



NOR' EASTER

A Newsletter of the Northeast Aquatic Plant Management Society

www.neapms.net

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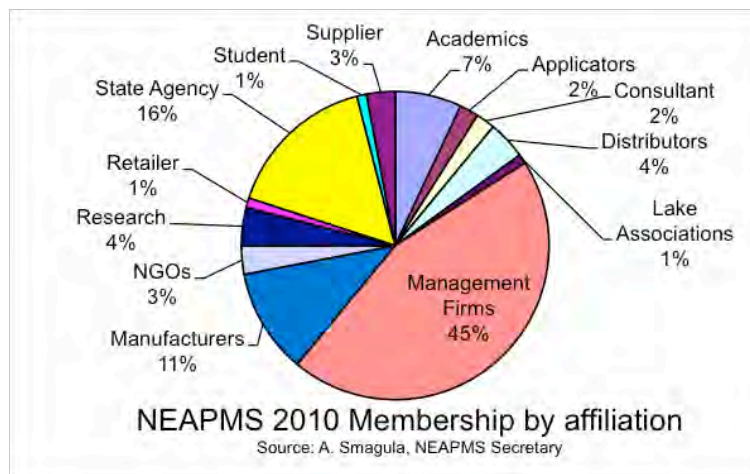
A message from President Ann Bove

In this issue of *Nor' Easter*, we highlight our upcoming 12th annual meeting and conference in New Castle, New Hampshire; provide progress updates on NEAPMS scholarship supported projects; and summarize pertinent updates from states, including news on NPDES general permitting preparation. On behalf of the Board of Directors, we hope this fall/winter 2010 issue finds you well and provides information of value and interest. We encourage your feedback on future content.

In 2010, our Chapter's membership increased by roughly 10%; we are currently 145 members strong and represent a diverse cross section of affiliations (see the pie graph on page three). The Board welcomes member input on the workings of this society and encourages involvement. We are interested in your thoughts and ideas, and are always looking for members who are willing to serve in a more active capacity, either on one of our many standing committees or as a member of the Board of Directors. A list of standing committees and current officers and directors can be found on page 2 of this newsletter. Please consider getting involved in NEAPMS and feel free to contact any board member about doing so.

Over the past year, the NEAPMS Board of Directors met in January in New York and again in September in New Hampshire. As a Board, we've tracked the current status of the NPDES General Permit for the application of pesticides, planned for the annual meeting and conference, and tackled numerous Society housekeeping-related tasks.

The Board provided comments in July to EPA on the draft NPDES General Permit on the Society's behalf. In the comments we encouraged EPA to: recognize that many of the states within our region have existing comprehensive, aquatic pesticide-related permit programs, avoid duplication and allow states flexibility in incorporating new conditions into existing programs; consider a more feasible action threshold level than the 20 acres posed in the draft; and seek an extension beyond April 2011 to allow sufficient time for effected states to comply. All of the submitted comments (over 1,500), as well as an overview of the proposed permit, pertinent documents and a schedule are available at: http://cfpub.epa.gov/npdes/home.cfm?program_id=410 The docket number for the proposed permit is "EPA-HQ-OW-2010-0257."



The Board recently discussed acquiring bookkeeping services to keep the Society on track fiscally and researched on-site credit card processing options. We've made some needed changes to the website, evaluated a number of scholarship requests for funding, and discussed a regional floristic quality index. In recognition of annual meeting AV technical oversight and support, the Board recognized member Paul Lord, and extended appreciation and gratitude for his willingness to repeatedly play this critical role.

Continued on page three

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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***Please contact a Board member if you would like to
join a standing committee!***

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SCHOLARSHIP UPDATES

NEAPMS Scholarships: Progress Updates September 20, 2010

Hannah Tavalire **Grant Valley State University**

Title: Implications of genetics and environment for management: are certain lineages of variable leaf watermilfoil more apt to grow invasively?

For the most part my fieldwork is done. Here is a paragraph summarizing what I did this summer:

I sampled 21 lakes across New England where the three most common genotypes of VLM occur (7 lakes for each genotype). Within these lakes, all VLM beds were mapped via Trimble and I swam three 25 meter transects where the VLM was the most dense, counting root crowns. At each transect, three plants were harvested and taken back to the lab for morphological measurements and weighting. Environmental data was also collected at each transect site. I also ran 2 common garden experiments (one in CT and one in MI) in which the three most common genotypes were grown in replicate across various environments. These experiments were broken down after 30 days and the plants were measured. During my final trip to New England, I sampled 18 more lakes, but only harvested plants from these for a gene flow study that is in progress right now. We are currently extracting DNA from the plants and plan to run an AFLP analysis to see if there are any genes being exchanged between invasive populations/lakes. Along with this molecular work, I will spend the fall analyzing the field and common garden data, as well as building GIS figures with the plant bed data. I will investigate whether environment dictates the presence/absence of certain genotypes and how the genotypes measure up to each other along several axes of "invasiveness." Currently, I still have plants in culture and am attempting to induce flowering to cross the different genotypes. If I can cross individuals, we will do some quantitative genetics work that is still being formulated.

