Inland Seas Angler
# GREAT LAKES BASIN REPORT©

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## Tensions mount over conflicting ballast water regulations on the Great Lakes

Differing ballast water regulations from the U.S. and Canada are creating tensions for vessels operating on the Great Lakes.

American shippers are at odds with the Canadian government over its regulations that require all Great Lakes vessels or "lakers" to install systems to treat their ballast water by 2030. The systems are aimed at preventing the spread of invasive species through ballast water that's taken up or discharged by ships at Great Lakes ports when they load and unload cargo.

Last year, the Environmental Protection Agency said it would **require new, but not existing lake vessels** to install ballast water management systems.

Jim Weakley, president of the Lake Carriers' Association, represents 43 lake vessels in the U.S.-flagged fleet. He said they requested exemptions in June from Transport Canada's regulations. But Weakley said the Canadian government denied their request in September, saying an exemption can't be requested until 2029. Weakley accused Canadian regulators of discriminating against the U.S. fleet. He said the move puts shipping companies at a disadvantage as some are already negotiating contracts to carry goods between domestic and foreign ports that extend beyond Canada's 2030 deadline. "It's currently disrupting the marketplace in favor of the Canadian fleet," Weakley said.

Transport Canada did not respond to a request for comment.

The Federal Maritime Commission has launched **investigations** into whether Canadian policies create unfavorable conditions for U.S. lake vessels in foreign trade, one of which remains ongoing. The Canadian government has **denied** that lakers are adversely affected, saying its regulations "will protect these waters from the harmful economic and environmental impacts of invasive species." Weakley said vessels are seeking exemptions because current ballast water treatment systems are costly and ineffective at reducing invasive species. One 2017 estimate from the shipping industry found they may cost vessels around **$639 million** to install.

State regulators and environmental advocates dispute claims that the systems don't work. Wade Strickland, director of the Office of Great Waters at the Wisconsin Department of Natural Resources, pointed to Canadian **research** showing ballast water management systems reduced the amount of large live organisms more than 99 percent of the time—although they didn't always meet an international discharge standard.

The inconsistency in regulations between the U.S. and Canada has created uncertainty for vessels in both nations, said Jason Card, communications director for the Chamber of Marine Commerce. He

**Tensions mount over conflicting ballast regs**

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## Steelhead Alley at Its Peak

While deer hunters take to the woods, fly anglers flock to the county's five Lake Erie tributaries—Chautauqua, Canadaway, Silver, Walnut, and Cattaraugus Creeks—for world-class winter steelhead. "Winter steelhead is one of the region's signature experiences," said Gerald Brydalski, President of the 7,000 member WNY Steelheader Association.

"Our tributaries stay alive from fall straight through early spring. A good drift with an egg pattern or a swing streamer can produce fish that rival anywhere in the Great Lakes." The season's cold, stable flows create ideal conditions for fly fishing. Productive patterns include woolly buggers, egg-sucking leeches, stonefly nymphs, hare's-ear wets, egg patterns, and various streamers. Anglers commonly use lengthy 7–10 wt. rods, floating or sink-tip lines, and 10–12 lb. tippet, drifting with indicators to keep flies just above the bottom. Tributary regulations run September 1–March 31, limiting fishing to daylight hours and requiring specific hook and tackle standards. Select stretches, including portions of Chautauqua Creek, are catch-and-release only with artificial lures. ✧

### *In this issue…*

# Lake Sturgeon released in three new rivers in 2025

**COLUMBUS, Ohio** – Reintroduction efforts for state-endangered lake sturgeon expanded to the Cuyahoga, Sandusky, and Scioto rivers in 2025, according to the Ohio Department of Natural Resources (ODNR) Division of Wildlife. As part of a large, regional partnership, the 6- to 8-inch-long juvenile sturgeon were released in the Cuyahoga, Sandusky, and Scioto rivers for the first time, as well as in the Maumee River as part of ongoing restoration efforts.

The U.S. Fish and Wildlife Service and the Toledo Zoo reared the fish for release. Two-thousand sturgeon were released in the Cuyahoga River in October as part of a widely attended public event. Also in October, 3,000 sturgeon were released in the Maumee River during Toledo's annual Sturgeon Fest, while an additional 750 went to the Sandusky River. Finally, 30 juvenile sturgeon were surgically implanted with monitoring tags by The Ohio State University and released in the Scioto River in November.

*Juvenile lake sturgeon measure 6 to 8 inches long when they are released into Ohio rivers. Lake sturgeon are long-lived fish and grow to several feet in length as adults.*

Lake sturgeon are an endangered species in Ohio. They were once abundant in Lake Erie and the Ohio River, spawning in tributary rivers of those larger bodies of water, but declined over the last 150 years because of dams that blocked access to spawning sites and unregulated harvest. Ohio lost all known spawning populations of lake sturgeon. Following water quality improvements and barrier removals, habitat assessments have demonstrated that the Cuyahoga, Maumee, Sandusky, and Scioto rivers have suitable habitat to support spawning lake sturgeon.

Lake sturgeon are a bottom-dwelling fish that feed on invertebrates and small fish. They are capable of reaching 6 to 8 feet in length and upwards of 200 pounds over their 100-year lifespan, making sturgeon the largest fish in the Great Lakes. Female sturgeon need up to 25 years to reach sexual maturity and only reproduce every few years, meaning species recovery is a long-term project.

Biologists expect lake sturgeon released in the Cuyahoga, Maumee, and Sandusky rivers to travel downstream to Lake Erie, while those released in the Scioto River would move into the Ohio River, with hope that as the fish mature they'll return to these waterways to spawn.

Since the Division of Wildlife and its project partners began annual lake sturgeon releases in the Maumee River in 2018, fisheries biologists have documented increased numbers of lake sturgeon in Lake Erie. The early signs of success from the Maumee River provide optimism for the Cuyahoga, Scioto, and Sandusky river efforts.

The Division of Wildlife plans to release lake sturgeon in all four rivers in future years to create a viable, reproducing population of lake sturgeon in the Lake Erie and Ohio River watersheds. Learn more about lake sturgeon at wildohio.gov. This species is protected in Ohio as an endangered species. If you encounter one, please report it at wildohio.gov and release it carefully if caught. ✧

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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.

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# Work early shift for more winter walleyes

No one wants to be the first angler on the ice from a safety perspective. But everyone wants to get in on a good walleye bite. Sometimes, there is a fine line when it comes to walleye fishing during first ice.

