



Invasive Quagga Mussels eradicated from Pennsylvania Lake *Low doses of EarthTec QZ ionic copper used in effort to eradicate quagga mussels from entire lake*

Scientific tests indicate that invasive quagga mussels have been completely eradicated from an historic lake in Bainbridge, Pennsylvania. Many believe that eradication of invasive mussels is not possible, which makes this story extremely important. Economic losses from such



Fig 1. Aerial view of Billmeyer Quarry, with the Susquehanna River to the southwest. The west basin (left) is the larger and deeper of the two

infestations are estimated at \$310 million dollars annually in the U.S.

Billmeyer Quarry (Figure 1) is located on property owned by the Lancaster County Solid Waste Management Authority in Conoy Township, Pennsylvania, 30 kilometers southeast of the city of Harrisburg, PA (Figure 2). Under average conditions the lake has a surface area of 12 hectares, a maximum depth of about 35 m in the west basin, 27 m in the east basin, and a total volume calculated at 1.84 million cubic meters.

A liquid formulation of acid-stabilized ionic copper called EarthTec QZ was used in an effort to eradicate invasive quagga mussels (*Dreissena rostriformis bugensis*) from an entire 12-hectare lake in Pennsylvania in fall of 2017. The



Fig 2. Approximate location of Billmeyer Quarry

treatment consisted of three separate applications of ionic copper delivered over a period of 37 days with the intent to minimize likelihood of spreading invasive mussels during a one-time water transfer event planned for later that year, from the treated lake to an adjacent river. Mussel mortality was estimated through use

Quagga Mussels eradicated

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Bipartisan bill to protect Veteran gun rights

An NSSF-supported bipartisan bill was introduced in the U.S. House of Representatives by U.S. Reps.



Phil Roe (R-Tenn.) and Collin Peterson (D-Minn.) that would prohibit the Department of Veterans Affairs from automatically reporting a veteran with a diagnosed mental health condition and who is assisted by a fiduciary to the National Instant Criminal Background Check System.

The bill, [H.R. 3826](#), the Veterans 2nd Amendment Protection Act, would ensure veterans wouldn't be

barred their Second Amendment rights [without due process](#). A U.S. Senate version, [S. 1331](#), the Veterans' Second Amendment Rights Restoration Act of 2019, was previously introduced by Sen. Chuck Grassley (R-Iowa) and is also supported by NSSF. The House bill was one of two Republican Congressmen [prodded](#) the House Committee on Veterans Affairs Chairman Mark Takano (D-Calif.) to bring up for a committee vote. The other is [H.R. 3450](#), introduced by Congressman Chip Roy (R-Texas), a bill that would protect veterans from having personally identifying information of service-related disabilities from being transmitted by the Dept. of Veterans Affairs to the Dept. of Justice for use in background checks. ✧

Free Fly Fishing for Veterans

On the waterways of our great nation, veterans hardened from service and sacrifice, are feeling peace, joy and an emotional connection—often for the first time in a long time.

[Project Healing Waters Fly Fishing \(PHWFF\)](#) provides basic fly fishing, fly casting, fly tying and rod building classes to both veterans who have never fly fished before and seasoned anglers. Fishing trips, both one day and multi-day, are provided free of charge to participants; including all fly fishing and tying equipment.

PHWFF is dedicated to the physical and emotional rehabilitation of injured and disabled veterans through fly fishing and associated activities including education and outings. But, PHWFF transcends fly fishing. The organization builds relationships and fosters communities for veterans and outdoor enthusiasts.



Using a nationwide network of over 200 programs, PHWFF programs meet regularly throughout the year with volunteers, teaching the basics and advanced techniques while building long-term relationships. The program is much more than a one-time fishing trip. The camaraderie and community developed during regular year-round classes are just as meaningful as the outings.

Over 116 VA healthcare facilities host Project Healing Waters Fly Fishing programs, allowing PHWFF to bring their unique form of therapy to an ever-expanding number of veterans. At these locations, PHWFF volunteers are VA volunteers. They provide fly fishing, fly tying, and rod

building programs and a caring community for the veteran patients.

“Project Healing Waters is more than a fishing program,” said Marilyn Radatz, Salem VA Medical Center’s Supervisory Recreational Therapist. “The connections that our veterans establish make a tremendous impact on their lives and within their communities. The time they spend learning to tie flies, as well as the sport of fly fishing, bring an ideal therapeutic value to each of their lives. It is a joy to watch our veterans build upon relationships with their fellow veterans and guides as they venture into a safe, relaxing and meaningful leisure experience.”

Over 8,300 veterans are currently participating in PHWFF programs throughout the United States supported by over 4,000 volunteers. Many participants have found the program so transformative that they have become volunteer leaders striving to serve their fellow veterans through PHWFF. Over 20% of PHWFF volunteers are former participants in the program.

PHWFF is a nonprofit organization founded by Ed Nicholson, a retired Navy captain, at Walter Reed Army Medical Center in 2005 to bring community, camaraderie, and a unique form of therapy to those who have honorably served and sacrificed for our Nation. Since that time, the PHWFF program has expanded nationwide, establishing its highly successful program in Department of Defense hospitals, Warrior Transition Units, and VA Medical Centers.

To join the PHWFF program in creating a strong, supportive community connected through shared experiences, camaraderie, and challenges of the rod, reel, and line, visit the [PHWFF homepage](#) or email programs@projecthealingwaters.org



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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 GREAT LAKES BASIN REPORT

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Comment on Minn. fishing regulations

During a series of 17 public meetings, anglers and others can give their opinions about proposed 2020 changes to special fishing regulations for 30 lakes.

These proposed changes are coming from 13 Minnesota DNR area fisheries offices.

The list of proposed regulation changes is long this year because of a review of existing special northern pike regulations that are different from the zone regulations.

During the process of implementing the pike management zones in 2018, the DNR committed to re-evaluating all of the existing special pike regulations on 84 lakes to see where the special regulations were producing the desired results and which lakes might perform as well under the new zone regulations. Based on the review, 10 lakes are being proposed to revert to the zone regulation and five are proposed to be modified to a different regulation.

Notification of the proposed changes to special fishing regulations have been posted at the accesses to each lake for most of the open water fishing season.

Anyone who cannot attend a local meeting can call or write to local fisheries offices to comment about the proposed regulations. Phone numbers and email addresses for local fisheries offices can be found online at mndnr.gov/areas/fisheries, or on page 87 of the fishing regulations handbook. The offices will accept written or verbal comments up to 10 days following the scheduled local meeting.

An open house about all of the regulation proposals will be held from 6 to 8 p.m. **September 25**, at the DNR headquarters in St. Paul, 500 Lafayette Road. No formal presentations will be made but comments on any proposal across the state will be accepted. Additionally, written comments on any proposal can be sent by email to jon.hansen@state.mn.us until November. 12. **For meeting details: [Full Story](#)** ✧

DNR seeking input on Cass Lake fisheries plan thru **Sept 3**

Cass Lake — one of Minnesota's 10 large walleye lakes — has a new draft management plan and the DNR is seeking input on it.

The plan outlines the proposed five-year fish population objectives and fisheries management actions for Cass Lake and connected waters on the Cass Lake Chain. While the plan focuses on Cass Lake management, it is understood that fish populations, and anglers move throughout connected waters, and a management action on one basin affects the others.

The plan incorporates recommendations from a 14-member Cass Lake Fisheries Input Group, which included representatives from resorts, residents and lake associations on Cass Lake and connected waters, angling groups, species work groups, the Leech Lake Reservation Department of Resource Management, the Chippewa National Forest and the Cass Lake Area Chamber of Commerce.

Members from the input group provided important and diverse perspectives as users of the resource with a genuine interest in the long-term sustainability of the fishery. Input group members were concerned about the impact of angling pressure on the Cass Lake yellow perch fishery, and sunfish on connected waters, as anglers have become more mobile in targeting high quality populations.

The input group felt that the current status of the walleye and yellow perch fishery was excellent and encouraged the DNR to continue to support management efforts to sustain current levels of harvest.

The DNR is accepting comments through **Sept. 3**, at mndnr.gov/casslake/index.html. Paper questionnaires also are available at the DNR's Bemidji area fisheries office, 2114 Bemidji Ave. in Bemidji. Following a review of comments, the DNR will revise the draft and finalize the Cass Lake management plan in October. ✧

Oden hatchery readies for Arctic grayling

Michigan is one step closer to bringing Arctic grayling back to state waters. The ultraviolet water disinfection system at Oden State Fish Hatchery in Emmet County has been installed, meaning the facility is ready to welcome juvenile Arctic grayling.

