



NOR'EASTER

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A MESSAGE FROM THE PRESIDENT

A raging snow storm did its best to impede travel to the Northeast Aquatic Plant Management Society's 15th Annual Conference which was held at the Water's Edge Resort in Westbrook, CT on January 21-23, 2014. None the less, 165 people of out of 175 pre-registered made it. Although many struggled with the weather, Dr. Rob Richardson, from North Carolina State, had a travel itinerary ending up sounding like a 2014 version of "Planes, Trains, and Automobiles". The weather also necessitated that Dr. Michael Netherland, from University of Florida, give his talk remotely by phone. Mike did a great job with this, with many commenting that he never looked better.

The conference featured hands on plant and algal workshops on Tuesday, and presentations on Wednesday and Thursday that focused on monoecious hydrilla and

cyanobacteria as well as other topics of interest in the Northeast. Our annual Awards Banquet acknowledges those who have made significant contributions to the society and to the field of Aquatic Plant Management. Chris Borek was awarded the Outstanding Member Award. The Scientist of the Year Award went to Professor Ryan A. Thum who had the following to say...

"I wanted to express my gratitude for the thoughtful inscription on the Scientist of the Year award. I was especially humbled by the notion that my research yields user-friendly data for aquatic plant managers. If that is true, it is because managers have generously given their time to take me in the field with them, and to openly discuss their perspectives on issues in aquatic plant management. These interactions play a central role in shaping my research program. I am grateful for the numerous research opportunities that the APMS societies have been provided to me, and most especially to my students."

This coming January we return to Gideon Putnam in Saratoga Springs on the 20 - 22, 2015. The Gideon is a familiar and comfortable venue, which has hosted our conferences in 2002, 2003, 2007 and 2008. The Board of Directors is meeting on September 16, 2014. We will be



J. Dunlap

discussing the upcoming conference as well as other society business. Please feel free to contact me or anyone on the Board with your ideas, concerns, and suggestions so we can address them at this meeting. The Board's job as I see it is to represent the memberships as we work to achieve our collective objectives.

At the present moment the aquatic management season in the Northeast is winding down. I hope everyone had a safe and successful season while striving to accomplish your management goals.

Take care,
 Jo Ann Dunlap



A. Smagula

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Membership

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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

STATE UPDATES: SUMMER 2014 MAINE

John McPhedran, Maine Department of Environmental Protection (DEP)

Infestation Status

No new Maine water bodies were found to be infested with invasive aquatic plants during 2013 or early season 2014. One lake – Salmon Lake in Belgrade and Oakland – was removed from Maine’s list of infested water bodies. Eurasian water milfoil (*Myriophyllum spicatum*) was discovered by a summer visitor (and TVA biologist) in 2008. After an integrated management program and surveying upstream and downstream of the infestation, no Eurasian water milfoil was found in the lake during the summers of 2010 through 2013, prompting DEP biologists to remove the lake from the state’s infested list.

The current brochure listing known infestations in Maine can be seen here: <http://www.maine.gov/dep/water/invasives/invasivesmap.pdf>. A print run of 80,000 brochures is being distributed to boaters by courtesy boat inspectors and agents selling watercraft registration.

Courtesy Boat Inspections

Maine Courtesy boat inspections (CBI) in 2013 topped the 80,000 mark for the second consecutive year, including a number of “saves” where invasive

plants were removed from boats before launching in non-infested water bodies. A summary of the 2013 CBI program can be found here: <http://www.maine.gov/dep/water/invasives/inspect.html>.

Invasive Plant Patrol (IPP)

Maine DEP contractor Volunteer Lake Monitoring Program (VLMP) reports 18 IPP training sessions throughout Maine with 409 individuals attending one or more training events during the 2013 season. That totals nearly 3,500 individuals who have now been trained through VLMP’s IPP program. Seventy-four trainees met certification requirements in 2013, bring-

ing the number of certified plant patrollers in Maine to 559. The emphasis on training and supporting IPP team efforts continues, and the number of active teams in the state is fast approaching 100. Thirty-six lake association, stewardship organizations and other lake-oriented groups participated in 2013. More information about VLMP’s IPP and other activities can be found here: <http://www.mainevlmp.org/>.

DEP Grant Activities

2014 Cost Share Grant awards for courtesy boat inspections and invasive plant control were announced at the end of April. A total of \$105,000 was granted to 48 organizations through a competitive pro-



“No new Maine water bodies were found to be infested with invasive aquatic plants during 2013 or early season 2014.”



