March 30, 2024 **Notices of some Events and Online Resources:**

Midwest Glacial Lakes Partnership Lake Conservation webinar Fishers & Farmers Partnership Presents: Neighbor to neighbor, helping landowners take the next steps in improving their land and water by Heidi Keuler, U.S. Fish & Wildlife Service, Tuesday, April 9. 2:00 pm. Locally led Fishers & Farmers Partnership has groups in Iowa, Illinois, Minnesota, Missouri, & Wisconsin, driving innovative projects such as the Watershed Leaders Network farmer workshops. They fund projects to improve farms & fish habitat; address causes of watershed problems, support communications, monitoring, & science. How Fishers & Farmers work with local farmers & organizations will be described. Register at https://msu.zoom.us/webinar/register/WN I7TgdQ1gQ1C7yJQd6PeJog#/registration

EGLE, Not MI Species webinar, Untangling the Knot: Identifying Effective Detection and Treatment Regimes for Invasive Knotweeds, Thursday, April 11, 2024, 9:00 - 10:00 am. "Invasive knotweeds are a growing problem throughout Michigan. In the Upper Peninsula, a collaborative effort is underway to find the best methods for detecting and managing these aggressive plants." Representatives from Michigan Technological University, Keweenaw Invasive Species Management Area, & Alger Conservation District will share the results of their recent research. The team studied various chemical, manual & integrated control methods on knotweed species & using remote sensing to detect knotweed populations. Register at https://us06web.zoom.us/webinar/register/WN KkcNKirgQsWHFPMaDU6nnw#/registration.

US Geological Survey (USGS) Great Lakes Phragmites Collaborative webinar Multi-year cut-to-drown management of Phragmites populations can control flooded patches. Wes Bickford & Kaira Liggett, US Geological Survey's Great Lakes Science Center, Tuesday, April **16, 10:30 - 11:30 am.** "Over the past several years, managers across the basin have taken advantage of high Great Lakes water levels to successfully control *Phragmites* by cutting stems under water ('cut-to-drown' method) ... questions remain to determine if these management actions are effective across a wide variety of conditions...managers are unsure how long rhizomes remain viable after cutting, what season is best for cutting, and whether emergent zones connected to drowned *Phragmites* can "save" drowned patches." USGS & USFWS are doing experiments & large-scale field studies. Register at https://events.teams.microsoft.com/event/409425b3-d2a1-429a-8de8-43891a1ade21@caf9bb2d-9a95-4501-91cc-0c7337e38614

North American Invasive Species Management (NAISA) Field mapping protocols-What to consider when mapping for invasive plant species, webinar, Wednesday, April 17 2:00-3:00 pm. The speaker is the Assistant Supervisor for the Teton County, Wyoming, Weed & Pest District overseeing the yearly treatment operations & coordinates their GIS program. He is a State of Wyoming Certified Weed & Pest Control District Supervisor, Past-President of the North American Invasive Species Management Association (NAISMA), & the chair of the NAISMA Standards & Technology Committee. Register at

https://naisma.memberclicks.net/index.php?option=com_mcform&view=ngforms&id=2194655#!/

Michigan Wetlands Associaton webinar Developing an Aquatic Macrophyte Monitoring Protocol for Michigan's Inland Lakes: Lessons Learned After Two Field Seasons, by Dr. Jeremy Hartsock, MSU, Tuesday, **April 23, 10:00 - 11:00 am**. "Aquatic macrophytes are often underappreciated and misunderstood groups of plants." Background will be provided on important functions aquatic macrophytes perform, how to distinguish between common genera, as well as research on developing an aquatic macrophyte monitoring protocol for Michigan's inland lakes. Register at

https://us06web.zoom.us/webinar/register/WN nMElefKpSlewkqCg1XKXUA#/registration.

