



## Cisco Fishing in Northern Lake Michigan

Anglers fishing northern Lake Michigan are well known for targeting lake whitefish and lake trout, jigging off the bottom for them for eons. But in the last decade a new fishery has emerged—and its one that's surprising a lot of people.

"The new thing in the area is cisco (formerly known as lake herring)," shared Heather Hettinger, a fisheries biologist based out of Traverse City. "Obviously these fish have been around forever but they used to not be very big in size. About 10 years ago anglers started catching much bigger fish, especially as the lake whitefish population numbers started to tick down."

During that time anglers started targeting cisco versus lake whitefish, with available locations to fish for them expanding as well.

"A hot spot in this area to fish for cisco is east Grand Traverse Bay," Hettinger said. "But really there are fishable populations in the west bay up to Elk Rapids, Charlevoix and Petoskey."

Hettinger explains that you can fish for cisco any which way you want—including trolling, jigging from a small boat, and pier fishing. She says most anglers are happy about this newer fishing opportunity, but there's still so much we don't know about this species.

Enter Jory Jonas, a fisheries research biologist based out of Charlevoix who is fascinated by this growing effort—and is aiming to figure out why it has changed over time.

Cisco and lake whitefish are technically related, yet for several

years lake whitefish have been on the decline while cisco populations seem to be thriving. These fish spawn around the same time and grow up in similar environments, so why the big difference?

"It's so interesting to me, as a scientist, as to why these two species are headed on two different trajectories," explained Jonas. "I need to find out where their life cycle bottlenecks are. I have hypotheses, but nothing definitive. The first place I want to go to is larval fish; when you come out of an egg and you're a larva, is there a problem with the size of Lake Michigan's zooplankton and can your mouth allow you to catch them?"

### Cisco Fishing

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## Asian Carp Committee releases 2018 Asian Carp Action Plan

### *Asian Carp response in the Midwest*

The Asian carp action [plan](#) for this year is out. It's the plan [U.S. and Canadian agencies](#) put together to try to stop carp from spreading.

The Asian Carp Regional Coordinating Committee, on May 21 released its [2018 Asian Carp Action Plan](#). Developed annually since 2010, the action plan is designed to prevent the spread of invasive Asian carp in the Great Lakes. The action plan incorporates advances in the most current science making it a continually evolving foundation for the work of the ACRCC partnership—a collaboration of 27 U.S. and Canadian federal, state, and provincial agencies and organizations. This annual plan provides a portfolio of strategic measures, including early

detection and monitoring, prevention and control, contingency response, and development of new technologies.

The 2018 Asian Carp Action Plan builds on insights gained from past efforts with the addition of new technologies, management approaches, and tools. Key ACRCC initiatives for 2018 include:

- Increased efforts to field test potential Asian carp deterrents including underwater sound and carbon dioxide.
- Refinement and use of more effective sampling and harvest strategies informed by a population model.

### 2018 Asian Carp Action Plan

*Continued on page 10*

# Status of the Cormorant Program

At the Sea Grant Workshop in Cedarville on May 3 there was a panel discussion on reestablishing effective cormorant control in Michigan and the other Midwestern States. Present on the panel were:

- Rachael Pierce, US Fish and Wildlife Service Division of Migratory Birds, Bird Biologist
- James Hogge, Congressman Jack Bergman's representative
- Tony Aderman, US Department of Agriculture Wildlife Services

The most pressing questions expressed by the participants at the meeting were:

1. Why were the recreational and commercial fisheries not protected and included in the recently approved Environmental Assessment?
2. Why is it taking such a long time to complete the second Environmental Assessment that would protect the recreational and commercial fisheries when the US Fish and Wildlife Service indicated in court during May 2016 that it would take only 7 months to approve a new Environmental Assessment?

Biological, economic, and social impacts are 3 points that are considered in the review of an Environmental Assessment. The reason given by the US Fish and Wildlife Service Division of Migratory Birds why it did not include recreational and commercial fisheries in the newly completed Environmental Assessment was because of the lack of documentation showing the biological and economic impacts caused by cormorants. There were strong responses at the meeting from participants indicating there was much documentation available to show the cormorant impacts on free swimming sport fish species.

It was then mentioned that the Fish and Wildlife Service feels more documentation is needed from some of the other 37 states that would be covered by the new Environmental Assessment. There were additional

strong comments made at the workshop indicating Michigan and some of the other states have plenty of documentation and there is a need to quickly approve the Environmental Assessment and allow the states that have the documentation to begin an effective cormorant management program again.

There was much concern expressed about the lack of communication with the public and the slow progress the Fish and Wildlife Service is making to approve the needed Environmental Assessment. Instead of taking only 7 months to approve the Assessment as was mentioned in Court, it already has been nearly 2 years without an effective cormorant program, see attached court ruling. Shockingly, only 1 U.S. Fish and Wildlife public meeting is planned for the entire Midwest Region and that will not take place until later in the summer. It was strongly expressed at the workshop that this slow pace of the Environmental Assessment approval process is unacceptable and it is causing damage to the fisheries.

Under the current regulations in 2018, only harassment of cormorants without lethal control will be allowed to protect free swimming fish. The nest counts will continue this year.

Finally, Congressman Jack Bergman's Bill, the Cormorant Control Act H.R. 4429 was discussed <https://www.congress.gov/bill/115th-congress/house-bill/4429/text?r=89>.

The bill would alter the current law and allow the states to control the cormorants again. One of the most significant challenges to passing the bill is obtaining support from the other states and it would be helpful to have organizations in Michigan work with organizations in the surrounding states to build a coalition to solve the cormorant problem. It is extremely important that we continue to remain in contact with our Congressional Representatives on a regular basis until effective cormorant control is established again. ✧



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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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## Indiana: Clean, drain and dry your boat to stop invasive species

Indiana DNR reminds you to: “Clean. Drain. Dry.” Cleaning, draining and drying your boat helps prevent the spread of aquatic invasive species (AIS).

AIS are non-native aquatic animals, plants, microorganisms and pathogens that can hurt native aquatic plants and wildlife, harming the environment, human health and businesses. They arrive in a variety of ways, including on trailers, on boat hulls and motors, on fishing gear and through the pet trade.

“The best way for boaters to help protect our waters is by following the ‘Clean-Drain-Dry’ message,” said Eric Fischer, aquatic invasive species coordinator for the DNR Division of Fish & Wildlife.

— **Clean:** When leaving the water, clean all equipment that touched the water. This includes watercraft hulls, trailers, shoes, waders, life vests, engines and other gear. Remove all plants, algae, animals and mud.

— **Drain:** Drain accumulated water from watercraft or gear, including live wells and transom wells, before leaving the ramp or public access point.

— **Dry:** Once home, let all gear dry for five days or more before using it in a different water body.

Some of the worst aquatic invasive species in other states have yet to be found in Indiana and the state wants to keep it that way.

Finally, remember dumping bait or unwanted aquarium or terrarium pets can introduce invasive species to waterways. Dispose of all unused bait in a trash can instead of dumping it into the water or on the shore.

“Your diligence will help ensure the next generation of Hoosiers can experience the same water activities that you enjoy,” Fischer said.

If you suspect you have found an aquatic invasive plant, fish, mollusk or crustacean, report it to Fish & Wildlife at [dnr.IN.gov/6385.htm](http://dnr.IN.gov/6385.htm), through the Report IN app at [eddmaps.org/Indiana](http://eddmaps.org/Indiana), or by calling

## 2018 April monthly Asian Carp Summary

**Bottom Line:** Monitoring occurred in the CAWS and upper Illinois Waterway downstream of the Electric Dispersal Barrier in March. **NO LIVE BIGHEAD CARP OR SILVER CARP were found in any new locations immediately downstream of the Electric Dispersal Barrier.**

### Fixed, Random and Targeted Site Sampling Downstream of the Electric Dispersal Barrier

#### *Electrofishing:*

- Crews from USACE completed 33 electrofishing runs at fixed and random sites (8.25 hours total) in the Lockport, Brandon Rd. and Dresden Island Pools in April.
- They collected 330 fish of 28 species.
- One adult Silver Carp was collected in the Dresden Island Pool, downstream of I-55.
- **No Asian carp were captured or observed in Lockport or Brandon Rd Pools.**

#### *Commercial Netting:*

- Contracted commercial fishers along with assisting IDNR biologists set 50.2 miles of gill net at fixed and targeted sites in the Lockport, Brandon Rd. and Dresden Island Pools (including Rock Run Rookery) in April.
  - They collected 1,137 fish of 15 species.
  - Three Silver Carp were collected in Rock Run Rookery.
  - Fourteen Bighead Carp and 77 Silver Carp were collected in the Dresden Island Pool, downstream of I-55.
  - **No Bighead Carp or Silver Carp were captured or observed in the Lockport or Brandon Road Pools.**
- To read the full report: [www.asiancarp.us](http://www.asiancarp.us) ✧

the Invasive Species Hotline at 866-NO-EXOTIC (866-663-9684). ✧

## EPA to host sessions to update GLRI

CHICAGO – The USEPA will host a series of public engagement sessions this summer to update the public on the Great Lakes Restoration Initiative (GLRI) and to seek their input on future priorities. The first engagement session will be held on June 13 in Toledo, followed by sessions in Rochester, Duluth, Milwaukee, Saginaw, and Chicago.