The best chance to catch walleyes is shortly after the ice locks up. Most anglers wait until there is enough ice to drive a vehicle on it and miss out on weeks of the best walleye fishing that the ice has to offer. During first ice, fish are hungry, active, and there are good numbers on most walleye structures.

During early ice, you don't have to lug around heavy ice augers, fish houses and gear; you can really keep it simple. A spud bar, electronics and a good fishing rod is really all you need to walk out to a fishy spot. Even the electronics are a breeze to carry with all kinds of good, lightweight lithium battery options on the market.

With safety in mind, smart anglers will travel with rope and companions. Of course, cold-weather gear that floats will give you peace of mind. Many ice suit manufacturers such as StrikeMaster offer models that provide flotation up to two hours, which is well worth the extra cost for warmth and safety.

Venture out to high-percentage spots such as main lake points or sunken humps proven to have a good population of fish during early ice. Sure, lots of places will hold walleyes, such as long breaklines or any place where wind or current pushed bait, but those are hard to find after the ice sets up. The obvious spots are typically good; you just need to get to them before the masses do.

Even semi-modern electronics or your cell phone can provide accurate mapping of many lakes. Remote or smaller lakes may not have 1-foot contour maps, but will still get you close to major lake structure. Utilize this to save time from having to chip or drill holes to check depths. Use the mapping to get you close, then just make small adjustments from there.

Depths from 15 to 25 feet are good choices for clear water, while fishing shallower is possible in stained or dirtier water. This is just a starting point, and each lake may have minor exceptions that deviate from this. The best information is the fresh info that you can learn only on the water or ice. As winter continues, it usually helps to move slightly deeper on clear-water lakes, but start shallower during first ice.

Smaller lakes typically ice-up before larger lakes. Really deep lakes can be exceptions. Lakes with islands or bays can get a jump-start on ice due to protection from the wind. Consider this when researching good options. Smaller lakes make it easier to get out to good structure. Sometimes, it takes good ice to get to the good structure on bigger lakes because walking far out is not really an option, since ATV or snowmobiles may be needed.

Primetime—dusk or dawn—is nearly always the best window to catch fish. Walleyes are less spooky. But be mindful of your noise and movement during first ice, especially if there is no snow cover. The shallower you are, the more it matters, but it still is important to consider if you are fishing relatively deep.

During early ice, you don't have to be too fussy on what to use because the fish are generally willing to bite. So, use what you have the most confidence in: dead-sticked minnows, tip-ups, or spoons tipped with minnow heads. Spoons catch fish and get back down as soon as possible. Spoons such as the VMC Hatchet that are from 1.5 to 2 inches in length are solid choices early on. As winter goes on, switch to smaller-profile spoons, such as a Bull spoon. Don't overwork your spoon; just keep it about a foot off bottom and wait for the *thump!*

Make this the year to be part of the good, early-season walleye bite. Before you know it, you'll have a few fish flopping on the ice next to you. ✧

# DNR keeps walleye limit at three for winter on Mille Lacs Lake

The walleye limit for ice fishing season on Mille Lacs Lake will remain at three fish longer than 17 inches, only one of which can be longer than 20 inches. "Mille Lacs' walleye population is trending in a good direction for both adult and juvenile fish," said Brad Parsons, fisheries section manager for the Minnesota DNR. "We're pleased to keep the current regulation in place for this winter and offer anglers this harvest opportunity."

For yellow perch, the daily and possession limit will be 10. The change is a shift from last year, which began with a perch limit of 20 that had to be reduced to 5 after the state in early March, exceeded its harvest allocation. The daily and possession limit of 10 is intended to provide state anglers the opportunity to harvest a meal of perch while also keeping the state within its harvest allocation.

Each year the state and the Ojibwe nations who retain harvest rights in the 1837 Treaty Area jointly set the harvest amounts for different fish species in Mille Lacs for the year. Fall netting data informs where harvest levels will be set when the state and Tribes meet in January. Once harvest levels for the year and the state's winter harvest are known, the state may need to adjust regulations for the open water season that begins on May 9, 2026.

With northern pike increasing in abundance over the past two years to the highest numbers ever measured by the DNR, the possession limit will increase from three to five fish. This regulation retains a length limit of 30 inches that has been in place since 2020, which protects Mille Lacs Lake's trophy-sized pike, while the possession limit increase is intended to encourage additional harvest.

Winter fishing regulations for walleye will be in effect from Dec. 1, through Feb. 22, 2026. Yellow perch regulations will be in effect from Dec. 1, through May 8, 2026. Northern pike regulations will be in effect from Dec. 1, through Mar. 31, 2026. ✧

## Minnesota DNR public land sale to be held Dec. 2-16

The Minnesota Department of Natural Resources will offer state lands in Carlton, Clearwater, St. Louis, and Wadena counties during an upcoming public land sale. These rural properties might appeal to adjacent landowners or offer recreational opportunities, such as hunting or camping.

Minnesota law directs the DNR to sell surplus land by public auction. The December online public land auction is in partnership with the Minnesota Department of Administration at MNBid.mn.gov (mnbid.mn.gov), Minnesota's Surplus Services online auction website. Properties will be available for bidding starting the morning of **Tuesday, Dec. 2, and closing through Tuesday, Dec. 16, 2025**, as posted. The DNR land sale webpage (mndnr.gov/landsale) has more information about the online public land auction, a preview of lands for sale, and details on how to register for an account to bid on properties.

The DNR actively manages its land portfolio over time and regularly offers to sell land that no longer meets the state's conservation, recreation, or economic needs. This December, 188 of the 190 acres for sale are school trust lands. One of the trust parcels for sale in Fredenberg Township offers 67 acres of recreational space near Island Lake Reservoir, located northwest of Duluth. The DNR has a fiduciary responsibility to manage school trust lands for the benefit of K-12 public education.

School trust lands were granted to the state by the federal government to generate a continual source of income for public education. The DNR is selling four parcels of school trust land that have limited opportunities to generate income. Revenue from the school trust land sales will go into the Permanent School Fund, which supports 850,000 students in K-12 public education by distributing revenue to every public and charter school in the state.

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Visit the DNR land sale webpage (mndnr.gov/landsale) for more info and to find out how to bid on the parcels. For questions about a specific property, call 651-259-5432, 888-646-6367, or email min.landsale@state.mn.us. ✧

## DNR seeks nominations for Trails Advisory Board

The Indiana Department of Natural Resources (DNR) seeks nominations of passionate outdoor recreation enthusiasts to serve on the Indiana Trails Advisory Board (TAB). The TAB openings are for representatives of trail-user groups including hikers, mountain bikers, trail support groups, users with disabilities, and more.

