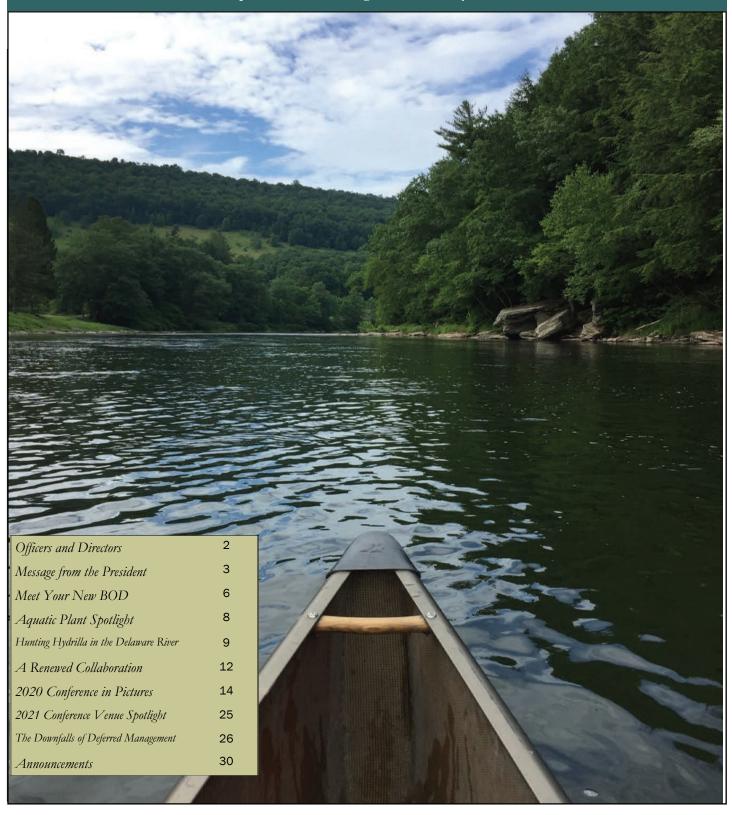


A Newsletter of the Northeast Aquatic Plant Management Society

Volume 19, No. 1



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Advertisements in the Nor'Easter does not constitute endorsement by NEAPMS. Information provided in this newsletter is not to be interpreted as instruction or regulation. Contents of Nor'Easter may not reflect the views of NEAPMS.

Paul Lord Josh Burnside

> The Purpose of the Society shall be to assist in the management of aquatic vegetation, to provide for the scientific and educational advancement of the 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 public understanding in the discipline.

Mission Statement, adopted April 20, 1999

On the Cover: Hunting for hydrilla on the Delaware River. See page 9 for accompanying article. (C. McGlynn)

MESSAGE FROM THE PRESIDENT

Dear NEAPMS members and friends,

I hope this message finds you all well and feeling fine in this time of great unease and challenge. Since we met at Lake Placid in January, so much has changed as the COVID-19 outbreak has become a pandemic, and the rate of spread is rising exponentially. These are indeed stressful and worrisome times for us all. The stresses of managing what is becoming an unwanted "new normal" extend from managing our personal lives and routines to changing the ways in which we define and construct our work lives. I cannot tell you how to ease the stress. I can only say that we are thinking of you (especially at our April online Board meeting) and hoping you and your family are coping well.

Words are inadequate to express my gratitude to all of you in our society: company owners, managers, regulators, benefactors, interested parties, applicators, industry sponsors, researchers, students and many more. Thank you all for your passion for aquatic plant management and for making our society successful! "Enthusiasm is one of the most powerful engines of success." I share the same view with American poet Ralph Waldo Emerson and firmly believe that passion is the key to our success. Looking back at our 21st annual conference, we had over 170 attendees, received nearly \$30,000 sponsorship support, and gathered over \$4,000 for our scholarship fund. Thank you for your generosity and support! I am also extremely grateful to all the Board members for their hard work to keep the society moving forward.

Currently the entire Board is actively developing and implementing five goals for our society, as part of a strategic planning process. These goals include:

- Develop and adhere to a comprehensive financial management plan that aligns with the NEAPMS Mission.
- Increase and enhance student memberships and opportunities.
- Expand NEAPMS membership and develop membership services.
- Scope, design and implement a broad marketing and outreach plan.
- Expand scope and mission of NEAPMS to include additional taxa.

Various committees and sub-committees have been formed to work on these goals. Our ultimate goal is to make the society able to sustain itself for the long-term, and become more beneficial to our members. More updates will follow shortly.

Looking forward, we are planning our next big gathering in January 2021 at Hyannis, MA. While I look forward to meeting you all, the challenges we are facing are daunting. All of us are trying to answer the biggest question about when we will turn a corner or when things will return to the way they were. No one can answer the question yet. So, are we going to

hold our 22nd annual conference in 2021? Are we going to have a virtual conference instead? Or are we going to completely skip next year's conference? Nothing is decided at this time. But I am certain that our members will experience feelings of disappointment if we don't have an in-person or virtual meeting. The Board is fully aware of this situation and will make a final decision in September at the latest.

On behalf of the entire Board, I offer a heart full of gratitude and wish you all peace and safety. While we may be socially distanced, we are forever unified in the Spirit of NEAPMS.

Sincerely,

Dr. Bin Zhu NEAPMS President

Past NEAPMS Presidents Charles Gilbert (1999/2000)Gerald Smith (2001) Gerald Adrian (2002) Jim Sutherland (2003) **Bo Burns** (2004) Amy Smagula (2005) Larry Eichler (2006) Glenn Sullivan (2007) Marc Bellaud (2008) Bob Johnson (2009) Ann Bove (2010) John McPhedran (2011) John McPhedran (2012) Paul Lord (2013) JoAnn Dunlap (2014) Charles Boylen (2015) Chris Doyle (2016) Mark Heilman (2017) **Meg Modley** (2018)

Will Stevenson (2019)

Below: NEAPMS President Dr. Bin Zhu at the summit of Whiteface Mountain during our September 2019 BOD meeting. You can see Lake Placid in the distance to the left. (Photo Courtesy: B Zhu).