EPA and its federal partners are in the process of developing Action Plan III, which will outline priorities and goals for the GLRI for 2020-2024. Action Plan III will identify five focus areas for environmental progress: toxic substances and areas of concern, invasive species, nonpoint source pollution impacts on nearshore health, habitat and species, and future restoration actions. The proposed plan is expected to be available for formal public comment this fall.

The schedule of public engagement sessions is:

**Thursday., June 21, 6:00 – 8:00 pm**  
Roger Robach Community Center  
180 Beach Ave, Rochester, N.Y.

**Thursday, July 12, 6:00 – 8:00 pm**  
EPA Mid-Continent Ecology  
Division  
6201 Congdon Blvd, Duluth, Minn.

**Wednesday, July 18, 6:00 – 8:00 pm**  
University of Wisconsin-Milwaukee  
Zelazo Center  
2419 E. Kenwood Blvd, Milwaukee, Wis.

**Tuesday, July 24, 6:00 – 8:00 pm**  
Saginaw Valley University. Curtiss  
Hall  
7400 Bay Rd, Saginaw, Mich.

**Tuesday, August 7, 2:00 – 4:00 pm**  
EPA Region 5  
Lake Michigan Room – 12<sup>th</sup> floor  
77 West Jackson Blvd, Chicago, Ill.

For more information on GLRI and Action Plan III, visit: <https://www.glri.us/> ✧



## Kentucky to deploy Wall of Sound to battle invasive fish

**FRANKFORT, Ky.** – Researchers will experiment with a riverbed bubbler and sound system as part of the ongoing effort to slow the spread of Asian carp throughout the Mississippi River basin.

European technology originally designed to steer migrating salmon back into main river channels will be tested below Barkley Dam in western Kentucky as an environmentally friendly way to block passage of Asian carp upstream.

The Bio-Acoustic Fish Fence (BAFF) creates a curtain of bubbles, and in conjunction with a special sound signal, produces an underwater “wall of sound” designed to deter the passage of fish.

Fish Guidance Systems, LTD, a company based in the United Kingdom, invented the device to herd migrating fish around water intakes and dams in Europe. The company describes the fence as a behavioral barrier that requires less maintenance than a physical barrier, such as a screen or an electrical barrier.

An interagency team led by USFWS and the Nashville District of the U.S. Army COE, with support from the USGS, Univ. of Minnesota, U.S. Coast Guard, and the Kentucky Dept. of Fish and Wildlife Resources, is combining funding, technical expertise and staff to construct a research plan that should put the Fish Guidance System acoustic bubbler system below the dam this fall.

Researchers will use an existing telemetry receiver array and other electronic devices to assess the extent of Asian carp movement from the tailwater into Barkley Lake. The existence of the current telemetry array—set up by local Kentucky Fish and Wildlife research staff dedicated to Asian carp—and the large number of Asian carp in the tailwater make Barkley Dam the ideal location for this research.

The invasive Asian carp are a major concern throughout the Mississippi River basin, including the Tennessee River, which forms

Kentucky Lake, and the Cumberland River, which forms Lake Barkley. These are two of the largest reservoirs in Kentucky.

The lock systems of Kentucky and Barkley dams are the primary sources of access for Asian carp, which continue to expand their range in the Mississippi and Ohio river basins.

Bio-acoustic fish fences below lock chambers in the Mississippi River basin are untested as an Asian carp deterrent. This requires research to assess the technology’s efficiency at reducing fish movement beyond the barriers. While this technology does not require construction of physical barriers such as fences, challenges remain.

The amount of barge and boat traffic through the lock at Lake Barkley’s dam could create logistical challenges for the U.S. Army Corps of Engineers. Water depths during low-flow periods below the lock chamber will be marginally sufficient to pass barges through. A large volume of sizeable debris coming through the lock chambers during floods could pose problems for the sound system and bubble barrier.

Deployment of the fish barrier may affect a few anglers who fish in parts of the lock canal. Because of the potential for considerable damage to the system, the area between the lock walls immediately downstream of the chamber will be off limits to fishing. However, the area downstream of the bubble curtain located at the end of the short wall along shore will remain open.

The research goals include determining the effectiveness of a sound barrier system at restricting or reducing movement of Asian carp through lock chambers; assessing the system’s resiliency; and determining the barrier’s effect on movement of native fish species through lock chambers. Information gathered will be important to future tests at other dams in the Mississippi River and Ohio River basins. ✧

## Angler sets new benchmark for lake sturgeon catch-and-release record

An angler from Stillwater has set a new record for lake sturgeon in the Minnesota DNRs’ catch-and-release category.

Jack Burke and fishing buddy Michael Orgas were recently on a lake sturgeon fishing trip to remember. Fishing on the Rainy River in Koochiching County, the duo was having a lot of success fishing for Minnesota’s biggest fish, landing 20 fish in three days including six lake sturgeon over 60 inches before



hooking into the new state record – a 73-inch long lake sturgeon.

“We had been having some great action and knew there were big fish in the Rainy River,” Burke said. “This particular fish took about 45 minutes to reel in. When we got it closer to the boat it blew some bubbles and came to the top; I knew it was a huge fish!”

Burke caught the fish on May 4, around 11 a.m. using a muskie rod supplied by his fishing partner Orgas, with 80-pound braided line rigged with a circle hook and crawlers. The fish measures 73 inches in length and 30 inches in girth. This beats the previous record by 3 inches that was set by two separate anglers who both boated 70-inch fish on the same day in April 2017.

There are two kinds of Minnesota state records: one for catching and keeping the biggest fish in each species based on certified weight; and the other for the length of a caught and released muskellunge, northern pike, lake sturgeon or flathead catfish.

The DNR announces new state records in news releases, on social media and on the DNR website. ✧

## CDC warns tick-borne illnesses are on the rise

As warm weather returns to Illinois (and the rest of the region), the U.S. Centers for Disease Control and Prevention is reminding people about the risk for tick-borne illnesses.

Nationwide, the number of tick-borne disease cases doubled between 2004 and 2016, according to a new CDC report.

Illinois doesn't see as many tick-borne illness cases as states on the coasts, but the danger is still present. Illinois reported more than 3,600 tick-borne illness cases in the past dozen years. Illinois Public Health veterinarian and epidemiologist Dr. Connie Austin said weather and temperature affect the tick population, but not drastically.

"We want to be worried about

tick exposures whatever the weather is because there's always gonna be some quantity of ticks out there that can transmit disease," she said. Austin said tick-borne illnesses are always a concern regardless of whether the number of cases each year in Illinois goes up or down.

"Our numbers in the last couple of years have been pretty steady," she said. "But again you know there are going to be ticks present in the state that are going to transmit disease, so we have to worry about it every year." Lyme disease affects nearly 300,000 Americans each year, and is also a concern in Illinois along with other illnesses. "Rocky Mountain spotted fever is one of those," Austin said. "There's Lyme disease,

anaplasma and ehrlichiosis; and even less commonly, there can be tularemia as well."

The best defense is to prevent exposure to ticks by staying on cleared paths and trails, clearing weeds and brush from around your yard, applying repellents that contain DEET, and checking your clothes, body, children and pets for ticks after returning from wooded or tall, grassy areas.

Austin said if you find a tick, you should remove it and monitor your health for several weeks. "If you should develop a fever or a rash, then you would need to go seek medical attention and just make sure your doctor knows that you were in a tick habitat or had a tick on you," she said.

✧

## DNR to collect muskie eggs from Detroit River this month

Great Lakes muskie eggs are being collected this spring from the Detroit River by the Michigan DNR. These fish will be reared at Wolf Lake State Fish Hatchery in Mattawan and stocked in Michigan waters this fall.

The collection of Great Lakes muskellunge eggs began in 2011 in an effort to rear a type of muskellunge that is native to most Michigan waters. In 2016, approximately 368,000 eggs were collected from the Detroit River. Those eggs produced nearly 26,000 fall fingerlings that were stocked in 12 inland lakes and rivers. No muskellunge are stocked in the Detroit River because the abundant Lake St. Clair-Detroit River muskellunge population is

supported entirely by natural reproduction.