Glacial Lakes Partnership Lake Conservation webinar Quantifying the impacts of climate Midwest change on fish growth and production using the largest-ever database of Midwest glacial lakes fisheries surveys to enable sustainable management by researchers at the Universities of Missouri, Wisconsin, & Minnesota, Tuesday, April 23, 2:00 pm. "Climate change is causing inland lake water temperatures to rise, ice durations to shorten, and stratification regimes to shift. These habitat changes are creating novel challenges for freshwater fish and the productive fisheries they have long supported. We assessed shifts in habitat availability, bioenergetic needs, and capacity, fish growth, and fishery productivity using simulated water temperature data and fisheries monitoring data compiled from across the Midwest." Register at https://msu.zoom.us/webinar/register/WN-M8x6OwUoSomeVRq TD Ilw#/registration.

Tip of the Mitt Watershed Council 19th Annual Lake Association Summit, via **Zoom**, **April** 25, 9:00 - 12:00 pm. "learn about issues that may be affecting your lake and connect with other associations. This year's theme will focus on the roles wildlife plays in maintaining ecosystem balance and how wildlife is impacted by changes in water quality." Register at https://us02web.zoom.us/webinar/register/WN yzm3vVcaSCulWaOgvSU37w#/registration

Midwest Glacial Lakes Partnership Lake Conservation Webinar: *Valuing Lake water quality in the United States using a national dataset on property values* by Dr. Saleh Mamun, Univ. of Minnesota, Tuesday, **April 30, 2:00 pm**.

"High-quality water resources provide a wide range of benefits, but the value of water quality is often not fully represented in environmental policy decisions, due in large part to an absence of water quality valuation estimates at large, policy-relevant scales." Presenter found homeowners place a premium on improved water quality, especially for lakefront property. Register at https://msu.zoom.us/webinar/register/WN pW0AhAH7RbWCvm3nb6oT2A#/registration

EGLE, Not MI Species, *I Wash My bottom, Do you? Engaging the Boating Industry in AIS Prevention.* "In 2021, the Michigan Boating Industries Association got on board with state efforts to help boaters understand their role in stopping the spread of aquatic invasive species. With help from the Michigan Invasive Species Grant Program, MBIA launched its Boaters Prevent AIS Initiative. Join MBIA's Amanda Wendecker to learn how an industry push, along with an eye-catching campaign has helped engage thousands of boaters across the state." Presented Thursday, March 21. **Recording** (36 minutes) available at https://us06web.zoom.us/rec/play/Qey8od5x7WcrUcMcqG5Kh7SDIJiJp54zx nnyMJufq00yt vSI s 3KHZEzZyf4YdQkbx2dPBKUiNdUqd.NNHVEvenV91ZSIEV?canPlayFromShare=true&from=share recording detail&continueMode=true&componentName=rec-play&originRequestUrl=https%3A%2F%2Fus06web.zoom.us%2Frec%2Fshare%2FJBAyb9CFMCebAQbEvWQKTxXK2r5zMwPZp9ivOoTFkq2WuFWLkfj9l4Fhu4fi4fVO.YBn1IYcw9Q8vIFpo.

Michigan State University Kellogg Biological Station/Kellogg Bird Sanctuary A recording of the webinar *Bald Eagles*, by Julie Melotti, MDNR Wildlife Disease Pathologist, from March 13

about Bald Eagles recovery & the numerous threats they still face. Available, along with links to some other **recorded** talks, at

https://mediaspace.msu.edu/media/Birds+and+Coffee+ChatA+Eagles+w+Julie+Melotti/1_q6iwfuwz/

USEPA water research webinar *Nutrient Management for Reducing Losses from Agricultural Fields* (54 min) by Yongping Yuen, USEPA Office of Research and Development in Research Triangle Park, North Carolina, presented February 28, 2024. Nutrient discharge is an ongoing environmental concern, potentially affecting our watershed. Management practices for water quality improvements present many challenges due to complex processes & agricultural practices. Government agencies need to address potential economic losses due to implementation of lower fertilizer rates for water quality improvement. This is a technical lecture focusing on nitrogen & phosphorus. The **recording** can be found at https://www.youtube.com/watch?v=2V-vNdfWPOA

Michigan Lakes & Streams Association has a summary of riparian rights in Michigan at https://mymlsa.org/government-and-legal-issues/riparian-rights-in-michigan/ and a link on that page to their 2020 brochure on riparian rights.

Michigan Wetland Association has a few recordings of past webinars & other resources at https://miwetlands.org/webinars/.