Jeremy Farrell **RPI/Darrin Fresh Water Institute**

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

With support from the NEAPMS scholarship I have completed all of the field work for the hydroacoustic milfoil identification project. This project had mixed success, in Lake George (Oligotrophic) it worked well but in Saratoga Lake (Eutrophic) false positives were abundant and could not be eliminated with further refinement of the algorithms. Most of this was presented in a poster at last year's conference. I intend to submit an abstract for an oral presentation for this year's conference to include the current status of the hydroacoustic identification of milfoil and the last objective of my scholarship request, identifying other plant assemblages with hydroacoustics. Identifying other plant assemblages has been started but it needs more field work and more analysis, which I plan to complete this fall.

A message from President Ann Bove con't

On January 18-20, 2011, NEAPMS will meet at the historic Wentworth by the Sea in New Castle, New Hampshire for our 12th annual meeting and conference. Marc Bellaud and the Program Committee have worked hard on program content as has Amy Smagula on meeting accommodations. The conference program and related workshops promise a wealth of information pertinent to our work. In addition, I think you'll find we'll be both well received and "wined and dined" at the Wentworth.

As my term as NEAPMS President comes to a close, I am grateful for the influence of this Chapter and the role the Chapter and its members play in the management of aquatic plants in the Northeast region and beyond, and I thank all of you for the work you do.

Wishing everyone a happy and healthy holiday season and here's to seeing you in New Hampshire next month for an outstanding annual meeting!

Ann Bove, President

MAINE

John McPhedran, Maine DEP

Infestation Status: one down, two new finds:

DEP in October removed Pleasant Lake in Casco from the state roster of infested waterbodies. Documented in 2000, volunteers from Pleasant Lake/Parker Pond Association have tackled the variable water milfoil (*Myriophyllum heterophyllum*) infestation aggressively since then with hand removal and benthic barrier controls. DEP de-listed the Lake since the invasive plant has not been seen for the last three years.

This good news was offset this summer by two new finds of variable milfoil: Great Meadow Stream that feeds Great Pond, both in the town of Belgrade, was confirmed by DNA analysis. Local volunteers undertook removal by hand and deployed benthic barriers this summer. A surface use restriction declared jointly by DEP and Department

of Fisheries and Wildlife (DIFW) prohibits motorized watercraft from the stream.

Also found was variable water milfoil in Purgatory Stream, Litchfield, by Cobboosee Watershed District staff. The infested area on Purgatory Stream is less than one mile downstream of the Woodbury Pond outlet dam. Woodbury and its chain of upstream lakes are not known to be infested with an invasive aquatic plant, so the infestation in Purgatory Stream didn't flow from upstream waters. Purgatory Stream flows into Cobbossee Stream which does have an entrenched population of variable water milfoil. The lush growth on Purgatory Stream indicates a longstanding infestation.

Control Projects:

Salmon Lake, Belgrade: This Eurasian water milfoil (*Myriophyllum spicatum*) infestation, discovered in August, 2008 in a 6-acre cove, was treated with herbicide

(2, 4-D) in September 2009. Four SCUBA surveys in 2010 revealed no rebound of this infestation. DEP divers refined survey methodology using GPS-steered tandem tow-rope system that permitted faster, reproducible coverage. In anticipation of when (and not if) this infestation returns, DEP will resume manual controls, namely hand pulling and benthic barriers.

Damariscotta Lake, Jefferson: Maine's second hydrilla (*Hydrilla verticillata*) infestation (after Pickerel Pond, Limerick, documented in 2002) was found in 2009 and then treated this summer with herbicide (fluridone). Most challenging was the size of the heart of the infestation—within a 1/3-acre lagoon, of which 90 per cent is boggy marsh, which was connected to the 4,800-acre lake. Water exchange between the lagoon and greater lake delayed efficacy, but limno-barriers to reduce exchange were fortified and eventually no hydrilla was observed in October. Two plants found outside lagoon in 2010 were removed by SCUBA divers. Deployment of benthic barrier in the lagoon is anticipated for spring 2011

Songo River: NGO Lakes Environmental Association (LEA), Bridgton, sought closure of the Songo Lock between upper and lower portions of the River. LEA's formidable success in controlling variable milfoil on the Upper Songo is put at increasing risk from recreational boat traffic en route from the heavily infested Lower Songo. Songo River claims the highest annual boat traffic in the state. Department of Conservation (which administers the Lock), DEP and DIFW responded with the following alternatives: sponsor more vigilant inspections of boats traveling through the Lock, deploy buoys in the lower river to direct traffic in a manner that reduces plant fragmentation, post signs at the Lock entrance, and control water flow through the Lock to prevent upstream migration of fragments.

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continued on next page

Legislation/outreach:

A bill introduced in the last legislative session with the objective of strengthening Maine’s invasive aquatic plant prevention effort has resulted in the following actions by DEP and DIFW: collaboration to produce a 30-second public service announcement broadcast throughout Maine in August and part of September, survey water withdrawal practices and conduct outreach to firefighters and businesses that draw water from Maine lakes and ponds, improve web-based outreach, continue outreach to seaplane pilots, and assess the risk of plant transmission by boating activity from infested Maine lakes. DEP and DIFW are to report back to their respective legislative oversight committee in January 2011.