Nominees should be involved with a regional or statewide organization, club, or association related to the trail-user group they would represent. Selected board members would serve a three-year term starting in March 2026 and attend quarterly meetings at varying locations around the state. TAB meetings are in person and take place on the first Thursday of March, June, September, and December at 3 p.m. local time.

In addition to the meetings, optional activities are often planned, presenting members an opportunity to learn of and participate in other outdoor recreational activities, explore newly opened trails or facilities, or hear presentations from parks departments and municipalities on their outdoor recreation initiatives and programs.

The 15-member voluntary TAB is an essential part of the state's trails system, acting as an advisory board to the DNR and providing recommendations on trail issues throughout the state. Members are also encouraged to report on any news from their user groups to the board as well as share pertinent trail information with their constituents.

Nominations will be accepted by the DNR Division of State Parks from December 1-30. To learn more about the TAB and nomination information, see on.IN.gov/trails-board ✧

## Healthy salmon run, healthy community

The Wisconsin DNR reports that the annual Chinook salmon spawning run in the Door County, Wisconsin, region is proceeding on schedule and showing strong signs for the future of Lake Michigan's fishery.

According to a recent DNR update, adult salmon are returning in large numbers to tributaries for egg collection. The Strawberry Creek Chinook Facility in Sturgeon Bay serves as the state's primary site for collecting and fertilizing eggs used to restock Lake Michigan each year.

Jacob Steckmesser, a fisheries technician with the Wisconsin DNR, said this year's run has been both timely and plentiful, noting that the 2025 run actually arrived slightly ahead of schedule. For years, the DNR has partnered with local groups to ensure that salmon harvested during the spawning process do not go to waste. Steckmesser said more than 8,000 lbs. of salmon have already been donated this fall to local food pantries.

This year, those donations carry extra weight as the potential federal government shutdown threatens FoodShare, Wisconsin's version of the Supplemental Nutrition Assistance Program (SNAP). Without federal funding, local agencies anticipate a surge in food insecurity across the region. The Door County Food Pantry Coalition reports roughly 11,000 lbs. of salmon were processed and distributed to pantries this year, providing valuable protein to families who rely on food assistance.

Officials say the collaboration between the DNR, Baileys Harbor Fish Company, and local pantries demonstrates how natural resource management can support both ecological sustainability and community well-being. As communities prepare for possible disruptions in benefits, the salmon donation initiative provides a timely local buffer. For residents in need of assistance, the coalition urges welcoming support, and for anglers, it serves as a reminder that each fillet carries implications beyond sport. ✧

## PA Fish & Boat Commission starts steelhead trout spawning at Avonia Beach

The Pennsylvania Fish and Boat Commission recently held its first collection of steelhead trout of the season along Trout Run at Avonia Beach in Avonia, Pennsylvania. Fish eggs from five female trout are combined with milt from three male trout, fertilizing the eggs to become the next generation of steelhead trout in Lake Erie.

Behind the scenes, maintaining the steelhead population in Lake Erie takes a little help from artificial spawning, and Tuesday, the Pennsylvania Fish and Boat Commission held its very first collection of the season along Trout Run at Avonia Beach.

"I believe there's six to eight of them scheduled for this year, but what we're doing here today is we're collecting males and females out of the stream. We're taking the ripe females and males up to the spawning shed. We're spawning five females to three males, and we're producing the future of the steelhead program," said Mark Haffley, Lake Erie Research Unit Leader with the PA Fish and Boat Commission.

The propagation warrants a careful process of collecting egg and milk samples, examining virology and adding iodine to eggs to regulate disease, but the goal of the process is to maintain the trout population to support fishing for years to come.

"It's amazing, because people from all over the country and the world come here to fish, and if you've ever tried steelhead fishing, it's like catching a largemouth bass on steroids. They're huge, and they fight, and they're beautiful," said Mark Coursey, local fisherman and captain of the *Victorian Princess*. "Businesses are the foundation of a community, but activities like this make it even better, so it's a good thing for the local area."

Haffley said steelhead recreation also adds to the local economy, with hotels, gas stations, restaurants and bait shops all benefiting from the yearly tourism rush.

This operation brought together biologists, volunteers, hatchery employees and even students from a Lawrence County school to make sure steelhead fishing doesn't run dry in Erie. "They obviously get out of the classroom, but they get an opportunity for some hands-on activity," said Mike Neurohr, Conservation Club Advisor at Wilmington Area School District. "It's only an hour away from us, they get to find out, 'Hey, we can come up here and do some recreation ourselves,' and they learn a little bit about the process of what the fish commission does for our fisheries."

Next, the fertilized steelhead eggs will be staying at the Fairview State Fish Hatchery until they hatch in about 21 to 30 days, and then they will be reared out for next year's stocking.

After the steelhead were collected, they were released back into the stream to possibly spawn again in the future. ✧

## Field & Stream & Outdoor America partner to launch Field & Stream TV

New Channel Combines Iconic Outdoor Legacy with Expanded Content and Industry-Leading Reach

Field & Stream and Outdoor America announced a landmark, strategic partnership to launch Field & Stream TV, rebranding Outdoor America's free ad-supported streaming television (FAST) and broadcast platforms under one of America's most trusted outdoor brands.

The collaboration—announced by Doug McNamee, President of Field & Stream, and Nick Rhodes, CEO of Outdoor America Holdings—unites Field & Stream's 150-year heritage with Outdoor America's rapidly growing television network to create the premier video destination for outdoor storytelling and lifestyle content.

The launch of Field & Stream TV marks the next phase of the outdoor brand's growth in media—joining its print publication, website, social platforms, and podcasts with a 24/7 television network. Building on Outdoor America's broad, national footprint, the rebranded channel will feature exclusive new content, original series, and special programming, offering sponsors the largest combined audience reach in outdoor media.

Positioned as the home of the Country Sports Lifestyle, Field & Stream TV will bridge the worlds of outdoor pursuits and authentic American culture. The channel will develop original programming in collaboration with leading outdoor storytellers, top sports producers, and music partners—including investors Morgan Wallen and Eric Church—to bring audiences stories that celebrate the connection between hunting, fishing, camping, and outdoor cooking.

"We're thrilled to partner with the Outdoor America team to launch Field & Stream TV with a powerful and immediate distribution footprint," said Doug McNamee, President of Field & Stream. "This partnership allows us to tell more stories that celebrate life outdoors—through new, exclusive programming and an unmatched ability to reach audiences and sponsors across every channel. It's a defining step in Field & Stream's continued evolution."