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STATE UPDATES: SUMMER 2014

MAINE (CON'T)



“Maine DEP awarded \$107,928 to 19 lake associations to conduct manual invasive aquatic plant removal projects.”

Unless otherwise noted, all pictures are credited to S. LaVigne and C. Doyle

ess to conduct courtesy boat inspections. An additional \$74,500 was allocated by Maine DEP to 14 lake associations for courtesy boat inspections at 21 boat launch sites on infested lakes with the objective of reducing risk of spread from Maine's infested waters.

In addition, Maine DEP awarded \$107,928 to 19 lake associations to conduct manual invasive aquatic plant removal projects.

A second round of grant funding for plant removal projects occurred in May due to increased funding from an April 2014 statutory change (see Legislation below). Awards in the second round totaled \$60,000, bringing the amount of plant removal grants for 2014 to \$167,928.

Legislation

In April 2014 the 126th Maine Legislature passed LD 1626 that changes the distribution of Maine's dedicated revenue for preventing and managing invasive aquatic species. The impetus of the bill was to provide more funding to lake groups battling established infestations of invasive aquatic plants. Revenue is generated by way of an annual fee on motorized watercraft and seaplanes using inland waters: boaters with Maine watercraft registrations pay \$10 while boaters with

out-of-state registrations and seaplane operators pay \$20.

When LD 1626 became law on April 29, 2014, the previous revenue distribution of 60% to Maine Department of Environmental Protection (MDEP) and 40% to Maine Department of Inland Fisheries and Wildlife (MDIFW) changed to 80% DEP and 20% DIFW. The bill further requires that MDEP use 20% of its invasive species fund for “eradication activities.” This means that additional grant funds are available for plant removal projects

in 2014 and beyond. The original bill, amendments and final bill can be seen here:

http://www.mainelegislature.org/legis/bills/display_ps.asp?id=1626&PID=1456&num=126.

For more information, please check DEP's website <http://www.maine.gov/dep/water/invasives/> or email milfoil@maine.gov.

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“The Exotic Species Program in New Hampshire is funded through a fee attached to in-state boat registrations.”



STATE UPDATES: SUMMER 2014

NEW HAMPSHIRE

Amy Smagula

Limnologist/Exotic Species Program Coordinator,
NH DES

More Money Means More Control Activities

Over the course of the past winter many lake enthusiasts in New Hampshire were working hard on passing legislation to increase revenues for invasive aquatic plant control activities.

House Bill 292 was originally proposed in the 2013 legislative session, as a bill that sought to enact a sticker program to target out of state boaters. The sticker would have cost \$10 per boat, with \$7.50 going to the Exotic Species program, and the remainder of the revenues going to administrative costs incurred by agents and licensing entities. Unfortunately, due to hardships (costs to implement and lack of appropri-

ate database capabilities at the Department of Motor Vehicles) this funding mechanism was abandoned, but an alternative funding mechanism was proposed, which was more feasibly adopted.

The Exotic Species Program in New Hampshire is funded through a fee attached to in-state boat registrations. It was determined that the most reasonable and expedient approach to increasing revenues for control funds was to add an additional fee to the \$7.50 already collected for implementation of the Exotic Species Program. House Bill 292 was amended to add an additional \$2 fee to that amount, which should yield approximately \$186,000 for control activities each year, and increasing the earmark to \$9.50 per boat (the balance of which is used for program administration, some control work, and pre-

vention and research grants).

Thank you to Maine DEP staff who answered numerous and often repetitive questions about their sticker program, in an effort to help New Hampshire start their own. Maybe better luck next time for New Hampshire in terms of that funding avenue!

Exotic Aquatic Weeds and Species Committee Expanded, with NEAPMS Support and Involvement

In New Hampshire we have a standing legislative study committee that meets monthly to discuss topics related to various exotic aquatic weeds and species. The study committee was created in 2005, and was originally comprised of state representatives and senators to review and discuss hot topics, and evaluate any legislative needs that should be acted upon and to de-

STATE UPDATES: SUMMER 2014 NEW HAMPSHIRE (CON'T)

velop and host "Milfoil Summits" and similar platforms for topical discussions. Over the years various stakeholder interests were added to the committee, including environmental interests and a representative from the state lake association. In 2014, Senate Bill 266 expanded the membership of that committee, to officially include additional stakeholder interests, including river groups, state agencies, and representation from the aquatic plant management industry.

Specifically, the aquatic plant management industry was included as a result of a request of RISE representatives, who solicited support from NEAPMS. NEAPMS provided a letter to the New Hampshire Legislature to request an amendment to Senate Bill 266 to include a current Director or designee of the Northeast Aquatic Plant Management Society, to ensure that the aquatic plant management industry is actively involved in meetings of this group, and holds a vote in important decision making activities. The intent was to also support NH DES initiatives and recommendations related to sound science and appropriate management related to invasive species in the state.