Eggs were not collected in 2017

due to an outbreak of viral hemorrhagic septicemia virus in the Lake St. Clair/Detroit River system that affected muskellunge.

"The DNR's goal this year is to collect at least 400,000 eggs to meet our target of 30,000 fall fingerlings for stocking our state's waters," said Ed Eisch,

DNR fish production manager.

To collect the eggs, mature muskellunge are captured with

electro-fishing gear in the Detroit River. Collecting Great Lakes muskellunge eggs is difficult in these areas because of the physical conditions associated with open water, especially in the spring. If weather limits the success of collecting these eggs, northern muskies will be requested from other states to fulfill needed muskellunge to meet fisheries managers' needs for select Michigan waters.

As a safety issue and a precaution, the DNR asks that boaters on the water avoid coming close to the electro-fishing boat during nighttime shocking work.

"When the generator is running and the boat's floodlights are on, we are collecting fish using electricity near the boat and we want to make sure the public stays clear of the electric field for safety," said Jim Francis, the DNR's Lake Erie Basin coordinator.

To learn more about fishing in Michigan and the Great Lakes muskellunge management effort, go to [michigan.gov/fishing](http://michigan.gov/fishing). ✧



## Tagged bighead carp leads DNR to 2 others in St. Croix River

The Minnesota DNR captured two bighead carp May 11 during a search on the St. Croix River to recapture a tagged bighead carp they have been tracking as part of an invasive carp pilot project.

The carp were captured in Anderson Bay on the St. Croix River. One was a 46-inch, 39-pound mature male, and the second was a 43-inch, 46-pound mature female. Neither fish showed indications that they had spawned this year. They were removed from the water and euthanized, and further lab analyses will provide more detailed and useful information about the fish.

"We may not have immediately captured these two if the tagged carp hadn't, in effect, led us to them," DNR invasive fish coordinator Nick Frohnauer said. "Tagging is another proactive step Minnesota is taking to prevent the spread of invasive species."

The capture of the two bighead carp, an invasive species, is the result of the pilot project to track tagged invasive carp to learn more about



their range, habitat preferences and other behaviors.

Because of the signal from a small implanted transmitter, DNR fisheries staff knows the location of the tagged carp. While high water can complicate a capture operation, fisheries staff, along with U.S. Fish and Wildlife staff and commercial anglers, is resuming efforts to recapture the tagged carp this week.

The DNR is permitted to track up to two invasive carp in the St. Croix or Mississippi River at any given time. Anyone who catches a bighead, grass or silver carp must report it to the DNR immediately. Call 651-587-2781 or email [invasivecarp.dnr@state.mn.us](mailto:invasivecarp.dnr@state.mn.us). Take a photo and

transport the carp to the nearest fisheries office or make arrangements for it to be picked up by the DNR.

"We may not have immediately captured these two if the tagged carp hadn't, in effect, led us to them," DNR invasive fish coordinator Nick Frohnauer said. "Tagging is another proactive step Minnesota is taking to prevent the spread of invasive species."

Individual bighead carp were first captured in Minnesota in 1996 and 2003, with more frequent reports in recent years as the DNR's response and public awareness have grown. Invasive carp initially escaped into the Mississippi River from southern fish farms where they were used to control algae. These large fish compete with native species and pose a threat to rivers and lakes.

No breeding populations have been detected in Minnesota waters. Individual bighead and silver carp have been caught in the Mississippi, St. Croix and Minnesota rivers. More information is available at [www.mndnr.gov/invasivecarp](http://www.mndnr.gov/invasivecarp). ✧

## New NY State Records for Black Crappie and Walleye

Two new state fishing records were set over the course of one weekend in New York recently.

Brian Hartman of Alexandria Bay eclipsed the 2009 state record walleye by more than 1.5 lbs. when he caught an 18-pound-2-ounce walleye from the St. Lawrence River on May 5 using a swimbait.



**Brian Hartman with the 18 lb. 2 oz. walleye he caught from the St. Lawrence River, St. Lawrence County on May 5, 2018.**

On May 6, William Wightman of South Dayton used a black marabou jig to reel in a 4-pound-1-ounce crappie from Lake Flavia in Cattaraugus County, exceeding the 1998 state record by five ounces.

Hartman's record breaking walleye in St. Lawrence County water was caught on the opening day for walleye season, which runs from the first Saturday in May through March 15. Thanks to DEC's walleye management efforts, walleye are found in every major watershed and are considered one of the most prized gamefish in New York State. These fish are also highly regarded as one of the best tasting freshwater fish.

Black crappie are found throughout the state in clear, quiet lakes, ponds, and rivers where vegetation is abundant. Spring is a popular time of year to fish for



**William Wightman with the 4 lb. 1 oz. black crappie he caught from Lake Flavia, Cattaraugus County on May 6, 2018**

crappie, as these fish can be found in large schools in shallow water prior to spawning.

Wightman and Hartman submitted details of their winning catches as part of DEC's Angler Achievement Awards Program, which tracks state record fish. ✧



## New advisory body will work to broaden Michigan's outdoor recreation opportunities, partnerships

Michigan has announced the formation of an advisory body to identify new collaborative opportunities and further broaden a base of support for outdoor recreation and natural resources stewardship within the state. The Outdoor Recreation Advisory Council is composed of leaders in Michigan's outdoor recreation business community, reflecting the manufacturing, retail and service sectors, as well as employers in health, community finance and other leading industries.

The council's creation recognizes the tremendous economic contributions of the state's outdoor recreation opportunities and businesses and accessible natural resources, as well as the positive effect those collective assets have on Michigan's quality of life. "Enjoying the great outdoors in many different ways is a significant driver of our state's economy, and a big part of what draws people to visit, live and work in Michigan," said Gov. Rick Snyder. "The creation of the Outdoor Recreation Advisory Council will pay dividends in both expanding the outdoor recreation economy and further supporting the enjoyment and stewardship of natural resources for all of Michigan."

"This effort will create partnerships that can grow the outdoor recreation economy, as well as increase recreational opportunities and access for everyone," said NRC Commissioner Chris Tracy, who will chair the Outdoor Recreation Advisory Council. "It's a win-win situation."

The DNR also plans to hold public regional listening sessions to learn more about the needs and goals of outdoor recreation businesses and unlock potentially innovative ideas about delivering quality outdoor recreation experiences. "There are many potential connections to improve the relevancy of natural resources and outdoor recreation for

Michigan," said Vicki Pontz, NRC chair. "Recommendations that support and improve talent and business recruitment and retention in our state, connect outdoor recreation to healthy living, and anticipate emerging trends in recreation, are immensely valuable."

The Outdoor Recreation Advisory Council is modeled on similar efforts in eight other states. The Michigan council will be the first in the Midwest. DNR Director Keith Creagh and Pontz jointly appointed members to the council. In addition to Tracy, they include:

- Suzanne Miller Allen, director of Community Responsibility, Blue Cross Blue Shield of Michigan, Michigan's largest health insurer.
- Bo Brines, owner of Little Forks Outfitters, a Midland sporting goods store.
- Troland V. Clay, president and CEO, Mno-Bmadsen, an investment enterprise of the Pokagon Band of Potawatomi.
- Chris Lampen-Crowell, co-owner of Gazelle Sports, a running gear retailer with five Michigan locations.
- Linda Hubbard, president and COO of Carhartt, Inc., a work and outdoor apparel manufacturer.
- Jonathan Jarosz, executive director, Heart of the Lakes, a conservation organization representing the state's land conservancies and affiliate organizations.
- Andy Lindsay, VP of Sales Americas, Groupe Beneteau Cadillac Operations.
- Chris MacInnes, president and co-owner of Crystal Mountain, a ski and golf resort in Benzie County.
- Tracy Mayer, owner of Backcountry North, a sporting goods retailer with three Michigan locations.
- Steve Nadolski, vice president of commercial accounts, AMROCK, a real estate title company, and part of the Rock Venture family of companies.
- Jeff Poet, president and co-owner of Jay's Sporting Goods.

- Matt Ruiter, general manager of Velocity USA, a manufacturer of bicycle wheels.
  - Chuck Smith, CEO of Hemisphere Design Works, manufacturer of kayaks, fishing boats, canoes, pedal boats and hunting/fishing accessories.
  - William Smith, CFO of Detroit RiverFront Conservancy.
  - Lindsay Struve, store manager, Recreational Equipment, Inc. (REI) in Ann Arbor.
  - Paul Vitrano, vice president of global government relations, Polaris Industries, manufacturer of ORVs and snowmobiles.
  - Dennis West, president of Northern Initiatives, a community development financial institution.
- The council also will benefit from two ex-officio members representing state agencies:
- Claire Stevens, for Director Kirk Steudle, MI Dept. of Transportation.
  - Brenda Stewart, for Director Jeff Mason, Michigan Economic Development Corporation

Part of this council's charge is to identify data-collection mechanisms to provide better service to outdoor recreation enthusiasts and offer opportunities to entrepreneurs. The council also will recommend ways to identify potential improvements for outdoor recreation infrastructure in order to satisfy outdoor recreation demand in Michigan.