Outside of formal legislation, DIFW revised the fishing tournament process to strengthen enforcement of current regulations, mandate two inspectors (for boats, motors, trailers, live wells) at each tournament launch site, mandate working live well intake screens for participation in tournaments, and require that inspection forms be submitted to DEP for inclusion in DEP’s Courtesy Boat Inspection Program database.

Maine Milfoil Initiative

The Maine Milfoil Initiative (MMI), a federally funded consortium of seven lake groups and academia focused on variable leaf water milfoil control, completed its first of a three-year effort to compile best management practices for eventual distribution as a guidance document. MMI is hosted by St. Joseph’s College in Standish.

Boat inspections for 2010:

Volunteer and paid inspectors have submitted their 2010 Courtesy Boat Inspection data to DEP. These data are being entered as of October 2010 and will be analyzed by DEP this winter.

NPDES Permitting Requirement:

As reported in the fall 2009 NEAPMS newsletter, Maine’s Waste Discharge Licensing Program and Maine DEP’s current General Permit for application of herbicides to control invasive aquatic

plants, developed pursuant to State requirements described below (see Note), are protective of non-target organisms and resources, and meet or exceed NPDES standards. The existing General Permit is strictly a Maine Waste Discharge License at this time. When the General Permit is modified to meet the 2011 deadline for compliance with NPDES, no substantive changes will be necessary to ensure compliance with both NPDES requirements and Maine law.

Note: Maine Rule Chapter 514, Regulations Concerning the use of Aquatic Pesticides, became effective in 1981. Chapter 514 states, “A permit for aquatic pesticide use will be issued only if the applicant can demonstrate a significant need to control the target species and that pesticide control offers the only reasonable and effective means to achieve control of the target species.” Further, “A permit for aquatic pesticide use will be issued only if the applicant provides adequate protection for non-target species”.

More information:

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

NEAPMS would like to thank our early commitment

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MASSACHUSETTS

Marc Bellaud, Aquatic Control Technology, Inc.

AIS Update:

Aquatic Invasive Species (AIS) news in Massachusetts in 2010 was dominated by hydrilla. Since the spring update, hydrilla was confirmed in three additional locations, bringing the current total to eight infested waterbodies in the state.

Hydrilla was first discovered in 50-acre Long Pond on Cape Cod in 2002. That infestation has been aggressively managed since its discovery through a combined effort of DCR and the Town of Barnstable. In 2008, hydrilla was confirmed in 20-acre Hobomock Pond in Pembroke. In 2009 it was discovered in three smaller ponds located in Duxbury and Marshfield.

In 2010, three new hydrilla infestations were added to that list. A pioneer infestation was found in 150-acre Mystic Lake in Barnstable – the largest waterbody to date. Fortunately, this infestation was discovered early and volunteer hand-pulling and benthic barrier installations ensued immediately. Hydrilla was also found at a private backyard pond in Weston and in the 130-acre South Meadow pond complex in Clinton and Lancaster, located in central Massachusetts. Until this year, all of the hydrilla infestations were located in south coastal Massachusetts, but it now appears to be heading west. The South Meadow pond complex infestation is particularly alarming due to its close proximity to the 4,000-acre Wachusett Reservoir that provides drinking water to the greater Boston area.

Tom Flannery from the Massachusetts Department of Conservation and Recreation, Lakes and Ponds Program says that the state has been following an approved Hydrilla Rapid Response Program (<http://www.mass.gov/dcr/watersupply/lakepond/downloads/rrp/hydrilla.pdf>) that consists of confirming the infestation, initiating rapid response measures, coordinating public education and outreach, surveys and studies, and

active in-lake management when funding allows.

NPDES Update:

Massachusetts is one of only six states where the EPA will serve as the permitting authority for the National Pollutant Discharge Elimination System (NPDES) Program that is mandated to take effect for aquatic pesticide applications on April 10, 2011. This means that EPA’s Pesticides General Permit (PGP) will cover aquatic pesticide applications in Massachusetts. However, the Massachusetts DEP, Office of Watershed Management is working closely with the EPA Region 1 Office to insure that information and reporting requirements of the PGP are addressed. Once the PGP is finalized, DEP plans to modify their annual License to Apply Chemicals application to capture the additional information required by the NPDES program. Their hope is to make the process as straightforward and seamless as possible.