"The Field & Stream name represents the gold standard of authenticity in the outdoors," added Nick Rhodes, CEO of Outdoor America. "Together, we're building a world-class outdoor lifestyle network with premium programming, dynamic partnerships, and a global vision."

Field & Stream will host an exclusive launch event for industry partners at the SHOT Show, unveiling Field & Stream TV's flagship original programming and key production partners. ✧

# DNR urges caution on early ice covers

**MADISON, Wis.** – The Wisconsin DNR encourages all enjoying outdoor fun this season to be extra careful on all of Wisconsin's waterbodies and remember that no ice is safe ice.

Those eager to take advantage of winter's snow need to keep safety at the forefront of their preparations. This includes staying alert to the rapidly changing ice conditions commonly found in the early parts of winter.

"Early in the season especially, ice conditions are unpredictable and can change quickly on Wisconsin's rivers and lakes. The ice covers hide the currents, debris and underground springs still feeding lakes and rivers, thinning the ice in spots," said Lt. Jacob Holsclaw, DNR Off-Highway Vehicle Administrator. "No matter if you're on foot, on a snowmobile or in UTV, it's important to remember that ice is never 100 percent safe."

The DNR does not monitor ice conditions, but they are monitored locally. Local fishing clubs, outfitters and bait shops are the best sources for local current ice conditions. However, the best idea for safe winter fun is to enjoy outings without travel over ice.

### Conditions Vary Between and Across Waters

If the outing does involve travel over a waterbody, remember every waterbody has its own characteristics. Check if the lake has inlets, outlets or narrows, is spring-fed or has currents, all of which can thin the ice.

Some smaller lakes can have aerators that are run throughout the winter either covering a large area towards the center of the lake or may have smaller aerators placed by private property landowners adjacent to their shore and/or piers.

Equally as important is to stay alert for pressure ridges or ice heaves. These can be dangerous due to thin ice and open water and often are created, move or grow with changes in temperatures and high winds.

Here are more safety tips:

- Carry a cell phone, and let people know where you are going and when you'll return home.
- Wear proper clothing and equipment, including a personal flotation device or a float coat to help you stay afloat and to help slow body heat loss.
- Take an extra pair of mittens or gloves so your hands can remain dry and warm.
- Wear creepers attached to boots to prevent slipping on clear ice.
- Carry a spud bar to check the ice while walking to new areas.
- Carry a couple of spikes and a length of light rope in an easily accessible pocket to help pull yourself—or others—out of the ice.
- Do not travel in unfamiliar areas – or at night.
- Have a plan in place noting where you will be and when you plan to return. Along with leaving a written note of your plans, it is also recommended to keep a charged cell phone.

### Take Extra Care with Recreational Vehicles

Last season, several ATVs, UTVs and snowmobiles went through the ice or drove into open water, resulting in six fatalities.

Keep these safety tips in mind when operating recreational vehicles during winter.

- Remember that UTVs are heavy. They are the heaviest recreational vehicle out on the ice, often being close to 3,000 pounds. This is similar to a car or truck.
- Roll your window down when traveling on the ice and make sure you can easily open your door—drive slow and turn the radio down so that you can use eyes and ears to watch and hear for potential issues coming up.
- Make sure you have life jackets or some other type of floatation for every occupant of the UTV.
- Recovery for the UTV or other vehicle is the responsibility of the owner/operator. After 30 days, the owner can be fined each day after 30 days.
- Recovery rates for the machine can also be very expensive.
- Never consume alcohol or drugs before or during your ride.

Refer to the Wisconsin Snowmobile Regulations for laws for operational restrictions, safety tips and more.

The DNR also encourages all snowmobilers to take a safety education class. According to Wisconsin law, anyone at least 12 years of age and born after January 1, 1985, must have a valid safety education certificate to operate a snowmobile. Sign up now as classes fill fast.

**If the worst happens and you happen to fall in, here's what to do:**

- Carry a couple of hand-held spikes and a length of light rope in an easily accessible pocket or inside your sleeves to help pull yourself—or others—out of the ice.
- If you fall in, remain as calm as possible and while attempting to assist yourself out of the water, call for help as soon as you can. Anyone who attempts to rescue you also is recommended to use a rope or something similar to avoid falling through as well.

Visit the DNR's Ice Safety webpage for more information on staying safe on frozen waterbodies. ✧

# Reef restoration will support native fish in Saginaw Bay

Most reefs are associated with tropical waters and colorful fish, not the Great Lakes, but the Saginaw Bay was once the home of many rock. Reefs. Created by glacial activity, the reefs provided a habitat for the bay's fish. Over time, reef habitat was lost, buried by sediment due to logging, manufacturing and agricultural activity in the area. Now, efforts are underway to restore this lost habitat.

The Michigan DNR is partnering with several organizations on reef habitat projects, including the Channel Island Reef, which was recently completed. A nearshore reef, the DNR said the Channel Island Reef is located in the bay near Channel Island (aka Spoils Island). It is made of natural rock that rises several feet from the bottom but still sits a few feet below the surface of the water, the DNR said.
Walleye (U.S. Fish and Wildlife Service)

Jolley said that while walleye are now thriving in the bay, most of the population currently relies on river spawning, which makes it vulnerable. If just one or two river systems experience a disaster, blockage or habitat decline, the DNR said effects could ripple across the entire population. By restoring and enhancing diverse spawning habitats, biologists hope to build resiliency into the population.

It's similar to diversifying an investment portfolio," said Jolley. "Spreading the 'risk' across multiple spawning areas helps ensure the walleye population remains strong even if one site falters.

Locally sourced limestone was used to build it, which creates crevices and ledges perfect for fish to deposit eggs into and for young fry to hide from predators. The DNR said the reef will get lots of wave action, which will keep sediment from building up and wash oxygenated water over fertilized fish eggs, increasing their survival.

"Restoring rocky reefs can help make native fish species – like lake whitefish and walleye – more resilient," said Jeff Jolley, the DNR's Southern Lake Huron Fisheries Management Unit manager.

These species use reef habitat for spawning, the DNR said, making it essential for supporting strong fish populations, especially whitefish, which are in decline in other areas of the Great Lakes.

In the coming years, the DNR said fisheries biologists will study activity at the reef, learning more about how fish use the reef and its beneficial effects on the ecology of Saginaw Bay. ✧

# N.Y. DEC Atlantic Salmon Study underway

Fisheries staff from DEC Region 8 conducted a survey of two tributaries to Lake Ontario, Sandy Creek and Oak Orchard Creek, as part of a strain evaluation of stocked Atlantic salmon. The purpose of the survey was to assess the survival and return of two different strains of Atlantic salmon stocked into Lake Ontario: one is the Lake Sebago strain that has been stocked since 2017, and the other is a low thiamine tolerant strain.

