

Great Lakes Panel on Aquatic Nuisance Species Meeting Summary

May 14-15, 2019

Great Lakes Science Center – Reinberger Auditorium
601 Erieside Avenue, Cleveland, OH 44114

Tuesday, May 14, 2019

All times Eastern

Call to Order and Welcoming Remarks

John Navarro, Ohio Department of Natural Resources (DNR)

Sarah LeSage, Great Lakes Panel (GLP) Chair, Michigan Department of Environment, Great Lakes, and Energy (EGLE)

- Sarah LeSage called the meeting to order
- GLP members and observers introduced themselves and a quorum was confirmed
- LeSage reviewed the agenda and there were no changes

GLP Business

Sarah LeSage, GLP Chair

Erika Jensen, GLP Coordinator

- The November 2019 meeting summary was approved without revisions
- The November 2019 action items were reviewed for the full panel and ad hoc committees, both complete and in progress
- The final GLP workplan was approved
- The Aquatic Nuisance Species Task Force (ANSTF) strategic plan was distributed for review to GLP Members and approved at the last ANSTF meeting
- Grass carp recommendations were resubmitted to the ANSTF and the response was shared with the committee members for potential follow-up

Risk assessment ad hoc committee report

- Members reviewed the Invasive Species Centre (ISC) database and status of the risk assessment clearinghouse
- NOAA GLANSIS will financially support the continued maintenance of the clearinghouse through GLRI or other sources, and they will report on the status of the clearinghouse during their standing item at GLP meetings
- The scope of work laid out for this committee has been largely completed with a few ongoing items, and committee staff will develop a summary of completed work and summary of potential next steps
- The committee chairs proposed to dissolve this committee

Grass carp committee report

- The diploid grass carp letter was distributed
- Members will continue work to get a rapid ploidy field test
- Members will continue grass carp outreach to producers and those stocking grass carp
- The committee chair proposed to dissolve this committee

- The GLP voted unanimously to dissolve the two ad hoc committees
- GLP staff and ExCom will prepare closing memos to confirm the committees completed their charge and work plans

Report on outcomes from November 2018 break-out sessions

- The GLP ExCom identified a series of priority actions:
 - Develop and propose a consistent framework and process to update GLP priorities
 - Look at state management plan documents to consider structure
 - Establish an Organisms in Trade (OIT) ad hoc committee to advance activities
 - Follow up with Great Lakes Fishery Commission (GLFC) law committee to consider coordination on priority law enforcement actions
 - GLP members agreed with the proposed next steps
- GLP membership voted unanimously to establish an OIT ad hoc committee

Great Lakes AIS Landing Blitz Event

- This event is based on several of the suggestions made during the recreational boating breakout session at the November 2018 GLP meeting
- Messaging to prevent the spread of AIS through recreational boating is regionally consistent, regardless of campaign, and coordinating delivery of the messages across the Great Lake basin will have a larger regional impact
- The leads of this project are the jurisdictional agencies and their partners (e.g., Sea Grant)
- Each Great Lakes jurisdiction has committed to do one on-the-ground event
 - Participants are coordinating messaging through social media and media outlets
- The GLP and its membership are being asked to publicly support the initiative; no funding support is associated with the request
- Specifically, GLP members are asked to utilize their organization's communication lines to push the message and to agree to have the GLP listed as a partner on the event website
- GLC staff built a webpage and are working with partners to populate content and build an interactive map of sites
- The GLP agreed to be a partner in the effort

Proposal for Basin-wide Species Regulatory Analysis

- Continuing work on regulatory harmonization was identified as a priority action at the OIT breakout sessions at the November 2018 GLP meeting and is a longstanding priority of the GLP
- Lessons learned from the GLFC's bait harvest and pathway analysis and the National Sea Grant Law Center's *Building Consensus in the West: Developing a Model Legal Framework for Watercraft Inspection and Decontamination Programs* will be applied in the Great Lakes to:
 - Identify priority species and pathways
 - Assess current regulatory consistency throughout the region
 - Understand the authorities that jurisdictions have to regulate species and how consistent those authorities are and how they are enforced across the jurisdictions
 - Work to establish a regional framework that when a species of concern is identified, each jurisdiction can quickly and simply get on board with passing regulations
- The project team has not yet any specific feedback on refining this proposal; law enforcement is focused on OIT specifically (e.g., variability in eviscerated/iced/killed terminology)