**2011
Silent Auction
Items
Needed!**

Please bring your new Silent Auction items to the 2011 Conference to support the NEAPMS Scholarship Fund

Contact Ann Bove @ Ann.Bove@state.vt.us
or John McPhedran
john.mcphedran@maine.gov

NEW HAMPSHIRE:

Amy Smagula, New Hampshire DES

New Infestations:

During the summer of 2010, two new Eurasian watermilfoil (*Myriophyllum spicatum*) infestations and one new variable milfoil (*Myriophyllum heterophyllum*) infestation were identified in New Hampshire. One of the Eurasian watermilfoil infestations was detected in the Nashua River in Nashua early in the growing season. This is the sixth documented invasive plant in the river (others already in the river include variable milfoil, water chestnut, curlyleaf pondweed, fanwort, and an invasive naiad species). It is surprising that the Eurasian watermilfoil found room to grow! No action has been taken on this infestation yet, mainly because there is a lack of local support and resources to coordinate what will be a long-term and multispecies control effort, complicated by the flow dynamic of the river system. The other Eurasian watermilfoil infestation was found in Post Pond in the town of Lyme. This 111 acre pond did not previously have any documented invasive plants. It is thought that the Eurasian milfoil was introduced to the pond either very early in the 2010 growing season, or late in the 2009 growing season by a transient boater. The infestation was found by a biologist with the NH Volunteer Lake Assessment Program during routine monitoring and she promptly reported it to the Exotic Species Program. Upon a full survey of the pond, the Eurasian watermilfoil was found primarily at the boat launch site and at one other small site across the pond. State divers spent two days diving on the sites and greatly reduced the infestation, though work was complicated by the presence of another similar looking but native milfoil species, which caused some frustration for divers who tried to differentiate between the plants in an effort to leave the native plant in the pond. Later in the fall the lake association brought in some additional divers to do some removal work as well. Plans are to continue surveying and diving on the site, and to secure a permit for an herbicide treatment in 2011 should one be needed.

The variable milfoil infestation was identified in Willand Pond in Dover, again by a state biologist. The plant was likely introduced to the pond in 2007 or 2008 based on the distribution of the plant found at the time of the first survey. There is no lake association or Weed Watcher Program on the pond so early detection opportunities were not realized. The milfoil is too widespread to simply hand remove so a permit for an herbicide treatment in 2011 is being sought. This project will be complicated by fluctuating water levels in the pond due to an urbanized watershed (increased runoff over impervious surfaces) and lack of a sufficient outflow to regulate water levels. At the time of the original survey in June 2010 the water level was 3 feet above full lake and milfoil had become established on what was upland area. When waters receded later in the season the milfoil persisted in a more succulent amphibious/terrestrial form in these now exposed areas. While planning for milfoil control activities this fall and winter, it will be important to factor in potential high or low water conditions for the proposed treatment date, so that all areas with milfoil growth are accounted for in the treatment.

Prevention:

The Lake Host Program, which is coordinated by the NH Lakes Association, has been an asset to helping

to prevent new infestations of exotic plants to new waterbodies by performing outreach, education, and courtesy boat inspection activities at a number of public access sites throughout the state. During the summer of 2010 the program is responsible for over 300 "saves," which are the number of times an invasive plant was potentially going to be introduced to a waterbody due to the plant being a tagalong species on some type of recreational gear. Of the saves, most were variable milfoil and fanwort fragments attached to boats, but we did have a fair share of water chestnut (*Trapa natans*) seeds that were stuck in the carpeted bunks of boat trailers.

NPDES Requirements:

Like most state and private entities across the country, New Hampshire is in the "wait and see" mode for final decisions and guidance from the Environmental Protection Agency (EPA) related to NPDES requirements. The New Hampshire Department of Agriculture, which is the permitting body for use of all pesticides used in New Hampshire, has been taking lead on coordination and communications with EPA. In terms of permitting timelines April is coming fast and we have a lot of projects lined up for 2011, and we are hoping that they will be able to go forward without too much extra work, cost, problems and/or delays.



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Wentworth by the Sea Resort

NEAPMS 12th Annual Meeting January 18-20, 2011

This year we are moving our conference venue to New Hampshire for the first time! Please plan to join us at the beautiful and historic *Wentworth by the Sea Resort* for our 12th annual meeting.



We are planning to shift from the usual Monday - Wednesday program to a Tuesday through Thursday program this year, with workshops on Tuesday afternoon and technical sessions running from Wednesday morning through noon on Thursday. We will start off with an aquatic plant workshop on Tuesday afternoon that will also feature instruction on preparing good voucher specimens for ID and preparation of herbarium mounts. Wednesday's program includes a line up of technical presentations on various aspects of aquatic plants and their management, similar to past years. Wednesday wraps up with the Annual Awards Banquet in the evening. On Thursday morning we will continue with technical presentations through the morning, ending our meeting with a luncheon from noon to 1pm. Recertification credits will again be available for the workshop and technical session attendees.

Your conference registration includes the Tuesday afternoon plant workshop and the light Presidential reception snacks; breakfast, lunch and coffee breaks on Wednesday and Thursday; and hors d'oeuvres and the dinner banquet on Wednesday evening.

