

JULY 2023 |



THE NOR'EASTER

A Newsletter from the Northeast Aquatic Plant Management Society



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Student Director

ASHLEY MORRIS

ashley.morris@dec.ny.gov

The purpose of the Society shall be to promote appropriate management of aquatic vegetation, to provide for the scientific and educational advancement of members, to encourage scientific research in all facets of aquatic plant and algae management, to promote an exchange of information among members, and to extend and develop public interest in the discipline.

Mission Statement, adopted January 9, 2019.

2023 Directors



2023 NEAPMS Conference

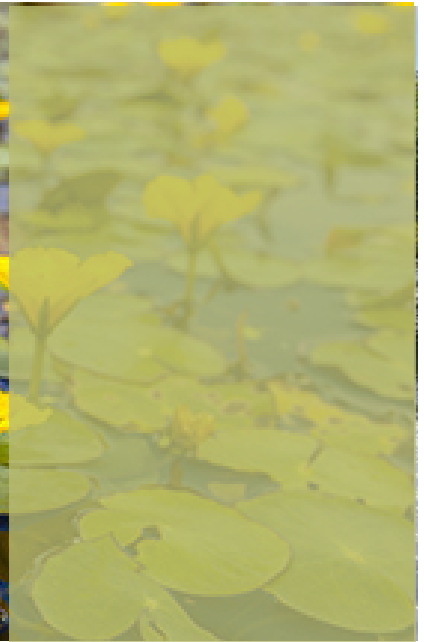
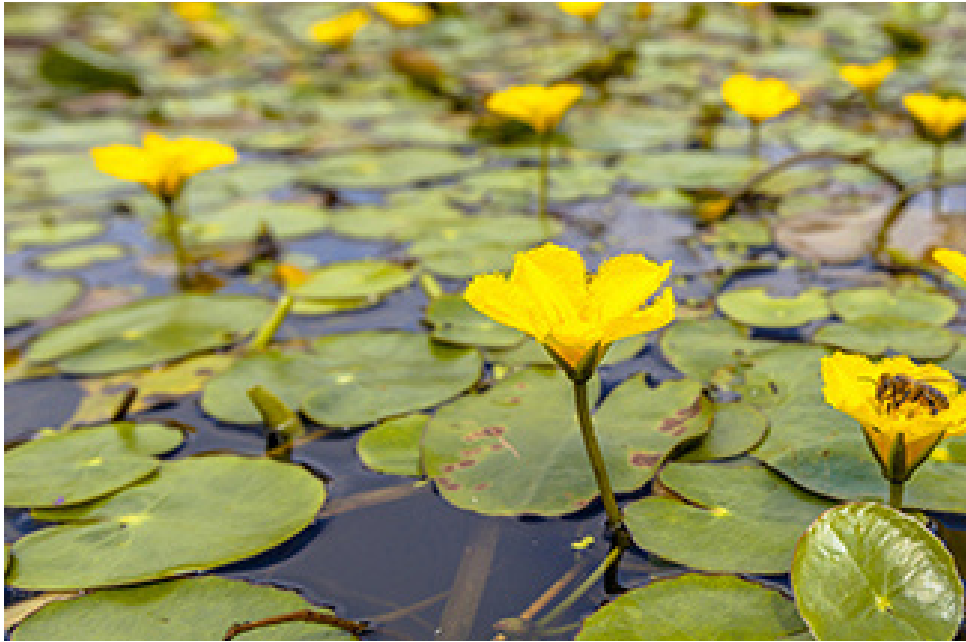


Members selling raffle tickets, and plant ID books, checking-in attendees, and updating the silent auction.
Left to right: Will Stevenson, Amy Smagula, Meg Modley, and Glenn Sullivan.

Special thank you to all of our 2023 sponsors!

Member views silent auction items

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The President's Message

Dear NEAPMS Members,

First, it is truly a pleasure and honor to serve as president, once again, for this great Society. As I think back to what this Society stands for, I want us to review what our mission statement says:

Our Mission: To assist in the management of aquatic vegetation, to provide for the scientific and educational advancement of members, to encourage scientific research in all facets of aquatic plant management, to promote an exchange of information among members, and to extend and develop understanding in the discipline.

This Society has genuinely embraced this statement. It is an authentic tribute to those who have served to lead this Society. Our outgoing President, Cathy McGlynn, exemplified this mission statement by helping launch the Society's first-ever NEAPMS Plant Camp, which provided instruction about aquatic plant surveys, identification, and management and a webinar series. Thanks again, Cathy, and congratulations on being Member of the Year!

It is also exciting to report that we are planning a fall/winter webinar that will host Dr. Fred Whitford, Clinical Engagement Professor and Director of Purdue Pesticide Programs and Carlton Layne, Executive Director of the Aquatic Ecosystem Restoration Foundation. Fred will provide some helpful insight on insuring safety while trailering a boat or equipment trailer while Carlton will speak to the safety, handling, and storage of pesticides. We are looking into the possibility of obtaining CEU credits for this webinar and will provide more information as it become available.

"[...] fall/winter webinar that will host Dr. Fred Whitford, Clinical Engagement Professor and Director of Purdue Pesticide Programs and Carlton Layne, Executive Director of the Aquatic Ecosystem Restoration Foundation."



2023 President Bo Burns

The President's Message (CON'T)

With all this said, it is not uncommon to have the same people do everything for a society, so before we allow those individuals to burn out, let's offer a helping hand to keep this an exciting and educating society. I also want to thank everyone who has done everything for this society. Your efforts are genuinely appreciated.