Thank you to both NEAPMS and RISE for their interest and support of New Hampshire's activities related to invasive aquatic plants and species.

Exotic Species Program Quality Assurance Project Plan (QAPP)

NH DES was tasked with preparing a comprehensive QAPP for the Exotic Species Program. NH DES takes quality assurance and quality control protocols seriously, and all sampling and monitoring programs are required to have up to date QAPP documents on file, that go beyond basic standard operating procedures. Because the Exotic Species Program collects a variety of data (water quality, plant surveys, mapping data, herbicide residue data in water and sediments, among other data), the Environmental Protection Agency suggested (required) that a QAPP be prepared.

I did ask many of my state counterparts if they had a QAPP for their programs, and unfortunately no one had created one, though many states did have SOPs on hand relative to mapping techniques. Without a framework to emulate, the preparation of the QAPP was time consuming to prepare, but it is done, and approved in the first round of review by EPA. So, the good news is that if anyone else is tasked with preparing such a document for their state or their program, one now exists that I'm glad to share as a template for other states to use (or mooch from). Simply contact me and I will share a copy of it so you can modify and update to suit your particular state/program needs.

Other News

As summer winds down, the usual varied and numerous programs and activities are on-going, including prevention, early detection and control activities. Prevention Grants were awarded to the New Hampshire Lakes Association to run the Lake Host Program (staffing public access sites to educate boaters and perform courtesy boat inspections) and to the New Hampshire Rivers Council to run the River Runners Program, to educate river stewards and enthusiasts about invasive species.

Early detection activities will be ramped up with both individual and regional training sessions throughout the state, with many new groups being added to watch and monitor various water bodies for new infestations.

Control activities are planned for over 50 water bodies in New Hampshire, including a full range of integrated tools and practices being proposed. Some of these include the evaluation of new products and new combinations of well-known products for control of some trouble spots and species in various water bodies in the state.

We are hoping for another good summer like 2013, where we had no new infestations of invasive aquatic plants although Asian clam was and is on the move.

"NEAPMS provided a letter to the New Hampshire Legislature to request an amendment to Senate Bill 266 to include a current Director or designee of the Northeast Aquatic Plant Management Society, to ensure that the aquatic plant management industry is actively involved in meetings of this group, and holds a vote in important decision making activities."



“As part of an effort to prevent invasive species from entering and damaging New York water bodies, the NYSDEC adopted new regulations that require boaters to remove all visible plant and animal materials from boats, trailers and associated equipment, and to drain boats prior to launching from DEC lands.”

STATE UPDATES: SUMMER 2014 NEW YORK

Scott Kishbaugh, NYSDEC
Division of Water

The major news on the AIS front in New York since the last NEAPMS report involves legislation, but work continues with several high profile infestations and AIS continue to come into the state.

Legislation

As part of an effort to prevent invasive species from entering and damaging New York water bodies, the State Department of Environmental Conservation (DEC) adopted new regulations (www.dec.ny.gov/regulations/proregulations.html) that require boaters to remove all visible plant and animal

materials from boats, trailers and associated equipment, and to drain boats prior to launching from DEC lands. The regulations pertain to all DEC boat launches, fishing access sites and other DEC lands where watercraft such as boats, kayak or canoes, can be launched into or retrieved from the water.

The regulations require boaters to take the following steps to ensure that their boat, trailer and equipment are free of aquatic invasive species:

- Visually inspect the boat, trailer and other fishing and boating equipment and remove all mud, plants and other organisms that might be clinging

to it. Materials should be disposed of in one of the Nuisance Invasive Species Disposal Stations installed at many DEC boat launches, in the trash or at an upland location away from the launch ramp.

- Drain the boat's bilge and any other water holding compartments such as live wells, bait wells and bilge tanks. This does not apply to water associated with sanitary systems or drinking water supplies.

Drying boats is also highly recommended but is not required under the new regulations. Boaters who are unable to dry their boats between uses should flush the bilge and other water holding compartments with water, preferably at a temperature of 140 degrees Fahrenheit. Microscopic larval forms of aquatic invasive species, such as zebra mussels and spiny waterflea, can live in as much as a drop of water. To ensure that these organisms are not accidentally spread, anything holding water should be dried, flushed or disinfected with hot water to ensure that these aquatic invasive species are not spread. Additional information on AIS and disinfection recommendations can be found www.dec.ny.gov/animals/48221.html.