YOUR 2020 NEAPMS BOARD OF DIRECTORS AND OFFICERS



Back Row (L-R): Erika Haug, Jon Gosselin, Greg Bugbee, Glenn Sullivan, Chris Hanlon, Will Stevenson. Front Row (L-R): Chris Doyle, Emily Mayer, Heather Desko, Cathy McGlynn, Amy Smagula, Bin Zhu, Chris Borek Not Pictured: Meg Modley, Kiyoko Yokota

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Photo Courtesy: H. Desko

MEET YOUR NEW BOARD MEMBER Heather Desko

Heather is a Senior Watershed Protection Specialist for the New Jersey Water Supply Authority, having joined the Authority in 2009. Heather received both her BA in Environmental Science and MA in Energy and Environmental Analysis from Boston University in 2008. In the more adventurous stage of Heather's life, she studied abroad in Ecuador with the Boston University Tropical Ecology Program. These days, Heather manages the Authority's water monitoring programs, aquatic invasive species projects, community rain barrel and rain garden programs, and River-Friendly Business and School certification programs.

Heather relishes holding the title of New Jersey's Hydrilla Queen, and is working diligently to increase her profile in the New Jersey Hazardous Algae Bloom (HAB) scene. She is a member of the Mid-Atlantic Panel on Aquatic Invasive Species, the New Jersey Water Monitoring Council, where she co-chairs the Decontamination Protocols Workgroup, and is the co-coordinator of the Aquatics Station for the New Jersey Envirothon. She has been a member of NEAPMS since 2017.

When she is not taking long drives on the Delaware & Raritan Canal towpath, scouting out suspicious green water, or tackling a source water quality emergency, Heather spends her free time (is that really a thing that people have?) chasing after her two young kids with her husband, Andy. While the Deskos reside in Pennsylvania, Heather is proud to be a public employee for her home state of New Jersey.



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MEET YOUR NEW BOARD MEMBER Erika Haug

Dr. Erika Haug is a Research Scholar at North Carolina State University in the Aquatic Plant Management Program. In her current role, Erika oversees NCSU aquatic plant herbicide trials, collects and analyzes field data, lectures in extension and outreach programs, and mentors graduate students.

Erika's career in invasive aquatic plant management began in 2005 with an internship under the direction of Ms. Amy Smagula at New Hampshire Department of Environmental Services. Following graduation with a BS in Biology from McGill University, Erika worked for six years as an Aquatic Plant Biologist for Aquatic Control Technology, LLC in MA - managing numerous lakes and ponds throughout the northeast. In the Spring of 2018, Erika completed her PhD in Fisheries, Wildlife and Conservation Biology with a focus on the biology and control of monoecious *Hydrilla* and crested floating heart. Erika has served as a director for the Massachusetts Congress of Lake and Pond Associations, a student director for APMS, and a student director for Weed Science Society of North Carolina. She has been an active member of NEAPMS since 2009 and is really looking forward to the opportunity to serve the society in an official capacity.

In her free time when she is not under quarantine Erika enjoys being outdoors, spending time with friends and family, and trying out local craft breweries.







Did you know that the Northeast Aquatic Plant Management Society has a presence on social media? Check out our social media contacts on page 16. If you have questions regarding social media, reach out to our current Student Director.



Photo Courtesy: H. Desko

MEET YOUR NEW STUDENT BOARD Member **Emily Mayer**

Born and raised in northern New Jersey, Emily discovered her passion for aquatic plant management in 2010 after participating in a high school internship with Allied Biological, Inc. under the mentorship of Chris Doyle. The following years, Emily worked seasonally with Allied Biological, Inc., while earning her Bachelor's degree in Biology with a concentration in Environmental Science at Centenary University.

Emily finished her Master's degree in Fisheries and Aquatic Sciences at the University of Florida in 2020. Her research focused on the New Jersey Delaware and Raritan Canal's Anglers' Perception of the Three-Year Hydrilla Control Program. While she is completing her graduate studies at UF, she is working as the Senior Aquatic Biologist at Solitude Lake Management, focusing on a variety of projects involving extensive water quality monitoring programs, and Point Intercept Method Submersed Aquatic Vegetation mapping, with a recent focus on hydrilla control programs. Emily is currently a contributing member of the Lower Hudson Partnership for Regional Invasive Species Management. Ms. Mayer has been an active member of NEAPMS since 2012. During this time, she has assisted with the collection of native and invasive submersed aquatic plants and preparations for the annual Aquatic Plant Identification Workshop, as well as presenting several scientific posters highlighting some of her project work.

As the current Student Director of NEAPMS, she hopes to encourage and mentor incoming student members, increase student membership and attendance at the annual conference and have the students participate in the poster competition in 2021. She would also like to enhance the social media presence of NEAPMS moving forward. By the end of her term, she hopes to learn valuable information from all the board members of the society.



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AQUATIC PLANT SPOTLIGHT: Little Floating Heart (Nymphoides cordata)

Chris Doyle, CLM

SOLitude Lake Management

Little floating heart is a diminutive water lily-like macrophyte that can be found in the quiet waters of lakes (especially protected coves), ponds and sometimes sluggish streams. Little floating heart is native in the Northeast, and occurs in most states in the Northeast. along the Mid-Atlantic, and Florida plus the Gulf Coast. It is sometimes referred to as banana lily.