“With the completion of this project, we can protect the fish populations in the inland waterway—the series of rivers and inland lakes that the rearing water flows into—from any pathogens that may inadvertently arrive with these fish,” said Ed Eisch, the DNR's fish production manager. “We don't anticipate any issues, but we definitely want to err on the conservative side when it comes to the possibility of introducing new pathogens.”

The UV system is critical for the long-term process of cultivating Michigan's Arctic grayling broodstock (mature fish used for breeding), a goal of the Michigan Arctic Grayling Initiative.

Major gifts were granted by the Henry E. and Consuelo S. Wenger Foundation, the Little River Band of Ottawa Indians, Trout Unlimited, the DNR, Petoskey-Harbor Springs Area Community Foundation, Oleson Foundation, Rotary Charities of Traverse City, Friends of the Jordan River Watershed and supporters of the Little Traverse Conservancy.

The Arctic grayling will arrive at Oden State Fish Hatchery in early August. These fish were collected as eggs in Alaska in May and have been housed at Michigan State University since their arrival in the state. This is the first in a series of three year classes of fish that will make up the founding broodstock for the Arctic grayling effort.

The juvenile fish will be reared in isolation at Oden and, once cleared by fish health testing, transferred to Marquette State Fish Hatchery to continue maturing.

Learn more at www.MiGrayling.org or contact [Ed Eisch](#), 231-922-6056 or [Elyse Walter](#), 517-284-5839.

✧

Over 450,000 walleye fingerlings stocked in Bays de Noc

The Bays de Noc recently received 464,800 walleye fingerlings through collaborative stocking efforts by the DNR, the Sault Ste. Marie Tribe of Chippewa Indians and the Bay de Noc Great Lakes Sport Fishermen.

After Little Bay de Noc's spring ice-out, DNR crews conducted an egg take on adult walleye. Those eggs were transferred to the Thompson State Fish Hatchery in Manistique. A portion of that egg batch later was moved to the Sault Ste. Marie Tribe hatchery.

After hatching, the larval walleye were moved to ponds operated by the Sault Ste. Marie Tribe and the Bay de Noc Great Lakes Sport Fishermen. The Sport Fishermen ponds yielded 329,600 fingerlings that were stocked July 1-9 in northern Little Bay de Noc near the mouth of the Whitefish River and Kipling.

The Sault Tribe pond produced 135,200 fish that were stocked July 3 near Gladstone, Kipling and the lower Escanaba River.

"Working together with the DNR allows us to combine resources which complement each other, to increase the number of walleye fingerlings destined for the Bays de Noc," said Rusty Aikens, fisheries enhancement coordinator for the Sault Ste. Marie Tribe of Chippewa Indians.

Support from local organizations is critical to the DNR's walleye stocking efforts. "Partnering with the Sault Ste. Marie Tribe and the Bays de Noc Great Lakes Sport Fishermen in rearing and stocking is an extremely valuable component of our walleye management program in the Upper Peninsula," said Darren Kramer, the DNR's Northern Lake Michigan unit manager. "These efforts allow us to enhance the world-class fishing opportunities available for anglers in the area."

For more info:

MichiganDNR.com/FishStock.

Questions? Contact [Darren Kramer](mailto:Darren.Kramer@MichiganDNR.com) 906-786-2351 or [Rusty Aikens](mailto:Rusty.Aikens@MichiganDNR.com), 906-632-6132. ✧

DEC \$450,000 upgrades to Mud Lock Boat Launch Site

New York DEC announced the completion of \$450,000 in upgrades to the Mud Lock boat launch located at the north end of Cayuga Lake in the town of Aurelius, Cayuga County. Enhancements include:

- A new concrete launch ramp and floating boarding docks to allow launching under lower lake levels;
- Redesign and paving of the launch access and boat preparation area for safer and more efficient launching;
- Paving and striping the parking area to accommodate 21 vehicles with trailers and 7 single vehicles, including accessible parking.

The north end of Cayuga Lake offers a diverse array of scenery, wildlife, and fish for outdoor enthusiasts to explore, observe, and pursue.

[Cayuga Lake](#) is the second largest of the 11 Finger Lakes and supports diverse cold- and warmwater sport fisheries including largemouth bass, chain pickerel, northern pike, crappie, yellow perch, sunfish, gar, and bowfin. Current fishing information is available on DEC's [Central New York Fishing Hotline](#).

The launch will remain open late into the season for use by waterfowl hunters. DEC operates the launch in cooperation with the town of Aurelius and New York State Canal Corporation. ✧

New DNR hunting guides available

Your guide to Indiana hunting and trapping is now available at hunting.IN.gov. You can pick up a printed version of the guide at the Natural Resources Building at the Indiana State Fair, at retailers that sell hunting licenses and equipment, and at many DNR properties.

You can get your copy of Michigan fishing and hunting digests online and never worry about losing your paper copy again. They're available for download at Michigan.gov/DNRDigests. ✧

ODNR awards more than \$400K in grants for Lake Erie projects

COLUMBUS, OH – The Ohio DNR has approved more than \$437,000 in funding through the Coastal Management Assistance Grant (CMAG) program for five projects in Toledo, Eastlake, Ashtabula County, Lorain, and Bay Village that will improve coastal planning, public access, and water quality.

"For more than 20 years, this grant program has provided a helping hand to Ohio's communities for protecting and developing valuable resources near Lake Erie," said Governor Mike DeWine. "These projects upgrade infrastructure, provide better access to natural areas for residents, and reduce erosion while improving water quality."

ODNR implements the CMAG program through its Office of Coastal Management for eligible entities including local governments, county and regional planning agencies, educational institutions, nonprofit organizations, and park and conservancy districts for completion of projects that will protect Lake Erie's coastal resources and support sustainable use.

This year's projects include installing ADA-accessible parking spaces and walkways, implementing green stormwater infrastructure, enhancing stream and wetland habitats which will help filter and improve water quality, and developing plans and engineering designs needed to improve public access and restore coastal habitat.

CMAG is a competitive reimbursement grant program that provides matching funds up to 50% of project costs, with a minimum of 50% from the applicant. Funding for the program is provided by a grant from the U.S. Department of Commerce through NOAA and Ohio Coastal Management Program. The CMAG program has provided more than \$5.62 million for 141 projects in Ohio since the program began in 1998.

For more info: www.coastal.ohiodnr.gov/cmagrants. ✧

Muskies released into Susquehanna River

The Pennsylvania Fish and Boat Commission recently stocked about 2,400 1-year-old muskellunge into the Susquehanna River. The fish – 12-14 inches long when they were stocked into the river at the commission’s Fort Hunter Boat Access in Dauphin County – could grow as large 50 inches and more than 50 pounds. (The [state record](#) musky – caught in 1924 in Conneaut Lake in Meadville, Crawford County – weighed 54 pounds 3 ounces.)

They were hatched and grown in the commission’s Linesville State Fish Hatchery in Crawford County and transported to Harrisburg for release into the river, one of several dozen stockings taking place now in rivers and lakes across the state. About 27,000 yearling muskies will be released.

The commission has changed its musky program to stock fewer but larger muskies. According to the commission, “Biologist research indicates that the new approach of introducing larger fish will greatly increase the survival rate of these fish.”

Even with that head-start, the young muskies face a challenging future in the Susquehanna, where full-grown monsters already lurk, including adult muskies and flathead catfish. The [state-record flathead](#) – 50 pounds 7 ounces – was caught in the Susquehanna, near the Muddy Creek public access area in York County, in early April.

The species lives in rivers and lakes across Pennsylvania, where the commission supplements natural reproduction annually through the stocking of hatchery-raised fish. The commission noted, “The presence of muskies in a waterway provides a world-class sport fishing opportunity for Pennsylvania anglers. The species is managed at a level that helps naturally regulate other fish populations while not impacting other sport fishing opportunities.” ✧

Women's Guided Fishing Trip on Lake Ontario

Due to popular demand, more dates have been added:

September 8 at 1 p.m.

September 14 at 1 p.m.

September 15 at 6 a.m. or 1 p.m.

Location: Oswego Marina, Oswego

Enjoy a 6-hour fishing trip for king salmon, coho salmon, brown trout, rainbow trout and/or steelhead with Captain Dave Wilson aboard his 28’ Baha Cruiser. He provides all fishing equipment. No fishing experience necessary. The boat has an enclosed bathroom with plumbing! Open to women age 18 or over.

Bring:

- Your valid NYS fishing license
- Camera
- Warm clothing
- Sunglasses
- Sunscreen
- Hat, raincoat and rain pants
- Soft-soled shoes
- Food, snacks and drinks
- Cooler to take your catch home
- Motion sickness medication

Fish cleaning is available for a fee at the dock. Lodging is available nearby.

Fee: \$140 per person

Pre-registration is required.

Contact [Captain Dave Wilson](#) at **315-481-5716** to register.