The council will make recommendations to the DNR and Natural Resources Commission on ways to improve partnerships, collaborative strategies and policies that will increase the outdoor recreation economy, employment and consumer spending, and support conservation and public recreation assets.

For more info on the Outdoor Recreation Advisory Council, contact Marc Miller, the DNR's deputy director for regional initiatives, at 517-284-6432 or [millerm55@michigan.gov](mailto:millerm55@michigan.gov). ✧

## Estimate of Mille Lacs walleye underway

In early May, more than 20,000 walleye were tagged in Lake Mille Lacs. The effort will provide a better estimate of the lake's population of walleye 14 inches or longer and help guide how many fish can safely be harvested in future seasons, according to the Minnesota DNR.

Tagging concluded on May 10 and was conducted by the DNR, Minnesota Pollution Control Agency, Great Lakes Indian Fish and Wildlife Commission, Fond du Lac Band of Lake Superior Chippewa, and citizen volunteers. Walleye were caught in trap nets and via electrofishing. Each fish 14 inches or longer was outfitted with two yellow tags near the base of its dorsal fin.

Since May 20, DNR fisheries staff has been recapturing tagged walleye using gill nets that are set for less than an hour. As the nets are retrieved, tag data is recorded, and all fish are released.

Based on the number of walleye that were originally tagged and the total number of tagged fish that turn up during the recapture, the DNR can make an accurate estimate of the lake's walleye population. This type of population estimate is used in addition to the gillnet survey conducted each fall.

"We anticipate the population estimate being conducted will show a stable walleye population dominated by the 2013 year class," said Don Pereira, DNR fisheries chief. "The population estimate that is underway also will give us valuable information to help evaluate how well our population model is working."

Recapture work will continue until late June, so anglers should be aware of DNR-netting activity, which may be occurring during the evening. DNR nets are marked with labelled buoys.

Anglers who catch a tagged walleye are asked to leave the tags in the fish and record numbers on both tags by writing down the numbers or by photographing the tags. Consider recording the length of the fish and the location where it was caught. This information can be reported at [mndnr.gov/tagged-fish](http://mndnr.gov/tagged-fish). In return, anglers will receive information collected at the time the fish was tagged and any information submitted by anglers who may have previously reported the fish.

Walleye fishing on Lake Mille Lacs is open to catch-and-release angling only through the summer 2018 season. Handling fish gently and releasing them as quickly as possible will increase chances that released walleye will survive to be caught again.

More information about Lake Mille Lacs can be found at [mndnr.gov/millelacslake](http://mndnr.gov/millelacslake). ✧

## DEC releases final Lake Sturgeon Recovery Plan

New York State DEC Commissioner Basil Seggos announced the release of the final Lake Sturgeon Recovery Plan for New York.

"Lake sturgeon have been listed as a threatened species in New York since 1983, and this plan will provide DEC and our partners with a clear blueprint to achieve recovery of this ancient fish within our waters.

The purpose of this recovery plan is to ensure perpetuation of the species in the state, restore self-sustaining populations, and remove the species from the threatened species list in New York. The plan sets clear metrics to demonstrated recovery in six of the seven management units across the species' range in the state. DEC anticipates the agency will gather enough evidence of recovery of lake sturgeon to initiate removal from the list of threatened species in New York no later than 2024.

The plan was completed after incorporating comments from the

public and partners and is the culmination of dedicated work by DEC, the New York Power Authority (NYPA), U.S. Fish and Wildlife Service, U.S. Geological Survey, Cornell University, St. Regis Mohawk Tribe, and others since recovery activities began in 1992. NYPA was integral in the development of three spawning beds on the St. Lawrence.

A summary of comments is included in the final [Lake Sturgeon Recovery Plan](#), and are available on DEC's website.

Lake sturgeon were once abundant in New York, but commercial fishing, dam building, and habitat loss decimated populations. While sturgeon numbers have improved, their populations are still low compared to historical levels both in New York and the rest of the Great Lakes states. It is estimated that fishing removed 80 percent of the sturgeon from Lake Erie by 1900. Sturgeon were once prized for their

meat and caviar and constituted an important industry in the state.

Lake Sturgeon are native to the Mississippi River Basin, Great Lakes Basin, and Hudson Bay region of North America. They are the largest fish native to the Great Lakes, growing up to seven or more feet in length and achieving weights of up to 300 pounds. A specimen that was 7 ft. 4 in. long and weighed 240 pounds was found in Lake Erie in 1998.

Lake sturgeon from New York's inland waters are smaller on average and may grow to three to five feet in length and about 80 pounds as adults. Male sturgeon become sexually mature between eight and 12 years of age and may live as long as 55 years. Females become sexually mature between 14 and 33 years of age and live as long as 80 to 150 years. The slow rate of maturity and reproduction make the fish particularly vulnerable to overfishing. ✧



## Coast Guard crackdown on Chicago illegal boat charters

A summer crackdown on illegal boat charters in the Chicago area snagged 22 operators who all face Coast Guard citations totaling more than \$50,000, according to Coast Guard officials. Over the past two weeks 39 boats were boarded by the Coast Guard and conservation police from the Illinois Department of Natural Resources. In addition to the Coast Guard notice of violation citations, the state officers issued 14 misdemeanor charges, including obstruction of justice.

The illegal charters were stopped on Lake Michigan and the Illinois River near Starved Rock State Park. The operators were slapped with administrative controls placed on their vessels with Captain of the Port (COTP) Orders by the Coast Guard, directing them to immediately cease operating as commercial passenger vessels until they comply with all federal laws and regulations.

“Failure to comply with the order can result in a civil penalty of up to \$90,000 per day of continued operation, up to a total fine of \$250,000. Continued violation is a class D felony and can lead to up to 10 years in jail,” according to the Coast Guard statement.



***The Chicago area is filled with summer boat charters. Small passenger vessel operators are worried that more and more of them are illegal charters.***

Like some Florida cities, Chicago has been a hotbed of under-the-radar boats for hire, enabled by new ride-share websites and boat-hire applications for smartphones.

That raised alarm among the Coast Guard and legitimate passenger operators, who see it as another risk on Chicago's already congested waterways. [Illegal charters were the subject of a panel discussion at the annual Passenger Vessel Association convention in Seattle this past winter](#), led by Mike Borgström, president of **Wendella Sightseeing Co.**, a Chicago tour boat operator.

“For starters, some of these boats are doing the same thing we’re doing without the inspection criteria, Borgström said. “That’s putting people in jeopardy because the boats aren’t inspected, the crew’s not licensed.”

Under federal law, a boat must be inspected if it carries more than six people and at least one paying passenger. Operators must be licensed to legally carry up to six paying riders – the so-called “six pack” commonly held by charter fishing captains.

Commercial operators with six or more onboard—with at least one paying—must have a master’s license and a Certificate of Inspection (COI). Bareboat charters may carry a maximum of 12 without a COI. The Coast Guard has several enforcement options including taking control of the vessel, civil penalties up to \$37,500, violation notices and revoking a master’s license.

The Coast Guard reported terminating 22 illegal charters near Chicago in 2016, and [this spring pledged a renewed effort, along with a public education campaign](#) about how charter operators must be licensed and their vessels inspected for Coast Guard safety standards in firefighting, life saving and navigation equipment.

Outreach to Chicago’s maritime community included a seminar earlier this year for commercial vessel operators and those interested in becoming licensed commercial operators. Information about commercial passenger requirements were posted at all Chicago marinas and the Chicago Harbor Marine Safety Committee has been a key industry group in the effort.

Prospective customers should ask operators in advance for proof their vessel is compliant, Coast Guard officials say. There is also a need for more education among boat owners, they noted. “More boat owners are advertising their vessels for hire through boat sharing websites and mobile apps and are unaware of the risks and regulations for charter boats,” the Coast Guard said.

The Coast Guard is also contacting those website operators and seeking their help in educating boat owners about the requirements.

“My top priority is to ensure vessels carrying passengers on our waterways are operating safely and in accordance with the law. Vessels that do not adhere to federal regulations not only pose serious safety concerns to the public and the environment, but also adversely impact the livelihood of legitimate operators who do comply with federal regulations,” said Cmdr. Zeita Merchant, commanding officer of Marine Safety Unit Chicago.