As one of our previous presidents mentioned, "The Annual Meeting continues to be the most important function of the Society. The sharing of information and ideas and the chance to catch up with colleagues face-to-face makes it a "can't miss" event. We have been extremely fortunate to hear quality presentations from regional and national leaders in aquatic plant management." As most of you know, our NEAPMS 24th Annual Meeting was held at The Resort and Conference Center at Hyannis, Cape Cod, Massachusetts, from January 10-12, 2023. Based on our survey results and input from many who attended, we felt it was a successful event. It was great to be back in person and see people we may not have seen in years.

As I have said, this Society has allowed me to develop excellent professional relationships and friendships. I have been involved with most aquatic regional and national aquatic societies throughout the country, and the NE is one of the most experienced and diverse societies. This is something we all should be proud of. While thinking about our annual meeting, it can only go with noticing all the work behind the scenes. Meg, Amy, Will, Glenn, and Chris, as well as many others, deserve congratulations on a meeting well planned and run.

I want to congratulate the newly elected board members and thank all the outgoing members. We welcome the board of directors: Summer Stebbins and Mike Greer, student director Ashley Morris, and vice-president Erika Haug. I also would like to provide my personal congratulations to Scott Kishbaugh for being awarded Honorary Member—well-deserved Scott. I am confident that this Society is in excellent hands and look forward to the future of this Society.

To keep this Society exciting and current, we always seek information or articles to put in the "NOR'EASTER" newsletter. If you have any information that you feel would benefit others to hear about, please pass it on to our editor, Emily Mayer at neapmseditor@gmail.com. Please let us know if you want to be more involved in this great organization, as we welcome everyone's input. I believe that the way to improve yourself is to surround yourself with better people. This is what has made NEAPMS the great Society that it is. Good luck to all in 2023.

Sincerely,
Bo Burns

Cover Photo Credit:
James M. Falletti
Teaneck Creek Conservancy



"[...] been involved with most aquatic regional and national aquatic societies throughout the country, and the NE [NEAPMS] is one of the most professional and diverse societies."

MEET YOUR NEW BOARD DIRECTOR: SUMMER STEBBINS

Summer is the Research Technician II for the Connecticut Office of Aquatic Invasive Species (OAIS) at the Connecticut Agricultural Experiment Station (CAES). She graduated from Boston University in 2018 with a bachelor's in Environmental Science. While at BU, she spent her summers as an intern for CAES. After graduation, she became the full-time technician and the lead surveyor for the program, having performed over 100 aquatic plant surveys of Connecticut's lakes, ponds, and rivers. In 2020, she earned her master's degree in environmental geographic information systems (GIS). Her most recent work includes documenting the extensive infestation of a genetically distinct strain of hydrilla in the Connecticut River and developing an online app showing the hydrilla locations. Outside of work, she continues to be involved in lake management, serving as the Town of Guilford Lake Quonnipaug Committee chair. In the Fall of 2023, she will begin her Ph.D. program in Remote Sensing at the University of Connecticut. Outside of lake management, Summer can often be found hiking, reading, or trying a new restaurant.



New board director Summer Stebbins.

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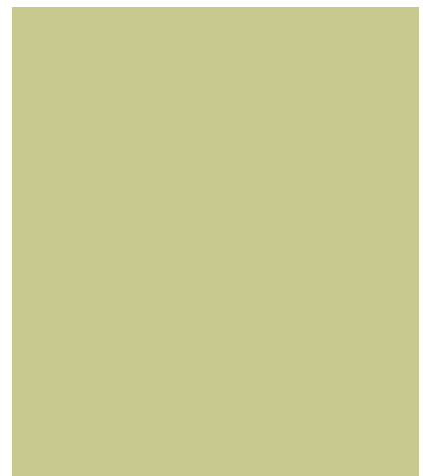
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MEET YOUR NEW BOARD DIRECTOR: MICHAEL GREER

Michael Greer is the Program Manager for the Aquatic Plant Control and Aquatic Nuisance Species Research Programs at the U.S. Army Engineer Research & Development Center, Environmental Lab. As the Program Manager for the Aquatic Plant Control and Aquatic Nuisance Species Research Programs, Michael leads the financial and technical execution of the programs. He has over 20 years of professional experience in water resource planning and management specializing in ecosystem restoration, invasive species management, and watershed planning. He is a subject matter expert on USACE Civil Works Planning policies, procedures and authorizations. Additionally, Michael is a member of the Aquatic Plant Management Society, currently serving on its board of directors, and a member of the USACE Invasive Species Leadership Team.

Michael accomplished a Master of Science in Environmental Science in 2000 and a Bachelor of Science in Biology Education with a minor in Environmental Science in 1995 at SUNY College at Buffalo. Michael became a USACE Certified Water Resources in Planner in 2018. Michael's hobbies include ice hockey, hiking, fly fishing, and disc golf.