The other major regulatory action continues work started in 2012, when the

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STATE UPDATES: SUMMER 2014 NEW YORK (CONTINUED)

Environmental Conservation Law was amended to require the DEC and the Department of Agriculture and Markets to "restrict the sale, purchase, possession, propagation, introduction, importation, transport and disposal of invasive species." The legislation requires the Departments, in consultation with the Invasive Species Council, to promulgate regulations.

The proposed rulemaking, known as 6 NYCRR Part 575 (and found at <http://www.dec.ny.gov/regulations/2359.html>), provides a listing of prohibited invasive species and regulated invasive species, and specifies the criteria used in making such classification and a means for future classification of species. The regulations would prohibit the possession with the intent to sell, import, purchase, transport, or introduce, as well as the importation, sale, purchase, propagation, transportation, or introduction of invasive species classified as prohibited, unless otherwise provided for elsewhere in the proposed regulations, namely by permit. Permits would only be issued for research, education, or other approved activities and the applicant would need to demonstrate that adequate safeguards are in place to control and dispose of the invasive species. With respect to regulated species, the proposed regulations would establish conditions and

requirements, but would otherwise allow regulated species to be sold, purchased, propagated, and transported, but not knowingly introduced into a "free-living state" or introduced by a means that one should have known would lead to introduction into a "free-living state."

Response

Contracts were signed for each of the eight Partnerships for Regional Invasive Species Management (PRISM), further implementing the 2005 recommendations from the NYS Invasive Species Task Force. Although the focus of some of these PRISMs is not aquatic invasive plants, most of the PRISMs have hosted or will shortly host invasive plant ID workshops designed to

train volunteers to conduct aquatic invasive plant surveillance within the geographic boundaries of the PRISM.

Work continues on the two highest profile hydrilla infestations in the state. Great progress has been made in the reduction and elimination of hydrilla from the Cayuga Inlet. In-field herbicide applications have been applied every season since 2011. A combination herbicide application (of endothall and fluridone) was utilized during the 2012 and 2013 seasons, and similar plans for 2014 are currently being organized. This combination treatment was chosen to avoid possible herbicide resistance by hydrilla, and to provide the best possible treatment across hydrilla's asynchronous tuber

"Contracts were signed for each of the eight Partnerships for Regional Invasive Species Management (PRISM), further implementing the 2005 recommendations from the NYS Invasive Species Task Force."

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STATE UPDATES: SUMMER 2014 NEW YORK (CON'T)

“By monitoring the germination and growth status of the hydrilla tubers/plants within the treatment zones, the Task Force can properly time herbicide applications for maximum effectiveness.”

germination. This approach was also validated by the external peer review team that continues to advise the Local Task Force about the best approaches to eradicate this infestation.

Extensive monitoring and sampling activities will continue to compliment in-field herbicide treatments. Conducted by aquatic consultants, these monitoring activities are critical in determining overall progress in the reduction of hydrilla populations within the current treatment zones.

Overall, the hydrilla population within the Cayuga Inlet has been significantly reduced from the numbers originally observed. Where 2011 saw anywhere from 300-800 tubers per sq. meter in the Inlet, current

tuber population numbers are down to less than 10 per sq. meter heading into the 2014 season.

Another critical aspect that sampling provides to the Project is in the proper timing of in-field herbicide treatments. By monitoring the germination and growth status of the hydrilla tubers/plants within the treatment zones, the Task Force can properly time herbicide applications for maximum effectiveness. The goal is to allow a vast majority of the hydrilla tubers to germinate, and then begin herbicide applications to kill the hydrilla plant before it has the opportunity to produce more turions and tubers. Again, the combination endothall/fluridone herbicide treatments provides the

flexibility and effectiveness to attain these goals.

In August 2013, hydrilla was discovered in Fall Creek (adjacent tributary to Cayuga Lake, separate from the Cayuga Inlet). Although an unwelcome discovery, early detection once again allowed for rapid response, and the Task Force was able to implement a late season endothall treatment in Fall Creek in September 2013. Moving into 2014, the Fall Creek treatment area will be fully incorporated into the existing Cayuga Inlet Hydrilla Project. Endothall and fluridone treatments have been planned for both Cayuga Inlet and Fall Creek in 2014, and the Task Force and stakeholders are currently working on finalizing required NYSDEC herbicide permits and treatment logistics. Endothall treatments are anticipated to begin at the end of June/early July in Fall Creek, and the beginning/middle of July in the Cayuga Inlet. Subsequent low-dose, sustained fluridone treatments are anticipated to begin approximately 4-6 weeks after, and continue through early October.