- It was noted that where regulations address specific actions, possession is key for consistency
- The first step is a jurisdictional/regulatory analysis; the second step is a workshop to review gaps, identify priorities and develop a framework for addressing gaps
- The timeline is to start the analysis soon and to host a workshop roughly a year after the project is officially underway
- The GLFC is supporting the effort, working with the National Sea Grant Law Center and with input from the Great Lakes Commission
- GLP members are asked to provide input on the effort and engage in the process; no funding resources are being requested from the GLP
- The GLP generally agreed to support the effort with some modification: be clear about how priorities are identified and the key components of the regulatory analysis, and refine work group and workshop participants

GLRI Investment Fact Sheets

Lindsay Chadderton, GLP Research Coordination Committee Chair, The Nature Conservancy (TNC)

Ceci Weibert, Great Lakes Commission (GLC)

- Effort led by the Research Coordination Committee to understand how well AIS priorities are reflected in GLRI funding
- Fact sheets were previously distributed to GLP members for review and are now considered final

Plans for fall 2019 meeting

- GLP members were asked to respond to Erika after the meeting with feedback on potential dates and other conflicts

Status of GLRI Action Plan III and Invasive Species Focus Area Funding

Kevin O'Donnell, U.S. Environmental Protection Agency (EPA)

Rob Simmonds, U.S. Fish and Wildlife Service (FWS)

- Public comment period for Action Plan 3 is open until May 24, and the Action Plan is expected to go through Office of Management and Budget review in summer 2019
 - Two documents are available through the public comment period: the plan itself, and a comparison document of the differences and continuations between Action Plans 2 & 3
- GLRI AIS priorities include the Asian carp action plan; basin-wide EDRR; species and pathway-specific emerging issues; information sharing, outreach, and sharing lessons learned; and flexibility to address emerging issues by not allocating every dollar
- EPA-released competitive offering will be administered through the Sustain Our Great Lakes program through National Fish and Wildlife Foundation
 - This program will have a separate category for EPA funding, no match will be required, and leverage will be considered in applications
- Great Lakes and Lake Champlain Invasive Species Program was created through the Vessel Incidental Discharge Act (VIDA) and is authorized at \$50 million/year
 - This program places emphasis on early detection and prioritization of response activities

- EPA is seeking to improve EAGL performance measures incorporating feedback from states to better capture work that is not currently measured appropriately, emphasizing accurate and consistent reporting, and ensuring that metrics are consistently defined
 - Performance measures should be finalized by August 2019

Updates on Risk Assessment Activities

Moderator: Sarah LeSage, GLP Chair, Michigan EGLE

Species

GLANSIS

Rochelle Sturtevant, Michigan Sea Grant Extension

- Rochelle requested that GLP members review and provide updates for the ANSTF Invasive Species Experts Database (<https://www.anstaskforce.gov/experts/search.php>)
 - Names and contact information for public reporting, risk assessment, genetics
- New crayfish assessments have been added to the risk assessment explorer in support of the Invasive Crayfish Collaborative
- *Ludwigia grandiflora* was added to the watch list and a new profile is available
- Currently reviewing species profiles to ensure that no species profile are older than five years old; many species fact sheets are updated with distribution information
- The website redesign now includes a portal for reviewers to review of accuracy of data including regulations and distribution
- New features for 2019 include habitat suitability pilot; risk assessment explorer; enhanced control information; demographics providing quick snapshots of biological parameters and requirements; map explorer augmented with Great Lakes Aquatic Habitat Framework geographic/environmental parameter layers
- Grass carp habitat suitability map is available
- The map explorer does allow for data layer downloads
- Watershed occurrence reports are at HUC 8 level
- Hope to begin posting risk assessment summaries within the next month
- Will look at adding Lake Champlain data that can be toggled on/off in response to VIDA provisions
- Working with Sarah Bailey, Fisheries and Oceans Canada, to incorporate Canadian data into system
- eDNA program still in progress