MEET YOUR NEW STUDENT DIRECTOR: ASHLEY MORRIS

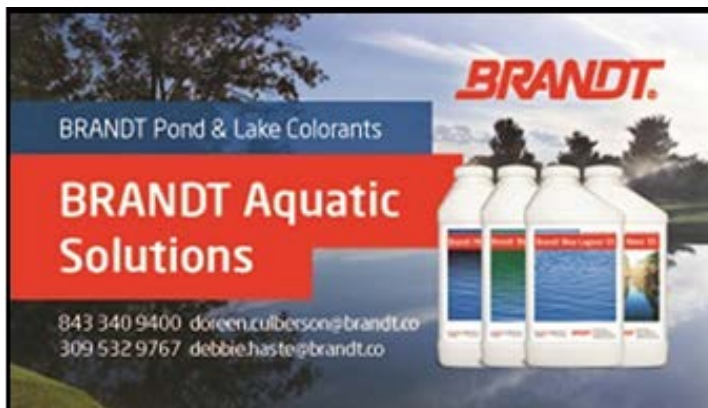
Ashley Morris is a Ph.D. candidate at Stony Brook University in the dept of ecology and evolution and a regional AIS Coordinator with NYSDEC and SUNY Research Foundation. She has worked with invasive species competition and interaction through research of southern pine beetle and insect-host shifts. Ashley received her BSc in ecology and evolution from the University of Pittsburgh in 2018 where she worked on competition modeling and rapid evolution in duckweed species. She worked on managing Long Island aquatic invasive species, emphasizing water chestnut and hydrilla control and species interaction and leading the Long Island water inspection steward program. As of early 2023, Ashley is now the AIS Coordinator for Region 3 of New York working in partnership with NYSDEC and Cornell Extentsion.



New board director Michael Greer.



New student director Ashley Morris.



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THE INTERNATIONAL CONFERENCE ON AQUATIC INVASIVE SPECIES: THE PAST, PRESENT, AND FUTURE OF A HUB OF INTERNATIONAL COLLABORATION

BY: THE INTERNATIONAL CONFERENCE ON AQUATIC INVASIVE SPECIES (ICAIS)

Invasive species, climate change, and habitat loss are considered among the top 5 threats to global biodiversity. They also incur high economic costs globally. It has been estimated that aquatic invasive species (AIS) alone have cost the global economy \$345 billion USD. Invasive fish and invertebrate species can dramatically alter food web structures, decreasing the food available for native species. The loss of native fish species dramatically impacts the commercial and recreational fishing industry. Invasive aquatic plants threaten all waterbodies, from small streams to the Great Lakes. They damage the ecosystem, cost money, and reduce water quality for recreational use. Aquatic plant invaders can also form dense mats of vegetation that block sunlight and prevent native plants from growing. This can negatively impact native wildlife populations that feed on these native plants.

For example, water soldier is an invasive plant found in Ontario that forms dense monocultures that outcompete native species, tangle in boat motors and fishing lines, and pose a hazard to swimmers whom the serrated leaves may cut. Changes in water chemistry brought on by this invasive plant can also harm native phytoplankton and other aquatic organisms. AIS can also impede recreation by making water bodies unsuitable for sport fishing, swimming, and boating.

The Search for Solutions and the Inception of New Conference

The International Conference on Aquatic Invasive Species (ICAIS) began in 1989 in North America to address the introduction and spread of zebra mussels (*Dreissena polymorpha*) gripping the Laurentian Great Lakes.

This invasive mussel was introduced through ballast water discharge into the Great Lakes and has since spread throughout North America. They cause significant damage to the environment and economy. For example, they can colonize water supply pipes and damage infrastructure. Environmentally, they outcompete native species for food, primarily plankton, and change water properties, sometimes increasing the risk of toxic algal blooms.



Zebra mussels coat and damage infrastructure in the Great Lakes Region.



Zebra mussels coat and damage a boat motor in the Great Lakes Region.

The conference began in North America as a response to various stakeholders' high demand for information and networking in the wake of their invasion. The conference has since expanded to include stakeholders worldwide and covers a broad range of AIS species and topics in marine, freshwater, and estuary environments. Over the past three decades, ICAIS has grown into the most comprehensive international forum for the review of accumulated scientific knowledge; presentation of the latest research; introduction of new technologies for prevention, monitoring, and control; discussion of policy and legislation; and showcasing public education and outreach initiatives that raise awareness of AIS.

"ICAIS began in 1989 as a much-needed collaboration among key stakeholders to meet the challenge of a new invasive threat, the zebra mussel in the Laurentian Great Lakes. Since then, the conference has grown to an event that hosts experts and professionals worldwide and has developed into a major hub of global collaboration that allows stakeholders to work together to meet the growing challenges of aquatic invasions in a changing world." Sarah Rang, Executive Director, Invasive Species Centre.

Learn more about the history of ICAIS and the spread of zebra mussels here: [History of the Zebra Mussel/ICAIS Conference series](#)

International Conference on Aquatic Invasive Species: Collaboration Continues in Europe

The most recent ICAIS took place in Oostende, Belgium in April 2022 with the theme 'Global Climate Change Amplifies Aquatic Invasive Species Impacts'. Co-hosted by NVWA-BuRO (Netherlands Food...Authority.) and INBO (Flemish Research...Forest), the event welcomed speakers from around the world, including North America, South America, Africa, Europe, and more, and 386 participants from 41 countries.

Due to the COVID-19 pandemic, the event was held as a hybrid with virtual and in-person components. These included networking sessions, post-conference tours and events, poster sessions, and networking aimed at students and early career researchers. Presentations covered various topics on aquatic invasive species worldwide, including genetic tools for monitoring, international collaboration, and the impacts of climate change on AIS, management, and policy.

