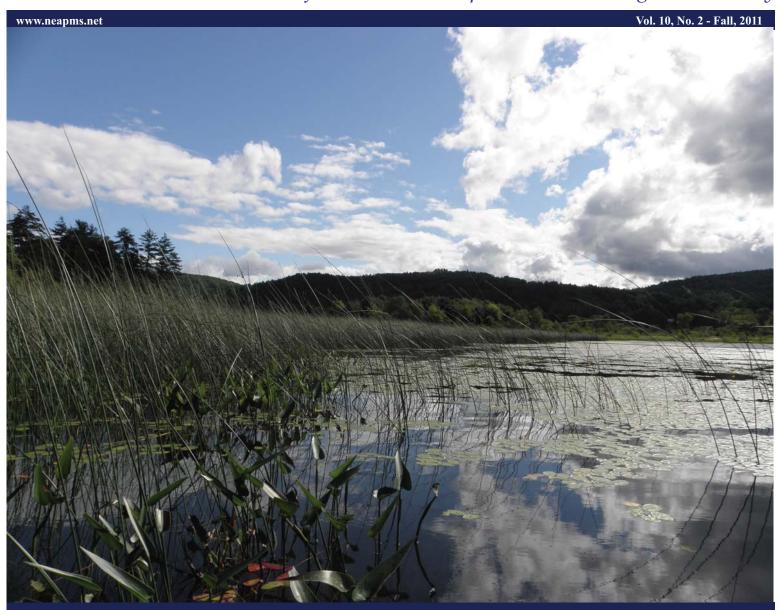


NOR' EASTER

A Newsletter of the Northeast Aquatic Plant Management Society



In this issue...

Board Members and Committees - Page 2
Message from President John McPhedran - Page 3
State Updates - Pages 4-9, 12-15
2012 Preliminary Program - Pages 10-11
Scholarship Updates - Page 16
Remembering Jody Connor - Page 18
Announcements and Upcoming Events - Page 18
Conference Registration Form - Page 19

NORTHEAST AQUATIC PLANT MANAGEMENT SOCIETY

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

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join a Committee!

Advertisement in *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.

Cover Photo: Thorndike Pond in Jaffrey, New Hampshire, taken by Amy Smagula

PRESIDENT'S MESSAGE

A message from **President John McPhedran**

At the September meeting of the NEAPMS Board of Directors (BOD) in New Hampshire, Secretary Amy Smagula reported our membership reached an all-time high of 152 this year. Given the annual rise in membership since 2008, and the impressive slate of talks for our upcoming meeting, I'm optimistic we will do even better in 2012. Our 13th Annual Conference returns to Wentworth by the Sea in New Castle, New Hampshire, January 17-19, 2012. Please review the Preliminary Conference Program (in this newsletter and online at https://neapms.net/conference.php) to see what's planned for January.

My sincere thanks go to NEAPMS members who submitted abstracts for the 2012 Conference, Marc Bellaud (BOD Member) for arranging the program, Amy for coordinating our stay at the Wentworth, the remaining BOD members for pitching in along the way, and the generous sponsors of our Conference. On a related note, the BOD is pursuing upgrades to the NEAPMS website to facilitate online payment for membership and conference registration.

Please stick around for our Annual Business Meeting Wednesday the 18th starting at 4:30, right after the hydrilla talks. Besides hearing updates from our officers, national APMS and the Aquatic Ecosystem Restoration Foundation, we will fill six slots on the board: two Members-at-large, Editor, Treasurer, Secretary, and Vice-President/President Elect. The Board is looking for members to become involved with running the Society. If you have any nominations to suggest, please contact me (207.215.9863 or john.mcphedran@maine.gov) by close of business on Monday, December 16, 2011.

In addition to the formal presentations, I look forward to informal discussions with members when we convene in January. These side chats are an opportunity for me to explore management questions in depth, and provide information to solidify Maine DEP plans for next season's management of infestations. I'm grateful for the professional exchange fostered by the Annual Conference. Thank you for being a part of NEAPMS.

For those of you ravaged by the storms Irene and Lee during late summer, or pelted by the pre-Halloween midwinter-style snow storm, I hope that life has returned to some semblance of normalcy. Best wishes and safe travels for the holiday season.

Sincerely, John



MAINE

John McPhedran, Maine DEP

<u>Infestation Status: One new infestation in state waters, one new find on private pond, one setback of existing infestation</u>

Pleasant Lake/Parker Pond Association reported in early summer that variable water milfoil (*Myriophyllum heterophyllum*) had resurfaced in Pleasant Lake (Casco)—this time at a small inlet feeding the lake, diametrically opposite where an earlier infestation had been eradicated. The Association is tackling the new find as they have with its earlier infestation—by deploying benthic barriers. In 2010, DEP had removed Pleasant Lake from state roster of infested water bodies after the Association failed to find the plant during the three previous years. While the lake will be back on the infested list in 2012, DEP is hopeful that the Association's assiduous attention to the new infestation will once again be successful in removing variable water milfoil.

Another lake will be added to the infested list with the hybrid variable water milfoil: Mill Pond in Windham. DEP had long expected this population as the pond lies between two known infested waters (Little Sebago Lake and Collins Pond). Only in 2011 was it confirmed by plant monitors.

Maine's third hydrilla (*Hydrilla verticillata*) infestation was discovered in late summer in a private pond in the Midcoast region. The extreme density of this population and observations from the landowner suggest that this population has been there for two decades or longer, though we can't know with certainty. DEP is assessing risk of spread from this newly-discovered infestation and is discussing control options with the landowner.

Hydrilla has been found in a new location within the 4700-acre Damariscotta Lake (Jefferson). See Control Projects below.