Here is a look at our preliminary program:

Tuesday January 18, 2011

- 3:30 – 6:00 PM **Registration Table Open**
4:00 – 5:30 PM **Plant Identification Workshop and Guidance on Proper Voucher Specimen Preparation**
Robynn Shannon, UCONN, Bob Johnson, Cornell University, and Chris Doyle, Allied Biological
5:30 – 7:00 PM **NEAPMS Presidential Reception**
Light snack buffet and cash bar will be offered
7:00 – 9:00PM **Free Time and/or Dinner on Your Own**
(there is a restaurant in the hotel and plenty of great eateries in nearby Portsmouth)
9:00 – Wee hours **NEAPMS Hospitality Suite**

Wednesday January 19, 2011

- 8:30 – 9:30 AM **Continental Breakfast**
8:15 – 9:45 AM **Registration/Exhibits**
9:45 – 10:00 AM **Welcome**
Ann Bove, NEAPMS President
10:00 – 10:30 AM **Keynote Address**
Chuck Boylen, Darrin Fresh Water Institute
10:30 – 11:00 AM **Aquatic Invasive Species in the Adirondack Park: Lessons in Spread Prevention, Rapid Response, and Management**
Tyler Smith, Adirondack Park Invasive Species Program
11:00 – 11:30 AM **FQI: A Botanist's Barometer or a Plant Manager's Planimeter?**
Scott Kishbaugh, NYS DEC
11:30 – 12:00 AM **Hydroacoustic Delineation of Eurasian Watermilfoil and Native Plant Assemblages***
Jeremy Farrell, Darrin Fresh Water Institute
12:00– 1:00 PM **Lunch**
1:00– 1:30 PM **Industry Updates**
1:30 – 2:00 PM **Nutrient Fluctuations Induced through Manipulation of Aeration in a South Florida Retention Pond**
Amanda Quillen, Vertex Water Features

Register today at www.neapms.net

New Hampshire Seacoast

NEAPMS 12th Annual Meeting January 18-20, 2011

2:00 – 2:30 PM	The Aptly Named Mystic Lake: Strange Happenings but Active Management Ken Wagner, Water Resources Services, LLC and Robert Nichols, Indian Lake Association
2:30 – 3:00 PM	Algae on the Move: Recent Range Expansion of <i>Prymnesium parvum</i> John H. Rodgers, Jr., Clemson University
3:00 – 3:30 PM	Break/Exhibits/Posters
3:30 – 4:00 PM	Responses of <i>Lyngbya wollei</i> to Copper-Based Algaecides: the Critical Burden Concept John H. Rodgers, Jr., Clemson University
4:00 – 4:30 PM	How Ultrasonic Technology Kills and Controls Algae, and Practical Uses Devon Taylor, SonicSolutions, LLC
4:30 – 5:00 PM	SP4041...Not Just Another Copper Algaecide Mark Heilman, SePRO Corporation
5:00PM	NEAPMS Business Meeting/APMS & AERF Updates Ann Bove/NEAPMS BOD Members, Linda Nelson (APMS) and Carlton Layne (AERF)
6:00 – 7:00 PM	Attitude Adjustment Reception
7:00 – 9:00 PM	NEAPMS Awards Banquet
9:00 – Wee hours	NEAPMS Hospitality Suite

Thursday January 20, 2011

7:30 – 8:30 AM	Continental Breakfast
8:30 – 9:00 AM	Seeds of Devastation? The Role of Seed-Based Reproduction in the Plants We Love to Hate Robynn Shannon, UCONN
9:00 – 9:30 AM	Implications of Genetics and Environment for Management: Are Certain Lineages of Variable Leaf Watermilfoil More Apt to Grow Invasively?* Hannah Tavalire, Grand Valley State University
9:30 – 10:00 AM	Aquatic Adjuvants with Leci-Tech Technology Moe Finke, Loveland Products, Inc.
10:00 – 10:30 AM	Break/Exhibits/Posters
10:30 – 11:00 AM	Sherman Marsh Phragmites Control Project, New Castle, Maine Michael Morrison, Swamp Inc.
11:00 – 11:30 AM	The Successful Use of 2,4-D Amine for the Targeted Control of Eurasian watermilfoil (<i>Myriophyllum spicatum</i>) and Water Chestnut (<i>Trapa natans</i>) in Lake Musconetcong in NJ Chris Doyle, Allied Biological
11:30 – 12:00 AM	Clearcast: A New Solution for Control of <i>Potamogeton crispus</i> (curly-leaf pondweed) Mark Heilman, SePRO Corporation
12:00 – 1:00 PM	Lunch and Silent Auction Announcements
1:00 PM	Adjourn
1:15 PM	NEAPMS Board of Directors Meeting

Poster Presentations

Quantifying the Effect of the *Phragmites australis* Plant Invasion on Fish Growth, Physiological Condition, and Aquatic Food Webs in Northeast Salt Marshes*

Kimberly Lellis Dibble, PhD Candidate, Graduate Research Fellow, Department of Natural Resources Science
University of Rhode Island

Response of *Myriophyllum heterophyllum* and Non-Target Plants to Three Different Products- Navigate (2,4-D BEE granular), Sculpin (2,4-D amine granular) and Renovate Max G (triclopyr amine and 2,4-D amine granular)

Erika Haug and Marc Bellaud, Aquatic Control Technology, Inc., and Amy Smagula, NH DES

Milfoil Weevils Challenge Big Lake Troubles: Case Studies in Biological Control

Nancy L. Cushing and Sarah Lomske, EnviroScience Inc.