The Erie Canal/Tonawanda Creek infestation response has been slower to materialize, largely due to the inability to find a local lead agency to oversee the monitoring, permitting and control implementation measures. The US Army Corps of Engineers agreed to be the lead agency late in 2013. Extensive delinea-



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STATE UPDATES: SUMMER 2014 NEW YORK (CON'T)



“Unfortunately, the most recent [Hydrilla] (16th) infestation in New York state was discovered in Prospect Park in Brooklyn.”

tion surveys began in July of 2013 and involved the US Fish and Wildlife Service, DEC, and the Ontario Ministry of Natural Resources. The infestation was found to be larger than originally thought, with plants found in the canal from the Niagara River and 15 miles east. Funds for a large treatment were unavailable in short notice in 2013, as it was late in the season. USACE secured funds for the project titled “Hydrilla control demonstration project” and treatment is planned for this year. DEC and Canal Corporation are also partners on this project. This project will demonstrate a hydrilla control method for moving water systems containing extensive native vegetation.

The USACE has contracted with an aquatic consultant to monitor water quality during the treatment, as well as assist with pre treatment monitoring and outreach. The treatment is complex in that the hydrology of the canal must be carefully controlled for 48 hours. Water levels and flow will be sent in real time hourly to USACE project managers, aquatic consultants, and the Canal Corp. Pre treatment surveys will begin the week of the 23rd and the actual treatment will occur the week of July 21st. Hydrilla treatment in the canal is expected to be repeated every season for 5-7 years, pending available funding.

New findings

Unfortunately, the most

recent (16th) hydrilla infestation in New York state was discovered in Prospect Park in Brooklyn; there remains some hope that this infestation is small enough to allow initiation of local physical control measures to prevent spread and work toward eradication of these beds.

Goodbye

Finally, NEAPMS wishes Jay Bloomfield, one of the founding members of the organization, a fond farewell as he retires from DEC after nearly four decades of work on the lakes of New York state.

Thanks to James Balyszak, Jen Tait and Dave Adams for their contributions to this update.

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STATE UPDATES: SUMMER 2014

NEW JERSEY

Susan Brookman

New Jersey Invasive Species Strike Team
(www.njisst.org)

The New Jersey Invasive Species Strike Team continues to champion the cause for awareness, education, documentation and control of invasive species in the Garden State. Despite changes in the Strike Team's core leadership positions, several notable accomplishments were achieved before the growing season even got into full swing this year. These included the formation of a Technical Advisory Committee, and a one day invasive species conference held at a fantastic "green facility" at scenic Duke Farms that was attended by 139 volunteers, professionals, and government officials. But by far, our most notable achievement was the development of an invasive species App for smartphones (see Tech Update #1).

The Strike Team focuses its work on emerging invasive species by coordinating Early Detection/Rapid Response efforts throughout the Garden State. With partners representing all levels of government, state and local conservation organizations, agricultural producers, community groups and even private individuals, the Strike Team searches for emerging invasive species, maps locations where populations are detected and then takes action to eradi-

cate (or control) them. It has been gathering data about invasive species in the Garden State since 2008, and recently released a new tool to make the task of collecting data a simple one for citizens and scientists alike.

Thanks to a Conservation Innovation Grant from the USDA Natural Resources Conservation Service (NRCS), the Strike Team has developed **New Jersey Invasives** to enable people with smartphones to learn about, identify and report invasive species. With the App, a user who sees something they suspect may be an invasive species can scroll through photos to identify what they see, read information about it, then take a picture and submit a report - it's that simple! Members of the Strike Team's Technical Advisory Committee (experts in the fields of botany, entomology, **aquatic biology** and the like) verify each sighting and add the information to the on-line database it uses to track the spread of problem species. The App was developed by the University of Georgia's Center for Invasive Species & Ecosystem Health, and all the data collected by the Strike Team is fed into the national database of invasive species.

Invasive aquatic plants the Strike Team have asked aquatic biologists, anglers and property owners to be especially on the lookout

for this year include *Glossostigma cleistanthum* (mudmat), *Callitriche stagnalis* (European waterstarwort), *Didymosphenia geminata* (rock snot), *Egeria densa* (Brazilian waterweed), *Eichhornia crassipes* (common water hyacinth), *Hydrocharis morsus-ranae* (European frog-bit), *Marsilea quadrifolia* (European watercress), *Nymphaea peltata* (yellow floating heart), *Pistia stratiotes* (water lettuce), *Cabomba caroliniana* (Carolina fanwort), *Hydrilla verticillata* (hydrilla), *Myriophyllum aquaticum* (parrotfeather), *Najas minor* (brittle leaf naiad), *Ludwigia peploides* (creeping waterprimrose) and *Myosoton aquaticum* (giant chickweed). Populations of these plants have been detected in very small numbers (less than 20 each) within New Jersey and the contiguous counties of nearby states. It is therefore reasonable to believe that any populations detected this year can be eradicated, preventing their spread. Users of the **New Jersey Invasives** App can see where invasive aquatic species have been reported in and around the state.