DEP Control Projects

Salmon Lake (Belgrade): Three SCUBA surveys and local resident monitoring in 2011 revealed no Eurasian water milfoil (*Myriophyllum spicatum*) in the 7-acre outlet cove where the plant was discovered in August, 2008. Since then, DEP has addressed this site with extensive manual removal by hand and deployment of benthic barriers capped by an herbicide (2, 4-D) treatment in September 2009. In continued anticipation of when (not if) this infestation returns, DEP will resume manual controls, namely hand pulling and benthic barriers.

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ck is a registered trademark of Phoslock Water Solutions Ltd. Always read and follow label directio right 2011 SePRO Corporation. Damariscotta Lake (Jefferson): DEP addressed Maine's second hydrilla (*Hydrilla verticillata*) infestation (after Pickerel Pond, Limerick, documented in 2002) with benthic barriers throughout much of the 1/3-acre lagoon where it was found in 2009. These commercially produced pervious barriers which – by design – permit release of gases, failed to block light sufficiently in the lagoon's shallow waters. The inefficacy of these barriers led DEP staff in August to hand remove hydrilla biomass and deploy homemade barriers using an alternative solid plastic material. DEP staff had hand-removed significant hydrilla biomass in 2009 and had contracted an herbicide (fluridone) treatment in 2010. Monthly SCUBA surveys just outside the lagoon reveal no new hydrilla infestation.

Labor Day weekend brought yet another setback for Damariscotta Lake when a resident discovered the first of several patches of hydrilla thriving in a stream feeding the lake, about three miles north of the lagoon infestation. With support of volunteers from the Damariscotta Lake Watershed Association (DLWA), DEP hand removed these patches and deployed benthic barriers on portions of the stream not likely to be impacted by springtime flows. DEP and the Maine Department of Inland Fisheries and Wildlife (DIFW) banned all boat access to the infested portion of the stream by declaring a temporary Surface Use Restriction for the remainder of the 2011 boating season.

DLWA and DEP anticipate addressing this new infestation in 2012 with routine and frequent hand removal, benthic barrier deployment and use of nets across the stream to limit the spread of hydrilla fragments. DEP is fortunate that DLWA exists to provide local

4

MAINE continued

John McPhedran, Maine DEP

support and active participation in the prevention and removal effort.

Maine NBC-news affiliates reported this effort: http://www.wcsh6.com/news/article/173393/314/Volunteers-Maine-DEP-fight-invasive-hydrilla

Pickerel Pond (Limerick): DEP contracted a ninth consecutive year of herbicide (fluridone) treatment for control of the State's first hydrilla infestation. DEP SCUBA survey revealed a second consecutive year without detecting hydrilla, leading DEP to announce that it would forego herbicide treatment for the 2012 season. DEP will continue to survey the pond – at least in 2012 – and a newly energized Pickerel Pond Association has offered to participate in state-sponsored plant identification training program so as to assist in hydrilla surveillance. This infestation was discovered in 2002.

Pleasant Hill Pond (Scarborough): With the help of the Pond's owner, Maine DEP in 2011 addressed the resurgence of Eurasian water milfoil by deploying benthic barriers over a dense portion of the infestation. With DEP guidance, the owner will take charge of monitoring and redeploying barriers in 2012. This infestation was discovered in 2003.

Great Meadows Stream/Great Pond (Belgrade): Maine DEP and DIFW Commissioners reauthorized a Surface Use Restriction for the 2011 boating season to prevent power boat traffic into areas undergoing variable water milfoil control (hand removal, benthic barriers) led by the Belgrade Region Conservation Alliance. This infestation was discovered in 2010.

Legislation

Maine DEP and DIFW are undertaking preliminary discussions on whether to pursue a prohibition on the sale and/or use of felt-soled waders in Maine waters. Prohibitions regarding felt-soled waders, already enacted in Vermont, Maryland and other states, seek to prevent introduction of didymo (*Didymosphenia geminata*) by itinerant anglers.

Also on the didymo front, legislation passed in April 2011 broadened the statutory definition of "aquatic plant" which opens the way for didymo to be listed as invasive in Maine. Maine DEP staff is drafting a position statement on didymo listing to be reviewed by the DEP Commissioner for consideration and potential listing.

Volunteerism Extraordinaire

A crack team of trained volunteers outdid themselves in mid July when they responded to a potential infestation of Eurasian water milfoil (EWM) in Tripp Lake (Poland).

The incident began with a Courtesy Boat Inspector's interception of EWM about to enter Kezar Lake (Lovell). The boat owner reported to the inspector that he had been in Tripp Lake prior to arriving at the Kezar Lake boat ramp.

That report prompted the Maine Center for Invasive Aquatic Plants to rally its trained Invasive Plant Patrollers (IPP) to descend upon Tripp Pond within hours to determine whether EWM had originated in Tripp Pond. Within two weeks of getting the call, and including the long 4th of July weekend, these volunteers conducted a full inventory of native plants within Tripp Lake's entire littoral areas including a screen for all eleven of Maine's listed invasive aquatic plant species.

No EWM was found in Tripp Lake in 2011 so, with the assumption that the EWM fragments may have been freshly introduced into Tripp Lake from another boat originating elsewhere, the Tripp Lake Improvement Association has been put on notice to be vigilant for EWM in 2012. The Association has already designated volunteers to participate in IPP training in 2012.

Please check DEP's website http://www.maine.gov/dep/blwq/topic/invasives/index.htm or email milfoil@maine.gov.



NEW HAMPSHIRE: Amy Smagula, New Hampshire DES

Prevention:

The New Hampshire Lake Host Program was very active this summer, covering nearly 90 public access sites on more than 73 waterbodies across the state. This program serves to educate the transient boater about exotic aquatic plants and the threats they pose. A running tally of plants collected from boats (during courtesy inspections) yielded about 300 occurrences of plants attached to recreational gear, of which 40 were some species of prohibited exotic aquatic plant. This was from a total of 57,986 boats that were inspected through this program since May.