Cancellation: Weather cancellations are at the Captain's discretion and money will either be refunded or the charter will be rescheduled.. ✧

NOAA Fisheries’ 2019–2022 Strategic Plan

NOAA Fisheries released a strategic plan for 2019–2022 that sets out goals and strategies to amplify the economic value of fisheries and recover and conserve marine protected species. Priorities in the plan include maximizing the economic yield of U.S. fisheries, reducing bycatch and entanglements, fostering U.S. marine aquaculture, and focusing species recovery efforts.

✧

NOAA Great Lakes Habitat Restoration Partnerships

NOAA is recommending \$8.9 million in Great Lakes Restoration Initiative funding for two new multi-year partnership cooperative agreements and two ongoing multi-year awards. These investments will restore habitat for Great Lakes species by opening river systems to fish passage, reconnecting rivers to their floodplains, and enhancing river, stream, and wetland habitats.

This funding will benefit both communities and the environment: strengthening valuable fisheries and coastal resources, restoring the coastal wetlands that improve the quality of our water, providing recreational opportunities for public use and enjoyment, and supporting the resilience of Great Lake communities.

Specifically, recommended projects will restore habitats for Great Lakes species by [opening river systems to fish passage](#), reconnecting rivers to their floodplains, and restoring and enhancing river, stream, and wetland habitats. Several recommended projects will contribute to ongoing restoration activities within the [Great Lakes Areas of Concern](#)—places where pollution has impacted ecosystems and the public’s ability to use natural resources. ✧

Becoming an Outdoors Woman

A few reservations are still available for the annual “Becoming an Outdoors Woman” workshop at the Touch of Nature Environmental Center/Giant City State Park **September 27-29**. The workshop fee is \$240, which includes meals, lodging, class instruction, use of class equipment and supplies, transportation during the workshop, and lots of fun. Participants must be 18 years of age or older. Log onto the IDNR website at this link for more information and registration materials: <https://bit.ly/2LWc0TR>. ✧

Moving BLM HQ out west a welcome change

The Interior Department this past week announced that it is moving the headquarters of its Bureau of Land Management (BLM) division out of Washington, D.C., and west to Grand Junction, Colo., as well as moving a number of senior management staffers into 11 Western states, including 50 to Nevada, according to The Associated Press.

While the agency estimates the move could save as much \$100 million over the next 20 years due to lower office space costs and lower cost-of-living differentials for federal employees, a more important and significant aspect may be putting the bureaucrats who manage 388,000 square miles of federal public land in 12 Western states closer to the people who are affected by their decisions. Human nature dictates it is harder to look across your desk at a neighbor and say no to a profitable endeavor than it is from 2,000 miles away.

That's essentially what Secretary of Interior David Bernhardt intimated in a press release announcing the decision, "A meaningful realignment of our operations is not simply about where functions are performed; rather, it is rooted in how changes will better respond to the needs of the American people. Under our proposal, every Western state will gain additional staff resources. This approach will play an invaluable role in serving the American people more efficiently while also advancing the Bureau of Land Management's multiple-use mission. Shifting critical leadership positions and supporting staff to western states — where an overwhelming majority of federal lands are located — is not only a better management system, it is beneficial to the interest of the American public in these communities, cities, counties, and states." Click [here](#) to read the full piece. ✧

MN watercraft registration increase

A broadly-supported measure effective July 1 will significantly enhance aquatic invasive species prevention and management in Minnesota. The increase in the aquatic invasive species watercraft surcharge on the three-year watercraft registration is increasing from \$5 to \$10.60. This is the first increase in the AIS registration surcharges since 1993. Watercraft owners will pay the increased fee when registering new watercraft, or when the registrations on existing watercraft come up for renewal.

Reducing the spread of aquatic invasive species is a major focus for the Minnesota DNR and its partners. The surcharge increase allows the DNR to manage existing AIS infestations, reduce the spread to new waterbodies and help prevent the introduction of new species.

The increased fee will provide an increase of \$880,000.00 per year for the DNR's invasive species program for fiscal years 2020-21. This will allow the DNR to reinstate local AIS management grants, respond to new discoveries and continue to conduct AIS inspections. mndnr.gov/ais. ✧

New hunting guide license now required

The Indiana General Assembly passed a new law this year (Senate Enrolled Act 363) requiring a Hunting Guide License for those who provide hunting guide services for money or other goods or services (barter or trade). The license costs \$100 a year. The application for the license and monthly report form can be found at wildlife.IN.gov/2371.htm. While hunting guides have not been licensed by the state in the past, fishing guides have been licensed for a number of years. The Indiana General Assembly also modified language for penalties as it pertains to guides. Violations include knowingly or intentionally guiding an individual on private property to hunt without consent of the landowner. ✧

139 lb sturgeon caught in Oneida Lake largest since stocking began



Fisheries researchers working under a DEC-funded contract at Cornell U's Biological Field Station at Shackleton Point recently [caught a 72.5", 139 lb. lake sturgeon](#) in Oneida Lake.

This large sturgeon, estimated to be 20 years old, was one of 11 caught in a single day earlier this summer. Once captured, biologists sedated the sturgeon, measured and weighed the fish, took samples to determine age, tagged it, and allowed the fish to recover before releasing it back into the lake.

DEC began stocking lake sturgeon in Oneida Lake in 1995 to reverse past devastating losses due to overfishing and damming of rivers, which are critical spawning habitats. Since then, DEC has stocked almost 11,000 sturgeon in Oneida Lake. Before the stocking program began, the lake sturgeon population throughout the Great Lakes region was estimated at one percent of historic levels.

DEC's lake sturgeon recovery program has made great progress statewide. Anglers are now more likely to encounter lake sturgeon while fishing. Anglers should remember that there is no open season for lake sturgeon and possession is prohibited. Any lake sturgeon caught accidentally must be immediately released without harm. If anglers see a sturgeon bearing a yellow dangler tag on the dorsal (top) fin, they should make note of the number without removing the tag and contact the nearest DEC regional office. Any sightings of lake sturgeon are of interest to DEC and research partners.

For more info: [Lake Sturgeon Recovery Plan \(PDF\)](#) ✧

Recovering America's Wildlife Act reintroduced to help conservation

WASHINGTON, DC – On July 12, Representatives Debbie Dingell (D-MI) and Jeff Fortenberry (R-NE), along with conservation and sportsmen's leaders, reintroduced the bipartisan *Recovering America's Wildlife Act* (RAWA), to help promote and enhance our nation's conservation efforts and ensure the long-term health of fish and wildlife throughout the country.

RAWA is the most significant investment in wildlife and habitat conservation in a generation. The bill would dedicate roughly \$1.4 billion to the Wildlife Conservation Restoration Program for proactive, voluntary efforts led by the states, territories and tribal nations to prevent vulnerable wildlife from becoming endangered.

[Dingell and Fortenberry first introduced the bill in 2017](#) based on a recommendation from a panel of conservation and business leaders. The Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources, a group of national business and conservation leaders co-chaired by Bass Pro Shops founder Johnny Morris and former Wyoming governor Dave Freudenthal, convened in 2015 to recommend a new mechanism to sustainably fund fish and wildlife conservation. In March, 2016, the Panel recommended creating a \$1.3 billion dedicated funding stream to support implementation of State Wildlife Action Plans in every state, territory, and the District of Columbia.

Without a change in the way we finance fish and wildlife conservation, the list of federally threatened and endangered species is expected to grow from nearly 1,600 species today to thousands more in the future. The new dedicated funding created by the *Recovering America's Wildlife Act* is aimed at preventing wildlife from becoming endangered to ensure the long-term health of all fish and wildlife that provide countless hours

Ocean & Great Lakes legislation introduced in Congress

U.S. Rep. Suzanne Bonamici (D-OR) has [introduced](#) the "Bolstering Long-Term Understanding and Exploration of the Great Lakes, Oceans, Bays, and Estuaries Act" (BLUE GLOBE Act, [H.R. 3548](#)), companion legislation to a Senate bill introduced in March that seeks to improve data collection and monitoring of the Great Lakes, oceans, bays, estuaries, and coasts.

The purpose of this Act is to promote and support— (1) the monitoring, understanding, and exploration of the Great Lakes, oceans, bays, estuaries, and coasts; and (2) the collection, analysis, synthesis, and sharing of data related to the Great Lakes, oceans, bays, estuaries, and coasts to facilitate science and sound decision making.

Among other things, the legislation would statutorily establish a Committee on Ocean Policy to succeed and carry out the functions of the Ocean Policy Committee created by the 2018 ocean policy, accelerate the development of new monitoring technologies, and establish an Interagency Ocean Exploration Committee to promote ocean exploration and monitoring. Interestingly, no state or regional representatives were included in proposed committee makeup.