*"Thanks to a Conservation Innovation Grant from the USDA Natural Resources Conservation Service (NRCS), the Strike Team has developed **New Jersey Invasives** to enable people with smartphones to learn about, identify and report invasive species."*



STATE UPDATES: SUMMER 2014 VERMONT

The NEAPMS Board is looking for individuals interested in submitting State Updates for the following states: Massachusetts, Connecticut, Rhode Island and Pennsylvania. If you are interested in contributing to the *Nor'Easter*, please contact Chris Doyle at doyle@alliedbiological.com

Ann Bove
Vermont DEC

New Finds
A new population of *Myriophyllum spicatum* (Eurasian water milfoil) was found by state biologists conducting annual spring water quality sampling in Lime Pond (10 acres) in central Vermont. Although Lime Pond becomes the 68th Vermont lake/pond with a population of *M. spicatum*, roughly 78% of Vermont's lakes and ponds are *not* infested with *M. spicatum* or another aquatic invasive plant or animal. Lime Pond's *M. spicatum* population is considered moderate with limited growth

throughout the shallow pond.

Public Boat Access Greeters

2014 marks the 7th year VTDEC offered spring trainings for public boat access "greeters." Greeters "educate, inspect and stop aquatic invasive species introductions." This year, 113 individuals representing 30 water bodies participated in offered workshops. In 2013, 23 locally-run greeter programs located around Vermont reported nearly 15,000 boat inspections. Of these, 2% of launching boats were found to be carrying plant material or animals, 74% was identi-

fied as *M. spicatum*. The program began in 2002 and last year brings the total cumulative number of boats inspected to 73,572.

Aquatic Invasive Species Grants

Municipalities requested over \$838,000 to manage and prevent the spread of AIS. A pot of both state and federal funds of \$376,000 was available to award; 31 municipalities will receive funds to support a mix of spread prevention related programs and *M. spicatum* control efforts. Most of these programs are well underway for the season. Despite a long, cold Vermont winter and a delayed spring, lots of available sunlight in June boosted invasive aquatic plant growth.

VTDEC oversees a **management program for *Trapa natans*** (water chestnut) in Lake Champlain and 25 other water bodies with many partners. State and federal funds are available this year for contracted work, both mechanical harvesting and removal of plants by hand. After 31 years of consistent management – and a cost of \$10.7 million plus – notable population reductions in all water bodies have been documented.

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If you'd like to advertise in the Nor'Easter, please contact Glenn Sullivan (glenn@alliedbiological.com). Both 1/4 page and business card-sized ads are available.

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“We now have web-based smartphone and tablet apps that enable users to identify, collect, inventory, use, track and transmit digitized data on invasive species of concern.”



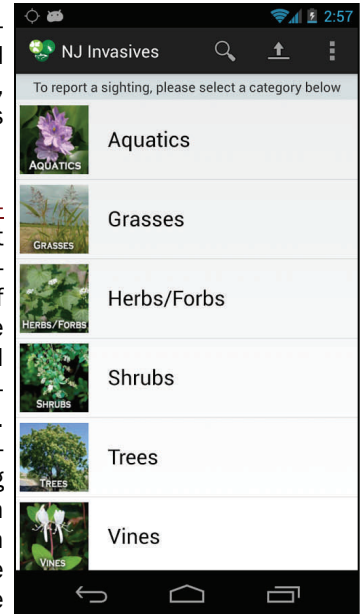
“The inventor is a 2013 graduate of the University of Washington, who funded the initial production via a popular crowdfunding website the same year he graduated.”

TECH UPDATE #1

APPLYING New Technology to Identifying Invasive Species

Thanks to a grant from the Natural Resources Conservation Service, we now have web-based smartphone and tablet apps that enable users to identify, collect, inventory, use, track and transmit digitized data on invasive species of concern.