The floating leaves range in size from 2 to 5 cm, are heart-shaped or oval, and wavy, with slightly scalloped margins. Leaf color is typically dark green on the upper surface, and a lighter purple hue underneath. A distinguishing characteristic is the stem which emerges from a buried rhizome and only bears a single floating leaf. This can at times be difficult to discern as the stems grow in a tangled and twisted mass.

It produces tiny (1 cm diameter) delicate flowers that are borne on slender stalks that emerge from the stem, poking above the water's surface. The tiny white flowers have five petals and are produced in June to September. Clumps of banana-like elongated tubers (pictured) adorn the stems, typically near the water's surface.

Little floating heart reproduces via rhizomes, tubers and seeds. Vegetative material dies back to the rhizomes during the winter months. Rhizomes, tubers and seeds then develop into new growth in the following spring. Little floating heart provides shade and habitat for aquatic biota such as invertebrates and juvenile fish.

In the Northeast, little floating heart can be confused with yellow floating



heart (N. peltata) or European frogbit (Hydrocharis morsus-ranae) which are both non-native. In Florida. little floating heart could be confused with about six other floating heart species, some non-native. It could also be confused with native water lilies such as watershield, white water lilv, and spatterdock. although the latter two tend to have significantly larger floating leaves and large conspicuous flowers.

Sources:

The Maine Field Guide to Aquatic Plants and Their Common Native Look Alikes.

https://plants.ifas.ufl.edu/ plant-directory/ nymphoides-cordata/

https://gobotany.nativepla nttrust.org/species/nymph oides/cordata/ "In the Northeast, little floating heart can be confused with yellow floating heart (N. peltata) or European frogbit (Hydrocharis morsus-ranae) which are both nonnative."



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HUNTING HYDRILLA IN THE DELAWARE RIVER (NEW YORK)

Steven Pearson, New York State Department of Environmental Conservation

Across New York State, infestations of the aquatic invasive plant *Hydrilla verticillata* (hydrilla) are being managed with extensive monitoring and chemical control. Hydrilla is one of New York State's highest priority aquatic invasive species and reports of this species are taken very seriously by the New York State Department of Environmental Conservation (NYSDEC). In the late spring and early summer of 2019, we received numerous reports of hydrilla from the Delaware River around Hancock. These reports seemed credible and were supported by a dried plant fragment collected by the USFWS and a photo of a plant with whorled leaves with serrations. NYSDEC mobilized two members of our Aquatic Invasive Species Team to survey reported locations.

Initially we planned an ambitious field trip that would have us survey ~ 30 river-miles in two days: between Deposit and Hancock on the West branch of the Delaware River, between Fish's Eddy and Hancock on the East Branch, and between Callicoon and Narrowsburg on the main stem of the Delaware River. In a perfect world this could have been done in the allotted time, but we do not live in a perfect world.

The drive from Albany to Hancock was mostly uneventful other than the deafening whir of the canoe straps in Cathy's ears. We later discovered that one should always leave a twist or two in the straps to prevent hearing loss. After parking one vehicle at the takeout in Hancock we drove the second vehicle to Deposit and launched on the West Branch of the Delaware River. Our survey technique was meandering with the flowing current while using visual searches, rake tosses of dense vegetative beds and suspicious plants, hand grabs of plants, and collection of floating fragments. This resulted in anchoring, wading and the occasional frantic paddle up stream (in between viewing bald eagles and many mergansers). The West Branch of the river is a series of



Elodea spp. from the Delaware River with variable leaf count per whorl. This plant had 2, 3 and 4 leaves per whorl. (Photo Courtesy of NYSDEC).

pools and riffles that makes for some excellent trout fishing as evidenced by the many anglers casting fly-rods along its full length and the schools of fish we saw beneath us as we surveyed the aquatic plants. Along this survey transect we found some dense beds of Elodea canadensis and E. nuttallii which easily could have been mistaken for the hydrilla that had been reported. Other native species we found included pondweeds and Ranunculus in flower! On the invasive species front we documented Potomogetan crispus (curly-leaf pondweed) throughout the entire length of the survey. The 10 river-mile survey took us to midafternoon and thunderstorms were threatening the rest of the day.

On day two, we got off to an early start. As we headed to the takeout from our motel, we saw an animal slowly moving in front of us. It was a porcupine sauntering across the



"Hydrilla is one of New York State's highest priority aquatic invasive species and reports of this species are taken very seriously by the NYSDEC."

To the Right: A dense bed of Elodea spp. In the Delaware River. (Photo Courtesy of NYS-DEC).

Below: A map depicting the two survey areas of the Delaware River in 2019. (Map Courtesy of NYSDEC).

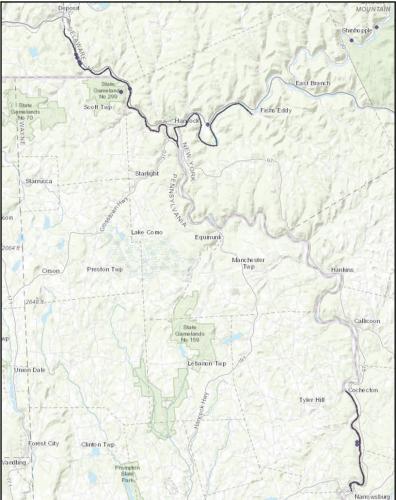
HUNTING HYDRILLA IN THE DELAWARE RIVER (CONTINUED)

road! After recovering from our shock, we drove to the most upstream report of hydrilla near Corbett which is over 20 river miles from Hancock, and surveyed by rake toss from the shoreline where we discovered a dense bed of elodea. We continued driving downstream towards Fish's Eddy stopping at access points along the way to perform additional shore-based surveys which yielded no hydrilla.