Co-sponsored by Rep. Don Young (R-AK), the bill was later referred to the House Committees on Natural Resources and Education and Labor. ✧

of outdoor enjoyment for the nation's citizens.

Passage of the *Recovering America's Wildlife Act* would help:

- Keep common fish and wildlife species common.
- Prevent extinction of fish and wildlife species currently listed as threatened or endangered.
- Have cleaner air, water and land, supported by healthier fish and wildlife habitats. ✧

Great Lakes States and Provinces meet to discuss Brandon Road Project

The Great Lakes and St. Lawrence states and provinces working to keep invasive Asian carp out of the lakes met in Chicago July 16 and 17 to discuss the US Army Corps of Engineers (USACE) proposed project at Brandon Road Lock and Dam.

Participants from Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Ontario, Pennsylvania, Quebec, Wisconsin, and the Great Lakes Commission identified topics for advancing meeting outcomes, as well as areas where more discussion is needed.

"I think it's safe to say that everyone came away having learned or accomplished something this week," said Colleen Callahan, Director of Illinois DNR. "The Brandon Road project will not be a small undertaking, so detailed planning, open discussion and ongoing communications are, and will continue to be, paramount as the process moves forward."

Agenda items focused on regional support and efficacy, concerns of partner agencies, project cost and partnerships. They discussed concerns surrounding ecology, biodiversity and public water. Additional points of discussion included structural, technological and non-structural approaches to addressing the spread of Asian carp and the status of current efforts to address the issue.

The project, as proposed by the USACE, would place additional electric barriers in the waterway to stop the invasive species from moving through the lock and dam. It also would utilize an air bubble curtain to dislodge entrained fish. Finally, the plan would employ special underwater speakers while ships move through the locks to blast sound waves at decibels and frequencies to deter Asian carp movement from the downstream approach channel. ✧

West Nile virus impacting Minnesota loon population

A recent uptick in reports of dead loons and test results indicate an impact from West Nile virus (WNV), according to nongame wildlife staff at the Minnesota DNR.

The Veterinary Diagnostic Laboratory at the University of Minnesota confirmed WNV as the cause of death in two of three dead loons from northeastern Minnesota earlier this month. Wildlife staff are receiving a small but noticeable increase in calls from people finding dead loons in northeastern Minnesota this summer.

WNV was first confirmed in Minnesota in 2002 and was documented as a cause of loon mortality in Minnesota as early as 2005. It is not uncommon for people, animals and birds to be exposed to WNV through mosquito bites. Most people and animals successfully fight off the virus and develop antibodies against future infection. Some birds, like loons, crows and other corvids, are especially susceptible to the infection. Researchers are attempting to discover the rates of infection among ruffed grouse.

Loons can die from a variety of illnesses and injuries and individual bird deaths are a normal occurrence and not cause for alarm.

Minnesotans love our loons and it's concerning to find them dead.

Lake homeowners and other lake users who observe two or more dead loons on a single lake with no obvious injury or cause of death are asked to email the nearest DNR nongame wildlife staff for tracking.

Individual bird carcasses can be disposed of by burial or in the trash. There is no evidence people can contract WNV from infected birds, but gloves or a plastic bag are recommended when handling any dead animal. If reporting numbers reach a threshold that indicates a need for further testing, more information and handling protocols will follow. ✧

Hybrid striped bass to be stocked in Indiana lakes

Hybrid striped bass, also known as "wipers," are a hybrid species of white bass and striped bass. By hybridizing the two, hatchery staff is able to produce fish that grow faster and larger than a typical white bass, yet can tolerate a wider range of conditions than pure striped bass.

On June 17, DNR hatchery staff began stocking nine different lakes across the state with hybrid striped bass. These fish average between 1-1.5 inches when they are stocked, but can reach sizes averaging 13 inches by their second year.

Hybrid striped bass are known for being a challenging catch, but they also help control undesirable species such as gizzard shad in some Indiana lakes. Hybrid striped bass are typically not capable of reproduction.

Some stock numbers are not always realized due to production issues and other circumstances. More info? wildlife.IN.gov/3386.htm. ✧

Lake renovations planned for Willow Slough FWA

The Indiana DNR will be hosting a public meeting on **August 21** from 6–8 p.m. to discuss upcoming renovations on J.C. Murphey Lake at Willow Slough Fish & Wildlife Area. The lake requires periodic renovations to maintain habitat for the maximum number of species and recreational opportunities. Renovations will not only provide habitat for rare or endangered species, but will also improve opportunities for waterfowl hunters, anglers, trappers, and wildlife viewers. Lake renovations are expected to take until 2024 to complete, with a drawdown beginning in 2022. Recreational opportunities will be impacted while the lake is drawn down. The public meeting will include a presentation from property management and fisheries staff and a Q&A session to address any questions or concerns. ✧

Skamania steelhead season heats up in Northwest Indiana

As summer heats up, so does steelhead action in Lake Michigan and its tributaries. Anglers should act fast to take advantage of these high-flying, challenging steelhead. "Skamania" steelhead are a unique species of summer-migrating steelhead trout the DNR stocks in southern Lake Michigan.

In most parts of the country, steelhead fishing is done during the fall, winter, and spring months, but that doesn't have to be the case.

"The beauty of skamania fishing is that you can do it in shorts and a T-shirt, catching a tan along with your steelhead," said DNR Lake Michigan biologist Ben Dickinson. "It's a great way to introduce people to steelhead fishing, especially kids. Pier fishing in particular is family friendly, since it only requires a medium action rod, a bobber, and widely available bait like nightcrawlers or cooked, peeled shrimp."

Trail Creek is the crown jewel of skamania fishing in Indiana, with more than 100,000 fish stocked annually. Trail Creek also supplies Illinois, Wisconsin, and Michigan with skamania steelhead eggs.

"Indiana is the home of skamania steelhead in the Great Lakes," said Dave Meunick, manager of Bodine State Fish Hatchery. "Our hatchery staff continues to work diligently each summer, collecting adult skamania steelhead to ensure our hatcheries have an ample supply of eggs for Indiana's stocking programs and for those of our Lake Michigan partners."

Fishing the Michigan City or Portage Lakefront Park piers in late evening or early morning in June and July is best for shore anglers.

Anglers must purchase a trout stamp to pursue steelhead. Anglers looking for up-to-date information on the fishing status or where to fish can check the DNR fishing report at wildlife.IN.gov/8270.htm or call the Lake Michigan office at 219-874-6824. ✧

Invasive black carp nearing Indiana waters

In June, two black carp were captured in the Ohio River about 10 miles downstream of the Indiana state line. Black carp are native to eastern Asia and were brought to the U.S. during the 1970-80s. They have since escaped captivity and have been moving throughout the Mississippi River basin.

Black carp feed on mollusks and pose a serious threat to Indiana's mussel populations. Many of the mussel species native to Indiana are already listed as species of special concern or endangered due to pollution and changes in river habitat. For more information about the important role mussels play: wildlife.IN.gov/8684.htm.

Although it is possible to catch black carp on traditional baits, bowfishing anglers are more likely to encounter them. Black carp look very similar to grass carp. See asiancarp.us/Documents/BlackGrassCarpIdentification.PDF.

If you have caught a suspected black carp, follow this procedure:

- **Keep** the fish and make note of its location.
- **Cool** the fish on ice once you have killed it.
- **Call** the DNR at 866-663-9684.

You may be eligible for a \$100 bounty per black carp carcass, funded through the Illinois DNR. ✧

Michigan wants your opinion on walleyes

Do you fish for walleye, particularly on inland waters? We want your input as we begin to develop a walleye management plan for inland lakes and rivers. Walleye fishing is a longstanding Michigan tradition, one the DNR works to preserve. Your input can help improve the inland water fishing experience for future generations. This survey has 20 questions and should take no more than 15 minutes to complete. Questions? Contact: [Seth Herbst](mailto:Seth_Herbst@DNR.MI.gov) at 517-284-5830. [Take the survey ▶](#)

✧

Hunting season is coming; take an online hunter safety class

Fall is on the way—that means bow, trapping and waterfowl seasons are quickly approaching. Don't wait for opening day; register now for a hunter safety education course. These courses are available in either a traditional classroom setting or an online program. The online program is great for busy hunters who want to learn but need a flexible schedule to complete the course at their own pace, followed by a single-session field day.

“The online course, followed by the field day, is becoming the most popular method of hunter safety, as it allows the student to learn independently and then receive hands-on instruction,” said Lt. Tom Wanless, DNR conservation officer.

The online program requires participants to preregister for a field day, available year-round.