Early Detection:

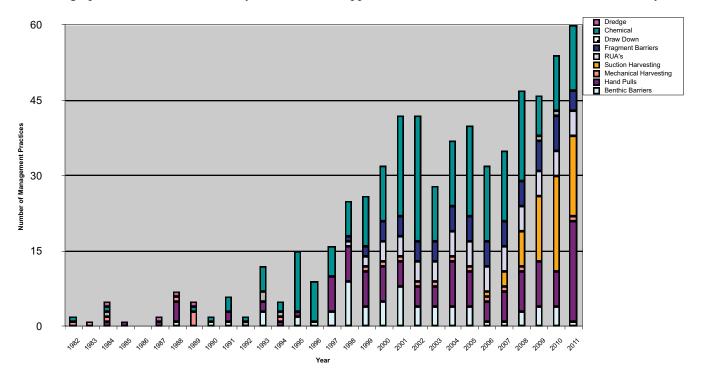
New Hampshire now has well over 700 trained Weed Watchers volunteering their time on nearly 350 waterbodies across the state. Weed Watchers are trained to monitor their waterbodies once a month from May through September for early detection of new infestations, or for monitoring for the status of existing infestations.

So far in 2011, there have been no new infestations of exotic aquatic plants documented by Weed Watchers or by state biologists. Hopefully we can go into the winter without any new waterbodies added to the list in 2011.

Control Actions:

During the 2011 growing season, a number of control activities were performed on lakes, ponds and rivers across the state, for a variety of exotic aquatic plants.

New Hampshire is working hard to implement long-term control efforts using an integrated approach at management. As you can see from the graph below, we have certainly diversified the approaches that are used for control actions over the years.



Most of the 76 infested waterbodies have long-term management plans in place, helping to guide management and earmark funds so those control practices can go forward.

Policy

There is an inter-agency initiative concerning exotic aquatic plant control activities in New Hampshire that is evaluating current processes and laying plans for future activities related to exotic aquatic plant management. This initiative came about as a result of some long-embedded philosophical differences among the state agencies related to exotic aquatic plants that led to some impediments in controlling these species in New Hampshire's waterbodies.

NEW HAMPSHIRE: ...continued

Amy Smagula, New Hampshire DES

- In January 2011, agency heads and key staff from the Department of Agriculture, the Department of Resources and Economic Development, the Fish and Game Department and the Department of Environmental Services met for a moderated session to evaluate the mechanisms in place to monitor for, map and control exotic aquatic plants.
 - O During this meeting the issue of rare, threatened and endangered species (RTE species), and how they interact with exotic plants, was discussed.
 - Other planned actions from this meeting included better sharing of data and information, development of an inter-agency Memorandum of Agreement, review and revision of Long-Term Management Plans, and implementation of the LEAN (streamlining) process on the pesticide permitting process, among others.
- There was a consensus from this January meeting that Long-Term Management Plans are useful and appropriate to have for each infested waterbody.
 - Agency staff from DES, DRED, F&G and Ag met to evaluate all components and contents of existing Long-Term Management Plans. During this meeting it was determined that some edits to the existing plan template were needed, and each of the agencies would work to contribute information from their respective areas of expertise for the plan.
- In August 2011, agency staff and invited participants (public/lake representative, water supply staffer and an herbicide applicator) again met but this time to systematically work through the permitting process for herbicide applications to control exotic aquatic plants in what is termed a LEAN process. Outcomes from this meeting will result in some modifications to the pesticide permitting process, and in Long-Term Management Plans being integral in the process of exotic aquatic plant control.
- Currently, DES is taking the lead on revising an existing inter-agency MOA between Fish and Game and DES to include the other agencies that have a hand in environmental reviews relative to the exotic plant control process. This revised MOA will ensure better inter-agency cooperation, will outline activities that each agency is responsible for seeing through, and will incorporate adequate reviews of each project to ensure that any RTE species are identified and appropriate protections and suitable alternatives are recommended by experts in the field to protect these species while pursing the goal of exotic aquatic plant reduction and management.

Legislation

There is one bill that was retained from the 2010/2011 legislative session, dealing with prohibiting exotic aquatic plants from being considered habitat for rare, threatened and endangered species. We are uncertain how the legislative committee will act on this bill. It passed the House by majority vote, but it has been retained in the Senate committee since spring 2011, pending outcomes of inter-agency mediated sessions on exotic aquatic plant control in New Hampshire.

There was one Legislative Service Request (early phases of a bill) proposed for the 2011/2012 legislative session, looking to ban herbicide use in all surface waters in New Hampshire (though it was originally aimed at just drinking water supplies). The state agencies responsible for exotic plant management and herbicide permitting worked closely with the bill sponsor to clarify the process for project review that already exists to safeguard New Hampshire's waterbodies, so perhaps this piece of legislation will not move forward. Its status is being closely monitored, however.

<u>Funding</u>: NH, like most states, is taking the funding issue day by day.



VERMONT

Ann Bove, Vermont DEC

Two record 2011 flooding events, the first in the spring-- heavy rains and snow melt brought Lake Champlain to record levels and more than three feet above flood stage-- and the second courtesy of Tropical Storm Irene on August 28-- up to 8 inches of rain fell in less than a day, significantly damaging many areas within roughly three quarters of the state -- have left those of us managing aquatic invasive species expecting significant expansion of and colonization by invasive species already known from the state and possibly new ones. Expanded Eurasian and variable-leaved watermilfoil growth was reported as were reports of significant Japanese knotweed expansion along river corridors and shorelines, and into deposition areas. New infestations of species like water chestnut, didymo and Eurasian watermilfoil wouldn't be unexpected after these unprecedented events.