U.S. Fish and Wildlife Service

Kate Wyman-Grothem, U.S. FWS

- Many Ecological Risk Screening Summaries (ERSS) are uncertain risk
- Fish Injurious Species Risk Assessment Model (FISRAM) quantifies the probability of invasion and injuriousness more clearly than the ERSS; injuriousness can occur without establishment
- Crayfish Invasive Species Risk Assessment Model is still in development
- The ERSS process is very conservative in determining absence of risk, leading to few low risk species

- Some existing assessments have been updated at stakeholders' request
 - High risk: Redclaw crayfish, tench, grass carp, Nile perch, blue tilapia, Mozambique tilapia, Nile tilapia, jaguar guapote, guppy, Orinoco sailfin catfish, Amazon sailfin catfish
 - Uncertain risk: Marbled crayfish, mrigal carp, black acara, crucian carp
- The Risk Assessment Mapping Program has been updated to expand climate matching capabilities
 - Commonwealths and territories can now be matched, and a single state or territory can also be matched (rather than full continent)

Priority requests for species risk assessments can typically be completed within a week

New York Department of Environmental Conservation (DEC)

Cathy McGlynn, New York DEC (remote presentation)

- Risk assessments are conducted as a two-fold process: species that score as medium to very high for ecological impact are then also assessed for socioeconomic impacts
- Species are listed as regulated or prohibited directly based on thresholds for overall risk
- Federally listed species are reviewed even though they are already regulated by mandate in state legislation
- Cultivars are allowed if they are sterile, do not reproduce vegetatively, and cannot survive in New York's climate
- Regulated species are labeled as invasive when sold

Pathways

Minnesota DNR

Tina Wolbers, Minnesota DNR (remote presentation)

- A five-step social science approach known as community-based social marketing (CBSM) was used to influence long term behavior change in five priority pathways (recreational boating, live trade, gear/equipment, retail plant trade, aquarium trade)
- End-state behaviors that could not be further broken down were identified for the pathways and were ranked by an expert panel according to three criteria:
 - Impact: effectiveness in preventing spread
 - Uptake: likelihood that the behavior will be adopted by the target audience
 - Market potential: opportunity for growth in the number of people performing behavior
- Ranking criteria focus specifically on behavior change
- Analysis of pathways and behaviors indicate that OIT pathways contribute to spread of AIS
- Results of analysis can also be used to direct targeted outreach for this pathway
- A complete report of analysis is available from Tina Wolbers (Tina.Wolbers@state.mn.us)

Great Lakes Commission

Ceci Weibert, GLC

- A risk analysis for aquatic plants was initiated by the Interstate Early Detection and Rapid Response working group to identify risk perceptions, specific risks, knowledge gaps, regulatory road blocks, and opportunities for risk mitigation
- Risk analysis was conducted in three phases:
 - 1: prioritize pathways and select top priority pathways for analysis

- 2: define pathways and identify pathway experts
 - 3: distribute risk questionnaire to experts and interpret responses
- Quantitative analysis was not possible due to the low response rate, so analysis is primarily based on narrative information included as rationale by each expert
- The primary gaps for managing pathways risks were a lack of knowledge about what plants are moving through which pathways, as well as a general need for a better understanding of plant biology both for identification purposes and for improved management
 - Specific gaps and opportunities for each pathway are also reported
- Full report is available online (<https://www.blueaccounting.org/link/interstate-aquatic-invasive-species-prevention-early-detection-and-response-aquatic-plant>)

Wednesday May 15, 2019

Ballast Water Policy and Regulation Update

Moderator: Bob Wakeman, Wisconsin DNR

Overview

Erika Jensen, GLC

- VIDA gives EPA the authority to set ballast water discharge standards, U.S. Coast Guard (USCG) the authority to enforce the standards, and preempts state regulatory authority for establishing standards
- VIDA establishes a process for states to petition for more stringent standards, and states are still allowed to collect management fees and regulate smaller vessels through non- National Pollutant Discharge Elimination System permit mechanisms
- VIDA creates a coastal AIS management grant program administered by the National Fish and Wildlife Foundation with a 25% match requirement
- VIDA establishes a Great Lakes and Lake Champlain AIS Program authorized at \$50 million annually and outlines several focus areas for the program
- The specific process is outlined for Great Lakes governors to petition for a more stringent regionwide standard for the Great Lakes system
 - a preliminary assessment of a more stringent standard would be conducted by the GLC acting in coordination with the GLP
 - a more stringent standard must also be developed in consultation with Canada