When we launched the canoe at Fish's Eddy and travelled down-



stream along the East Branch, we found the river here was slower moving, deeper, and had fewer riffles. We had hopes of completing the third section of river that afternoon; however, we found a plant that we could not positively identify as *Elodea*. and was unlike any hydrilla we had seen before. The leaves numbered from two to six per



whorl. We were stumped. We intensively surveyed the area we were in, as well as up and down stream. We spent about 1.5 hours in this area surveying and inspecting our rake tosses. We could not confirm that this plant was hydrilla, but were not certain it was elodea either. We took samples and the waypoint and then continued our way downstream. We did not find any other beds like that one, but we continued to find elodea with 2-4 leaves per whorl.

As we approached Hancock, we began to hear a loud noise and it soon became apparent that we were about to navigate some unnamed rapids. We made it through, with elevated heart rates and upright, even though water had come over the bow. We finished the survey passing through Hancock to the confluence with the West Branch. Unable to complete the last survey, we returned to Albany with the possible hydrilla specimen for further ID.

Back in Albany, we shared the confusing plant specimen with Steve Young, the NY State Botanist. Steve worked through plant guides using visible features and under the microscope for less obvious features and identified the species as *Elodea canadensis*. On that first trip we learned that *Elodea* species can be quite variable in form and leaf number.

HUNTING HYDRILLA IN THE DELAWARE RIVER (CONTINUED)

"We learned two lessons during our field adventures: Elodea is extremely variable with serrated leaf margins that are not visible to the naked eye and don't leave home without your Krazy Glue®! We returned to complete the last survey along the main stem of the Delaware River between Callicoon and Narrowsburg because one of the most credible reports of hydrilla from the USFWS was from this section of river, near Milanville, PA and just downstream of Skinners Falls. The weather was again threatening, so we shortened the survey length and put in at Cochecton instead of Callicoon. We had found that part of the road to the Callicoon access had washed out



and our trusty sedans did not have enough clearance to get there. The river was similar to the West Branch with riffles and pools, but shallower, causing occasional lost time as we had to walk/drag the canoe from time to time. Given our last experience with rapids we opted to portage around Skinners Falls and surveyed the pools along the edge of the falls. As we approached the reported hydrilla location downstream of Skinners Falls we surveyed between both banks more intensively and found little aquatic vegetation in this area and no hydrilla.

As we reached the takeout in Narrowsburg the thunderstorms and heavy rain approached. Over the 26 miles of river surveyed, we had not discovered any signs of hydrilla and at the specific locations where we had reports, we had only found elodea. All that was left to do was make it back to Albany. By the time the vehicle was loaded up, we were soaked. Somehow the windshield wiper had gotten stuck in a



canoe strap and when we started the car it snapped right off. Luckily, we were able to collect all the pieces, buy some Krazy Glue[®], and glue them back together. On the way back we drove through torrential rains in the Catskills and the wiper repair held! We learned two lessons during our field adventures: Elodea is extremely variable with serrated leaf margins that are not visible to the naked eye and don't leave home without your Krazy Glue!

> Above, Right: A dense bed of *Ranunculus* spp. in flower. (Photo Courtesy of NYSDEC). To the Left: A NYSDEC survey vessel located just above Skinner's Falls (Photo Courtesy of NYSDEC).

A RENEWED COLLABORATION BETWEEN THE AQUATIC PLANT MANAGEMENT SOCIETY AND THE NORTH AMERICAN LAK MANAGEMENT SOCIETY

Chris Doyle, CLM SOLitude Lake Management

Back in 2014, at the NALMS Annual Conference in Tampa Bay, Florida, a special session was hosted involving three aquatic resource societies. The goal of this session was to invigorate discussion between the societies, and develop methods for improved communication and collaboration, plus to identify ways to serve the (often overlapping) members more efficiently. The session included presentations with representatives from several of the societies, and a panel discussion. The three societies that gathered were the Aquatic Plant Management Society (APMS), the North American Lake Management Society (NALMS) and the American Fisheries Society (AFS).

The presenters were Dr. Mark Hoyer (giving an overview of overlap between the societies), Terry McNabb (on improving communication between the societies), Mike Allen (on the benefits of cooperating between the societies) and Dr. Mike Netherland (discussing common interests between the societies). The open discussion that ensued identified many potential opportunities for collaboration:

- Use each society's strengths for the common goal of better communication:
 - APMS and NALMS could benefit from fishery information from AFS.
 - AFS and APMS could benefit from NALMS' knowledge of Hazardous Algal Blooms (HABs).
 - NALMS and AFS could benefit from APMS' experience with practical aquatic plant management techniques.
- Sharing publications among the respective memberships since they are all digital.
- Hold a special joint symposia and/or joint chapter/affiliate meetings (the latter might be more reasonable, given size/timing).
- Explore potential of a bundled membership for two or more societies, or perhaps a discount to members who overlap.
- Sharing information about aquatic plant management (e.g., controlling too much, impacts of invasive species, loss of fish habitat, alternate stable states, new and improved technologies).
- One Executive Board member from each society establish some form of regular communication together, and report back to their respective boards.
- Provide space for each other's updates in each society's magazines.
- A link to each other's websites on respective website/web pages.
- Have a liaison for each group recommend a session of talks for the other meetings, to ensure each meeting has content for overlapping members.

These are all fantastic initiatives, and the findings of this special session were published in the three societies' professional journals in 2015. In late 2019, several NALMS Board How Are We Doing?