*Denotes presentation given by a current NEAPMS Scholarship recipient

Register today at www.neapms.net

NEW JERSEY:

Glenn Sullivan, Allied Biological

Invasive Species:

The state's aquatic managers and the Water Chestnut Task Force continue to find new infestations of *Trapa natans*, particularly in the middle of the state in the Monmouth, Middlesex and Ocean County areas. New sightings of Water Chestnut can be reported to the Task Force at "<http://morris.njaes.rutgers.edu/ag>".

The same region that has supported many new water chestnut sightings is also the location of two new Hydrilla infestations. There are now at least half a dozen or more established Hydrilla populations in the state. One of the two new infestations covered most of a 15 acre lake just one season after a full dredging of the lake. There is no dedicated Task Force focusing on Hydrilla at this time, but new infestations can be reported to NJDEP's Pesticide Program at 609-984-6666.

NPDES:

The New Jersey Department of Environmental Protection (NJDEP) has formed a draft plan to meet the EPA's proposed NPDES criteria for aquatic pesticide use. At this time, NJDEP expects to have a NPDES permit issued by the Division of Water Quality, Bureau of Surface Water, not the Pesticide Control Program. Many requirements of the permit will stipulate compliance of the state's aquatic pesticide permit in order to minimize redundancy and staff review time. The Pesticide Control Program is expected to handle the NPDES enforcement duties.

NJDEP has decided the Notice of Intent (NOI) will be termed a Request For Authorization (RFA). This RFA eligibility will follow the user thresholds established by EPA, and filing the RFA will be the responsibility of the applicator, not the client or decision-maker. Applicators will be able to file a RFA for multiple sites. Since the NPDES is a five-year permit, there will be a procedure to revise the RFA each year should clients change.

The Pesticide Discharge Management Plan (PDMP) will be required for RFA-eligible parties. The scope of this document has yet to be determined, but it is expected to include an IPM assessment and follow EPA guidelines. The PDMP will not need to be submitted, but will need to be retained should the NJDEP ask to review the document.

The NJDEP's anticipated language on monitoring is going to take some interpretation. Monitoring during an application should be conducted if feasible and can be conducted in a safe manner. Post-application monitoring "is required if part of the normal course of business." It's unclear what this means. It could indicate that if a particular pesticide calls for post-treatment monitoring on its label, then monitoring is required by the RFA. Beyond that, the preliminary monitoring language apparently doesn't detail any specific

monitoring of plants or pesticide residues. It seems likely that the monitoring requirements and language are not fully fleshed out.

The state's projected timeline calls for a draft permit ready for review around the beginning of December, with a Stakeholders meeting scheduled shortly thereafter. NJDEP hopes to finalize a permit in February. At this time, the state's fee for the permit is expected to be \$100.00 or less.

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VERMONT

Ann Bove, Vermont DEC

2010 Monitoring:

One new *Myriophyllum spicatum* infestation and two new *Didymosphenia geminata* (“didymo”) blooms were confirmed in Vermont in 2010. On the flip side, and thinking in a more positive manner, no new-to-Vermont species were confirmed this growing season and roughly 79% of Vermont’s lakes remain *not* infested with an aquatic invasive plant or animal species.

New Programs:

Vermont DEC, in partnership with the Lake Champlain Basin Program, initiated a *Cooperative Boat Wash Program* in the Lake Champlain basin. Self-service car washes in the basin that have bays large enough to accommodate boats were identified and solicited to join the program. A web site and brochure with map showing car wash locations in the vicinity of boat launches were developed. The brochures will be distributed by lake stewards/greeters at public boat launches beginning spring 2011, to encourage boaters to power wash boats.

Management Milestone:

The decade-long commitment of adequate state and federal funds to manage water chestnut in Vermont recently achieved an important milestone in Lake Champlain. For the first time since 1982, Vermont DEC’s “north to south” control program, working on both the Vermont and New York sides of the lake, progressed to “The Narrows of Dresden,” over 47 miles from where the Program has worked over a 28 year period. The Narrows is a mere 8.5 miles to the end of the lake.

Rapid Response Task Force:

As outlined in the Lake Champlain Basin Aquatic Invasive Species Rapid Response Action Plan approved in May 2010, the Plan calls for the formation of a Response Task Force. With recent appointments by New York, all three jurisdictions – Vermont, Quebec and New York – have now committed

representatives. Task Force members are in a position to help implement and oversee rapid response actions within waters of the Basin.



Regulatory News:

As of July 1, 2010, the secretary of Vermont Agency of Natural Resources has new emergency permitting authority aimed at initiating a rapid response to a new invasive species invasion in Vermont. A draft emergency rapid response general permit for both chemical and non-chemical methods with coverage available to the commissioners of the Department of Environmental Conservation, and Department of Fish and Wildlife has been developed. A public information meeting was held this summer and the Agency expects to

finalize the general permit and a notice of intent before the end of the year.