Learn more about hunter safety education or [search for classes by county](#) by visiting Michigan.gov/RecreationalSafety. ✧

Fish & Wildlife Director Reiter retires

After 39 years of service, Director Mark Reiter of Indiana DNR's Division of Fish & Wildlife has retired. Reiter started as a biologist aide in 1977. He quickly rose through the ranks as a laborer, property manager, staff specialist, and eventually the wildlife chief. After leaving the division for three years to work for the National Rifle Association, he returned as a wildlife staff specialist and public lands program manager before becoming Director of Fish & Wildlife in 2009. Reiter led a long and distinguished career with the Indiana DNR. During his time as director, Reiter was instrumental in the creation of the Healthy Rivers Initiative, modernizing shooting ranges at Fish & Wildlife Areas, establishing the Gamebird Area Program, and creating the deer bundle license. ✧

Hunting Permits

Resident archery deer permits

Resident combination and antlerless-only archery deer permits will be available over-the-counter from DNR Direct license and permit vendors beginning **August 6**. Find a vendor link here: <https://bit.ly/1btajS>. ✧

Michigan waterfowl hunting

The waterfowl reserved hunt application period is open **August 1-28**. Apply online at MDNR-eLicense.com or anywhere licenses are sold. Waterfowl hunting details available at Michigan.gov/Waterfowl. ✧

Non-resident archery deer permits

Illinois non-resident archery deer combination permits will be available over-the-counter from DNR Direct license and permit vendors beginning **August 6**. The Illinois Archery Deer Season is **October 1, 2019 through January 19, 2020**. ✧

Fall Wild Turkey Shotgun Season

Hunters may apply through **August 19** for the second lottery for 2019 Illinois Fall Wild Turkey Shotgun Season permits. Season dates are **October 19-27**. For more info: <https://www.dnr.illinois.gov/hunting/Pages/TurkeyHunting.aspx>. ✧

Online dove permits

Online applications are being accepted for Illinois free dove hunting permits. Hunters may apply on a first-come, first-served basis through **August 25** for any permits that remain. For more info on permit areas and free permits, check the IDNR website: <https://bit.ly/2YxvrYT>. ✧

Upland Game Permits

Hunters may apply through **August 31** for the Illinois 2019 Free Upland Game Hunt Permit program. Applications must be made online, and successful applicants will receive a confirmation by mail. Application information is available at <https://bit.ly/2ZhJCOY>. ✧

Quagga Mussels eradicated

Continued from page 1

of caged adult mussels that were suspended at different locations and depths throughout the lake.

Adult mussels began to die within 3 days of the initiation of treatment, particularly in the top 6 meters of the water body. The death of the last caged mussel was confirmed 40 days after the initiation of treatment, in a cage that had been placed in the metalimnion at a depth of 9 meters below the surface. Both biological and physicochemical data collected during the treatment period revealed that there was a pronounced thermocline at 8–11 meters depth. The layer of water in the thermocline resisted mixing, suggesting an explanation for why mussels located above and below this metalimnion were eradicated quickly, yet those within the metalimnion required targeted treatment techniques and 40 days to succumb to 100% mortality. Visual inspection of the shoreline after partial pump-down of the quarry in early November revealed high densities of empty shells from dead adults, and no live adults were found.



Fig 3. Treatment zone, comprising 50% of the surface area

Analysis of eDNA samples taken in December of 2017 and again in July 2018 concluded no mussel eDNA was detectable. Plankton tows collected and analyzed by microscopy in July, August and September 2018 were rich with zooplankton but no live mussel veligers were found. The cumulative sum of product applied throughout the entire course of treatment totaled 13,500 liters, which is equivalent to 0.44 mg/L as copper as calculated on the full volume of the lake — noteworthy because it is less than half the concentration EPA allows (1.0 mg/L) in a single algaecide treatment.

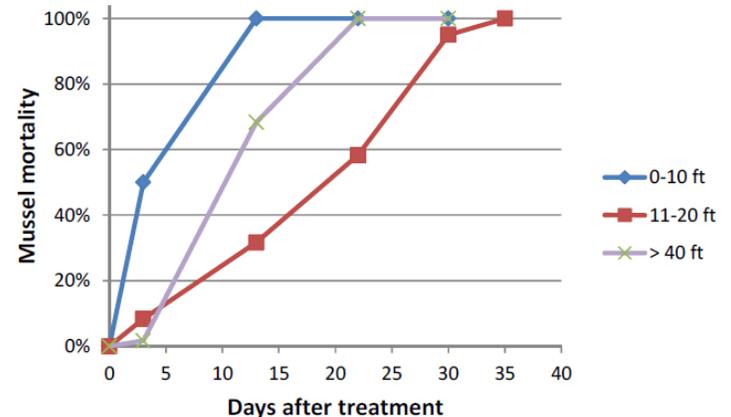


Fig 7. Time needed to achieve 100% mussel mortality at various depths in the lake center

This experience illustrates that low doses of acid-stabilized ionic copper can have profound effects on invasive mussel populations and are a viable management tool. If future sampling confirms that this eradication effort was successful, it will be the first recorded instance of eradicating quagga mussels from an entire lake.

Click here to read full 17 page report: Quagga Mussels Eradicated from Pennsylvania Lake - EarthTec QZ ✧

America's Anglers Reach Record-Breaking Diversity

ALEXANDRIA, VA – America's anglers are more diverse than ever, a key finding of the 2019 Special Report on Fishing, released today by the [Recreational Boating & Fishing Foundation](#) (RBFF). Both women and Hispanics are casting their lines in record-breaking numbers, with 17.7 million and 4.4 million participants, respectively.

"It's often assumed that all anglers look alike," says Stephanie Vatalaro, RBFF's Senior Vice President of Marketing and Communications. "Our mission is to welcome everyone to the water — because if you want to learn to fish, you should have that opportunity no

matter who you are. And while our work isn't over, it's clear from these results that the tides are changing."

In addition to record-breaking diversity, other highlights from the Special Report on Fishing include:

- 49.4 million Americans participate in fishing annually.
- Americans go fishing a cumulative 883 million days annually, or 17.9 days each year per person.
- More non-anglers than ever, 33.9 million people, are interested in trying fishing.
- Parents are 45 percent more likely to go fishing than adults without children.

- More than 3 in 4 anglers view fishing's environmental benefits as one reason they participate in the activity.

RBFF's diversity initiatives include its [#WomenMakingWaves](#) social media movement and its [George H.W. Bush Vamos A Pescar™ Education Fund](#).

Created in partnership with The [Outdoor Foundation](#), the Special Report on Fishing provides one of the most comprehensive looks at the state of U.S. fishing and boating participation. The full report, along with an accompanying infographic, is available at the [RBFF Resource Center](#). ✧

Michigan continues early detection efforts for invasive carp

Results are in for the first round of environmental DNA testing for invasive bighead and silver carp in tributaries of Lake Michigan. None of the 336 water samples collected in the Kalamazoo River, Spring Lake and Lake Macatawa tested positive for the genetic material (eDNA) of invasive carp.



Staff test water samples for evidence of invasive carp.

The eDNA surveillance program — a collaborative effort between the Great Lakes states and the U.S. Fish and Wildlife Service — samples high-priority locations for the presence of bighead and silver carp genetic material. Results from additional monitoring efforts in Michigan will be available soon.

Since 2013, the DNR has coordinated with the USFWS to implement the eDNA surveillance program in Michigan's major tributaries to all the Great Lakes except Lake Superior, because it has been deemed very low-risk for the introduction and establishment of invasive carp. [Results of these surveys](#) are available on the USFWS website FWS.gov.

Testing for eDNA involves collecting water samples throughout a river or lake and analyzing each sample for silver or bighead carp genetic material.

The 2019 sampling locations this year include Spring Lake and Lake Macatawa, both drowned river mouths of Lake Michigan. These lakes provide the type of habitat and food resources that invasive carp prefer and can hold eDNA longer than a high flowing river.

What if positive results are found?

In May, eDNA testing on Lake

Calumet in Chicago, just 6 miles downstream of Lake Michigan, resulted in six positive detections — three each for silver carp and bighead carp.

In response to these findings, the USFWS and partners dispatched two crews to carry out intensive electrofishing in Lake Calumet for three days. No live silver or bighead carp were collected through this effort.



Electrofishing and intensive netting to look for invasive carp.

“A positive eDNA sample in Michigan's waters would trigger a similar response,” said Seth Herbst, aquatic species and regulatory affairs unit manager with the DNR. “The state is prepared to implement a response appropriate to the indicated risk level. Response actions would include intensive monitoring to locate fish populations, and netting and electrofishing to capture and remove the invasive fish.”

It's important to note that positive eDNA results don't always mean live fish are present. Other sources, such as boats or angling equipment that have been in an area where invasive carp are established, also can deposit eDNA into uninfested water bodies.