The Chicago MSU has a standing offer to help would-be charter customers verify the legal status of a boat they would like to hire, and to take tips about illegal passenger vessel operations. They can be contacted by email at [SMBMSUChicago@uscg.mil](mailto:SMBMSUChicago@uscg.mil) or by phone at (630) 986-2155. ✧

## Cisco Fishing

*Continued from page 1*

Like many things in Lake Michigan, zooplankton have changed (become larger) and species compositions are different than 10 to 15 years ago. Jonas thinks lake whitefish, with smaller mouths, are having a tougher time catching those zooplankton while cisco are having a much easier time and are capitalizing on the available food source.

"What's even more fascinating is that as these cisco grow, they're turning into a totally different type of fish," she said. "When we type out some of the larger fish we're seeing caught on Lake Michigan they're actually piscivorous—meaning they're eating other fish! It's hard for me to convince folks that cisco are actually top predators, like Chinook salmon or lake trout. They really aren't prey!"

It should be noted that in addition to the northern Lake Michigan cisco opportunities, larger populations are starting to show up in some connected inland lakes as well.

"This past winter Portage Lake in Manistee County had good, fishable ice, and anglers reported catching cisco there," Hettinger shared. "I've heard rumblings from other ports with drowned river mouth lakes that are started to have similar stories. Ports as far south as Ludington and even Muskegon are reporting cisco both through the ice and open water."

Anglers who previously caught cisco in northern Lake Michigan would consider a 12-inch fish as decent size, but reports have become much more regular of fish in the 22 to 26-inch size range. If you catch some, the key is knowing how to harvest them.

"I think they're delicious, but I recommend bleeding them out as soon as you catch them and getting them on ice quick," said Hettinger. "And get up here—this cisco fishing is really awesome for those who want to pursue it!"

Jonas shares similar sentiments and has noticed a gain in popularity even among those with insider knowledge. "Folks from all over the

state are coming here to fish for cisco, even other fisheries biologists and researchers," she said. "What's so cool is that this is a native species which was nearly non-existent and it is recovering for reasons we don't yet understand."

For information on fishing for cisco, including regulations, [the DNR's Fishing page](#). ✧

## Becoming an Outdoors-Woman - Chartered Fishing Trip

Enjoy a 6-hour guided fishing trip for King Salmon, Coho Salmon, Brown Trout, Rainbow Trout and/or Steelhead with Captain Dave Wilson aboard his 28' Baha Cruiser. Captain Wilson provides all fishing equipment, and you do not need fishing experience. The boat has an enclosed bathroom with plumbing! The fishing trip is open to women ages 18 and over.

- July 15 at 5:30 a.m. or 1:30 p.m.
- July 22 at 5:30 a.m. or 1:30 p.m.
- July 28 at 5:30 a.m. or 1:30 p.m.
- July 29 at 5:30 a.m. or 1:30 p.m.

Oswego Marina, Oswego, NY

All the details are on this flier: [Chartered+Fishing+Lake+Ontario+2018-1.pdf](#)

These fishing trips sold out last year, so reserve your spot early!

For questions or comments, contact: Kelly Stang, NYSDEC, 625 Broadway, Albany, NY 12233-4754, [kelly.stang@dec.ny.gov](mailto:kelly.stang@dec.ny.gov)

Visit [Becoming an Outdoors-Woman](#) on the web! ✧

## Status of Stocks 2017: Number of overfished stocks at all-time low

In a new leadership message, Chris Oliver, head of NOAA Fisheries, announced the release of the [Status of U.S. Fisheries report for 2017](#). The report shows the number of stocks on the overfished list just reached a new all-time low. Under the Magnuson-Stevens Act, the United States has become an international leader in fisheries management. ✧

## T.R.O.U.T - Trout regulations and Opportunities User Tool

The Trout Regulations & Opportunities User Tool (TROUT) was designed to help Wisconsin trout anglers find places to fish. TROUT includes trout fishing regulations, classified trout water, public land and DNR fishing easements. Wisconsin boasts over 13,000 miles of trout streams; deciding on just one place to fish can be daunting. TROUT will help anglers optimize their time on the water by showing where the publicly accessible land is relative to roads, bridge crossings, and trout streams. Exploring trout water just got easier. This tool provides anglers with: on-the-go mobile access to trout streams and regulations, roads, aerial images, and fishing easements.

For the ability to find your location, measure distances, and print/save a customized map for a fishing trip. [Launch T.R.O.U.T](#) ✧

## 2018 Asian Carp Action Plan

*Continued from page 1*

- Additional work to address the growing threats from black and grass carp.
- Increased use of focused contract commercial fishing to remove adult Asian carp in the upper Illinois River to support ACRCC management goals.

The action plan also addresses priorities for early detection and monitoring of all life stages of Asian carp, support for the electric dispersal barrier, secondary pathway mitigation, and stakeholder communication and outreach. The ACRCC's annual strategy further supports the goals and recommendations of the national Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States. <http://www.asiancarp.us/news/2018>ActionPlan.htm> (283 pages) ✧

## Lake Michigan Citizen's Fishery Advisory Committee Meeting

To view the recent notes from the April 25<sup>th</sup> Michigan Fishery committee meeting, click here:

[Lake Michigan Citizen's Fishery Advisory Committee Meeting](#) ✧

## Veterans benefits

Qualified borrowers can use the VA Loan to buy or refinance a home with \$0 down, never pay PMI and can get financing up to \$453,100. [Find Lenders Now](#). Also, many schools offer credit for military training and experience. Plus, the GI Bill is worth up to \$60,000. [Search Schools with VA-approved Programs](#) ✧

## 2018 Oneida Lake walleye egg take

The annual [Oneida Lake walleye egg take](#) was successfully completed on April 20th. Despite cold temperatures and high winds, DEC Oneida Hatchery staff, with assistance from other fish culture and fish management staff, collected 324 million eggs in 11 days. A total of 16,447 walleye were handled over the course of the collection. The eggs are used to support DEC walleye management efforts across the state of New York. Thanks to these efforts, excellent [walleye fishing](#) opportunities exist in all DEC regions except Region 2 (New York City). ✧

## Ohio approves 2018-2019 Hunting Regs

The 2018-2019 hunting and trapping seasons were among the regulations approved by the Ohio Wildlife Council at its meeting on May 17. White-tailed deer hunting changes include modifications to antlerless harvest on public land following the weeklong deer gun season. **Overview of deer hunting seasons for 2018-2019:** [Ohio approves 2018-2019 hunting regulations](#) ✧

## Roadmap to Fishing Lake Michigan

Want to fish the Michigan portion of Lake Michigan, but aren't sure when or where to go? This roadmap is a starting point to provide you with information on many fishing sites and times of the year when great opportunities exist. This is not an exhaustive list; it just scratches the surface of all the fishing opportunities that are available on Lake Michigan. Enjoy your trip! [Lake Michigan Fishing Road map](#) ✧



*"A government big enough to give you everything you want, is strong enough to take everything you have."*

Thomas Jefferson

*"The democracy (Republic) will cease to exist when you take away from those who are willing to work and give to those who would not."*

Thomas Jefferson

## Becoming an Outdoors-Woman (NY)

The next BOW workshop will be **September 7-9, 2018** at Greek Peak Mountain Resort near Cortland, NY (Central NY). Registration materials will be available in June. The cost has not yet been determined, but should be around \$325 per person (includes 2 nights lodging, 7 meals, instruction in 4 classes, most of the equipment needed for classes, and transportation to offsite locations). BOW workshops fill very quickly. If you have questions, please call (518) 402-8862, [e-mail us](#), or write to: NYS Outdoors-Woman, 625 Broadway, 5th Floor, Albany, NY 12233-4754. ✧

## Largest expansion of artificial reefs in state history

To better protect and strengthen this crucial resource, [Governor Andrew M. Cuomo recently announced](#) the largest expansion of artificial reefs in state history to improve New York's diverse marine life and boost Long Island's recreational and sport fishing industries.