Atlantics are especially susceptible to low thiamine issues which stems from eating alewives, the primary forage fish of Lake Ontario trout and salmon. Alewife contain an enzyme called thiaminase which breaks down thiamine (Vitamin B1) in adult trout and salmon. When this occurs, the adults pass insufficient thiamine to their eggs, causing a condition called Early Mortality Syndrome which limits survival of newly hatched fish. Both strains of Atlantic salmon were raised at the USFWS Dwight D. Eisenhower National Fish Hatchery in Vermont. While in the hatchery, genetics are taken from the parents of both strains, so each fish subsequently caught from Lake Ontario will be able to be traced back to the original parentage strain.

During the survey, a total of 63 Atlantic salmon were caught with lengths ranging from 20 to 31 inches. Fish were caught using a boat electrofishing unit which sends an electrical current into the water and temporarily stuns the fish. Fish are then scooped up with a long-handled net and placed into a holding tank for recovery. Once recovered, a small portion of the adipose fin is clipped for genetic testing, scales are collected for aging and a length is measured. The fish is then released to continue its journey up the creek. The information gathered from the survey will help inform future stocking strategies to ensure optimal survival of Atlantic salmon stocked into Lake Ontario.

These efforts tie into the Lake Ontario Atlantic Salmon Fisheries Management Plan (PDF) which aims to improve the survival of stocked fish and increase the number of adult Atlantic salmon that return to tributaries to spawn. ✧

*To those we love and see each day*
*And other loved ones far away*
*To all good friends whose friendship means so much*
*And those with whom we're somehow out of touch . . .*
***Merry Christmas and Happy New Year***

# Minnesota protects 16,000 acres, the agency's largest recent acquisition

This fall, the Minnesota DNR finalized one of its largest land acquisitions in recent history, resulting in the permanent protection of nearly 16,000 acres of forested land across a ten-county area in northern Minnesota. This action ensures these lands will remain forested into the future, securing the broad range of habitat, recreation, economic and other benefits these lands provide.

"We're grateful for the opportunity to protect these forests, lakes, and waterways—now and for generations to come. This land will expand outdoor recreation access and preserve critical habitat," DNR Commissioner Sarah Strommen said. "Public lands are essential to Minnesota's environmental stewardship, identity, and economy, and we appreciate the collaboration of our partners as we work to steward and conserve these lands for the future."

The acquisition is the culmination of two separate efforts made possible in partnership with The Conservation Fund (TCF), Northern Waters Land Trust (NWLT), and multiple Minnesota counties.

These efforts began with TCF purchasing land from PotlatchDeltic Corporation between 2018 and 2022, with the intent of preserving large blocks of forest land. The DNR and counties then worked in collaboration to identify their respective acquisition priorities and secure funding.

"For the benefit of all Minnesotans and the state's economy, we're expanding recreational access, helping local wildlife thrive and ensuring that working forests can keep working," said Kim Berns-Melhus, Minnesota State Director at TCF. "This outcome protects jobs in the forest industry, protects the lands we all need and love, and protects our shared heritage for future generations to enjoy."

In one transaction, with funding from the Minnesota Legacy Outdoor Heritage Fund, the DNR collaborated with NWLT and the counties to strategically select 10,675 acres within Aitkin, Becker, Carlton, Cass, Crow Wing, Hubbard, Itasca, Koochiching, and Wadena counties. These lands will expand existing wildlife management areas, scientific and natural areas, and state forests.

"By keeping these forested lands forested, we are strengthening the ecological health of our region and creating new opportunities for people to explore and enjoy the outdoors," said Annie Knight, Executive Director of Northern Waters Land Trust. "These lands will continue to support clean water, thriving wildlife habitat, and the connection communities feel to Minnesota's natural places."

In the second transaction, the DNR acquired 5,120 acres in St. Louis County using Reinvest in Minnesota dollars. These lands will expand and consolidate ownership in existing state forests, creating larger, contiguous blocks of DNR land.

"This project will benefit local economies, wildlife habitat, and the public well into the future." said Jason Meyer, St. Louis County Director of Land and Minerals. "The collaborative effort of the Minnesota Department of Natural Resources and St. Louis County proved successful in consolidating important and productive forestlands for wildlife habitat and sustainable forest products, while securing the land for public use. It is projects like these which help strengthen local communities by providing economic, environmental, and recreational opportunities for the good of the region."

The newly acquired state public land belongs to all Minnesotans. As with all land the DNR manages, the mix of management purposes and allowable activities will vary based on the specific land designation. For example, wildlife management areas are managed for wildlife production and to provide hunting, fishing, and wildlife watching opportunities, whereas scientific and natural areas preserve some of the last remaining habitat for Minnesota's rarest plants and animals and are open to recreational activities that do not disturb natural conditions. State forests support multiple benefits including habitat, clean air and water, carbon sequestration and storage, sustainable forest products, and a variety of recreational activities. More information about Minnesota's state-managed public lands can be found on the DNR website (mndnr.gov) ✧

## About the Salmon River

The Salmon River is the premier Lake Ontario tributary fishery in New York and further development of the summer Atlantic salmon fishery provides the potential for a destination fishery. The Salmon River has the most public fishing access of all Lake Ontario tributaries and has sufficient coolwater habitat to support a summer-run Atlantic salmon fishery. The river historically supported large runs of native Atlantic salmon (Parsons 1973) and recent stocking efforts have begun to produce successful summer returns.

The Salmon River Fisheries Management Plan (NYSDEC 2018) identifies Atlantic salmon and Skamania strain steelhead as playing a key role in the development of a summer fishery. However, summer returns of Skamania have declined, likely due to DEC's inability to separately hold early returning Skamania adults from the summer until spawning in March due to new disease prevention protocols instituted in response to Viral Hemorrhagic Septicemia (VHSv). This change in hatchery practice may have led to the gradual loss of the Skamania's early returning trait, and Skamania have been phased out of production in the DEC hatchery system. The loss of a viable summer Skamania fishery places an increased need for developing the summer Atlantic salmon fishery in the Salmon River. ✧

## Sea lamprey trapping supports fisheries, economies

As winter closes in, GLIFWC's Great Lakes Section staff are completing sea lamprey assessment and control efforts in several Lake Superior tributaries in northern Wisconsin. In cooperation with US Fish & Wildlife Sea Lamprey Control and the Great Lakes Fishery Commission (GLFC), staff are using nets to trap non-native "transforming" sea lamprey that are migrating downstream to the lake. The term "transformers" refers to the lamprey's metamorphic stage where they transition from a filter-feeding larva (ammocoete) that live burrowed in the sediment for a few years to a parasitic free-swimming juvenile. This is when they develop their functional eyes and the characteristic suction-cup mouth and teeth before they leave the stream for the lake.

