fewer—and less healthy—fish.

The [Office of Habitat Conservation's NOAA Restoration Center](#) works in the Great Lakes to support the ecosystems and economies that rely on these valuable resources. Since 2010, NOAA has supported 98 projects through the Great Lakes Restoration Initiative. These projects have restored more than 5,100 acres of habitat and opened more than 520 stream miles for fish passage. ✧

Fish Handling for Best Survival

Single hook lures like jigs or blade baits are best for easy dehooking with minimal injury to the fish.

Lures with multiple trebles can be problematic. However, fish nearly always strike baitfish type lures at the head and get hooked on the front hook, so if you flatten the barbs on the aft hooks, it won't contribute to losing fish but you also won't kill fish due to hooks in the gills and throat.

A “fish grabber” that locks onto the fish's jaw is a useful tool for handling because it eliminates dropping fish on deck where their slime coat will be damaged and also makes it easier to get the hook out with a pair of pliers in your other hand.

For fish over 3 pounds, it's best to hold them up for a photo by gripping the jaw with one hand, the tail with the other. Otherwise, too much weight on the jaw can dislocate it, assuring the fish won't survive.

Photos should be made quickly for best survival—if you can get the fish back over the side within 60 seconds or so, it's almost sure to survive and will probably be in just about the same spot next week when you come back to try again.

If you're not fishing a tournament, immediate release of fish gives them the best chance of survival. Culling for the largest possible bag for bragging rights back at the dock is not a good idea in the dog days, almost assuring wasted fish. Of course, if you're keeping fish to eat, drop them on ice to start with and preserve the best flavor—fish that die in a warm livewell often have an “off” taste. ✧



Other Breaking News Items:

(Click on title or URL to read full article)

[Rapidly growing invasive plant discovered for 1st time in Canada in Leamington, Ont.](#)

Hydrilla, a rapidly growing invasive plant that's prohibited in Ontario, has been discovered for the first time in Canada in the Hillman Marsh Conservation Area in Leamington, Ontario

[NOAA to celebrate Lake Ontario sanctuary designation](#)

After nearly a decade of waiting, Oswego County, New York, is celebrating the designation of the Lake Ontario National Marine Sanctuary and inviting the public to join in the festivities.

[OPINION: The West should put its straws away. Great Lakes water is not for sale.](#)

A Chicago water commissioner hopes to put to rest the belief that Great Lakes water, now, or at any point in the future, will be used to solve the water woes of the western United States

[Longest Canadian pier in the Great Lakes coming to Mississauga](#)

Approximately 72 hectares of land formerly occupied by a coal-fired power plant in Mississauga will soon be home to the longest Canadian pier in the Great Lakes. The pier will jut 600 meters into Lake Ontario and is part of the Lakeview Village, which is

['Deeply disturbing news.' Invasive quagga mussels documented in Geneva Lake; first finding in Wisconsin inland lake](#)

Geneva Lake in Walworth County, Wisconsin, has long been known for its clear, deep water and scenic location. And now it has an unwelcome distinction: it is the first Wisconsin inland lake documented with quagga mussels, according to state and local

[Opposition builds over bill to designate Apostle Islands as a national park](#)

Opposition is growing over a proposal to redesignate the Apostle Islands National Lakeshore as Wisconsin's first national park. Local governments and the Red Cliff Band of Lake Superior Chippewa have come out against the bill, raising concerns about the

[US Army Corps of Engineers removes WWII era gates hidden in St. Mary's River](#)

The U.S. Army Corps of Engineers, Detroit District, removed a spare set of miter gates, constructed for the Davis and Sabin Locks, from the St. Marys River this summer. The miter gates were hidden in the river for over 80 years and weighed about 350,000

[Michigan tribes launch smart phone app to help people eat safe Great Lakes fish](#)

The Inter-Tribal Council of Michigan announced Thursday it has released a smart phone app to guide people toward safe consumption of Great Lakes fish. The app provides personalized recommendations for eating fish from Lakes Huron, Michigan,

[This tiny mollusk costs the Great Lakes over \\$5 billion in problems](#)

Zebra mussels are non-native to the Great Lakes region and while only the size of a fingernail, they can cause irreversible environmental and economic damage

[Salmon action is happening this summer on eastern basin of Lake Ontario](#)

This summer has been one of almost instant gratification for salmon anglers booking charter trips on the eastern basin of Lake Ontario. In the coming weeks the salmon action will increase as they move close to shore and begin staging for their spawning

[Harmful algal bloom expands](#)

The National Oceanic and Atmospheric Administration said the main harmful algal bloom in western Lake Erie has expanded from the Toledo area to reach Huron, Ohio. The cyanobacteria bloom has an approximate area of 560 square miles, which is an increase

[Discovering Michigan's depths: A journey through Thunder Bay National Marine Sanctuary](#)

Alpena, Michigan, gateway to the Thunder Bay National Marine Sanctuary, offers a fascinating window into the maritime history of the Great Lakes. But beyond its well-known status as a shipwreck haven, Thunder Bay holds many lesser-known stories and

[An invasive species plant called water soldier has been found in Lake Simcoe: Here's what it means](#)

The presence of an invasive plant known as water soldier was confirmed in Ontario's Lake Simcoe for the first time. If left unchecked, water soldier has the potential to invade lakes and rivers throughout Ontario and the Great Lakes basin.

End