For example, the Ontario Ministry of Northern Development, Mines Natural Resources and Forestry, and the Ontario Federation of Anglers and Hunters (OFAH) jointly presented their successful water soldier eradication project in Sutton, Ontario, Canada. A rapid response to this invasive plant in the Black River allowed for its successful eradication, protecting the river and surrounding waterbodies. Sharing stories of successful invasive species management improve stakeholders' morale and guides other management professionals to undergo similar endeavors.

The conference also hosted special topic sessions from keynote speakers, including 'Research at the interface of climate change, AIS and diseases'.

" A rapid response to this invasive plant in the Black River allowed for its successful eradication, protecting the river and surrounding waterbodies."



Participants view posters at the 22nd ICAIS in Belgium. Photo: Invasive Species Centre

The session aimed to gather scientists from around the world to exchange views on an integrated pest management framework for surveillance, response, and management of biological threats from AIS or aquatic pathogens within the context of climate change.

In-person participants were also able to explore and enjoy the conference location, including exploring the Belgian coast and workshops such as one on LifeRIPARIS, an innovative project which aims to optimize the management of invasive alien species (IAS) in river areas and ponds across Belgium over the next five years.

Upcoming International Conference on Aquatic Invasive Species: Returning to North America in Halifax, Nova Scotia, May 2024

We're excited to announce that the 23rd International Conference on Aquatic Invasive Species will take place in Halifax, Nova Scotia, Canada, from May 12 – 16, 2024. The conference theme will be 'Meeting Challenges with Innovation'.



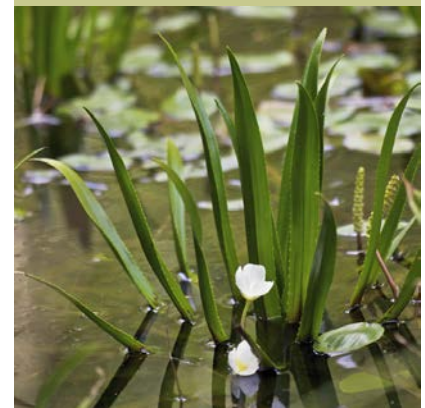
Located on Canada's Atlantic coast, Halifax is a cultural hub of Atlantic Canada and a major Canadian research centre with expertise in ocean science and ocean technology. This includes the Aquatron at Dalhousie University, the largest aquatic facility at a Canadian University that houses ballast tanks specifically for AIS research. Halifax is also close to the Cliffs of Fund UNESCO Global Geopark where the famous Joggins Fossil Cliffs are located.

Halifax is also a key location for AIS stakeholders. The busiest international port in Atlantic Canada, an important location to prevent the spread of AIS into Canada, has been the landing site for past invasions, including invasive green crabs and tunicates. The province of Nova Scotia also faces challenges from freshwater aquatic species that have affected sport fishing, such as chain pickerel and smallmouth bass.

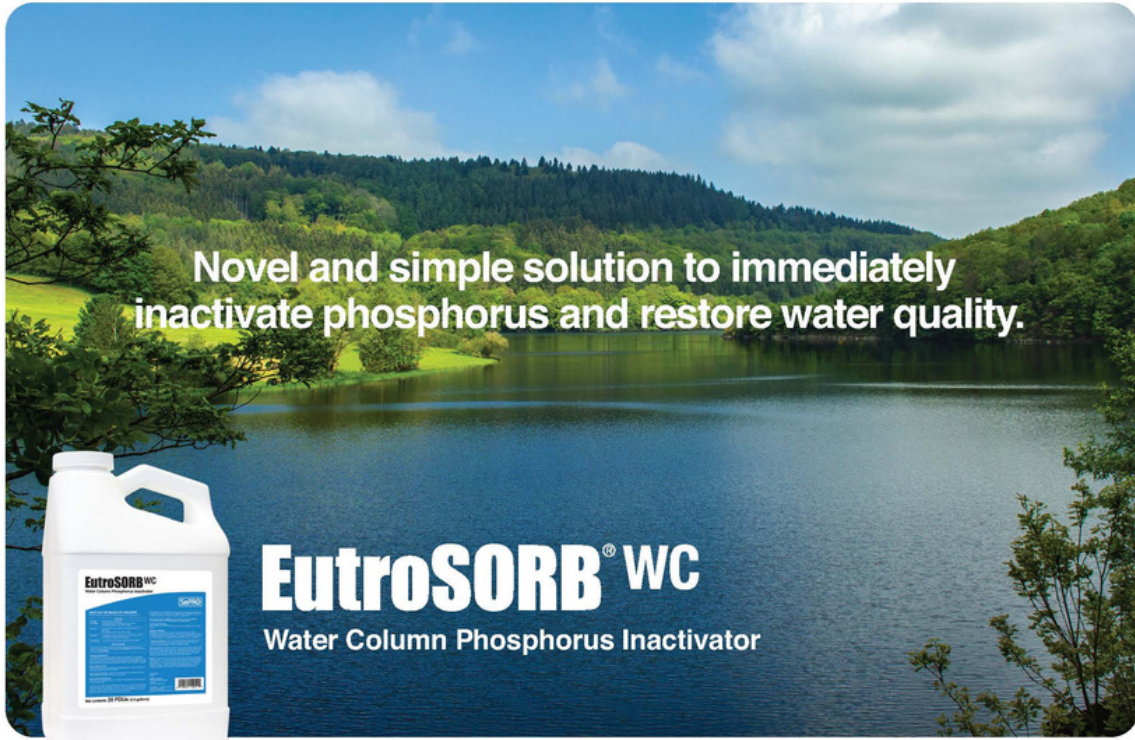
Nova Scotia has a rich history of traditional knowledge. ICAIS 2024 will show respect to Indigenous people and their ancestors for their care for the earth and water and provide opportunities for learning and sharing knowledge.