New Finds: Two new Eurasian watermilfoil populations were found late this season: Shadow Lake in the Northeast Kingdom's Glover and Rutland City Reservoir, the City of Rutland's main water supply with no public access. Despite plummeting water temperatures, handpulling is underway in both water bodies, benthic matting will be installed shortly in Shadow Lake and diver operated suction harvesting is proposed for 2012 in Rutland City Reservoir. No other new finds of existing or new species were detected this season.



Public Boat Access Sign Gets Facelift: Vermont aquatic invasive species law changes led to the redesign of Vermont's invasive species spread prevention sign. The change to Vermont's transport law by the state legislature, making the transport of *all* aquatic plants illegal, provided an opportunity to better portray the message of spread prevention and reflect current laws. Over 180 Vermont public boat launches now portray the new sign.

NPDES Status: Public informational meetings on Vermont's draft Pesticide General Permit were held around the state in September with public comments accepted through September 30, 2011. The Agency of Natural Resources expects to issue a final PGP decision following EPA's PGP issuance. Vermont's draft PGP is available at http://www.anr.state.vt.us/dec/waterg/permits/htm/pm anc.htm

Regional Invasive Species Leadership Initiative: A newly forming inter-state invasive plant collaboration, the Connecticut River Watershed Invasive Species Leadership Initiative—spearheaded by the Silvio O. Conte National Wildlife Refuge-- hopes to support new and existing cooperative invasive species management areas within the watershed. Six subwatershed "CISMAs" currently exist in the region -- two in Vermont; two in CT; one in MA; and one spanning portions of Vermont, New Hampshire and Quebec. The Leadership Initiative and

CISMAs expect to provide an integrated network better equipped to prioritize invasive plant control actions, and plan and implement early detection and rapid response actions within the watershed.

PENNSYLVANIA

Jack Hanish, Pennsylvania Lake Management Society

Since the last newsletter, Pennsylvania has filled in the blanks of its regulatory organizational structure, budgets were finalized, and the marching orders went out to implement the Governor's policies. With reduced budgets, agencies were tasked to reorganize and reduce staffing to meet their respective charters. During this period the state experienced a record rainfall, serious flooding, a hurricane, an earthquake, and finally, a record early snowfall.

For the intrepid aquatic plant people, a caution! The PA Department of Health representative to the PA Invasive Species Council announced at the October quarterly meeting that the tick-borne *Powassan encephalitis* virus was detected in PA. He said further that when traversing or working in areas that harbor lyme disease ticks, the rare, but dangerous, virus can be spread instantaneously by a single bite of an infected tick.

Other news from the Council:

PA Department of Agriculture Deputy Secretary Jay Howes was named Chairperson for the Governor's Invasive Species Council, and Director John Breitsman was named Chair Alternate.

PENNSYLVANIA ... continued

Jack Hanish, Pennsylvania Lake Management Society

Nine pick-up trucks of water chestnut were removed from Lake Towhee in Bucks County.

Zebra mussels were found in the lower Susquehanna. How did they get there? Any reports in between the lower population and the north population on the main branch of the river?

Plastic boat ramp signs targeting aquatic invasive species are available from the Pennsylvania Lake Management Society (PALMS). Check out their updated website for more information at www.palakes.org.

Speaking of PALMS, recent internal e-mail traffic indicated an explosion of american lotus (Nelumbo lutea) on Pymatuning

Reservoirs. What to do? It is currently on the PA endangered species list, but may soon be de-listed. According to Steve Grund, who was on the e-mail train along with Dr. John Wiesema, USDA, "Appropriate management of this species should be determined carefully, within a narrow regional context, as the natural range of the species is not clearly understood."



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N E A P M S 13TH ANNUAL MEETING PRELIMINARY PROGRAM

Tuesday January 17, 2012

12:00 – 6:00 PM	Registration Table Open
1:00 – 3:30 PM	Workshop #1- Emerging and Evolving Products for Aquatic Plant Management
	Algae Control Without Chemicals
	Kirk Whatley, Sonic Solutions
	Targeted Algal Management Case Studies: Using Lake Based Data to Proactively Manage
	Problematic Algae and Cyanobacterial Blooms
	Bill Ratajczyk, Applied Biochemists
	Advanced Solutions for Combating Harmful Algal Infestations
	West Bishop, SePRO
	Innovative Formulation Development for Sonar, Renovate, and Clearcast Herbicides:
	Past, Present, and Future
	Mark Heilman, SePRO
	A Case Study of the Operational Use of Tradewind Herbicide for the Control of Hydrilla
	in a Florida Lake
	Jill Calabro and Joe Chamberlain, Valent USA
	A Summary of the Field Use of Clipper Herbicide (flumioxazin) in
	the First Year of Use, 2011
	Jim Petta, J. Fausey, T. Mayhew, J. Chamberlin, J. Calabro, & M. Riffle, Valent USA
4:00 – 5:30 PM	Workshop #2- Hands-On Plant Workshop
	Chris Doyle, Allied Biological
	Bob Johnson, Cornell University
	Robynn Shannon, University of Connecticut
5:30 – 6:30 PM	Cocktail Hour
	Cash Bar in Exhibit Area
6:30 – 9:00 PM	Free Time and/or Dinner on Your Own
9:00 – Wee hours	NEAPMS Hospitality Suite
W- J J T	10 2012
Wednesday January	y 18, 2012
8:30 – 9:30 AM	Continental Breakfast
8:15 – 9:45 AM	Registration/Exhibits
9:45 – 9:50 AM	Welcome
7.15 7.50 / HVI	John McPhedran, NEAPMS President
9:50 – 10:30 AM	Keynote Address- Future of Third-Party R&D as Related to Aquatic Plant Control
7.50 10.501111	Kurt Getsinger, Army Corps of Engineers
10:30 – 11:00 AM	Evaluating the Effectiveness and Potential Interactions of Combining Triclopyr and 2,4-D for
10.50 11.007111	Eurasian Water-Milfoil Control
	John Madsen, Mississippi State University
11:00 – 11:30 AM	Absorption and Translocation of Fluridone, Penoxsulam and Triclopyr by Eurasian Water-Milf