What do you think of our newsletter? Please forward any suggestions, or if you would like to contribute an article or update to an upcoming newsletter, please contact

Chris Doyle (cdoyle@solitudelake.com)



"The goal of this session was to invigorate discussion between the societies, and develop methods for improved communication and collaboration plus to identify ways to serve the (often overlapping) members more efficiently." "APMS and NALMS have decided to focus on strengthening our relationship with the hope that collaborative efforts can be expanded to other aquatic resource societies."

A RENEWED COLLABORATION BETWEEN THE AQUATIC PLANT MANAGEMENT SOCIETY AND THE NORTH AMERICAN LAK MANAGEMENT SOCIETY

members revisited this potential partnership, and began efforts to renew the collaboration. On the Monday night before the NALMS Annual Conference in Burlington, VT, leadership from APMS (including the national president and several board members from NEAPMS) met with the Executive Committee of NALMS (including the current NALMS president, the incoming president, the treasurer, the secretary, and a few other current and past board members) for several hours. It was a very productive meeting, and all participants came away with a renewed sense of purpose and several action items.

For now, APMS and NALMS have decided to focus on strengthening our relationship with the hope that collaborative efforts can be expanded to other aquatic resource societies such as the American Fisheries Society. There have been several follow-up meetings and conference calls between APMS (including several NEAPMS representatives) and NALMS, and the following efforts have been developed:

- A NALMS/APMS Annual Conference HAB Technical Session Collaboration
- Regional Conference Technical Session Collaboration (both at the Upper Midwest Invasive Species Conference (MN., November 2020) and the Northeast Aquatic Plant Management Society Conference (Cape Cod, MA, January 2021).
- APMS and NALMS leadership attending their counterpart Annual Conferences in 2020
 to continue collaborative efforts.

Did you know?

Attendance at regional or national Aquatic Plant Management Society conferences, webinars and training sessions can be used to obtain Continuing Education Units (CEU's) for becoming a Certified Lake Manager or Certified Lake Professional through the North American Lake Management Society. 1.0 hour of approved classroom sessions equals 1.0 CEU. Please see your local or national APMS conference organizer for details, and the Certified Lake Management Website for more details:

Additional HAB-related initiatives

• Joint Presidential Messages in NALMS and APMS newsletters.

• Certified Lake Manager (CLM) Continuing Education Units for attending APMS technical conferences, session and webinars.

And this is just the beginning. Stay tuned for more collaboration and a renewed partnership between these two societies for the benefit of all members.

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Lake Placid, My





To the Left: The view from the hotel of the Village of Lake Placid on the day we arrived for the 21st Annual Conference. Above: The same snowy view on the day we departed,



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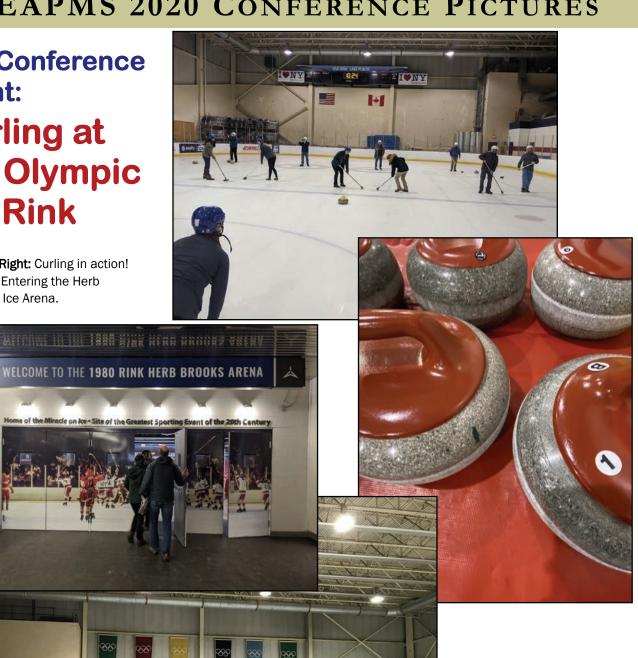
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Pre-Conference Event: Curling at the Olympic **Ice Rink**

To the Right: Curling in action! Below: Entering the Herb Brooks Ice Arena.



Above: Curling stones waiting for use. To the Left: The NEAPMS group poses for an on-ice photo (Photo Courtesy of M. Modley)

Pre-Conference Event: Curling at the Olympic Ice Rink





Above: An eager participant releases a stone while others look on. To the Left: NEAPMS attendees stand ready for their turn.

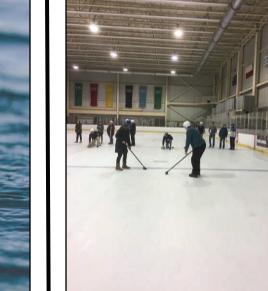
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Above: Sweepers at the ready! (Photo Courtesy of C. McGlynn)



Northeast Aquatic Plant Management Society January 14-16, 2020 Lake Placid, New York



Above Left: Announcing the 21st Annual Northeast Aquatic Plant Management Society Annual Conference.

Above Right: Aquatic Plant Workshop Attendees crowd around the table that hosted the 2020 aquatic plant quiz. Below: The Aquatic Plant Workshop is open to attendees to view over 80 previously frozen aquatic plant samples, some from as far away as Florida.



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Above: Dr. Ken Wagner shares a few nuggets of wisdom with the students and NEAPMS Board Members at the first ever NEAPMS Student Luncheon. The event took place in the conference center Library.

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Aquatic Plant Quiz

Can you guess the genus and species of the aquatic plant pictured above? (Answer on page 28).



Above: The Exhibitor Room. To Right: Opening remarks by the President and the first session of technical presentations are always heavily attended.