You can visit icaeis.org for more information, and stay tuned for more information on the upcoming conference.


*"[..]
presented
their
successful
water soldier
eradication
project in
Sutton,
Ontario,
Canada."*



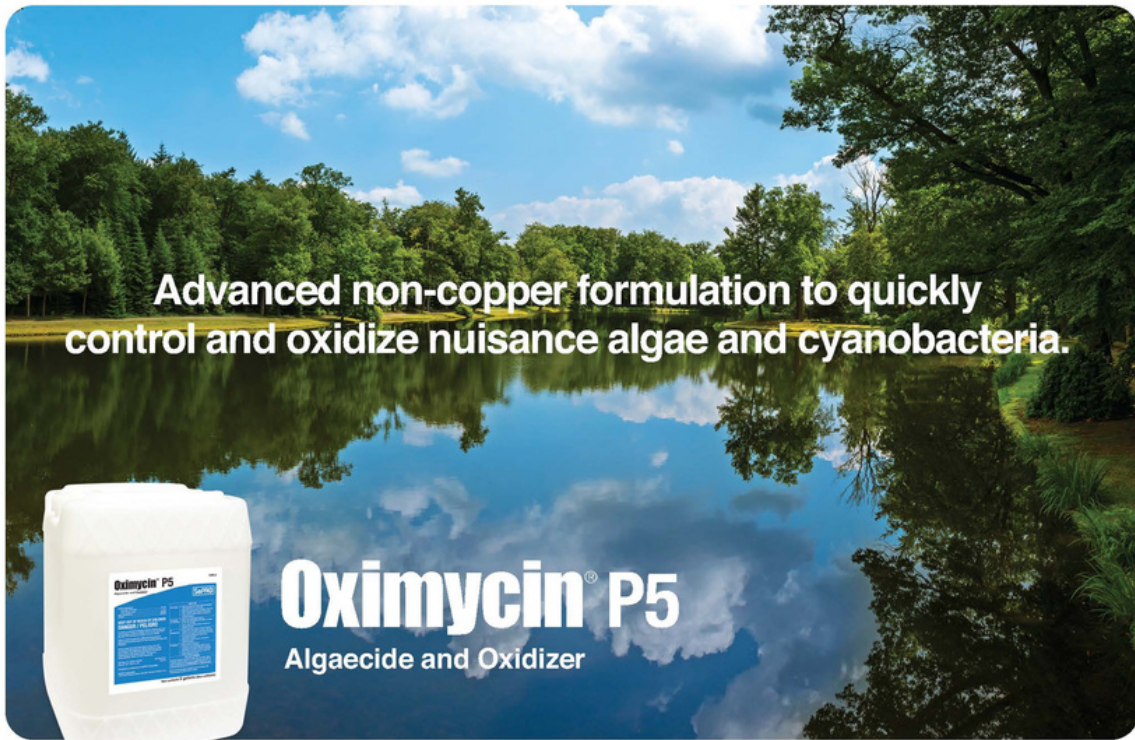
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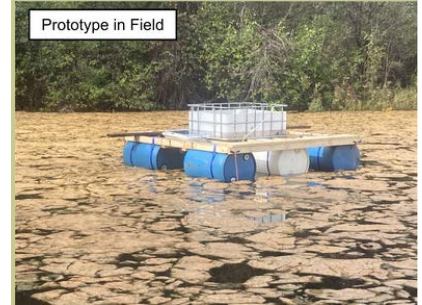
INVENTION TO TACKLE NITROGEN POLLUTION: MY STUDENT JOURNEY TO PRESENTING AT THE 2023 NEAPMS CONFERENCE

By: Eleanor Sangree

I have invented a new floating treatment wetland that naturally removes large amounts of nitrogen pollution from water. This past January, I had the fantastic opportunity to present my invention and research findings at the 2023 NEAPMS Conference in Hyannis, MA. At this conference, I learned much about the world of water remediation, invasive species control, and my novel invention's place in it.

I grew up beside a dairy farm with a disgusting algae-filled pond that sent polluted water into my local river and broader watershed. I remember the day I learned about nutrient pollution and eutrophication in my environmental science class in high school. I remember connecting the dots with what I observed right by my house, imagining the invisible nitrogen and phosphorus molecules escaping the pond and wreaking havoc on aquatic ecosystems downstream. I have been very concerned since learning about this problem and its environmental and human health impacts. But, given the nature of the issue involving biologically active chemicals, I was also intrigued by the possibility of harnessing the power of nature to solve it. I remember one day in my senior year of high school, looking out at the pond, thinking that if I could get my hands on science, I could figure out a way to solve this issue and make a real impact.

Sure enough, I was allowed the opportunity to pursue independent research into this topic at my college, Hamilton College, where I am currently a junior pursuing Biology and Environmental Studies. Beginning my first year, I worked with Professor Aaron L. Strong of the Environmental Studies department, who has supported me throughout this research. After extensively reviewing the literature on the topic of nitrogen pollution in my freshman year, reading dozens of studies, and writing a 30-page paper, I came up with my invention, which draws on our current understanding of how nitrogen flows through ecosystems and how wetlands are particularly effective at removing nitrogen from water.