11:00 – 11:30 AM Absorption and Translocation of Fluridone, Penoxsulam and Triclopyr by Eurasian Water- Milfoil and Hydrilla

Joseph Vassios, Colorado State University

Saratoga Lake Successful Management of Eurasian Water-Milfoil

Dean R. Long, The LA Group

12:00– 1:00 PM Lunch

11:30 - 12:00 PM

1:00– 1:30 PM Industry Updates

1:30 – 2:00 PM BEEP: Brazilian Elodea Eradication Project on Lake Waccabuc, NY: A Case Study

Janet Andersen, Three Lakes Council

2:00 – 2:30 PM Report on Lake Champlain Water Chestnut Harvesting

Tim Hunt, Vermont DEC

2:30 – 3:00 PM Results of Drawdown for Aquatic Plant Control at Candlewood Lake, Connecticut

George Knoecklein, Northeast Aquatic Research

3:00 – 3:30 PM **Break/Exhibits/Posters**

3:30 – 4:00 PM Monoecious Hydrilla Phenology on Two North Carolina Lakes

Sarah True Meadows, NC State University

N E A P M S 13TH ANNUAL MEETING PRELIMINARY PROGRAM

Wednesday January 18, 2012

4:00 – 4:30 PM	Monoecious Hydrilla Tuber Dynamics over Five Years of Management
	Justin Nawrocki, NC State University
4:30 – 5:15 PM	NEAPMS Business Meeting/APMS & AERF Updates
	John McPhedran/NEAPMS BOD, Tyler Koschnick (APMS) and Carlton Layne (AERF)
5:15 – 6:00 PM	Free Time
6:00 – 7:00 PM	Attitude Adjustment Hour/Cash Bar
7:00 – 9:00 PM	NEAPMS Awards Banquet
9:00 – Wee hours	NEAPMS Hospitality Suite

Thursday January 19, 2012

7:30 - 8:30 AM	Continental Breakfast
8:30 - 9:00 AM	The Water-Lilies of the World (Nymphaeaceae), with Emphasis on the Native Northeastern
	Species
	C. Barre Hellquist, MA College of Liberal Arts
9:00 – 9:30 AM	Beyond the Birds and the Bees: Pollination in Aquatic Plants
	Robynn Shannon, University of Connecticut
9:30 – 10:00 AM	Abiotic Characteristics Controlling Plant Community Structure, Native Plant Diversity, and
	Non-native Plant Dominance in Lentic Systems: Implications for Risk Assessment and
	Management
	Mark June-Wells, CT Agriculture Experimental Station
10:00 - 10:30 AM	Break/Exhibits/Posters
10:30 – 11:00 AM	The Aquarium Trade as a Risk for Non-native Aquatic Plant Introductions
	Greg Bugbee, CT Agriculture Experimental Station
11:00 – 11:30 AM	Boom and Bust: Biological Invasions from a Population Ecology Perspective
	Robynn Shannon, University of Connecticut
11:30 – 12:00 AM	Balancing Strategic Goals with Emerging Threats
	Tyler Koschnick, SePRO/APMS
12:00 – 1:00 PM	Lunch and Silent Auction Announcements
1:00 PM	Adjourn
1:15 PM	NEAPMS Board of Directors Meeting

Posters

High Levels of Phosphorus, Negative Water Quality: The Solution, Phoslock West Bishop, SePRO

Monitoring Midwest Field Applications of Clipper Herbicide

Jason Fausey, Valent USA

To Kill a Macrophyte: Exposure Methods to Examine the Sensitivity of Aquatic Macrophytes to Chemicals Ashlee Kirkwood, Smithers Viscient

New Eurasian Water-Milfoil (*Myriophyllum spicatum*) Biocontrol Insect in DeRuyter Reservoir, Madison County, NY Paul Lord and Timothy Pokorny, SUNY Oneonta

Need More Information?

- For sponsorship and exhibitor information, please contact Glenn Sullivan at <u>glenn@alliedbiological.com</u>.
- For local arrangements/hotel information, please contact Amy Smagula at <u>Amy.Smagula@des.nh.gov.</u>
- For presenter information/program information, please contact Marc Bellaud at <u>mbellaud@aguaticcontroltech.com</u>.
- For information on the Silent Auction please contact Ann Bove at <u>ann.bove@state.vt.us</u> or John McPhedran at <u>john.mcphedran@maine.gov</u>.
- For information on registration please contact Amy Smagula at <u>Amy.Smagula@des.nh.gov</u> or Jim Sutherland at <u>jwsinack@comcast.net</u>.

NEW YORK

Scott Kishbaugh, New York DEC

Prevention, Outreach and Education:

There is a new and improved Invasive Species Clearinghouse website (www.nyis.info). However, the future of the New York Invasive Species Research Institute (NYISRI) is still up in the air, since Holly Menninger accepted a position with North Carolina State that will start in mid-November. Four PRISMs are now funded, and four are not, but it is anticipated that the request for proposals for the remaining four will be released in the first quarter of next year.