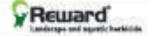


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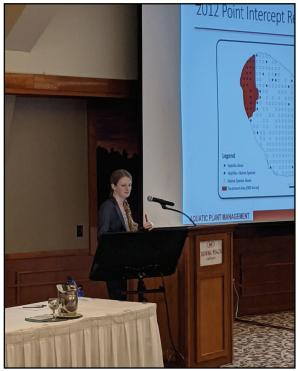


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Above: Conference attendees listen in on the special stakeholder interactions session on Tuesday. Right: Dr. Erika Haug gives a presentation on invasive species monitoring in a North Carolina reservoir.



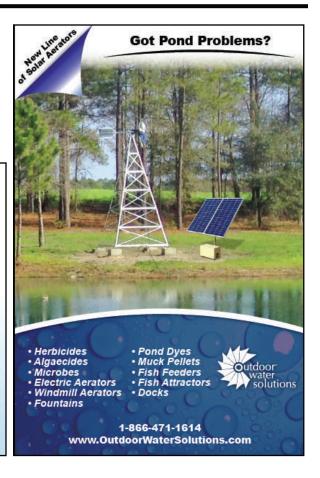


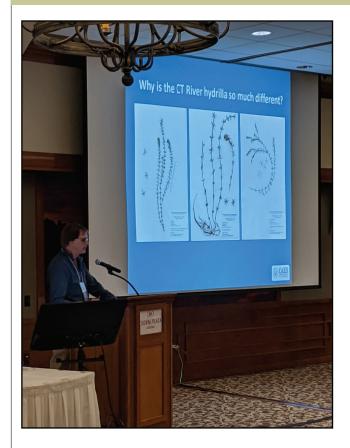
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SAFER WATER AND BETTER LIVES THROUGH PIONEERING BIOSCIENCES







Left: Greg Bugbee gives an update on the genetics of the hydrilla in the Connecticut River following research in 2019. **Below:** Dr. Ken Wagner gives a technical presentation on what we as managers need to know on the effects of climate change on our lakes.

WRS Variance is often tied to the mean as a % of it (CV) CV higher for biology than chemistry than physics Increased average translates into increased variation

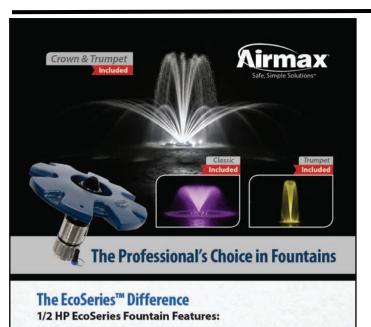
Announcing The 2021 NEAPMS Scientific Poster Contest

The Board of Directors is pleased to announce the return of the scientific poster contest at the 2021 NEAPMS conference. Prizes provided by a sponsor will be awarded to the best Student Poster. Posters will be judged by an esteemed panel of NEAPMS members on criteria such as design and layout, suitability to the society's goals, study design, and presentation of the content. If you are interested in sponsoring the NEAPMS Poster Contest this year, please contact Glenn Sullivan (gsullivan@solitudelake.com). If you are interested in becoming a Poster Judge, please contact Meg Modley (mmodley@lcbp.org).



Above: Jens Beets accepts the gold medal for winning the 2020 Student Scientific Poster Contest. **Right:** Several attendees discuss scientific methods with a student poster presenter.





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Below: A poster presenter fields questions from an attendee on the content of her poster.







Top Left: Master of Ceremonies Dr. Ken Wagner presides over the Annual Scholarship Raffle.

Top Right: Gerald Adrian finally (!) wins the raffle!

Above: Bo Burns presents Gerald Adrian with the NEAPMS Honorary Lifetime Award for 20+ years of dedicated service to the Society.

To the Left: Meg Modley presents Will Stevenson with an Award for being outgoing Society President.

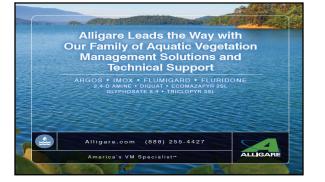


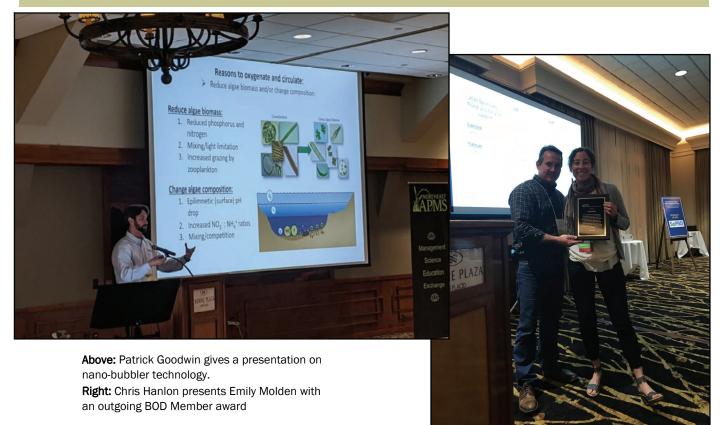
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2021 NEAPMS CONFERENCE VENUE SPOTLIGHT: HYANNIS, MA

Chris Doyle, CLM

SOLitude Lake Management

The 22nd Annual Conference of the Northeast Aquatic Plant Management Society moves to the coast of Massachusetts for the first time. The host venue in 2021 will be the Cape Cod Resort and Conference Center in Hyannis, Massachusetts. The facility boasts an impressive array of on-site amenities, including The Spa at Atlantis, the Atlantis Sports Club, the Twin Brooks Golf Club, and outdoor/indoor heated pools plus a Jacuzzi. For those of us that grew up in the 80's, the site even has a video game arcade! Nearby Hyannis attractions include the Cape Cod Melody Tent, JFK Museum and Memorial, the Cape Cod Central Railroad, Whale Watching cruises, Main Street shopping, fishing charters, and the Cape Cod Potato Chip Factory. Cape Cod attractions include the Cape Cod National Seashore and Beaches, the Truro Vineyard, Provincetown, and the nearby islands of Martha's Vineyard and Nantucket.