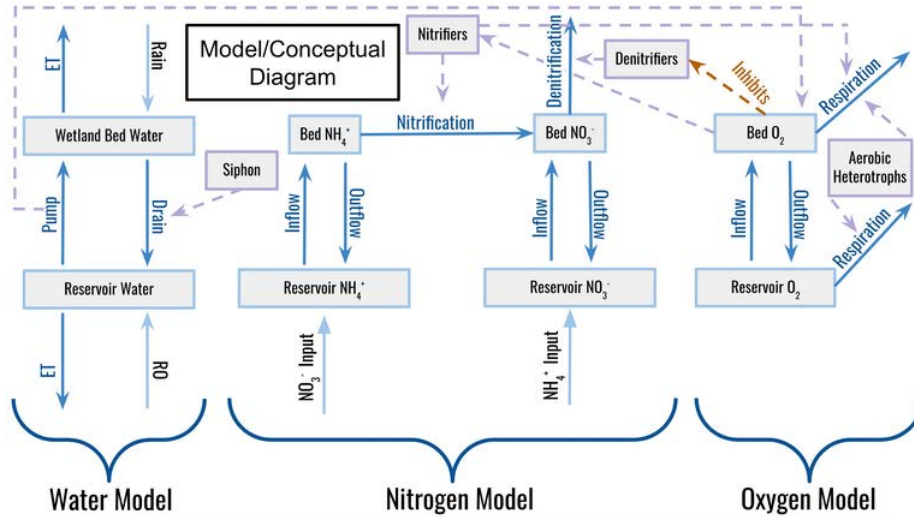


Eleanor Sangree's prototype.



Eleanor Sangree presenting her research at 2022 NEAPMS conference.

Without going into too much detail, my invention is a design for a floating treatment wetland that stimulates the growth of certain kinds of bacteria that naturally remove nitrogen from the water, turning dissolved nitrogen (nitrate and ammonium) into harmless nitrogen gas.



In my sophomore year, I built an 8' by 8' raft bed prototype and designed an experiment to test it. While I had my theories on how I thought it would work, I was very interested in honing in on the exact biological and chemical processes that were going on within my invention to understand the science behind its function.

After my first long-term experiment in the summer of 2022, I understood the processes inside the machine and that it worked much better than I could have ever anticipated, removing all the nitrogen from my large nitrogen-spiked tank within just five weeks! After a second experiment that fall further confirmed these findings, I was eager to tell people about what I had found. I was awestruck by the opportunity to present these findings at the NEAPMS conference.

I was nervous coming into the conference as an undergrad. The attendees were very friendly, and I was thrilled to see conference attendees taking me, my science, and my invention seriously. After my presentation, I was approached by multiple people from all different sectors, excited to learn more about my invention, seeing the same promise in it as I do as a new, biologically-driven technology that could be widely utilized as a tool to remove nitrogen from waterbodies naturally (and effectively!). I was encouraged by several people to act on what I'd created, and since the conference, I have started the patenting process, lucky enough to have found a pro-bono patent lawyer who is willing to help my cause.

"[...] a new, biologically-driven technology that could be widely utilized as a tool to remove nitrogen from waterbodies naturally (and effectively!)."

Within a year, I'll have my technology patented and will have started a business to produce these wetlands. While this is new territory for me, entering the business world and water remediation industry, attending the NEAPMS conference proved that it is a wonderfully supportive and a friendly field, which I am excited to navigate. I plan to keep NEAPMS and the wonderful folks I met there updated on my progress. I am beyond excited by the prospect of my invention getting out into the world and having a real, tangible impact on the issue of nutrient pollution.

"[...] attending the NEAPMS conference proved that it is a wonderfully supportive and a friendly field, which I am excited to navigate."



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2023 Conference Photos



Ken Wagner hosts the legendary raffle



Erika Haug receives award from Bo Burns and becomes NEAPMS new VP!



Our sponsor exhibit room



Raffle festivities - narrowing down the winner



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- CHARLES BOYLEN (2015)
- CHRIS DOYLE (2016)
- MARK HEILMAN (2017)
- MEG MODLEY (2018)
- WILL STEVENSON (2019)
- BIN ZHU (2020)
- GREG BUGBEE (2021)
- CATHY MCGLYNN (2022)

Meg Modley wins the raffle! - Congrats Meg!





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2023 Conference Photos



NEAPMS members listening to presentations on day 1 of conference



NALMS information poster



Cathy McGlynn presents student director award to Kyle Clonan



Student poster exhibit



Donald Padgett presents plant identification tips



NEAPMS A / V team working on set up



Cathy McGlynn video calls Scott Kishbaugh to present award

VALLISNERIA RESEARCH

By: Alex Martin, Freshwater Science Specialist, The Nature Conservancy

Vallisneria is a cosmopolitan genus of aquatic plants comprised of 14 species within the family Hydrocharitaceae. Previous research suggests *Vallisneria* is a more speciose genus than current taxonomy indicates, and there remains contention on the level of species diversity within the genus, especially amongst the plants found throughout North America (Les et al., 2008). The project that I worked on during my time as a master's student at the University of Kansas aimed to clarify some of these taxonomic issues within the genus by generating new gene sequence data (nrITS, *rbcL*, *trnK* 5' intron) and then combining this information with previous datasets to produce an updated phylogeny. The manuscript chapter of this work is currently under review by the Journal of Aquatic Botany. It is pending publication under "*Vallisneria* (Hydrocharitaceae): describing a new species, resurrecting old names, identifying cultivated plants, and evidence of hybridization."