[Learn more about New York's largest expansion of artificial reefs in New York State History!](#) This initiative builds on the Governor's record \$300 million Environmental Protection Fund investment, \$2.5 billion Clean Water Infrastructure Act, more than \$2 million NY Sea Grant program to mitigate Long Island brown tide as well as his ongoing effort to [safeguard our coastline from environmental disasters](#). ✧

## Rapid response zebra mussel eradication treatment at Lake Marion, MN

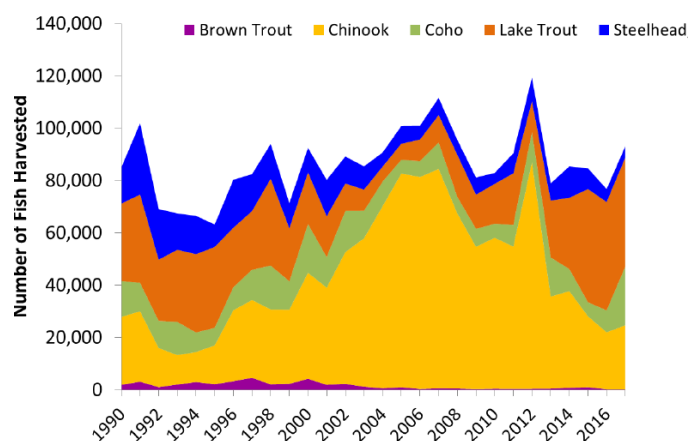
The Upper Midwest Environmental Sciences Center (UMESC), Minnesota DNR, Dakota County, MN, and the City of Lakeville, MN, conducted a rapid response zebra mussel eradication treatment at Lake Marion, October 10, 2017. The 7 acre EarthTec QZ treatment was conducted in response to newly detected zebra mussels around the City's boat launch. USGS deployed their mobile wet laboratory and conducted an onsite flow-through zebra mussel bioassay tests with treated lake water. The bioassay tests provided robust daily zebra mussel mortality assessments to be used as a decision support tool by treatment supervisors. For more information contact James Luoma, [jluoma@usgs.gov](#). ✧

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"Four boxes to be used in defense of liberty: soap, ballot, jury, ammo — use in that order." --Ed Howdershelt

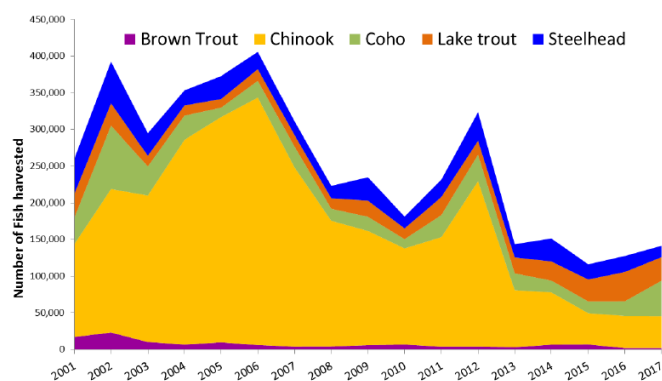


## 2017 Michigan Charter and Creel Harvest and Effort

Charter excursions continue to stay robust. There were 12,100 in 2017. Harvest was dominated by lake trout and Chinook salmon with a nice increase in coho salmon.



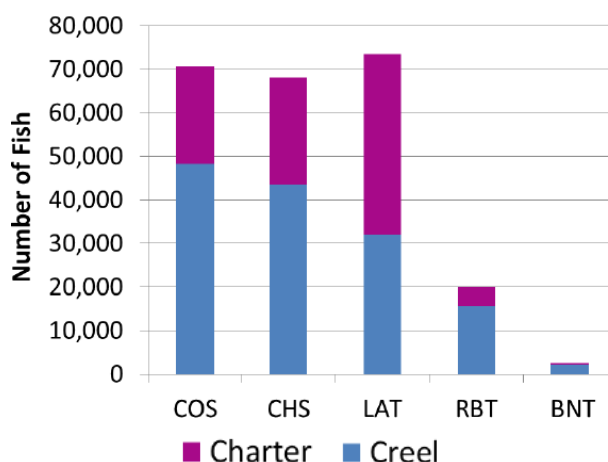
Creel harvest was up slightly with a mix of Chinook salmon, coho salmon, lake trout and steelhead. Creel effort increased from 687,000 in 2016 to 1.3 million in 2017.



### Ludington excursions

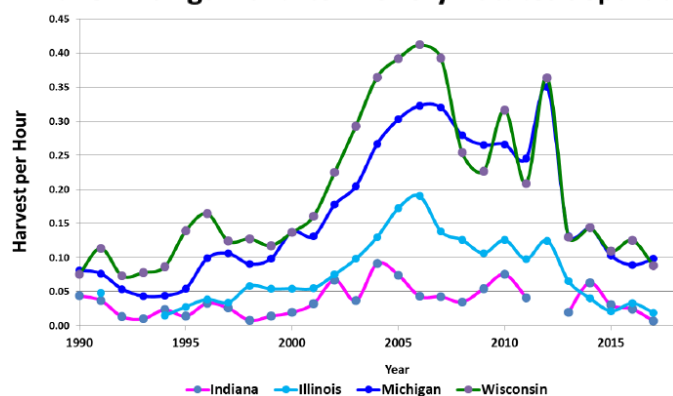
Ludington excursions were similar to last year at 1,108 with 8,901 salmon and trout caught. Grand Haven reported 1,402 trips with 10,983 caught. Holland trips continue to increase since 2013 with 610 in 2017 and 6,479 salmon and trout caught. Saugatuck caught 4,720 fish with 370 trips. South Haven had 698 trips with 6,547 caught. St. Joe had 858 trips with 10,519 fish caught.

Total harvest was made up with mostly lake trout, coho salmon and Chinook salmon with much less steelhead and brown trout.



Michigan's targeted Chinook salmon harvest rate was similar to Wisconsin in 2017.

### Targeted, Boat Fishing Harvest per Hour of Chinook in Lake Michigan Charter Fishery - States Separately



### Predator and Prey Ratio Results for 2017

Ben Turschak (the new Research Biologist at Charlevoix) gave a brief review of the predator and prey ratio modeling process. Chinook salmon fingerlings in Lake Michigan bottomed out in 2013 due to stocking reductions and poor survival of wild fish. Even with the most recent stocking reduction the number of Chinook fingerlings has increased in recent years mainly due to better wild fish survival. ♦

## Fish community status in the Bays de Noc and nearshore waters of northern Lake Michigan

Michigan DNR Fisheries Division: Troy Zorn and Darren Kramer

### Background

Since 2009, MDNR Fisheries Division has been conducting a standardized fish community assessment in nearshore waters of northern Lake Michigan. The objectives of the project are to describe the status and trends in the overall fish community, provide data on abundance, growth, and reproductive success for species of management importance, including walleyes, yellow perch, smallmouth bass, northern pike, lake sturgeon, and others. Data are collected in August and September using experimental mesh gill nets and trawling. Sampling occurs annually in **Little Bay de Noc (LBDN)** and **Big Bay de Noc (BBDN)**, and during alternate years in Lake Michigan near eastern ports (Manistique and Naubinway) or western ports (Cedar River and Menominee). Information from this survey also supports various projects with agency and university collaborators. Data to track the sport fishery are collected through an on-site creel survey at some locations.

### A new equilibrium?

MDNR has also collected fish and habitat data from gill net and trawl surveys at index sites in LBDN and BBDN, and

from jaw-tagged walleyes since 1989. Data from these surveys have shown major changes in the bays, especially since these waters were colonized by zebra mussels and quagga mussels in the 1990s. For example, water clarity has increased by about 50% between the early 1990s and 2010s. During this time in LBDN, abundance of forage fishes most commonly eaten by walleyes declined by about 60%. Correspondingly, angler catches of walleyes declined while smallmouth bass catches increased. Angler reports of tagged walleyes caught, showed that the average distance between where a walleye was caught in summer months and its initial tagging location (Rapid River boat ramp) increased from about 5 miles in the early 1990's to about 20 miles during the last decade. In other words, in the average summer-caught walleye used to reside in waters near Gladstone, and now it comes from waters well south of Escanaba. The forage fish abundance and walleye movement patterns been relatively stable for 10 or more years suggesting the system may be approaching a new equilibrium.