Stream trapping is a supplemental control—not a replacement for the more effective lampricide treatments that target larvae—and is focused on removing juvenile lamprey before they can begin their parasitic feeding phase in the Great Lakes. Every lamprey removed is a win, as a single adult can kill up to 40 pounds of fish including the commercially and ecologically important lake trout, over its 12-18-month parasitic feeding period.

This work is not only about ecological health but also helps protect the entire Great Lakes region's economy. Successful control programs around the Great Lakes Basin are the reason commercial and recreational fisheries are collectively valued at billions of dollars annually, supporting tens of thousands of jobs. Before effective control techniques were implemented, sea lampreys were estimated to be killing over 100 million pounds of Great Lakes fish annually at their peak in the late 1950s, devastating the fishery and the communities that depended on it.

Thanks to these intensive control efforts, lamprey-induced mortality rates on native fish populations have been reduced to just a fraction of what

(*continued on bottom of next column*)

it once was, supporting the health and profitability of Great Lakes fisheries. This basin-wide success is the result of decades of control efforts involving federal, state, provincial, and tribal agencies that collaborate through the GLFC. ✧

## Great Lakes States benefit from Watercraft Cleaning Station Rapid Deployment

Wildlife Forever will soon install more than a dozen waterless, free-to-use, watercraft cleaning stations at public boat ramps across the Great Lakes area, helping boaters and anglers prevent the spread of zebra mussels and other aquatic invasive species (AIS). In partnership with the U.S. Forest Service, the project will support local, state, and federal efforts to educate and provide public access tools to mitigate existing and future AIS threats throughout the region.

"This project will truly benefit the people and health of the Great Lakes watershed. Damage to the economy, environment, and infrastructure from AIS cost billions of dollars annually," said Zach Burnside, Wildlife Forever's Conservation Program Manager. "Once waterways become impacted, access and safety is reduced, aquatic habitats are altered, and the economic impacts begin to multiply."

Installation is scheduled to begin in Spring 2026. Through Wildlife Forever's Clean Drain Dry public service and awareness initiative, the newly installed self-service boat cleaning stations will give users fast and reliable access to proven tools and technology that support best management guidelines.

Access-based prevention tools to Clean, Drain, and Dry boats, trailers, and gear are cost-effective and mitigate risks to the environment and public exposure. Do your part by using **Expect to Inspect** to find cleaning and decontamination stations near you. To learn about Clean Drain Dry Initiative AIS prevention tools and services, contact **Zach Burnside** or visit **CleanDrainDry.org** ✧

## Tensions mount over conflicting ballast regs

*Continued from page 1*

said Canadian ship owners have already spent millions to install and maintain systems not designed to operate in challenging conditions at Great Lakes ports, such as high sediment levels that can clog their filters.

"With differing requirements in both Canada and U.S., seafarers receive conflicting compliance directives from regulators and inspectors, resulting in uncertainty, costly delays and confusion," Card said.

Weakley added that there have been no new introductions of invasive species through ballast water since 2006. Even so, **research** has shown that lake vessels can move invasive species around the Great Lakes, said Joel Brammeier, president and CEO of the Alliance for the Great Lakes. He said it's the right call to require ballast water management systems for all vessels. "We know that moving invasive species that are already here from lake to lake can dramatically hasten the pace of damage to our fresh water," Brammeier said.

In the Great Lakes, at least **188 invasive species** had been documented as of 2023. It costs an estimated **$500 million** each year to manage invaders like quagga and zebra mussels that can damage power plants, water systems, boats and docks.

Brammeier said the Alliance and other groups are **challenging** the EPA's regulations that exempt existing lakers from installing systems to treat ballast water. Meanwhile, the Lake Carriers Association is **challenging** the agency's requirement to install systems on new lake vessels.

The EPA has cited the cost of converting vessels and the lakes' challenging environmental conditions in its decision to exempt existing lake vessels. The U.S. Coast Guard is still drafting regulations to implement EPA standards, which the DNR expects will be issued next year. ✧

# Sea Lamprey Control moves to implementation stage, supporting Binational Invasives Control

**ANN ARBOR, MI**—The Supplemental Sea Lamprey Control Initiative, known as SUPCON, has reached a major milestone: after multiple years of proof-of-concept scientific study, the initiative has moved into a five-year implementation stage to support the binational sea lamprey control program in the Great Lakes. SUPCON focuses on the use of non-traditional control methods to divert, disrupt, and remove invasive sea lampreys from Great Lakes tributaries. In the implementation stage of SUPCON, methods developed and tested during the research-based first stage are being applied in 13 streams, expanding current control efforts that are vital to protecting Great Lakes fish and the $5.1 billion fisheries they support each year. The Great Lakes Fishery Commission funds the initiative.

Invasive sea lampreys have become one of the most significant threats to fish populations in the Great Lakes since their establishment during the mid-1800s and early 1900s. These parasitic fish attach themselves to host fish and feed on their blood and bodily fluids. The average sea lamprey is capable of killing up to 40 pounds (18 kg) of fish during its parasitic stage. Native fish species such as lake trout, whitefish, and others were severely impacted by the establishment of sea lampreys, resulting in dramatic population declines and creating long-lasting economic repercussions throughout the region.

The SUPCON initiative employs methods that complement the two primary control tools for sea lampreys—lampricides and barriers—which together have reduced sea lamprey populations by 90% in most areas of the Great Lakes. Supplemental controls integrate multiple strategies to target sea lampreys throughout their life cycle, enhancing control where primary tools are less effective due to physical, biological, chemical, or social challenges.

During the first stage of the SUPCON initiative, which ran from 2017 to 2023, experimental deployment of supplemental controls on four tributaries to Lake Huron reduced or eliminated sea lamprey reproduction and resulted in a redirection of $400,000 of lampricide control effort to other streams. Methods tested as part of the first stage included portable traps to remove adult sea lampreys before they could spawn and seasonal electrical barriers to block sea lampreys from reaching spawning habitat. Nets to capture juvenile sea lampreys (before they harm fish) were also assessed. These nets collected a total of 1,158 juvenile sea lampreys, saving a potential loss of over 45,000 lbs. (20,000 kg) of Great Lakes fish.