Developers at the University of Georgia's [Center for Invasive Species & Ecosystem Health](#) have created an app that now provides an easy-to-use, reliable means for field biologists and the layperson to accurately report sightings of invasive species in the New Jersey. The app eliminates the need for cumbersome printed field guides, clipboards and gps devices – it will allow smartphone users to submit geo-tagged photos and information via online data entry forms. Data is uploaded directly into the New Jersey Invasive Species Strike Team database, where it is verified before being entered into the national Early Detection & Distribution Mapping System database, which is being used to gain an accurate picture of invasive species distribution across the United States. Both the state and national data can then be searched, queried and downloaded in a variety of formats, and the maps generated will help us fill in information gaps and identify likely locations of undetected invasive species populations.



For more information, check the New Jersey Invasive Species Strike Team Website (<http://www.njisst.org/>) or <https://play.google.com/store/apps/details/>

TECH UPDATE #2

The Micro Phone Lens



Bring the microscope into the field, using your smartphone! The micro phone lens is a tiny self-adhesive plastic lens that attaches directly to your smartphone camera. This turns your smartphone camera into a microscope that can magnify objects 15X (60X with the zoom on most cameras). This is perfect for capturing the fine details of aquatic plants, or other microscopic critters we encounter during our routine field work in the Northeast. Although a bit tricky to use (we've tried it), for \$15.00 it sure beats lugging a \$1,000 microscope with a \$500 camera attachment into the field. The inventor is a

2013 graduate of the University of Washington, who funded the initial production via a popular crowdfunding website the same year he graduated. The feel-good story had a happy ending, as over \$90,000 was pledged to produce over 5,000 lenses. The extra funds were used to develop a 150X lens, which launched its own successful crowdfunding campaign in mid-2014.

For more information: <http://www.microphonelens.com/http://www.microphonelens.com/>

SCHOLARSHIP UPDATES

Bianca Pier

Darrin Fresh Water Institute/Rensselaer Polytechnic Institute

Title: Acclimation to and possible mitigation of anthropogenic nutrients by wetland plants in the Lake George Watershed

The field and experimental portions of my research are now complete and I am in the process of publishing my results and writing my doctoral dissertation. Throughout my studies, I have learned about wetland plant response to varying degrees of human impact, suggested supplements to traditional Florist Quality Assessment (FQA) measures, understood ecological succession based upon vegetation establishment in a constructed wetland, and devised phytoremediation strategies using a duckweed-based system. I presented the results of my constructed wetland succession studies at the Joint Aquatic Sciences Meeting in Portland, Oregon in May 2014. I also have two manuscripts that I am currently submitting for publication. They are "A Pre- and Post-Planting Ecological Analysis of a Constructed Mitigation Wetland in the Adirondacks" and "Comparing plant dynamics in a pristine and an impacted wetland sharing the same watershed." I plan on publishing the results of my phytoremediation studies, as well as defending my doctoral dissertation in the coming fall semester.



Bianca Pier measuring leaves of a yellow water lily collected from a wetland in Lake George, NY. In this study, Ms. Pier was examining morphological response to anthropogenic impact.

Andrew Brainard

SUNY College of Environmental Science and Forestry

Title: Non-native Macrophyte Biomass and its Influence on Macrophyte Communities in Relation to Recreational Boat Use

Andrew Brainard, a Ph.D. Candidate at SUNY College of Environmental Science and Forestry in Syracuse, NY, is researching the effect of recreational boat traffic in the Adirondacks on aquatic plant communities. The purpose of the research is to test whether increased use of boat



launches (i.e., increased propagule pressure of plants from other lakes) results in increased non-native macrophyte biomass, and to observe the subsequent effect on macrophyte richness and diversity. During the summer of 2013 eleven lakes were sampled, and an additional five lakes were sampled in 2014 with support from the Northeast Aquatic Plant Management Society Graduate Student Scholarship program.

Scholarship Committee

Chuck Boylen

Mark Heilman

Ken Wagner

Bin Zhu

Bob Johnson

Chris Doyle

Will Stevenson

Mark June-Wells

How Are We Doing?

By now, you've noticed we have a new format for the Newsletter. What do you think? Please forward any suggestions, or if you would like to contribute to an upcoming newsletter, to Chris Doyle (doyle@alliedbiological.com)

Graduate and Undergraduate Scholarships and Stipends Available!



The Northeast Aquatic Plant Management Society
announces the availability 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.