What is Michigan doing to prevent invasive carp?

“Along with our participation in the eDNA surveillance program, we continue to be diligent with early detection efforts, such as conducting fish population surveys, increasing awareness among anglers, and maintaining an [invasive carp reporting website](#) for anglers to share any suspicious catches or

observations that occur during their outings,” said Herbst.

[Michigan's management plan for invasive carp](#) outlines the actions to be taken if invasive carp are found in Michigan's waters.

The state of Michigan is a part of the Asian Carp Regional Coordinating Committee, which develops and supports the annual [Asian Carp Action Plan](#), directing sampling and removal efforts and testing technologies to deter invasive carp movement.

Michigan continues to push the implementation of the U.S. Army Corps of Engineers' plan to reconstruct the Brandon Road lock and dam near Joliet, Illinois, to install technologies to lessen the possibility of invasive carp entering Lake Michigan from the Mississippi River.

For more information about invasive carp and the threats they pose to Michigan's waters, visit Michigan.gov/InvasiveCarp. ✧

Learn to hunt fall turkey, Sept. 27-28

The Michigan Chapter of the National Wild Turkey Federation presents a mentored turkey hunt, **September 27-28** at [Pierce Cedar Creek Institute](#), 701 W. Cloverdale Road in Hastings. Optional range day at Rose Lake Shooting Range in Bath (date to be determined). Cost is \$130, which includes two nights' lodging at Pierce Cedar Creek Institute's Meadow Lodge Housing Unit, Friday evening dinner, breakfast snacks, Saturday lunch and Saturday evening wild game sampling.

The event is limited to 12 new hunters (two hunters per mentor) and is available on a first-come, first-served basis. Hunting license is not included. Register online at NWTF.org/events (search under Michigan). Questions: Steve Sharp, 517-930-0947, or ssharp@nwtf.net. ✧

Chicago area waterways teeming with life, not Asian carp

CHICAGO – June’s Seasonal Intensive Monitoring (SIM) survey, designed to leave nothing to chance and investigate each nook and cranny of selected Illinois waterways for Asian carp, came up with plenty of fish, but no bighead or silver carp.

“It certainly is good news to be able to report that no bighead or silver carp were found during this round of monitoring,” said Kevin Irons, co-chair of the Asian Carp Monitoring and Response Workgroup and manager of the Illinois Department of Natural Resources (IDNR) Aquatic Nuisance Species program. “We intensively monitor waters connecting the Illinois River to Lake Michigan for Asian carp twice a year, each year, and we’re pleased to see our carp mitigation efforts paying dividends.”

Efforts by the IDNR, Illinois Natural History Survey, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers during the SIM, conducted June 3-14, included environmental DNA (eDNA) surveillance at more than 400 sites and investigation of 602 sites for fish. Crews in the surveillance area used a variety of methods to look for silver carp — the fish commonly known to jump out of the water in large numbers in other areas of the country — and bighead carp.

Environmental DNA was detected in Lake Calumet this April, a focus of the monitoring this spring. While eDNA has been detected in Chicago for years at low rates, studies have shown it does not necessarily indicate that a live fish is the source. Rather, it could be from plentiful waterbird populations in the area, hulls of boats and ships, or even a dead fish which is found occasionally after leaping onto a vessel as much as 100 miles away.

“So many factors can combine to lead to the detection of eDNA, which is why agencies responsible for monitoring these waterways have a plan in place to continuously monitor, rather than defensively respond, each time eDNA is found,” Irons said. “It is only with a combination of this new scientific approach and intense and prescribed fishing that we can be fully informed of the status of Asian carp in the waterway, and these results are very encouraging.”

More promising was the amount of diversity noted in the fish observed during the SIM.

“It is remarkable to see the diversity in the fish community we observe during these SIM events,” said John Dettmers, co-chair of the Asian Carp Monitoring and Response Workgroup (MRWG) and director of

Fishery Management at the Great Lakes Fishery Commission. “The 49 species collected during this spring effort alone show that we see quite a different waterway than was present 20 years ago due to improvements in the water quality throughout Chicago’s canals and rivers.”

The MRWG is part of the Asian Carp Regional Coordinating Committee (ACRCC), a collaboration of 28 agencies committed to the management and control of Asian carp. The committee assures resources and plans are in place to protect the Great Lakes from these invasive species.

To date, MRWG and other efforts have reduced the Asian carp population at the leading edge of the invasion in the Illinois Waterway by 96 percent. Continued efforts are necessary to protect the Great Lakes with enhanced efforts to be unveiled later in 2019. These enhanced efforts target Peoria Pool of the Illinois Waterway with the intent to further control and reduce upstream populations.

To learn more about Asian carp and the ACRCC, visit asiancarp.us. To view the most recent MRWG work plan, visit asiancarp.us/Documents/MRP2018.pdf. ✧

House introduces bill to fully fund LWCF

WASHINGTON – New bipartisan legislation in the House of Representatives would ensure full, dedicated funding for the Land and Water Conservation Fund and acknowledges strong support by citizens, including public lands sportsmen and women, for the successful access and conservation program. Introduced by Reps. Jefferson Van Drew (D-NJ), Brian Fitzpatrick (R-PA) and a diverse lineup of original co-sponsors, the Land and Water Conservation Fund Permanent Funding Act would dedicate \$900 million annually from offshore oil and gas revenues to LWCF.

Companion to a [Senate bill introduced in April](#), the House measure would make LWCF funding mandatory at \$900 million annually, its current authorized funding level. While [LWCF was permanently reauthorized](#) under the John D. Dingell Jr. Conservation, Management and Recreation Act (S. 47), which was signed by the president in March, funding for the program remains subject to the federal appropriations process. LWCF dollars are frequently diverted to other uses. The House bill emphasizes LWCF’s requirements to fund public access for hunting, fishing, shooting and other outdoor recreational

activities.

Congress typically appropriates LWCF at \$425 million, close to half of its authorized levels. However, the House Appropriations Committee recently passed a spending bill that increased the program’s allocated amount to \$524 million. In the program’s [50-plus year history](#), more than \$22 billion in LWCF funds have been redirected to other uses. Nevertheless, since its establishment in 1964, LWCF has become a conservation success story, providing access to millions of acres of public lands, all without spending a single penny of taxpayer funds. ✧

DEC asks anglers to help heat-stressed trout and salmon

New York DEC is urging anglers this summer fishing season to follow a few simple steps when planning trout and salmon fishing trips.

This past spring, trout living in streams benefited from abundant rainfall and cool weather conditions that promote the growth and survival of these popular game fish. However, with the steamy days of summer, remember that trout and salmon can experience physical stress whenever water temperatures climb above 70°. In streams, heat-stressed fish will seek deep pockets, small feeder streams, or water released from deep reservoirs. These refuges allow trout to avoid or recover from potentially fatal levels of heat stress.

Anglers can help trout and salmon by taking the following precautions:

- **Avoid catch-and-release fishing for heat-stressed trout on hot days.** Trout already weakened by heat stress are at risk of death no matter how carefully they are handled;
- **Do not disturb trout where they have gathered in unusually high numbers.** It is likely these fish are recovering from heat stress in a pocket of cold water;
- **Fish early in the day.** Stream temperatures are at their coolest in the early morning hours; and
- **Have Plan B ready.** Always have an alternate fishing plan in case water temperatures are too high at the intended destination.

There are [plenty of places to try freshwater fishing](#) in New York, like smallmouth bass fishing on Lake Erie, brook trout fishing on a crystal clear Adirondack lake, Pacific salmon fishing on Lake Ontario, fishing for stripers on the Hudson River, or fishing for panfish on a local pond.

Read the [I FISH NY Beginners' Guide to Freshwater Fishing](#) to help become a better and more knowledgeable angler on DEC's website ✧

DEC progress in efforts to eradicate dangerous and invasive giant Hogweed *Public reminded to report Giant Hogweed locations, especially as plants begin blooming*

New York State DEC announced statewide efforts to control giant hogweed are making substantial headway in eradicating this large, invasive, and dangerous plant. The Giant Hogweed Program, managed by DEC's Division of Lands and Forests, is in its twelfth year and has eradicated the plants from 623 sites, with another 448 plant-free sites being monitored.

[Giant hogweed](#) can cause severe skin and eye irritation, including painful burns and scarring when skin exposed to its sap becomes more sensitive to UV radiation. It is unlawful to propagate, sell, or transport. In addition to health concerns, giant hogweed negatively impacts the state's ecosystem by crowding out native plants and contributing to soil erosion.

Over the years, the diligence of DEC and its regional and municipal partners has led to the confirmation of 2,484 giant hogweed sites in 51 counties. The majority of [active](#) sites are concentrated in Central and Western New York. With landowner permission, crews visit and remove these invasive plants using root-cutting, herbicide, and umbel (flower head) removal control methods.