In May, the Vermont legislature enacted, and the Governor signed into law, a ban on the use of felt-soled wading boots in Vermont waters, effective April 1, 2011. The full text of the ban is available at <http://www.leg.state.vt.us/docs/2010/Acts/ACT130.pdf>

Vermont’s Agencies of Natural Resources, and Agriculture, Food and Markets submitted comments to EPA in July 2010 on the draft NPDES general permit. While, legal staff believe Vermont’s aquatic pesticide permits as defined by current statute are adequate to meet NPDES requirements, no information is yet available on how Vermont will actually comply come April 2011.

Noteworthy:

A grassroots effort to establish Vermont’s first “cooperative invasive species management area,” or a CISMA, is underway for the Ottauquechee River watershed. CISMAs are partnerships of federal, state and local government agencies, individuals and non-government groups that manage invasive species in a defined area. A Steering Committee has formed with a goal of January 2011 to complete partnership cooperative agreements, and a management and annual action plans.

Want To Get Involved?

The NEAPMS Board of Directors is always looking for extra help, especially at Conference time! If you are willing to help out, or are interested in becoming a Board Member please contact someone on the Board of Directors.

NEW YORK

Scott Kishbaugh, New York DEC

New Infestations:

2010 was a relatively quiet year for new invasives findings in New York state. Eurasian watermilfoil and curly leafed pondweed continue to be found in most regions of the state, and reports of new infestations are dictated more by how hard (or early) we're looking rather than a sense that the spread of invasives is accelerating. That said, brittle naiad (*Najas minor*) has shown its brillooy head in an increasing number of lakes in the state, particularly in the Champlain flyway, and concerns about variable watermilfoil have been elevated in response to unexpected findings in some Adirondack lakes. Starry stonewort seems to be migrating into smaller waterbodies south and east of the Lake Ontario embayments and Oneida Lake.

All told, at least 14 new infestations were reported in 2010, more than half of which were curly-leafed pondweed findings in lakes throughout the state. No new hydrilla findings were reported, and there may be some opportunities to

tap into some new funding sources to address the expanding hydrilla populations in Lake Ronkonkoma, the largest lake in Long Island.

Cha cha cha changes.... (with apologies to Bowie)

Like many states in the northeast, New York has suffered greatly with the downturn in the economy. Staffing in the NYSDEC has dropped by nearly 20% in the last several years, and additional layoffs, retirements, and revenue shortfalls are looming. Invasives species management and surveillance has not been immune to these losses. Among the retirements include the head of the Office of Invasive Species Coordination, several permit administrators and water engineers, and field staff from throughout the state. In response to the reduced staff and need to consolidate functions, several divisions have been reorganized, and the remaining staff will be charged with juggling additional tasks and rebuilding institutional knowledge lost in recent years. This will ultimately result in significant changes in the way management permits are reviewed and issued, but it is not yet known if this will ultimately improve or curtail an on-going process for streamlining the management of invasive species.

Outreach and Education

On a more promising note, two noteworthy workshops took place in 2010—the Adirondack Forum on Invasive Species and the Cornell Cooperative Extension Invasive Species workshop. The Adirondack Forum, hosted by the Adirondack Partnership for Regional Invasive Species Management (PRISM) at Paul Smiths College, involved resource managers, elected officials, members of governmental and nongovernmental organizations, community groups, and private citizens from through the Adirondacks. The Forum highlighted successes in invasive species detection and management within the Adirondack Park and outlined strategies for addressing continuing and new challenges to the management of persistent and incoming invaders. The three day Cooperative Extension event was organized in a true workshop format, with formal presentations replace by free interaction among scientists, resource managers, and other attendees, although these discussions covered all invasive organisms, terrestrial and aquatic.

The iMapInvasives program, a consortium of the natural heritage programs of the state of Florida (Florida Natural Areas Inventory (FNAI), the New York Natural Heritage Program (NYNHP), The Nature Conservancy, and NatureServe, conducted several training sessions for the regional PRISMs and partners to enter surveillance data and new infestation findings directly into a publicly accessible database and mapping program. The consortium develops, supports and maintains this on-line, GIS-based, all-taxa invasive species mapping tool for use by lake managers, regional planners, and the interested public, with a particular emphasis on aiding early detection and rapid response actions.

Regulatory Update:

The NYSDEC Division of Water, delegated responsibility for administering the New York State Pollution Discharge Elimination

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NEW YORK ...continued

Program (SPDES) program, including the general permit required by the Federal 6th Circuit Court ruling, has been working for more than a year to develop a draft SPDES permit compliant with the court ruling and the CWA, and leveraging on the existing state pesticide permitting program administered by the Division of Materials Management

The general SPDES permit approach being developed by the NYSDEC will attempt to leverage the strengths of the States existing pesticide management program by incorporating the key elements of that program individual project multi-disciplinary review and permit requirements through SEQRA, independent state pesticide registration, pesticide applicator certification, and specific prohibition of discharge or direct entry of pesticides from terrestrial applications of pesticides into waters of the state into the SPDES permit. It is anticipated that the draft permit will be sent for public input and comments by the end of the year.