The Adirondack Park Invasive Plant Program (APIPP) hired a new Aquatic Invasive Species Project Coordinator. APIPP held two aquatic plant training sessions in 2011, attracting 67 participants, and these volunteer surveyors continue to search for aquatic invasives within the Park. Additional sessions were conducted as part of the NYS Federation of Lake Associations annual conference, the Northeast Natural History Conference, and two hydrilla-specific workshops in western New York state to address the on-going hydrilla infestation (see below).

Boat Stewards:

Twenty-four boat launch stewards were funded through Paul Smiths College and distributed among lakes in the northern Adirondacks, although a lack of housing in certain areas prevented some stewards from taking positions this summer. Some 17-18,000 boats were inspected and the stewards educated/interacted with about 37,000 people. Stewards inspected roughly 1,100 boats at Cranberry Lake and about 1,200 at Tupper Lake. There were two stewards stationed at Saratoga Lake; about 4,000 boats were inspected and 10,000 people were educated. Seven boat launch stewards were on Lake George this year, removing the same four species (zebra mussels, EWM, water chestnut, and curly leafed pondweed), and as of August, about 7,000 boats were inspected. Four Lake Champlain stewards were stationed at launches in NY and two were placed in VT. This was the first year that Lake Champlain Basin Program (LCBP) required a quality assurance plan from steward programs funded by LCBP.



The Annual CCE Agriculture and Food System In-service will take place from November 15-17 in Ithaca, NY, and invasive species will be a highlight, including a panel discussion about the hydrilla response in Cayuga Inlet (see below).

Early Detection:

The Lake Champlain Basin Rapid Response Task Force (RRTF) recently discovered variable leaf milfoil in the southern lake (New York side). The infestation is about 80 acres in size. It is dense in some areas and sparse in others. Because of the size of the infestation, eradication is not an option; instead, spread prevention will be the main focus. Getting a steward and posting additional signage will be important for next year. Variable leaf milfoil is the 50th known non-native species in Lake Champlain. The only other new finding in the Adirondacks in 2011 was a new European frogbit sighting in a private pond in Essex County. Outside of the Adirondacks, EWM, water chestnut, brittle naiad, and fanwort were found in a few locations, near other known infestations. It is likely that each of these represent "old but newly discovered" sites ensnared in statewide monitoring efforts that happened to come to these waterbodies.

Unfortunately, three new hydrilla findings were reported in 2011. The Cayuga Floating Classroom found a floating monoecious hydrilla fragment in the Cayuga Inlet in early August, and extensive survey work by Bob Johnson and Holly Menninger located hydrilla spread over an area of about 100 acres along the Inlet, but not in the lake itself. A rapid response task force comprised of federal, state, and local agencies and partners was rapidly formed, and the work by Bob, Holly, and Roxy Johnston

(City of Ithaca) was instrumental in mobilizing an inspection and educational program at public and private launches, closure of public and private launches, surveillance networks set up throughout the Inlet, lake and region (informed by two plant ID workshops attracting more than 70 attendees), and especially an aquatic herbicide (endothall) treatment in mid October, approximately 10 weeks after detection.

S T A T E U P D A T E S

NEW YORKcontinued

Scott Kishbaugh, New York DEC

The Task Force will continue to work for the next several years to get on top of the infestation, with a planned supplemental hand harvesting effort in the fall to tackle newly discovered plant beds.

Hydrilla was also discovered in two lakes in Long Island, bringing the total number of infestations on the Island to seven. The NY DEC and the Long Island Invasive Species Management Area (LIISMA) will work toward a long-term hydrilla surveillance, prevention, and management plan for the region.

Control Actions:

Upper Saranac Lake managers reported success in the battle against Eurasian watermilfoil (AWI surveyors now report that EWM is rare in the lake). Less than one ton of EWM was removed this summer for the entire 44 miles of shoreline during the 20 week harvest period. EWM treatment techniques in Chateaugay Lake include hand-harvesting with divers and benthic mats, but matting alone did not seem to be very effective, although in combination with hand-harvesting, it worked fairly well. The Adirondack Watershed Institute (AWI) originally reported 38,000 stems/acre in one of the sites, and now is only reporting about 1,400 stems/acre. This is about a 96% reduction.

Regulatory Update:

In September, Warren County passed a law making the transport of visible invasive species on watercraft and/or gear illegal. Violators could be fined anywhere from \$500-\$5,000. It is hoped that this will advance the statewide law that was transferred to the legislature in fall 2010. Warren County recently approved using \$100,000 of revenue from bed tax in the county to support invasive species control programs. As a response to the Warren County transport law, a marina owner located north of Norowal installed a boat washing station

MASSACHUSETTS

Marc Bellaud, Aquatic Control Technology, Inc. Tom Flannery, DCR Lakes and Ponds Program

Zebra Mussels:

In 2011, DCR opened and operated the State's first on-site boat decontamination facility at the Laurel Lake Public Access Ramp in Lee, Massachusetts. Zebra mussels were confirmed in Laurel Lake in July 2009, and this site remains the only lake or pond in Massachusetts with zebra mussels (they are also present in Laurel Lake's discharge rivers- Laurel Brook, and the mainstem Housatonic River). The permitting and construction phase took place during spring and early summer of 2011, and the wash station was opened on August 5th. Mode of decontamination is hot water wash (>150° F). The station closed on October 15th and is scheduled for re-opening in May of 2012. Data suggests that zebra mussels begin reproduction when waters warm to 50° F, and DCR is hopeful to have the station open at all times while water temperatures are at or above 50° F. The station is owned and operated by DCR and is available free to the public for users coming out of Laurel Lake. The 2011 efforts showed greater than 80% participation by recreational users for this voluntary program. DCR is hopeful that decontaminating boats coming out of Laurel Lake will significantly reduce the chance of zebra mussel spread to other area water bodies.