DEC recently released a [2018 Annual Report](#), which details the progress being made to identify giant hogweed and eradicate this noxious weed.

In addition to working with regional and municipal partners, the public has been an invaluable partner in DEC's Giant Hogweed Program, by submitting about 2,000 location reports via phone calls and e-mails each year. Giant hogweed is currently

flowering, making this one of the easiest times of the year to locate the plant. Flowering giant hogweed are eight to 14 feet tall and have large, flat-topped clusters of small white flowers, a green stem with purple blotches and coarse white hairs, and large leaves up to five feet across.

If a member of the public finds giant hogweed, please do not touch the plant, take photos of the entire plant (stem, leaves, flower, and seeds), note the location, and send a report with the information via email to ghogweed@dec.ny.gov, text to 518-320-0309, or call the Information Line at 845-256-3111. If confirmed, DEC will contact the landowner to discuss control options. To report and learn more about other invasive species, the public can use the [iMapInvasives](#) database and mapping tool that helps share and coordinate information about detections and response efforts.

New York State is taking a comprehensive approach to reduce the negative impacts of [invasive species](#) through control or removal activities, research, and spread prevention. Recently, [Governor Cuomo announced more than \\$2.8 million in grants](#) to DEC's partners across the state for a variety of projects to address invasive species, including giant hogweed. New York State held [Invasive Species Awareness Week](#) from July 7-13, 2019, featuring statewide events that encouraged New Yorkers to help protect the state's resources from the negative impacts of invasive species.

For more information about giant hogweed, including eradication efforts, plant ID, or to view the 2018 Annual Report, [visit DEC's website](#). ✧

Who do Recreational Anglers trust?

There are many factors that influence a person's decisions and activities, especially in today's information age of websites, social media and 24-hour news cycles. The question is who do anglers trust to provide the most reliable information on which they base their decisions? AnglerSurvey.com, an online bi-monthly survey conducted by Southwick Associates, the nation's leading outdoor market research and economics firm, took a look at who has the most influence on recreational anglers' purchase and fishing decisions and the results were split depending on what decision was being made.

When asked who respondents felt were the three most credible sources of information about issues related to fisheries, state or federal wildlife agencies were the most trusted and influential picked by 66 percent. Fisheries scientists followed at 48 percent and fellow anglers' input either in person, through online forums or over social media were third at 41 percent. These sources won out, on a scale of 2:1, over non-profit organizations, outfitters and guides, professional tournament anglers, celebrity anglers, company spokespeople and any other sources of information.

But when it came to buying products and deciding which ones were best, it seems the anglers seen in the trenches were the most trusted and influential sources of information. The opinions of fellow anglers—either in person or online—by far outweighed all other sources of information and were selected by 71 percent of the survey respondents. Outfitters and guides followed chosen by 40 percent and professional tournament anglers were third selected by 31 percent. Despite being the go-to source for most anglers when it came to fisheries information, in this area, state and federal fish and wildlife agencies were seen as far from expert on what products to use, getting only 10 percent of the vote.

“It appears to come down to who anglers see as being the most knowledgeable about an aspect of angling on which they are seeking information. With actual locations and fisheries information, the agencies and biologists who work directly with them are critical influencers. When it comes to the best products to buy, people who use the products directly are a top choice for information,” says Rob Southwick, president of Southwick Associates, which designs and conducts the

surveys at HunterSurvey.com and ShooterSurvey.com.

To help continually improve, protect and advance hunting, shooting and other outdoor recreation, all sportsmen and sportswomen are encouraged to participate in the bi-monthly surveys at HunterSurvey.com, ShooterSurvey.com and/or AnglerSurvey.com. Every other month, participants who complete the surveys are entered into a drawing for one of five \$100 gift certificates to the sporting goods retailer of their choice.

[Southwick Associates](http://SouthwickAssociates.com) is a market research and economics firm, specializing in the hunting, shooting, sportfishing, and outdoor recreation markets. For more than 25 years, Southwick Associates has established a proven record for delivering comprehensive insights and statistics assisting business and strategic decisions across the entire outdoor industry; from government agencies, industry associations and non-profit organizations, to affiliated businesses and manufacturers. Aside from custom market research, Southwick Associates also provides syndicated participation, media consumption and equipment purchase tracking studies utilizing their proprietary sportsmen panels. ✧

Sportfishing equipment market sees growth in 2018

New Market Size Report available from Southwick Associates

Consumer spending in the sportfishing tackle market grew 12% in 2018, nearing \$6 billion, according to a new market size report now available from Southwick Associates. The growth was primarily led by an increase in spending on rods, reels, and combos that posted significant gains in both retail dollars and units sold. Overall units across the sportfishing equipment market grew at 2% in 2018.

“Although fishing participation was relatively flat in 2018, consumers spent more on fishing equipment than in 2017,” said Nancy Bacon, Vice President of Southwick Associates.

“While all levels of the trade may not be seeing this large of an increase due to inventory issues associated with retail mergers and other factors, consumers are still spending on fishing equipment with more avenues available to purchase product than ever before.”

The new “2018 Retail Market Size Report – Sportfishing Equipment” is available from Southwick Associates for \$3,000. The report covers retail dollar and unit sales estimates of specific equipment directly associated with sportfishing including products in rods, reels, lures and baits, fishing line, terminal tackle,

fishing electronics, fishing apparel, and more. Spending estimates are also broken out by types of fishing, and more. Other items such as travel-related spending, real estate, and indirect equipment are not included.

For info on Southwick Associates market size report and to view a sample report, visit www.SouthwickAssociates.com. A similar report is available for the hunting and shooting sports market. To purchase a report, discuss custom research, or schedule a time to meet, contact Nancy Bacon at Nancy@SouthwickAssociates.com. ✧

USACE Hydrilla Risk Assessment for Great Lakes Basin

BUFFALO, NY – The U.S. Army Corps of Engineers, Buffalo District, in cooperation with the Engineer Research and Development Center, has published a risk assessment that summarizes the potential for hydrilla introduction within the Great Lakes.

The basin-wide risk assessment was completed under contract by Ecology and Environment, Inc. in partnership with North Carolina State University, Texas Tech University, and University of Toledo, with



funding from the Great Lakes Restoration Initiative, and identified five watersheds that could be at a higher risk for introduction of hydrilla: Southeastern Lake Ontario, St. Clair- Detroit, Western

Lake Erie, Southern Lake Erie, and Southwestern Lake Erie.

Hydrilla is a highly invasive aquatic plant species that was first introduced to the southern United States in the 1960s from Asia. More recently there have been a noticeable number of infestations in the glacial lakes of the Northeast and Midwest, as well as within the Great Lakes Basin. Hydrilla infestations have potential to cause significant ecological and economic losses.

‘The first step in managing any species is identifying the extent of its possible range. For potential invasive species, this means identifying suitable habitat where the species may successfully establish if introduced,’ said Matt Barnes, Texas Tech University. Additionally, ‘preventing the impacts of invasive species depends on understanding the pathways by which they are spread,’ said Jon Bossenbroek, University of Toledo. Thus, species distribution and dispersal modeling were key components of the risk assessment to

support the prediction of which Great Lakes watersheds are the most vulnerable to hydrilla introduction and establishment, and targeting areas for management and monitoring.

The risk assessment report identifies potential economic and environmental impacts that may occur as a result of the introduction of hydrilla across the Great Lakes Basin, and provides recommendations and best management practices for the prevention and management of hydrilla infestations. Overall, potential hydrilla infestations were evaluated basin-wide in terms of what the impacts may be, where in the Great Lakes Basin environmental impacts from hydrilla may be more likely to occur, and how extensive those impacts may be by the year 2025.

<http://hydrillacollaborative.com>.

For additional information about the Corps of Engineers Aquatic Plant Control Research Program visit: <https://apcrp.el.erdc.dren.mil/>. ✧

2018 Status of U.S. Fisheries Stocks Released

This annual report highlights the work toward the goal of maximizing fishing opportunities while ensuring the sustainability of fisheries and fishing communities.

NOAA Fisheries released the *2018 Report to Congress on the Status of U.S. Fisheries* under the science-based framework established by the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The 2018 report highlights work toward the goal of maximizing fishing opportunities while ensuring the sustainability of fisheries and fishing communities. Due to the combined efforts of NOAA Fisheries, the eight regional fishery management councils, and other partners, one previously overfished stock was rebuilt and the number of stocks on the overfishing list remains near all-time lows. The total number of stocks listed as overfished increased, due to a number of factors

including those outside the control of domestic fisheries management. In addition, in 2018 new information became available for several stocks, which resulted in first-time stock status determinations. Only one of these stocks is subject to overfishing as well as overfished. Continuous monitoring and improvement of our knowledge about the status of stocks is key to ongoing sustainable fisheries management under the MSA.