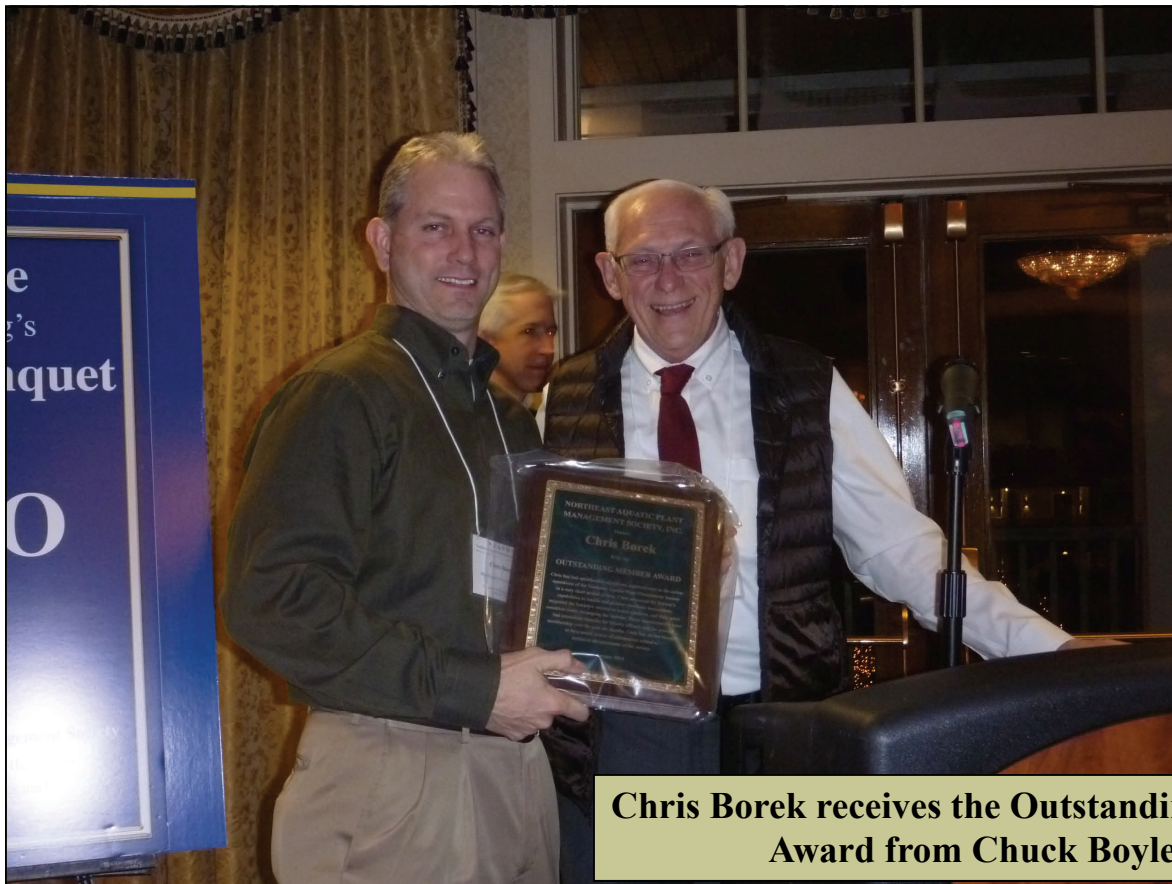
*For more detailed information
visit the NEAPMS website at
www.neapms.net
and click on Scholarships*



Chuck Boylen receives an award from Gerry Smith as an outgoing Board Member



Photos courtesy of A. Smagula



Chris Borek receives the Outstanding Member Award from Chuck Boylen



In one of his final acts of power, Paul Lord addresses the crowd at the Annual Banquet

Photos courtesy of A. Smagula



Paul Lord receives an award from Gerry Smith as the outgoing President of NEAPMS



The Annual Awards Banquet is always an anticipated event at the Annual NEAPMS Conference

Announcing: The 2015 NEAPMS Poster Contest

The Board of Directors is pleased to announce a scientific poster contest at the 2015 NEAPMS conference. Two categories will be awarded prizes supplied by our gracious sponsors: Student and Professional. Poster 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, please contact Glenn Sullivan (glenn@alliedbiological.com). If you are interested in becoming a Poster Judge, please contact Chris Doyle (doyle@alliedbiological.com).





Check Out Our Website:
www.neapms.net



See you in January at Saratoga Springs!

ANNOUNCEMENTS

Reminder: The NEAPMS Board of Directors Meeting is Tuesday September 16, 2014 in Saratoga Springs, NY

If you have any questions, comments, or suggestions, please reach out to a Director for discussion at our September Board Meeting.

October 8-10, 2014:
SCAPMS
Myrtle Beach, SC
www.scapms.org

October 13-16, 2014
FAPMS
Daytona Beach, FL
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October 10-14, 2014:
TAPMS
Hamilton, TX
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November 12-14, 2014:
NALMS
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January 20-22, 2015:
NEAPMS
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