DCR staff surveyed the other 10 "high-risk" water bodies (based on water chemistry data) throughout the 2011 season, and did not observe adult zebra mussels or larvae (veligers) at any of those lakes.

Hydrilla:

Hydrilla control efforts continued at most of the known infestations in Massachusetts. Diver hand-pulling was used at 150-acre Mystic Lake in Barnstable to control the scattered shoreline infestation. Fluridone herbicide (Sonar) was applied to the 130-acre South Meadow Pond complex located in Clinton and Lancaster. Hydrilla containment and control was critical at this location due to its close the proximity to 4000-acre Wachusett Reservoir that provides drinking water to the greater Boston area. Two other sites that have been utilizing fluridone herbicide for several years were able to achieve control of hydrilla throughout the summer growing season with a single application of time-release fluridone pellets (Sonar One).

NPDES Update:

EPA's Federal Pesticide General Permit (PGP) will apply in Massachusetts, one of only six states in which EPA will serve as the permitting authority for the National Pollutant Discharge Elimination System (NPDES) Program. The Massachusetts Department of Environmental Protection currently issues annual License to Apply Chemicals for all non-exempt aquatic herbicide treatments performed in the State. This program is expected to continue unchanged. Over the next several months, the Massachusetts DEP will be working closely with the EPA and licensed aquatic applicators in the State to be sure that the Pesticide General Permit requirements are understood and that all notification and filing requirements are met.

NEW JERSEY: Glenn Sullivan, Allied Biological Inc.

New Jersey released its Final Surface Water Master General Permit prior to November 1, indicating its conformance with Federal NPDES guidelines. The permit was modeled after the EPA's 2010 Draft, not EPA's most recent draft or final permit issued in 2011. New Jersey law limits the NJDEP from making significant changes to permit conditions between Draft and Final permits. Therefore, NJ intends to modify or revoke the current permit and reissue it in the near future in order to incorporate EPA revisions. Until that time, NJDEP is *staying* its Final Permit, with the exception of several conditions, which will be enforced:

- Operators are required to comply with existing NJ laws and with FIFRA regulations governing the use of pesticides.
- Operators are required to minimize discharges, and use the lowest amount of pesticide to achieve effective control.
- Operators are required to conduct visual monitoring according to Permit guidelines.
- Operators are required to take corrective action when indicated, and report adverse incidents per Permit guidelines.
- Operators are required to follow Recordkeeping and Reporting Permit guidelines.

Under NJ's permit, "Operators" can be either those individuals responsible for the financing of or the decision to conduct a pesticide application, or the individual who performs or has control of the pesticide application and its Permit compliance. NJDEP has also established a set of *Interim Conditions* that are effective until the Permit is modified or revoked and reissued. These include the threshold values in the Table below. Operators will have until December 31, 2011 to submit an RFA form, if the threshold values below will be exceeded in the 2012 calendar year.

Use Pattern	Annual Threshold Value
Mosquitos/Flying Insects	6,400 acres of treatment area
Aquatic Weeds and Algae	20 linear miles or 80 acres of water
Aquatic Nuisance Animals	20 linear miles or 80 acres of water
Aquatic Agricultural activities	1,000 acres of treatment area
FW1 waters and Pinelands waters	100 linear feet or 5 acres



Pesticide users can access the Final Surface Water Master General Permit from the NJ Bureau of Surface Water Permitting at (609) 292-4860 or online at http://www.nj.gov/dep/dwq/pdf/final_pgp.pdf

In NJ invasive plant news, the New Jersey Invasive Species Strike Team continues to take the lead on documenting and mitigating invasive plants throughout the state. *Michael Van Clef*, the NJISST's Science Director, submits the following update on the Strike Team's efforts:

"NJISST lists nine emerging invasive species of aquatic plants/algae for freshwater ecosystems. Water chestnut is currently the most widespread species in New Jersey (20 records in the database through 2010, but this number is expected to increase significantly when individuals/entities submit additional records). Five of 20 records have been eradicated.

NEW JERSEY:continued Glenn Sullivan, Allied Biological Inc.

New Jersey Invasive Species Strike Team Aquatic Target Species

Scientific Name	Common Name
Didymosphenia geminata (Lyngb.) M. Schmidt - ALGAE SPECIES	rock snot
Egeria densa Planch.	brazilian water-weed
Eichhornia crassipes (Martius) Solms	water hyacinth
Glossostigma cleistanthum W.R.Barker	mudmat
Hydrilla verticillata (L.F.) Royle	hydrilla
Hydrocharis morsus-ranae L.	common frog bit
Marsilea quadrifolia L.	european waterclover
Myriophyllum aquaticum (Vell.) Verdc.	parrot feather
Pistia stratiotes L.	water lettuce

Two species, Water Hyacinth and Water Lettuce, may or may not be able to survive winter conditions in New Jersey, but occasional observations have been noted in several locations. Mudmat is known from a several locations in Mercer, Middlesex and Monmouth counties. There are a number of other species that also have extremely limited distribution or are currently absent in New Jersey including parrot feather, rock snot, brazilian water-weed, hydrilla and common frog bit, but additional searching for these species is required in coming years. The Brooklyn Botanic Garden Metropolitan Flora Project reports observations in Northern New Jersey for some of these aquatic weeds and the Strike Team is working toward pinpointing and quantifying these populations for the database to determine future control strategies. Additional information can be found in the NJIIST 2010 Annual Report at www.njisst.org."





Project/Progress Updates from Current NEAPMS Scholarship Recipients

Kimberly Lellis-Dibble University of Rhode Island, Department of Natural Resources

Title: Effects of plant invasions on trophic transfer, nekton fitness, and aquatic ecosystem function in the Northeast.