Additional methods tested during the first stage include a variety of scent-based cues, such as attractant pheromones to lure adult sea lampreys into traps, pheromone antagonists to block the ability of sea lampreys to smell mates, and alarm cues to push sea lampreys into areas with poor habitat. Sterilization of adult male sea lampreys (a stage that no longer feeds on fish) was also completed in a contained river system, and led to the first-ever cancellation of a planned lampricide treatment in a sea lamprey-infested stream in the control program's 70-year history.

The second stage of SUPCON, which runs from 2024 to 2029, is being implemented in 13 tributaries to lakes Superior, Michigan, and Huron. The methods identified as successful in stage one are being applied at this broader scale to control additional sea lamprey populations and assess the effectiveness of methods in other stream environments. If effective in these streams, supplemental control has the potential to reduce the production of 3 million larvae while saving valuable control program dollars.

"The Sea Lamprey Control Program is one of the most successful control programs in the world for an invasive, vertebrate species," said Ethan Baker, chair of the Great Lakes Fishery Commission. "Sea lamprey control is critical for safeguarding the economy and livelihoods of the over 35 million people who call the Great Lakes region home. Development of supplemental sea lamprey control methods plays an important role within the program by expanding our ability to control sea lampreys in previously uncontrollable or difficult-to-control areas and advancing the Commission's mission to protect ecologically important and economically valuable fish species, promoting the prosperity of the Great Lakes region."

"One of the keys to success for SUPCON to date has been the focus on adaptability and assessment," indicated Nick Johnson, U.S. Geological Survey research ecologist and scientific lead for the first stage of SUPCON. "The initiative was designed to allow for continual learning through evaluation of results and assessment of success. Moving forward, this process allows the team to learn from their experience and adjust effort to maximize effectiveness."

"Structured decision making is also integral to the SUPCON initiative," added Jessica Barber, U.S. Fish and Wildlife program supervisor for sea lamprey control. "This decision-making process explicitly incorporates knowledge of risks, benefits, uncertainty, and potentially conflicting interests of parties involved to identify optimal decisions among many options. Structured decision making was used to determine which supplemental control methods to apply in particular streams and how to maximize learning while reducing cost." *Continued on page 11*

**Sea Lamprey Control** *continued*

"SUPCON is an outstanding demonstration of how many minds from different backgrounds can come together over a common goal to drive progress toward the protection of natural resources," stated Tonia Van Kempen, Fisheries and Oceans Canada program manager for sea lamprey control. "This initiative would not have been possible without the support and collaboration of myriad partners, which together make our work stronger, more responsive, and relevant to our many communities."

"We are proud to be a partner in the work of SUPCON, which enhances the safe and effective control of invasive sea lampreys in the Great Lakes," stated Bill Mattes, chair of the Commission's Sea Lamprey Control Board and formerly the Great Lakes Section Leader for the Great Lakes Indian Fish and Wildlife Commission. "The SUPCON initiative has demonstrated how the use of passive collection gears—such as specially designed nets to trap out-migrating juveniles based on traditional knowledge of river systems—and other methods (i.e., sterile male release and pheromones) can control sea lampreys and protect native fish species. Nearly 1.5 million people, including members of indigenous communities, fish the Great Lakes each year. Thriving fisheries would not be possible without the mitigation of sea lampreys."

SUPCON partners include the U.S. Geological Survey, U.S. Fish and Wildlife Service, Fisheries and Oceans Canada, Great Lakes Indian Fish and Wildlife Commission, Keweenaw Bay Indian Community, Garden River First Nation, Little Traverse Bay Bands of Odawa Indians, Batchewana First Nation, Michigan State University, University of Wisconsin–Stevens Point, and Huron Pines. The Great Lakes Fishery Commission facilitates the initiative. Interested local user groups near study streams provide regular input and engage in various project activities. Many local landowners on project sites grant access to their land. ✧

## Invasive mussel bill introduced

Rep Debbie Dingell (D) and Rep Tim Walberg (R) jointly presented HR 6053 – the *Save Great Lakes Fish Act 2025*. This bipartisan legislation proposes to amend the *Great Lakes Fishery Act 1956* in a way that empowers the US Section of the Great Lakes Fishery Commission to develop a comprehensive plan, including to establish a research program, to combat invasive mussels in consultation with partners in federal agencies, interstate compacts, and Tribal, State, and local governments. I am pleased to report that the legislation is already attracting cosponsors (i.e. Rep Jack Bergman (R)) which bodes for its prospect of success.

By sparking a structured and coordinated approach, and by proposing a US government funding appropriation of $500,000,000 over ten years, this legislation is seeking to duplicate the kind of positive outcomes and monumental efforts undertaken to successfully combat invasive sea lamprey starting back in the 1950s. If successful, this legislation has the potential to be a once in a generation "moon shot" that could change everything we know about invasive mussels, and the future of the Great Lakes ecosystem for critical keystone species such as Lake Whitefish.

Of course, this legislation is US focused, but if it becomes law, the GLFC will work with partners to expand efforts—hopefully into something as truly binational and comprehensive as we saw in response to invasive sea lamprey. We believe that a unified effort to control invasive mussels is the best, and perhaps only, path to success.

As you can imagine, the Great Lakes Fishery Commission is excited at the prospect that invasive mussels are getting some real traction as a serious threat to the Great Lakes that must finally be addressed. We are pleased to apply our historical lessons to the mussel challenge, and to work within our extensive networks to tackle what is certainly one of the greatest challenges facing the Great Lakes (*Continued on bottom of next column*)

## ODNR reminds Ohioans to Stay Safe on the Water as temperatures drop

**COLUMBUS, Ohio** – As Ohio's scenery shifts from fall color to winter calm, the Ohio DNR Division of Parks and Watercraft is reminding outdoor enthusiasts to stay alert and prepared when heading out on the water.

"Ohio's lakes and rivers are beautiful in every season, but cold water brings serious risks," said ODNR Director Mary Mertz. "Wearing a life jacket and understanding the dangers of cold water can make all the difference in keeping your adventures safe and enjoyable."