U.S. EPA

Jack Faulk, U.S. EPA (remote presentation)

- VIDA added a new subsection to section 312 of the Clean Water Act for vessel incidental discharges and eliminated similar authority under section 402.
- Under VIDA, existing discharge requirements established in the 2013 EPA Vessel General Permit (VGP) and USCG regulations continue to apply until both EPA and USCG develop new VIDA discharge regulations.
- New regulations provide uniform national discharge requirements while retaining flexibilities for U.S. states to administer and enforce these requirements.

- Incidental discharges from small commercial vehicles and fishing vessels, with the exception of ballast water, are exempt from federal requirements effectively immediately. The sVGP was also repealed effectively immediately.
- The 2013 VGP cannot be modified and will stay in effect until VIDA discharge standards and implementing regulations are final, effective, and enforceable.
- EPA is scheduled to develop national discharge standards by December 2020, and USCG will develop corresponding implementing regulations within two years thereafter.
 - After these VIDA regulations are in force, any more stringent U.S. state requirements will no longer be enforceable
 - USCG will have primary enforcement responsibility, but EPA and U.S. states will have authority to enforce the federal requirements as well
- Generally, standards must be at least as stringent as existing 2013 VGP requirements, and may distinguish between class, type, size, and age of vessels
- VIDA expands ballast water exchange/flushing requirements for vessels entering the Great Lakes to include all vessels entering the Lakes, not just those with low salinity ballast coming from outside the EEZ. VIDA does include exceptions for safety, vessel design issues, and empty/sealed ballast tanks.
- EPA can issue emergency orders to implement BMPs when necessary to address invasive species or other water quality risks. U.S. States can also petition EPA and USCG to for such emergency orders and can also petition for more stringent national requirements or for no discharge zones for one or more discharges in all or portions of state waters.
- VIDA provides that the Governors of the eight Great Lakes states can work together to develop standards and implementing regulations applicable to all or a majority of the Great Lakes.
- New web pages and webinars will be available as engagement meetings and U.S. state consultations begin this summer; remote access to the public listening sessions will not be an option
- VIDA requires standards be developed using the same technology-basis as the VGP and as such, the aspects of the 2nd circuit court decision that deals with available technologies will be considered when developing the new discharge standards. EPA will not have to address the water quality provisions of the decision in these new regulations as VIDA does not require EPA to consider similar water quality requirements as in the VGP.

Transport Canada

Benjamin Hayes, Transport Canada (remote presentation)

- Canada is a party to the IMO; the proposed compliance date with the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Convention) is September 8, 2024
 - The Convention will be applied in Great Lakes waters as well as marine coastal areas, and will apply to Canadian and foreign vessels
 - U.S. vessels will be the responsibility of U.S. to regulate, but would need to comply with Canadian ballast water management regulations when in Canada
 - Vessels that transit through the Canadian portion of the Great Lakes on trips between U.S. ports would be exempt

- Vessels from non-party countries will still be required to comply with Convention requirements if they load or unload ballast water in Canada
- Proposed approach would deem ships that have an approved ballast water management system (BWMS) installed, maintained, and properly operating to meet the performance standard, rather than focusing on organism counts
- Canada would continue to require exchange in addition to treatment for vessels traveling to Canadian freshwater ports from outside Canada's exclusive economic zone
 - Will apply until at least the 2024 compliance date
- If by 2024 data analysis shows that BWMS are operating well and effectively, extra regulations without demonstrable benefits (i.e., ballast water exchange) would not be continued/introduced
- As a party member to the convention, Canada will accept all internationally approved BWMS

Great Lakes Commission

Darren Nichols, Executive Director, GLC (remote presentation)

- The GLC is exploring the need for a binational consensus-building dialogue to make an appropriately nuanced and adaptive regional policy for ballast water that would inform U.S. and Canadian federal agency rulemakings
- GLC is authorized to receive \$5 million under VIDA which is not tied to specific activities; discussions with Congressional leaders indicate that it is intended for use in convening discussions towards building a regional policy