RHODE ISLAND:

Katie DeGoosh, Rhode Island DEM

RIDEM has observed that all major rivers in Rhode Island maintain AIS plant populations (i.e. Blackstone, Branch, Clear, Moshassuck, Pawcatuck, Pawtuxet, Saugatucket, Wood and Woonasquatucket Rivers). However, variable milfoil, fanwort, curlyleaf pondweed and Eurasian milfoil (*M. spicatum*) are the only species observed.

Interestingly, it appears that recent flooding events in RI during the spring reduced the abundance of fanwort, variable milfoil and curlyleaf pondweed in the Pawtuxet River, which previously supported large populations of the plants. The Pawtuxet river basin is approximately 230 mi² and USGS reports a median daily discharge bouncing between 350-550 cfs in March (69 years of data). At the height of the flood on March 31, the daily mean discharge reached 13,200 cfs, cresting at 20.79 ft -- more than twice

the flood stage (9ft). The flood washed an estimated 20,000 tons of sediment downriver, caused severe scouring, erosion and formation of new sandbars as well as increased sedimentation and embeddedness. It is unknown whether the plants were directly eradicated by increased flows and scouring or indirectly influenced through habitat alteration. Luckily, the Pawtuxet River flows into Narragansett Bay, where it is assumed any freshwater AIS washed downstream would not proliferate.

Also, a small pond in North Providence, home to a flourishing fanwort population in 2009, disappeared after the dam failed during the flood. The dam, originally constructed to impound the West River for a nearby mill complex will not be restored, and the pond is now just a small, sandy stream. Although the March storms caused the worst flooding RI has seen in over 200 years--destroying homes, devastating businesses, breaching dams and jeopardizing bridge infrastructure—it did help rid some waters from an overabundance of invasive plants.

New Infestations:

During July 2010, RIDEM-OWR documented its first two populations of yellow floating heart (*Nymphoides peltata*). Both populations were in small, man-made ponds and likely planted as ornamentals in private ponds. One population is in a small pond in Scituate, RI, and the other is in Little Compton, RI. Personnel also discovered five populations of mudmat (*Glossostigma cleistanthum*); the first time RIDEM-OWR has documented this species in the state. The populations were spread across the state: Yawgoo Pond in South Kingstown, Gorton Pond in Warwick, Sandy Pond in Warwick, Lake Washington in Glocester and Stafford Pond in Tiverton.

Monitoring:

The Rhode Island Department of Environmental Management-Office of Water Resources (RIDEM-OWR) surveys the state's freshwater lakes and rivers for the presence of aquatic invasive species (AIS) as part of its continued on the next page



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RHODE ISLAND... continued

Surface Water Monitoring (SWM) Program. The SWM Program recruits two seasonal interns to plan and execute surveys for AIS among other tasks during the summer field season. Information obtained from field surveys is used to identify those water bodies where fish and wildlife habitat uses may be impaired by extensive AIS infestations and assess those water bodies as part of the RI Integrated Water Quality Monitoring and Assessment Report. The AIS monitoring effort is financed with a patchwork of federal funding through US EPA under Section 106 of the Clean Water Act and small grants from the Federal ANS Task Force administered by the RI Coastal Resources Management Council).

For perspective, the size of Rhode Island is approximately 1100 mi² with 147 freshwater lakes ≥ 20 acres. Since 2007, RIDEM-OWR has surveyed 107 freshwater lakes in total and found 66% (71 of 107) contain at least one invasive species. Eighty-five of the 107 surveyed lakes are ≥ 20 acres. RIDEM-OWR personnel have documented thirteen different invasive species in Rhode Island lakes. Variable milfoil (*M. heterophyllum*) is the most common invasive in surveyed lakes, present in 47% (50/107) of sites, followed by fanwort (*C. caroliniana*) in 38% (41/107). These two species comprise the bulk of infestations, with the third most common species, curlyleaf pondweed (*P. crispus*) present in only 6% of surveyed lakes. Overall, these data show invasives are a widespread problem throughout the state. Recognizing the potential for AIS to be transported through watersheds by rivers and streams, RIDEM-OWR began noting infestations when observed during Ambient River Monitoring Program activities. To date, personnel have spot-checked 81 rivers and streams at some point along their course. AIS have been observed in 19% (15/81) of spot-checked streams. However, this statistic may be misleading because most surveyed streams are small, swift, first order streams isolated from potential

upstream AIS sources and are often shaded, rocky, subject to drying, and/or otherwise inhospitable to rooted plant growth.

Continuing Water Chestnut Management: Chapman Pond in Westerly still maintains the largest water chestnut (*Trapa natans*) population in Rhode Island (>8 acres). An initial plant pull held in October 2009 resulted in the removal of approximately 1600 pounds of plant material. Although it generated community interest, most plants had already released their seeds. The second pull was organized by the Westerly Land Trust with technical assistance from the Rhode Island Natural History Survey (RINHS) and occurred in July 2010, before seeds had matured. Volunteers were able to pull 2600 pounds of plant material, but only eliminated about 1/4 of the population. It is expected that more pulls will be performed in subsequent years in an effort to control the dense infestation.

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