The Cape Cod Resort and Conference Center is steeped in history. In the early 60's, the prominence of the Kennedy family puts Hyannis on the map, and tourism increases 40%. In the late 60's, Abraham Grosman purchases land and builds the Sheraton Hyannis Motor Inn along with the Fiddler's Green Executive Golf Course. In the early 70's, the Dufney Brothers, five siblings that got their start with a clam shack, purchase the resort and add on another 100 rooms, plus expanded the golf course by nine additional holes. The Dufney's eventually created the first franchised hotels. In time, this would become the Omni Hotel chain. In the late 70's, the Racquet Club opens (formerly indoor tennis courts), and hosts shows by many front-line talents such as Sonny and Cher, Ike and Tina Turner, and Liberace. Tingles Night Club soon after opens capitalizing on the Disco Craze. In 1979, Emeril Lagasse (well before his illustrious celebrity television career) is named the Executive Chef and eventually is named Chef of the Year in 1983. "In the early 60's, the prominence of the Kennedy family puts Hyannis on the map, and tourism increases 40%."

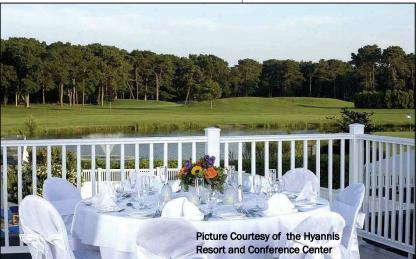
For more information about the Cape Cod Resort and Conference Center, check out their website:

www.capecodresortandconferencecenter.com/

In 1987, Sheraton Tara renovates the entire resort and property, shifting the focus to conference facilities. In the late 90's, the property was sold to the Starwood

Hotels group and is rebranded a Four Points Sheraton. But the following decade saw the resort and property fall into disrepair. In 2008, the resort was purchased by the Finch Group, and undergoes a \$12,000,000 renovation and rebranding as the Resort and Conference Center at Hyannis. To this day, the facility is the largest conference center on Cape Cod.

In January 2021, the Hyannis Resort and Conference Center welcomes the 22nd Annual Conference of the Northeast Aquatic Plant Management Society. We hope you can join us!



THE DOWNFALLS OF DEFFERRED MANAGEMENT

Patrick Simmsgeiger, President of Diversified Waterscapes CLM, QAL, NALMS, C27

Most people have a false belief that water is serene, steady and uncomplicated. Oftentimes, property owners build a pond or lake because natural water features seem to fare well without any attention. This does not hold true for *either* body of water. All parts of nature are dynamic, and this may be most accurate for water features.

"Deferred Management is allowing a property to deteriorate by putting off standard maintenance and repairs."

Below: A 4 foot deep planktonic

pond. (Photo Courtesy of DWI).

Because water flows downhill, lakes collect things, like animal bodies, trees, silt, and human garbage. Any aquatic expert will tell you that humans have a strange habit of throwing all kinds of waste into the most convenient body of water, including their own beloved pond. But when waste accumulates in the wild, throwing off the pH balance and depleting the oxygen, Mother Nature sends in her algae and bacteria. We humans do not witness this tough love, because we live far away from the wild. But nature is always waiting and watching, and shows up when and how she decides.

Out of nowhere, your water feature has strange, slimy globs of green stuff covering the surface, huge mats of a bizarre grass are floating up from the bottom, the water is peasoup green, two pumps have ceased functioning, the waterfall has slowed to a trickle, and the one remaining pump is making strange noises. First comes shock, then a frantic plunge onto the internet-search for competent advisors, followed by confusion as each has a different opinion. Lastly, anger takes hold as the causes, the solutions, the methods of prevention, and ultimately the costs, begins to sink in.

In order to avoid the pitfalls of water management, one would need to turn the clock back to plan within a budget, identify actions needed, and do maintenance. One of the best decisions a property manager can take is finding an aquatic expert, who will set up a plan to avoid a biological emergency. Hopefully you find a company with a proven track record and confirm their references. Hiring a company with a good reputation means you are on the road to enjoying your lake, stream or pond all year round.

Deferred Management is allowing a property to deteriorate by putting off standard maintenance and repairs. This saves money at first, but the longer maintenance is deferred, the more the property value declines, and the costlier the recovery. If this is the course of action chosen, a property manager should say, "I don't want to spend the money to properly care for this." We all know this is a strategy that costs more later, so how can this choice



be justified?

To keep an aquascape in balance demands regular maintenance of the aeration, the filtration, the aquatic plants, the water itself, and pest control. For a person new to the field, this is overwhelming; fight-or-flight takes over, and poor decisions are made. There are other factors of course, such as budget constraints. Sometimes, a veteran property manager is moving jobs, or the owner wants to sell soon and is cutting costs. Because 'the customer is always right', it is not appropriate for a service provider to refuse to carry out this strategy, after giving feedback.

An aquatic expert performs best when there is constant communication with the property manager, which presumes discretion and trust in both directions. If the goal is to cut costs, it is best to define this as the primary motivation, even above sustaining

THE DOWNFALLS OF DEFFERRED MANAGEMENT

property value. Some cost-savings may by realized by changing tree positions, rethinking staff assignments, and using alternate chemicals. The golf industry in particular is under pressure due to many factors, so this describes some of those concerns and thinking.