Using both morphological and molecular data, I showed evidence to reinforce the hypothesis that *Vallisneria* plants found in the Southeastern United States and Cuba are distinct species separate from those found throughout the rest of the country (Figure 1c). We know that *V. americana* is found throughout the Midwest and Northeast United States. Still, the exact distribution is unknown, so plans for future research will include a biogeographical tour through the United States to identify physical species boundaries and the range of possible hybridization zones. With my thesis project, I also found evidence of non-native hybrids (*V. denseserrulata* x *spiralis*) being used for an extensive restoration project in Crystal River, Florida; the same plants already identified by Gorham et al. (2021) in eight locations across Florida and Alabama which were most likely introduced by the aquatic plant trade. Additionally, my project included specimens collected in Australia, sent to me by a collaborator in Darwin, Northern Territory. Overall, this project resulted in my recommendation for dissolving two synonyms and resurrecting old species names (*V. gracilis* and *V. neotropicalis*), and a formal recognition of a new species, *V. jacobsii* (Figure 1[A1] [A2]).

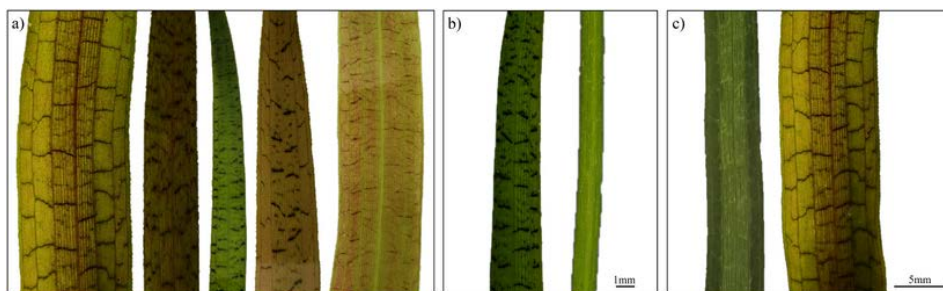


Figure 1. a) Horizontal and diagonal striation patterns on *Vallisneria* leaves. From left to right: 18 - *V. neotropicalis*, 3 - *V. indet.*, 1 - *V. nana*, 11 - *V. sp.* "Leopard", and 2 - *V. jacobsii*. Leaf coloration and size differences between b) 1 - *Vallisneria nana* (left) and 4 - *V. gracilis* (right); c) 14 - *Vallisneria americana* (left) and 18 - *V. neotropicalis* (right).



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"With my thesis project, I also found evidence of non-native hybrids (V. denseserrulata x spiralis) being used for an extensive restoration project in Crystal River, Florida; [..]"

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ONGOING VALLISNERIA RESEARCH (CON'T)

About Alex Martin: He recently graduated with a master's degree in Ecology and Evolutionary Biology from the University of Kansas. Since 2012, Alex's interest in aquatic plants stemmed from within the hobbyist community and he is interested in continuing to educate others within the industry on aquatic plants. At the beginning of 2023, he was hired by The Nature Conservancy in New Jersey as a Freshwater Science Specialist. He currently leads the water quality monitoring and floodplain reforestation stewardship in the Paulins Kill watershed. This work includes data collection and analyses to assess water quality for the Paulins Kill and its tributaries and will bring a close to the chapter's 10-year Measures and Monitoring program.

"[...] in eight locations across Florida and Alabama which were most likely introduced by the aquatic plant trade."

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USING GAMIFICATION AS A TOOL TO IDENTIFY EMERGING INVASIVE SPECIES THREATS

BY: AMY JEWITT, PENNSYLVANIA IMapINVASIVES PROGRAM COORDINATOR, WESTERN PENNSYLVANIA CONSERVANCY

The invasion curve is a simple yet comprehensive graphic that visually portrays the importance of preventing the introduction of new invasive species to unimpacted geographic areas or regions (Figure 1). To catch species at the start of the invasion curve and prevent their introduction and establishment, one must identify an organism by understanding its distinguishing characteristics, growth habits, similar look-alike species, and preferred habitats.

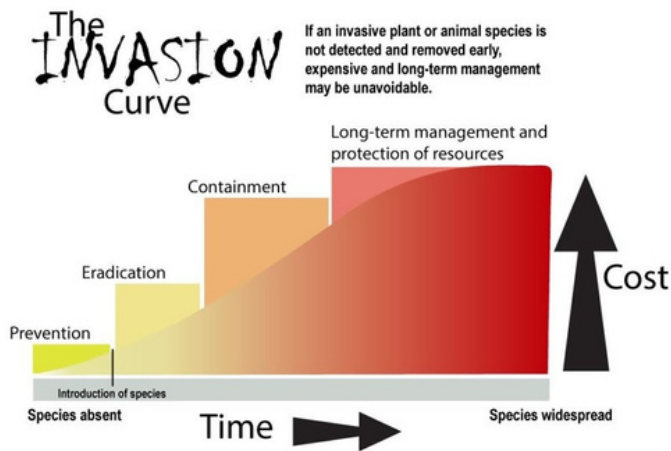


Figure 1. The Invasion Curve

Though seemingly simple, promoting awareness of emerging invasive species can be difficult as it is often rare to see a newly invading species in the wild. Additionally, specific high-priority invaders in an area could overshadow public messaging related to emerging threats.