|             | <b>WALLEYE</b>    |                    | <b>YELLOW PERCH</b> |                    | <b>SMALLMOUTH BASS</b> |                    | <b>NORTHERN PIKE</b> |                    |
|-------------|-------------------|--------------------|---------------------|--------------------|------------------------|--------------------|----------------------|--------------------|
| <b>Year</b> | <b>LBDN</b>       | <b>BBDN</b>        | <b>LBDN</b>         | <b>BBDN</b>        | <b>LBDN</b>            | <b>BBDN</b>        | <b>LBDN</b>          | <b>BBDN</b>        |
| 2009        | 3.2               | 0.7                | 4.7                 | 11.0               | 0.7                    | 1.4                | 0.7                  | 0.3                |
| 2010        | 4.8               | 2.8                | 20.4                | 7.6                | 1.4                    | 3.2                | 0.9                  | 0.4                |
| 2011        | 5.9               | 2.7                | 22.8                | 13.5               | 0.4                    | 3.1                | 0.5                  | 0.3                |
| 2012        | 5.8               | 2.1                | 27.2                | 5.0                | 1.5                    | 3.9                | 0.5                  | 0.3                |
| 2013        | 10.2              | 2.3                | 17.9                | 7.0                | 0.3                    | 6.7                | 0.3                  | 0.4                |
| 2014        | 2.5               | 0.7                | 27.1                | 11.7               | 0.0                    | 1.5                | 1.5                  | 0.4                |
| 2015        | 3.0               | 1.1                | 17.5                | 8.7                | 0.8                    | 1.7                | 1.0                  | 1.2                |
| 2016        | 2.7               | 0.9                | 9.5                 | 5.3                | 0.5                    | 1.9                | 1.2                  | 1.0                |
| 2017        | 4.2               | 1.2                | 12.4                | 8.3                | 0.3                    | 0.6                | 1.1                  | 0.9                |
| <b>Year</b> | <b>Menominee</b>  | <b>Cedar River</b> | <b>Menominee</b>    | <b>Cedar River</b> | <b>Menominee</b>       | <b>Cedar River</b> | <b>Menominee</b>     | <b>Cedar River</b> |
| 2009        | 8.0               |                    | 8.4                 |                    | 0.1                    |                    | 0.4                  |                    |
| 2011        | 4.6               | 3.0                | 4.6                 | 3.8                | 0.3                    | 0.3                | 0.3                  | 0.1                |
| 2013        | 3.0               | 2.8                | 19.6                | 1.0                | 0.0                    | 0.8                | 0.3                  | 0.0                |
| 2015        | 2.2               | 1.9                | 5.1                 | 0.4                | 0.4                    | 2.5                | 0.2                  | 0.0                |
| 2017        | 2.9               | 2.6                | 43.7                | 0.0                | 0.0                    | 0.9                | 0.4                  | 0.2                |
| <b>Year</b> | <b>Manistique</b> | <b>Naubinway</b>   | <b>Manistique</b>   | <b>Naubinway</b>   | <b>Manistique</b>      | <b>Naubinway</b>   | <b>Manistique</b>    | <b>Naubinway</b>   |
| 2010        | 0.6               | 0.3                | 0.4                 | 2.8                | 0.0                    | 0.2                | 0.5                  | 0.3                |
| 2012        | 1.3               | 0.1                | 0.7                 | 4.0                | 0.3                    | 0.0                | 0.6                  | 0.2                |
| 2014        | 0.1               | 0.0                | 2.9                 | 0.4                | 0.0                    | 0.0                | 0.0                  | 0.1                |
| 2016        | 1.6               | 0.1                | 2.2                 | 13.4               | 0.8                    | 0.0                | 0.6                  | 0.1                |

### Recent trends

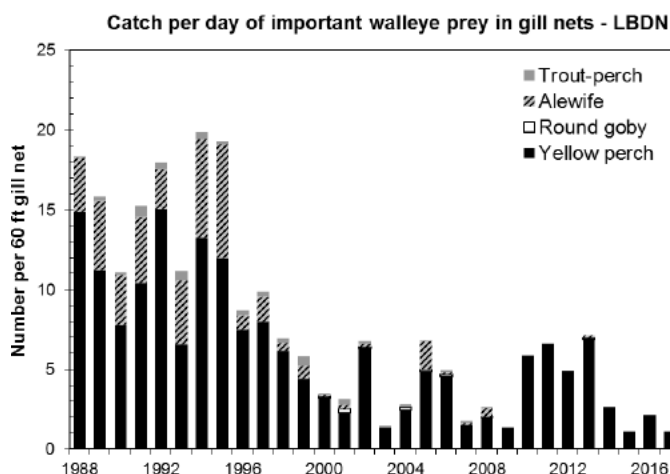
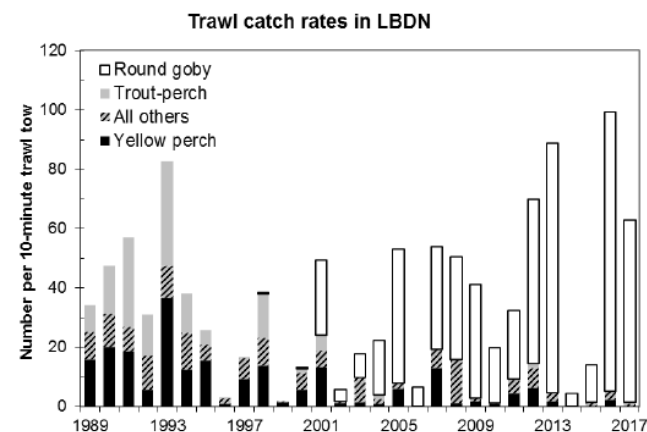
The table above shows the catch rate (number of fish per 320 ft. of gill net) for important fishes in northern Green Bay. In 2014, Lake Michigan water levels rose above the long-term average value for the first time since 1999, and

these changes may relate to patterns in catch rates observed for several important species in assessment nets. For example, the near doubling of catch rates for northern pike in the Bays de Noc and their increased presence at other locations may reflect strong reproduction associated with

increased availability of wetland spawning areas due to higher water levels. In contrast, catch rates of smallmouth bass and walleye in the Bays since 2014 are roughly half of what they were during the several years prior to 2014. Yellow perch abundance varies among locations. Yellow perch reproduction across the sample region was average to slightly above average in 2016 and 2017, compared to catch rates of age-0 yellow perch in micromesh gill nets since 2013. Catch rates of reintroduced native lake sturgeon and invasive Eurasian ruffe in 2017 were the highest since surveys began in 2009.

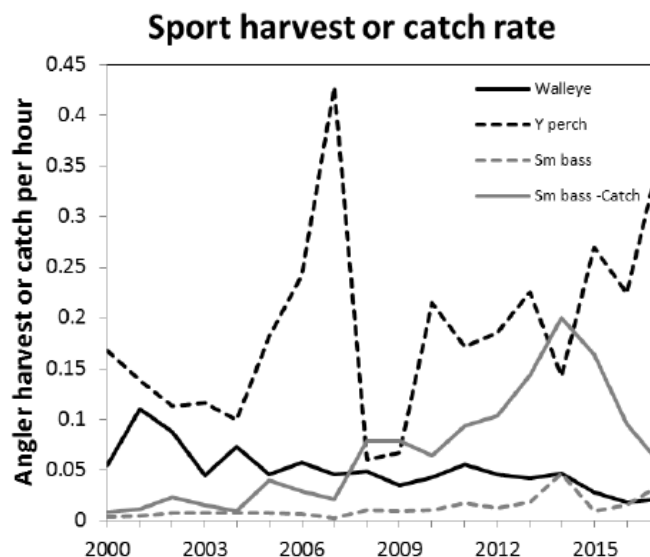
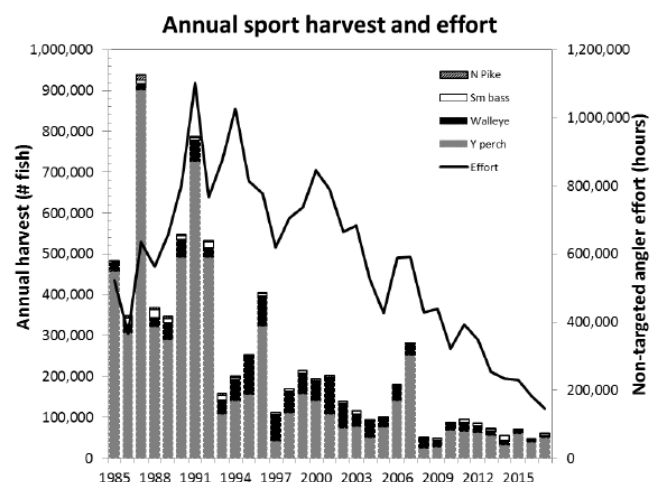
### Forage fish community

Bottom fishes are also sampled via daytime trawling from a small boat. The forage fish community of northern Green Bay has changed as the bottom trawl catch rate data for LBDN shows (see below). Round goby began dominating the catch in 2001, and lower catches of several formerly-common species (such as trout perch, johnny darter, spottail shiner, and yellow perch) have been the norm since then. These changes likely reflect a combination of factors including competition among species, and changes in water clarity and quality; also the trawl's ability to catch each species as water conditions have changed. Catch rates of important walleye prey items (other than round goby) in gill nets are also low relative to the 1980s and early 1990s, prior to dreissenid mussel invasion.



### Angling

Michigan DNR's Statewide Angler Survey Program has been collecting information from anglers in northern Green Bay since 1985. Shown below are angler effort, harvest, and catch estimates for all Michigan waters of Green Bay, from Fayette to Menominee. Angler effort has continued a declining trend that began in the early 1990's. This trend also occurs in other Great Lakes waters of Michigan. Though angler catch rates for walleye and yellow perch have remained fairly stable since 2000, harvests of the two species have generally declined. Catch and harvest rates of smallmouth bass have been increasing during this time, possibly reflecting a growing bass population. Estimates for 2017 indicate that anglers spent 146,019 hours fishing this area, harvesting an estimated 63,703 fish of 13 different fish species. In 2017, northern Green Bay anglers harvested an estimated 52,117 yellow perch, 3,062 walleyes, 5,012 smallmouth bass, and 704 northern pike.