At some future point, deferring maintenance will catch up, and the property manager will not be able to conceal or explain away the problems. This is usually when a new owner and/or manager comes into the picture. The aquatic consultant is usually called to address the emergency, and the first thing is to define a way forward. This list describes fixes many properties have used to conserve money during the recovery period:

- Improve aeration first with air diffusion systems/fountains to reduce problems with water quality, fish kill, algae, etc.
- Filter drifting floating pieces of debris, prevent clogs, and increase water-flow with regular pump maintenance, but delay replacement.
- Physical/mechanical maintenance, including debris removal from nets, trimming and treatment of aquatic plants, weeds, and algae.
- Biological conditioning, introducing proper ratios and quantities of fish and aquatic plants, that will benefit water clarity and quality.
- Identifying any pests and utilizing proper removal methods.

Even when a property is properly serviced, nature has a way of throwing a curve. Unpredictable weather, power outages and unusual contaminants will affect your property. But, if regularly scheduled maintenance is performed you will not find yourself spending a small fortune purchasing new pumps, compressors, liners, shoreline borders, or aerators, *all at the same time*. These devices function as intended for much longer if regular maintenance is performed, because they all support each other.

Some properties accept 'deferred maintenance' for a period of time. At some point, everything regarding the proper and efficient running of their aquatic environment needs replacement. The property owners may have to take out a loan to buy new sump pumps, pump vault covers, 5 hp pumps, electrical wiring and junction boxes. Had regular maintenance and budgeting practices been in effect, much of this expensive repair could have been prevented. The moral to the story: perform regular maintenance on your wa-

terscapes, its pumps, compressors, electrical and associated equipment. These work together to keep your property up and running. Your lake, stream and pond will bring more pleasure than pain, and others will think you do it all so naturally!



"...if regularly scheduled maintenance is performed you will not find yourself spending a small fortune purchasing new pumps, compressors, liners, shoreline borders, or aerators, all at the same time."

Below Left: Drag-Line application of F-55 Bio Zyme Below Right: Clarifier using a low-tech drip method. (Photos Courtesy of DWI).



NEAPMS SCHOLARSHIP

Graduate and Undergraduate Graduate Scholarships and Stipends Available!



The Northeast Aquatic Plant Management Society announces the availablility of scholarship monies for students pursuing degrees in AQUATIC PLANT MANAGEMENT.

Graduate scholarships can range up to \$5,000.00 depending on the degree pursued and the project proposed.

Undergraduate students interested in participating in an internship in Aquatic Plant Management can be eligible for a stipend to pay for salary and/or related expenses during the internship.

> For more detailed information visit the NEAPMS website at www.neapms.net and click on Scholarships



Scholarship Committee

Bin Zhu (Chair) Mark Heilman Meg Modley Chris Doyle Greg Bugbee Kiyoko Yokota Paul Lord Chris Hanlon Heather Desko Emily Mayer

Check Out Our Website: www.neapms.org

AL: 936q from page :18 Potamogeton natans (floating-leaf pondweed)

SILENT AUCTION

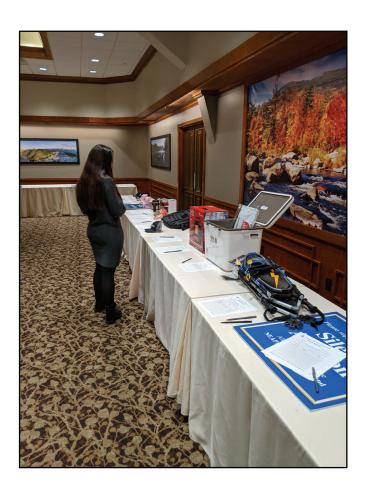
It's never too early to consider contributing an item to the NEAPMS Silent Auction table at the Annual Conference in January.

For 2021, we want this to be the best Silent Auction yet!

Need a few good ideas? How about these?

- GPS units
- Outdoor recreational equipment
- Gift cards
- Top-shelf Vermont maple syrup
- Fine wine (local preferred)
- Micro-brew beer
- Aquatic plant identification books
- Fishing gear





100% of the proceeds from the Silent Auction go straight to the Scholarship Fund!

Silent Auction Questions?

Please Contact: John McPhedran (john.mcphedran@maine.gov)

ANNOUNCEMENTS

Congratulations to Two of Our Student Members!





In April 2020, Ms. Emily Mayer (current NEAPMS Student Director; pictured, left) successfully defended her MS thesis at the University of Florida. Also in April 2020, Ms. Kara Foley (2019 NEAPMS Student Director; pictured, right) successfully defended her MS thesis at North Carolina State University. The NEAPMS BOD would like to extend their congratulations for these academic achievements and look forward to both of these scientists continued success and contributions in the lake management field.

Check Out Our Website: www.neapms.org

If you have any questions, comments or suggestions, please

reach out to a

Director for

discussion at our September Board Meeting.

If you'd like to advertise in the Nor'Easter, please contact Glenn Sullivan (gsullivan@solitudelake.com) . Both 1/4 page and business card-sized ad space is available.

UPCOMING EVENTS

Editor's Note: Due to uncertainty regarding the COVID-19 pandemic at the time of publication, please reach out to the individual societies regarding the status of all upcoming events. They may be postponed, cancelled, or switched to a virtual conference.

July 19-22, 2020: APMS/TAPMS San Antonio, TX www.apms.org

Sept 30-Oct. 2, 2020 SCAPMS North Myrtle Beach, SC www.scapms.org October 6-8, 2020: FAPMS Daytona Beach, FL www.fapms.org

October 26-28, 2020: MSAPMS Mobile, AL <u>www.msapms.org</u>

November 16-20, 2020 NALMS Minneapolis, MN <u>www.nalms.org</u>