During the past few months, I have continued to process and analyze samples from last year. I also collected new samples during my July 2011 field season, which I am beginning to process and analyze. This includes extracting lipids from fish tissue, reading growth rate and age from otoliths, and running samples through an isotope ratio mass spectrometer to determine whether introduced *Phragmites australis* is being incorporated into salt marsh food webs in the Northeast. I will be collecting my final set of samples in the next few weeks, ending in mid-October. After those samples are processed and run, I will have all of the data essential for my dissertation. I have already begun to analyze data and I've been writing pieces of my dissertation, with the goal of finishing in fall 2012. I have also taken on numerous other side projects that I hope will turn into interesting papers some day (these aren't formally in my dissertation).

Jeremy Farrell RPI/Darrin Fresh Water Institute

Title: Expanding Hydroacoustic Technologies to Accurately Identify and Map Eurasian Watermilfoil and other Aquatic Plant Assemblages

I intend to finish my dissertation this coming spring with a publication on adapting hydroacoustics for the identification of Eurasian Water Milfoil submitted to a journal (probably JAPMS) no later than February 2012. I will also submit it to the Board to complete my written requirements for the scholarship. I presented my work at last year's NEAPMS meeting.



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Jody Connor

New Hampshire Department of Environmental Services and Long-term NEAPMS Member



"Do a good deed and pull a bad weed."

Jody Connor passed away on June 9, 2011 in New Hampshire at the age of 58. For the last 2½ years, he courageously battled lung cancer. His death was unexpected, and for those of us who knew Jody as a friend or a colleague, his passing is a great loss.

For the last 20 years, Jody was the Department of Environmental Services' director of limnology. Jody was instrumental in creating many New Hampshire freshwater programs - the Exotic Species Program, the Volunteer Lake Assessment Program, the Beach Inspection Program, and the Public Bathing Facility Program. He was also instrumental in initiating the Sister Lake Program which connected New Hampshire's Lake Winnipesaukee to water quality in a lake in Israel for educational purposes. Jody was a long-term member of NEAPMS and the North American Lake Management Society.

Many people knew Jody as an advocate, ambassador and caretaker of New Hampshire lakes. In fact, Jody's marks in limnology spread beyond the state of New Hampshire and are widely recognized nationally. He was a talented biologist, a respected limnologist, and an effective educator. Jody was someone who actively made things happen and challenged many others to do the same.

Jody Connor - limnologist, lake enthusiast, lake advocate, lake ambassador - leaves his wife of 36 years Patricia, three children, four grandchildren, his parents and a sister. He also leaves numerous friends and colleagues in New Hampshire state government and state governments across the nation; on the federal level; and within many NGOs.

U P C O M I N G E V E N T S

Northeastern Weed Science Society Annual Meeting – January 3-6, 2012 at Philadelphia, PA. See <u>www.newss.org</u> for meeting details and registration.

The 32nd Annual Midwest Aquatic Plant Management Society Conference - Feb 26 - Feb 29, 2012 Hyatt Regency Downtown, Milwaukee, WI. www.mapms.org

PALMS Annual Conference – March 7-8, 2012 at State College, PA. See www.palakes.org for meeting details and registration.

New England Chapter of NALMS Meeting, June 8-9, 2012, University of New Hampshire. Contact Amy Smagula at Amy.Smagula@des.nh.gov for more information

R E G I S T R A T I O N F O R M

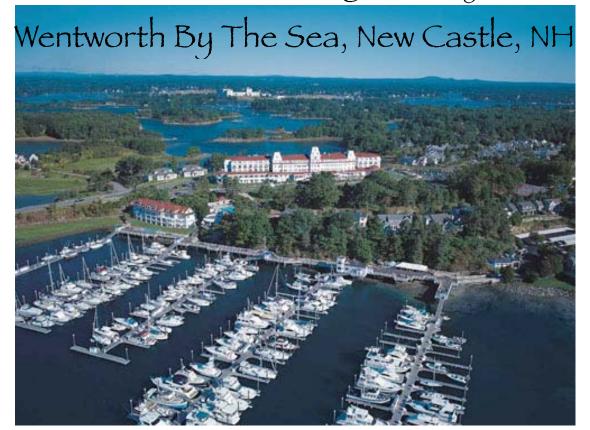
Northeast Aquatic Plant Management Society 2012 Conference Registration Form January 17 - 19, 2012

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City:	State:	Zip:	
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Do you plan to attend the followin	g event?		
Emerging and Evolving Pr	roducts for Aquatic Plant Management	t (Tuesday 1/17 from 1pm-3:30pm)	
Hands On Plant Workshop	(Tuesday 1/17 from 4pm to 5:30pm)		
Government Personnel In Need of If you circled yes, a NEAPMS represents member of the Society for 2012.	Funding Assistance? Yes ative will be in contact with you. <i>If you are</i>	No e granted a registration waiver, we do ask that you pay the \$40 n	nembership fee to become a
Student There is no registration fee for stude	nts. Check here if you are a student _	·	
Individual Registration: \$_ \$150.00 includes one conference reg	gistration fee and membership for 2012	2.	
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Late Fee: \$	ring at the door.		
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Hotel reservations can be made by calling the Wentworth by the Sea at 866-240-6313. A room rate of \$99 + 9% tax (sgl or dbl occupancy) per night is available at the Wentworth by the Sea in New Castle, New Hampshire. After December 18, 2011, we cannot guarantee room rate or availability, so please do book by the deadline. More information on the venue can be found at http://www.wentworth.com.

Please mail this completed form and a check payable to NEAPMS to: NEAPMS, PO Box 142, Chester, NJ 07930

NEAPMS 13th Annual Meeting, January 17-19, 2012





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