✧



## NMMA hails new ethanol consumer education legislation

The National Marine Manufacturers Association is applauding Representatives Austin Scott (R-GA-08) and Lois Frankel (D-FL-21) for introducing the Consumer Protection and Fuel Transparency Act of 2018.

The act requires the EPA to expand consumer awareness on how to safely use fuel containing more than 10 percent ethanol. Since marine engines are prohibited from using fuel with more than 10 percent ethanol content, namely E15 (fuel containing 15 percent ethanol), improved labeling, fuel pump safeguards, and education outreach are key to protecting consumers.

During the recent American Boating Congress, NMMA hosted a special sit-down Q&A session with NMMA President Thom Dammrich and EPA Administrator Scott Pruitt, who noted the need for consumer education and labeling surrounding E15. In fact, what's being put forth in the Consumer Protection and Fuel Transparency Act is exactly the kind education and labeling Pruitt acknowledged is important.

"American consumers and our country's 142 million boaters need this bill to pass so they can be protected from the dangers associated with improperly fueling their boat, or other small engines," said Dammrich. "Thanks to the leadership of Rep. Scott and Rep. Frankel, and ongoing engagement from our industry on this issue, this legislation calls for both a public education campaign and smart labeling at the pump to protect boat owners."

E15 fuel is sold at many retail gas stations, and currently 63 percent of consumers assume all products sold at these stations are safe for their engines despite the fact that high ethanol fuel blends are prohibited in boat engines, Dammrich said.

Ninety-five percent of boat owners fuel their boat at a local gas station, which is why consumer awareness at the pump is so critical. To address this problem, the Consumer Protection and Fuel Transparency Act of 2018 will

promote much-needed public education on the proper use of E15, mitigating the risk of misfuelling at the pump for the nation's boat owners, who collectively own more than 12 million recreational boats.

"To combat the EPA's current inadequate E15 labeling, this bill directs the agency to involve consumers, through focus group testing, in creating labels and pump safeguards that effectively raise awareness of the prohibited uses of E15," Dammrich explained. A key component of this effort is the implementation of safeguards that reach the consumer at the point of sale. To be successful, these safeguards must provide a seamless experience and instantly alleviate consumers' risk, such as requiring confirmation of fuel choice on a gas station keypad before dispensing E15.

Additionally, the legislation requires stakeholder input – something our community has consistently sought – from engine manufacturers who've seen the impact of E15 first-hand and can advise on how to effectively communicate misfuelling risks to the boating consumer, Dammrich added.

"This two-pronged process, which gathers and tests insights and then delivers realistic solutions, will safeguard American consumers from inappropriate use of this fuel blend," Dammrich said. "Our members – spanning recreational boat, engine and marine accessory manufacturers – and our partners across the small engine and auto industries who share our concern, are encouraged that Rep. Scott and Representative Frankel have chosen to address this issue head on and recognize the need to make consumer safety a priority."

Upon introducing the Consumer Protection and Fuel Transparency Act of 2018, Rep. Scott and Rep. Frankel issued the following statements:

"As we are presented with more choices at the gas pump, it is imperative that American consumers know exactly what kind of fuel they are putting into their engines," said

Rep. Scott. "Gas pumps today are riddled with confusing labels and fail to adequately warn consumers of the dangers of fueling small engine equipment with E15. For this reason, with the support of Congresswoman Frankel, I introduced the Consumer Protection and Fuel Transparency Act of 2018 to ensure that E15 is more clearly labelled and consumers are made better aware of the damages misfiling can cause to their vehicles, power equipment and boats. By making fuel pump labels easier to decipher and coordinating public education programs at multiple levels, this legislation can save consumers time and energy at the pumps and avoid headaches and costs down the road."

"In Florida, recreational boating is more than just a way of life—it's an \$11 billion industry supporting more than 56,000 jobs," said Rep. Frankel. "This bipartisan bill educates people on their fueling options to keep boats running well, so it's calm waters all year long."

The Consumer Protection and Fuel Transparency Act of 2018 addresses the challenge posed by E15 head on and will direct the administrator of the EPA to:

- Revise the labeling requirements for fuel pumps that dispense E15;
- Solicit input and requirements for these revised labels from industries that manufacture vehicles, engines, and equipment prohibited from using E15, including boats, lawnmowers, chainsaws, motorcycles, and snowmobiles;
- Include the word "WARNING" on the labels, which shall be no smaller than 5 by 7 inches;
- Include pictograms on the labels that depict specific products that are prohibited from using E15 including a boat, lawnmower, chainsaw, motorcycle, and snowmobile;
- Include other indicators on the labels developed by the Administrator in consultation with

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| <p>the American National Standards Institute;</p> <ul style="list-style-type: none"> <li>• Focus group test these labels to ensure their effectiveness;</li> <li>• Develop and commence a public education campaign, in consultation with the affected industries, that provides adequate awareness of the risks associated with E15 and the vehicles, engines, and equipment prohibited from using E15;</li> <li>• Include outreach to consumers at the point of sale, prior to</li> </ul> | <ul style="list-style-type: none"> <li>• dispensing, in the public education campaign;</li> <li>• Submit a report to Congress no later than one year after the date of enactment of this Act, regarding public education efforts and including data and metrics on consumer awareness of appropriate uses of E15.</li> </ul> <p>According to a Harris Poll commissioned by the Outdoor Power Equipment Institute (2017):</p> <ul style="list-style-type: none"> <li>• Sixty-three percent of consumers assume any gas sold at a retail gas</li> </ul> | <ul style="list-style-type: none"> <li>• station must be safe for their product;</li> <li>• Ninety-five percent of boats are fueled at retail gas stations. Boat owners depend on safe, reliable and proven fuel choices to be universally available;</li> <li>• Misfuelling of engines voids warranties, leaving consumers with expensive repair and replacement bills;</li> <li>• Only 7 percent of consumers know that E15 is prohibited in all engines except late model automobiles. ✧</li> </ul> |
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**Other Breaking News Items:**  
**(Click on title or URL to read full article)**

[Asian carp committee announces 2018 plan](#)

Nearly \$50 million is earmarked this year to keep Asian carp out of the Great Lakes, according the 2018 action plan just released by the Asian Carp Regional Coordinating Committee, and the Great Lakes Restoration Initiative is providing \$21 million of the funding.

[Great Lakes Fishery Commission plans to develop technology to protect Boardman River](#)

The Great Lakes Fishery Commission plans to create new technology would sort fish as they swim toward the Boardman Dam in Michigan, blocking the fish that aren't wanted and allowing the fish that are wanted in the river

[Anglers hook record numbers of walleye on Saginaw Bay](#)

Anglers on Michigan's Saginaw Bay took 123,793 walleye, the most ever measured since creel surveys began on Saginaw Bay in 1983

[FishPass stirs steelhead controversy](#)

Brook trout are doing better on the Boardman River after dam removals have allowed waters to cool, but fans of the fish worry letting steelhead upstream could hurt their recovery

[Lake Erie, Great Lakes water levels much higher than May historical average](#)

It's not your imagination; Lake Erie water levels are up. The recent wet spell pushed Lake Erie's water levels this week to 22 inches above the long-term normal for May

[Asian carp making its way to north Alabama](#)

During the past three decades, Asian carp, also known as "flying carp," developed notoriety as a significant threat to ecosystems of the Great Lakes' tributaries — while also threatening the region's multi-million dollar fishing and recreation industries. The issue, however, no longer is isolated to the Midwest.

[Petition calls for federal endangered listing of lake sturgeon](#)

A national nonprofit conservation group petitioned the U.S Fish and Wildlife Service on Monday to list the lake sturgeon as a threatened or endangered species.

[AuSable River group: "We'll stop at nothing to preserve waterway"](#)

Michigan's AuSable River is at the center of a lawsuit. A recreational fishing group is claiming that a commercial fish farm is violating the public trust and the Environmental Protection Act.

[Indiana Supreme Court denies request to revise its Lake Michigan beach ownership ruling](#)

On Wednesday, the Indiana Supreme Court denied a request for a rehearing, confirming that it will not alter its landmark decision that Lake Michigan's shoreline is open to all, and adjacent property owners cannot exercise exclusive control of the beach between their homes and the water

[Illinois seeks talks on keeping Asian carp from Great Lakes](#)

Illinois has proposed negotiations with federal officials and other states in the Great Lakes region over fortifying a Chicago-area lock and dam to prevent Asian carp from invading Lake Michigan and threatening its native fish

End