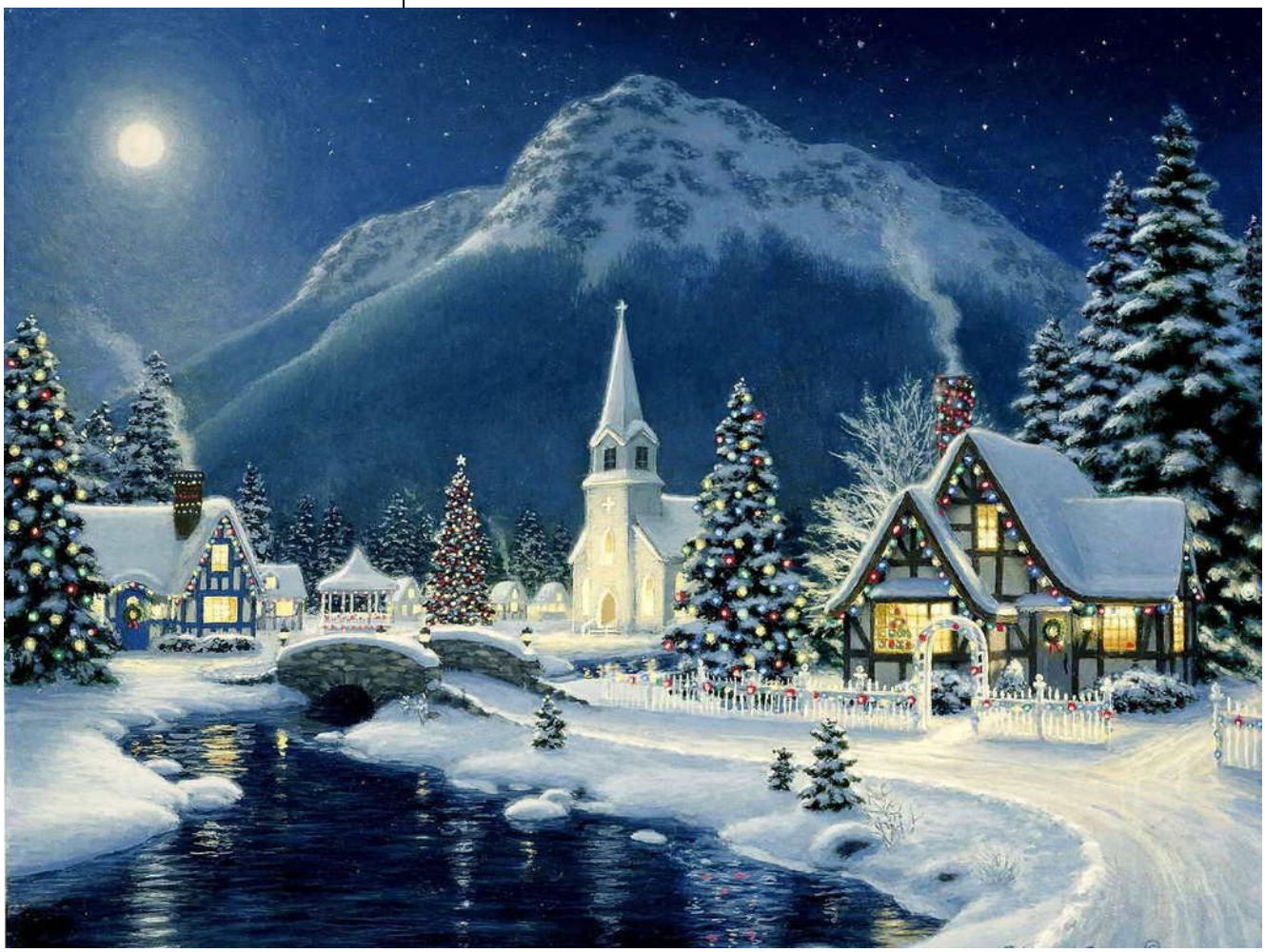
Water below normal body temperature (98.6°F) can cause rapid heat loss, cooling the body up to 25 times faster than cold air of the same temperature. This can significantly increase the risk of hypothermia. Nearly 90% of boating fatalities result from drowning, and almost half of those involve immersion in cold water.

Just like wearing a seatbelt in a car, putting on a properly fitted, U.S. Coast Guard-approved life jacket is the simplest and most effective way to stay safe on the water. Dressing in warm, layered clothing and letting someone know your float plan, where you're going and when you'll return, are also key steps to staying safe.

For more tips on how to safely enjoy Ohio's great outdoors this winter, visit this Winter Recreation Safety page. You can also watch ODNR's Cold Water Safety video. ✧


**Invasive mussel bill** *continued*

today. We are supportive of HR 6053 and will be throwing our efforts behind the legislation. We hope that others will do likewise by writing to their Members of Congress and urging them to support the passage of HR 6053. ✧



**As we reflect on 2025, our soldiers on active duty around the world, our first responders, our country and its leaders, our own safety, our health, family and all we have to be grateful for... best wishes for a very Merry Christmas and blessed and wonderful New Year in 2026.**

***"...behold, I bring you good tidings of great joy, which shall be unto all people. For unto you is born this day, in the city of David, a Saviour..." Luke 2:10-11***

# *Merry Christmas*

and

# *best wishes for a safe and Happy New Year*

## Other Breaking News Items:
## (Click on title or URL to read full article

**DNR recommends reduced lake whitefish harvest quota for Lake Michigan**
The Wisconsin Department of Natural Resources is recommending a 39% reduction in the lake whitefish quota for commercial fishers in the Wisconsin waters of Lake Michigan but no change in Green Bay

**The Great Lakes can be more dangerous than the ocean. Here's why.**
Waves on the Great Lakes are steeper and packed closer together, making them harder to read and faster to change. Experts say that volatility can make navigating the Great Lakes even more dangerous than the open ocean

**Saving Great Lakes whitefish is a race against time**
Bridge Michigan has spent the past several months chronicling the demise of the lower Great Lakes whitefish, investigating causes, consequences and potential solutions. Now, they're teaming up with Detroit PBS to bring the story to your screens on the latest episode of Great Lakes Now

**'We were continental travelers': Chicago, Northwest Indiana were Potawatomi lands**
Chicagoans and Northwest Indiana residents are living on land that once belonged to Potawatomi Tribes. The Potawatomi Pokagon Band claims the land as where their Tribe was born.

**PFBC to increase number of Erie steelhead being raised, new lighting coming to marina**
The Pennsylvania Fish and Boat Commission has several improvements underway in Erie, including a plan to increase the number of steelhead trout it produces and a new vessel.

**Michigan lawmakers seek $500M to stop mussels, save Great Lakes whitefish**
Michigan lawmakers hope to unveil legislation in Washington this week that would dramatically increase funding to prevent invasive mussels from wiping out whitefish in the lower Great Lakes.

**Here are Ontario's proposed new conservation authorities**
Ontario plans to merge thirty-six conservation authorities to seven to improve efficiencies for the organizations that monitor water levels and erosion, manage recreation, and teach people about the environment
End