Great Lakes Phragmites Collaborative has **recordings** of past webinars at https://www.greatlakesphragmites.net/resources/webinars/

University of Minnesota has an aquatic invasive species (AIS) **video channel** on YouTube /videos at https://www.youtube.com/@aisdetectors/videos. Includes *Unlocking Insights:* Updates to AIS Explorer's Tools for Aquatic Invasive Species Management Strategies, from March 13.

State of Michigan *Invasive species: identify and report* provides information on many invasive species and some plant diseases https://www.michigan.gov/invasives/id-report

MSU Extention & Michigan Natural Features Inventory

"Vernal pools are small, isolated wetlands that occur in forested settings throughout Michigan. Vernal pools experience cyclic periods of water inundation and drying, typically filling with water in the spring or fall and drying during the summer or in drought years." "Though relatively small, and sometimes overlooked, vernal pools provide critical habitat for many plants and animals, including rare species and species with specialized adaptations for coping with temporary and variable hydroperiods."

(https://mnfi.anr.msu.edu/abstracts/ecology/vernal_pool.pdf)

"Due to recent increased awareness of the ecological significance of vernal pools, there has been growing interest in identifying, monitoring, and protecting these small but valuable ecosystems. To adequately protect these critical habitats, it is essential to know where they occur, what condition they are in, and how they function. However, due to their small size and temporary and isolated nature, vernal pools can be difficult to identify and map, and have not been well-documented in Michigan! Vernal Pools are highly vulnerable to disturbance or destruction due to a number of factors including development, converting them to permanent

ponds, climate change, and invasive species. Vernal pools are currently not protected under federal or state laws in Michigan." https://vernal-pool-patrol-mnfi.hub.arcgis.com/pages/about

Michigan Vernal Pool Patrol 2024 series. Each are about 2 hours long.

Part1

https://mediaspace.msu.edu/media/Vernal+Pool+Patrol+Virtual+Training+Series+2024A+Part+1 +-+Introduction+to+Vernal+Pools/1 eo2waojr

Part 2

https://mediaspace.msu.edu/media/Vernal+Pool+Patrol+Virtual+Training+Series+2024A+Part+2 +-+Vernal+Pool+Ecology/1 3x6ii1w2

Part 3

https://mediaspace.msu.edu/media/Vernal+Pool+Patrol+Virtual+Training+Series+2024A+Part+3 +-+Vernal+Pool+Monitoring/1 8fptt7ws

Dept. of Agriculture National Invasive Species Information Center has webpages for some problematic species in Oceana County

- · hemlock woolly adelgid https://www.invasivespeciesinfo.gov/terrestrial/invertebrates/hemlock-woolly-adelgid
- · Alewife https://www.invasivespeciesinfo.gov/aquatic/fish-and-other-vertebrates/alewife
- · Round Goby https://www.invasivespeciesinfo.gov/aquatic/fish-and-other-vertebrates/round-goby;
- · common reed (*Phragmites*) https://www.invasivespeciesinfo.gov/aquatic/plants/common-reed
- · curly pondweed https://www.invasivespeciesinfo.gov/aquatic/plants/curly-pondweed
- · didymo https://www.invasivespeciesinfo.gov/aquatic/plants/didymo
- · Eurasian watermilfoil https://www.invasivespeciesinfo.gov/aquatic/plants/eurasian-watermilfoil
- purple loosestrife https://www.invasivespeciesinfo.gov/aquatic/plants/purple-loosestrife

US Geological Survey (USDS) has profiles for some invasive species found in Oceana County

- · Alewife https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=490
- · Common Carp https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=4
- Round Goby https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=713
- · Sea Lamprey https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=836
- · zebra mussels https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=5
- · canary reed grass https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=2938
- · common reed (*Phragmites*) https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=2937
- · curly-leaf pondweed https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=1134
- · didymo https://nas.er.usgs.gov/queries/FactS heet.aspx?SpeciesID=2856
- · Eurasian watermilfoil https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=237
- European frogbit https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=1110
- · Japanese knotweed https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=3602
- · loosestrife https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=239
- · narrow-leaved cattail https://nas.er.usgs.gov/gueries/FactSheet.aspx?SpeciesID=2679