The main concepts related to “overfishing” and “overfished” covered in this report are:

- **Maximum sustainable yield (MSY):** The largest long-term average catch that can be taken from a stock under prevailing environmental and fishery conditions.
- **Overfishing:** A stock having a harvest rate higher than the rate that produces its MSY.

- **Overfished:** A stock having a population size that is too low and that jeopardizes the stock’s ability to produce its MSY.
- **Rebuilt:** A stock that was previously overfished and that has increased in abundance to the target population size that supports its MSY.

What’s the difference?

As a harvest rate, overfishing is a direct result of fishing activities. Allowed to continue unchecked, overfishing is associated with many negative outcomes, including a depleted population. Current management practices—such as annual catch limits and accountability measures—reduce the likelihood of this happening.

For full comprehensive report: [2018 Status of U.S. Fisheries Report | NOAA Fisheries](#) ✧

4 invasive carp confirmed in Minnesota waters

Latest fish captures do not indicate reproduction

The Minnesota DNR has confirmed the capture of a bighead carp (pictured) and two silver carp, and detection of a third, tagged silver carp, within the past several weeks. The bighead carp was captured at the Xcel Energy King Power Plant in Oak Park Heights. All of the silver carp were in Pool 4 of the Mississippi River between Red Wing and Wabasha in southeastern Minnesota.

“The DNR has confirmed between two and seven individual invasive carp captures each spring since 2013,” said DNR invasive fish coordinator Nick Frohnaue. “It is unusual that several of a single species would be captured in a short span of time. But, given the persistent high water this spring, this is not a surprise.”

Frohnaue noted that while the DNR continues to be very concerned about the potential impacts of invasive carp in Minnesota waters, individual adult fish captures do not indicate reproduction or an established population of invasive carp in the Mississippi River or elsewhere in the state.

Persistent high water in southern Minnesota, Iowa and Illinois has created “open river” conditions in which fish can move upriver unimpeded by locks and dams. Open river conditions can benefit native species like lake sturgeon and paddlefish, which can swim hundreds of miles in search of preferable habitat. These conditions also allow other, non-native species to move



upriver more easily.

A DNR telemetry array detected a silver carp in Pool 4 that was originally tagged much farther south, in Pool 16, in April 2017 by the U.S. Geological Survey (USGS). A silver carp was caught by an angler in Pool 4 May 24, and another was captured in Pool 4 June 4 by Xcel Energy. The bighead carp was captured on Thursday, June 20 during routine monitoring conducted by the DNR.

Background

Fish telemetry in Minnesota started as a small system to better understand fish passage at Lock and Dams 1 and 2 in the Twin Cities. The DNR expanded the system farther downstream and into the Minnesota and St. Croix rivers, to better understand fish movements in Minnesota’s big rivers. The U.S. Fish and Wildlife Service (USFWS) then connected Minnesota’s array with a Missouri array at Lock and Dam 19, in Keokuk, Iowa, in the southeastern part of the state. This Upper Mississippi array has been valuable in understanding large-scale movements of native fish and movement patterns of invasive carp.

In 2018, the USFWS provided funding for a dedicated invasive carp tracking crew to enhance Minnesota’s telemetry project. This crew will work to find the invasive carp detected by the telemetry array. If the fish is located in Minnesota waters, the DNR will work with the USFWS and USGS to deploy nets and other sampling methods for of detection.

Invasive carp have been progressing upstream since escaping into the Mississippi River in the 1970s. 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 invasive carp have been caught as far upstream in Mississippi River Pool 2 near the Twin Cities (bighead, grass, and silver), the King Power Plant on the St. Croix River by Oak Park Heights (bighead), and just downstream of Granite Falls in the Minnesota River (bighead).

The DNR is actively engaged with several prevention efforts.

- ◆ The DNR is an active partner in the Upper Mississippi River Invasive Carp Workgroup. The group includes representatives from Minnesota, Wisconsin, Iowa, Illinois, Missouri, and several federal agencies.

- ◆ In partnership with the DNR, the Minnesota Aquatic Invasive Species Research Center at the University of Minnesota is testing and evaluating carp deterrents in Mississippi River locks and dams. Previously, they had installed and evaluated a speaker system at Lock 8. Development of this technology will continue this year with the installation of an updated speaker system at this location.

- ◆ The DNR’s Fish and Wildlife Division leads a comprehensive sampling program to monitor fish population changes and impacts of management actions. This includes maintaining important relationships with commercial fishers and the angling public.

State funding sources, including the Environmental and Natural Resources Trust Fund and Outdoor Heritage Fund, have provided key funding for deterrent actions and the DNR invasive carp detection and response program.

Invasive carp captures must be reported to the DNR immediately. Call 651-587-2781 or email invasivecarp.dnr@state.mn.us. Take a photo and transport the carp to the nearest DNR office or make arrangements for it to be picked up.

mndnr.gov/invasive-carp. ✧

Other Breaking News Items:**(Click on title or URL to read full article)**[International study shows muskies on the move](#)

A study coordinated by the Ontario Ministry of Natural Resources and Forestry, the Michigan DNR, the Ohio DNR and the USGS shows that muskies move around more than was previously thought, with most sticking around Lake St. Clair and the

[Containing the Carp](#)

Commercial fishermen are removing thousands of Asian carp from Lake Decatur dam, Decatur, Illinois, using a net that stretches 800 yards to scoop up the non-native species

[Great Lakes governors, premiers endorse Asian carp plan](#)

Great Lakes governors and Canadian premiers have adopted a resolution to prevent the spread of Asian carp into the Great Lakes by taking action at a strategic choke point in Illinois. They say they will support Illinois in its role as the nonfederal sponsor for the Brandon Road Lock and Dam project

[EDITORIAL: Invading Lake Erie: Senate must approve funds to control grass carp](#)

Two types of Asian carp snare the most attention, but dealing with their voracious aquatic cousin, grass carp, shouldn't be forgotten. Funds to combat grass carp have been added to a spending bill that recently passed the U.S. House. The Senate needs

[No Asian carp DNA found during Michigan waterway testing](#)

Testing in three southwestern Michigan waterways turned up no trace of Asian carp that have damaged the environment and economy in other parts of the U.S. Michigan says 336 water samples were analyzed for Asian carp DNA and none tested positive

[The fight for Middle Island, where cormorants pay a deadly price for domination](#)

In Canada's extreme south, cormorant feces threaten fragile plants and creatures on a Lake Erie island—and sharpshooters take aim

[Little attention has been paid to grass carp, an invasive that could decimate Great Lakes wetlands](#)

Chicago has long been characterized as the last line of defense in the war to prevent bighead and silver carp from reaching the Great Lakes. But as efforts ramp up, another little-discussed species of Asian carp is already spawning in the region and could.

[Gov. DeWine recommit Ohio to 40% reduction of phosphorus in Lake Erie](#)

For the second time, Ohio has committed to a 40% reduction in phosphorus, based on 2008 levels, by 2025 in Lake Erie. Phosphorus is a key cause of algal blooms

[Critics seek to stop Great Lakes pipeline run by company with poor safety habits](#)

A coalition of environmental groups and newly elected Democrats in Michigan are seeking to shut a controversial pipeline through the Great Lakes they say represents a major environmental threat and is being run by a company with a long record of

[Record high water levels on Lake Michigan and Lake Huron almost a certainty](#)

Lake Michigan and Lake Huron are expected to reach record levels for the month of June.

[Coaster brook trout doing well in Lake Superior near Grand Marais](#)

Recent fishing surveys show that native coaster brook trout populations in Lake Superior are rebounding.

[Lake Ontario communities welcome proposed marine sanctuary](#)

All week long, New Yorkers have been weighing in on a proposed project that would help preserve some of the oldest shipwrecks in the Great Lakes. The federal government is considering creating a 1,700-square-mile national marine sanctuary in.

[Army Corps moving ahead on project to block advance of Asian carp](#)

The U.S. Army Corps of Engineers is moving forward with a big construction project to keep Asian carp from getting into the Great Lakes. The Army Corps is backing plans to build a barrier at Brandon Road dam, 27 miles.

[Hearings set this week for proposed Lake Ontario marine sanctuary](#)

The National Oceanic and Atmospheric Administration will hold a series of public meetings this week to consider the designation almost 1,700 square miles of lake waters and bottomlands of Lake Ontario as a national marine sanctuary

[Volunteers try to boost fish population at Illinois lake](#)

Volunteers are helping to build habitats to increase the fish population at an eastern Illinois lake.

END