Discussion and role of GLP

- The GLP provides a forum to bring together shipping interests, regulators, and scientists as the Great Lakes Ballast Water Collaborative previously did
- Two years is a brief timeline for setting the initial standard and so it will likely be largely the same as existing VGP and USCG requirements
- The ballast water standard needs to be revisited every five years, so more extensive changes could be made then
- GLP could engage on technology development needs and as a collaborator with EPA on the development of the Great Lakes and Lake Champlain Invasive Species Program
- Federal agencies have been reporting on their existing activities beyond ballast water as part of the activities report to Congress under VIDA
 - Kevin O'Donnell is interested in reviewing GLP member activities updates to include in the Great Lakes and Invasive Species Program report to Congress for 2019

ANS Task Force Report

Susan Pasko, Executive Secretary, ANSTF, U.S. Fish and Wildlife Service (remote presentation)

- The ANSTF strategic plan was approved, and includes concrete objectives to work towards a measurable output on plan progress
- The next step in the strategic plan process is to develop a work plan for implementation
 - ANSTF members will volunteer to lead committees for each goal and develop a work plan for the next meeting
- North Dakota submitted a state aquatic nuisance species (ANS) management plan for update and revision, and the Wisconsin ANS plan was approved

- The ANSTF approved the 2016-2017 Report to Congress
- The Western Regional ANS Panel presented on the need to revise and update Quagga-Zebra Mussel Action Plan, and are discussing whether to keep the plan regional or expand nationally
- Further information about timeline, enforcements, and implementation of VIDA was shared

What it is to be established: policy and management implications for non-native and invasive species:

Article overview and discussion

Patrick M. Kočovský, U.S. Geological Survey

Rochelle Sturtevant, Michigan Sea Grant

James Schardt, U.S. Environmental Protection Agency

- This project initially attempted to find a definition that could be adopted by the GLP membership, but the activity made it clear that one definition would not be adequate
- Species don't have to be established to have negative/invasive impacts
- Article reviewed literature for available definitions and criteria
- The definition of established "Self-sustaining/reproduction via naturally reproducing individuals" speaks to the ecological fitness of the species population
- The importance of defining terminology is illustrated by the real-world issue of grass carp:
 - Grass carp are not yet considered established in Lake Erie, and Ohio DNR and others are operating under a basis that the population can be eradicated
 - The potentially subjective academic exercise of defining the term "established" is not going to change the management goal of eradication for grass carp in Lake Erie and its tributaries

Development and sharing of AIS Apps

Moderator: Kelly Pennington, Minnesota DNR

AIS Field Guide

John Navarro, Ohio DNR

Sara Stahlman, Pennsylvania Sea Grant

- John Navarro presented the new Ohio AIS field guide
- Sara Stahlman reviewed the process of turning the Pennsylvania and Ohio field guides into a smart phone app that includes state specific information based on agency requirements for collecting and reporting specimens
 - All AIS sightings reported through the app are verified
- The estimated cost to add other jurisdictions to the app is approximately \$20,000
- The Mid-Atlantic field guide app in development for the Mid-Atlantic ANS Panel
- The app's database is built in a Wordpress site and can be updated in real time, meaning that new species reports will populate for all users as they are verified

Watercraft Steward Inspection Program

Cathy McGlynn, New York DEC (remote presentation)

- The Watercraft Steward Inspection Program App (WISPA) allows inspection stewards to track data and upload information digitally, allowing for data analysis and conservation of resources (e.g., paper notes and surveys)

- Data is entered on a tablet, and then stored in an “outbox” until the tablet can be connected to the internet to upload the data to the WISPA server
- It would be fairly easy to adapt WISPA to other jurisdictions; New York DEC is in discussion with other states to provide that support
- WISPA could be scaled down for use by agencies without formal inspection programs

Public Comment

- No comments

Emerging Issues and Announcements

- U.S. Army Corps of Engineers’ monocious hydrilla risk assessment is now available
- U.S. Army Corps of Engineers has funding to treat flowering rush on a cost-share basis; contact Mike Greer for more information