In Pennsylvania, staff from the iMapInvasives program have used gamification to engage volunteers and increase their awareness of emerging invasive species threats in the Commonwealth. Using two unique survey events, the Water Chestnut Chasers Challenge (WCCC) and Invasive Species Scavenger Hunt (ISSH), natural resource professionals, teachers, students, and community scientists can search for emerging invaders throughout the state.

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"[...] specific high-priority invaders already present in an area can become a hype that ultimately dampens other public messaging related to emerging threats."



Water Chestnut. Credit: Ed Hawkey, Master Watershed Steward, and PA iMapInvasives (Presence record #1153208)

Simultaneously, participants are encouraged to increase their awareness and understanding of these species while working towards a goal and enjoying friendly competition, recognition, and rewards. To delve more into what these events are and what they look like, below is a brief description of each:

WCCC: An annual event hosted during the summer when water chestnut (*Trapa natans*) is visible on the water's surface. They have been hosted by the PA iMapInvasives program for five consecutive years, beginning in 2017.

The event encourages participants to search for water chestnuts and report their presence and absence findings to iMapInvasives. Over the years, this event has resulted in discovering several new and novel findings of water chestnut in Pennsylvania.

ISSH: An annual event hosted during the summer when many invasive species are easily noticeable. Hosted by the PA iMapInvasives program for three consecutive years beginning in 2020, this event encourages participants to search for 10-15 plants and animals, several of which are early detection or high-priority species. Participants are asked to submit their findings, both presence and absence, to iMapInvasives. Near the start of this event, several college professors expressed an interest in hosting it with their students as an outdoor learning activity (which was important at that time because of COVID-19).

The success of these events, including several new and novel findings, has proven that gamification is an effective tool to increase community interest and awareness of invasive species yet to be known from, or newly established, in a region. You can learn more about the WCCC and ISSH by scanning the following QR codes. You'll be directed to the respective "report-out and analysis" for each event held in 2021.



Several participants shared compelling quotes that helped solidify the success of using gamification to detect early detection and prioritize invasive species. Barbara Ritzheimer (PA Master Naturalist) commented that she enjoyed the ISSH because it made her aware of invasives that may not be in her area yet but could become a problem. "Forewarned is forearmed!"



From top to bottom the following volunteers participate in PA IMAPS Program: Barbara Ritzheimer (top), Adele Philippides (middle), Liz Fager (bottom).

Adele Philippides (Community Scientist) mentioned that she would never have known how to prepare for what invasive species might be coming up next. Still, given a finite list of species to focus on, she felt the task of surveying could have been more manageable.

Finally, Liz Fager (PA Master Naturalist) shared that she and her partner are on the water paddling every week during the warmer months of the year. The WCCC provided an excellent opportunity to slow down and look closer at plant life.

Amy Jewitt contact info: ajewitt@paconserve.org



Meg Modley (right) presents Cathy McGlynn with Amy P. Smagula Outstanding Member award. - Congrats Cathy!

Coming Soon: Winter Webinar Series!

Truck Hitches—Understanding the System

By: Fred Whitford, Clinical Engagement Professor and Director of Purdue Pesticide Programs

Pesticide Safety and Proper Use – Understanding pesticide labels and labeling and the legalities of the Directions for Use of EPA Registered Pesticides.

By: Carlton R. Layne, Executive Director, Aquatic Ecosystem Restoration Foundation/EPA National Pesticide Expert (ret.)



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Announcements



CT Plant Camp 2023 Registration is open!

Please register for Plant Camp here: <https://www.neapms.org/neapms-plant-camp>

Date: September 12-14, 2023

Location: Project Oceanology, University of Connecticut,
1084 Shennecossett Rd #1, Groton, CT 06340

Cost: \$150/person; limit 40 participants

Three scholarships are being offered thanks to support from the North American Lake Management Society and NEAPMS – apply through the link above to submit your plant camp scholarship application.

Sponsored by: Project Oceanology + Connecticut National Estuarine Research Reserve

- [The Hudson-Raritan Student Opportunities Board](#) is a searchable tool focused exclusively on student fellowships and environmental science and policy internships in the Hudson-Raritan Estuary.
 - To post an opportunity for high school or college students, [click here to fill out the submission form](#).
 - If you have suggestions or comments, contact Emma Blackford at emma@hudsonriver.org.

Calls/Opportunities

- **2023 NEAPMS Calls for Student Posters (TBD)**
- **2023 NEAPMS Calls for Presentations/Talks (TBD)**
- **2023 Plant Camp - Connecticut - Limited spots available!**
- 2023 APMS 63rd Annual Meeting Indianapolis, IN - July 24-27, 2023
- 2023 NALMS Bayfront Convention Center Erie, Pennsylvania Minnesota October 22 - 26, 2023
- 2023 North American Invasive Species Management Association (NAISMA) Annual Meeting - Lincoln, NE - October 16 - 19, 2023

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Floating water Primrose
(*Ludwigia peploides*)

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STUDENT SCHOLARSHIP ANNOUNCEMENTS



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- Checks made out to the awardees will be presented at the meeting.
- Applications are submitted via an online form on our website.

Application deadline: October 6, 2023

More details are available at:

<https://www.neapms.org/student-travel-scholarship>

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Application deadline: November 1, 2023

More details are available at: <https://www.neapms.org/graduate-scholarships>

