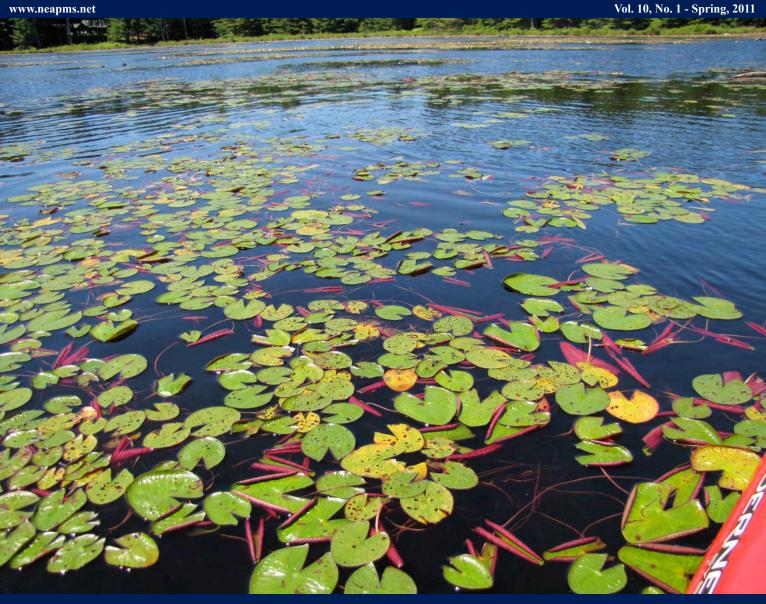




A Newsletter of the Northeast Aquatic Plant Management Society

www.neapms.net



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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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PRESIDENT'S MESSAGE

John McPhedran, May 2011

I was fortunate to be in Quebec City last month for meetings of the Northeast Aquatic Nuisance Species Panel and the Canadian Invasive Aquatic Species Network (CAISN). Presentations and informal discussions in Quebec left me overwhelmed at the scope of the invasive species challenges but also made me wonder if we – Northeast plant managers – have it easy.

The CAISN story is impressive: a five-year, \$7 million effort that has coordinated research, training of new scientists, and invasive species control efforts across Canada. Marine invasives, and ballast water in particular, have received a great deal of attention, including development of genetic techniques for identifying species in ballast water. Speaking at CAISN, Jim Carlton of Williams College addressed the breadth of biota before us, noting that 90% of invasive species haven't been studied.

In our world of aquatic plants in the northeast U.S., we have pretty good agreement on plants that are true nuisances – the really bad ones. No, we don't all agree on the second tier problem plants, some of which are native to our region, but it's not as if 90% of our target organisms are unknown to us. The impacts of these plants, if not detailed in peer-reviewed publications, are generally known from our observational experiences.

Reflecting on Carlton's talk reminded me of several needs:

- 1) Be a better taxonomist and apply that skill to identifying plant species, including natives, in our waterbodies.
- 2) Better understand the plants that are the new threats to our waters so we are as well prepared when they arrive.
- 3) Keep current with the latest plant management techniques and products being developed.

4) Follow-up control efforts with simple but meaningful monitoring to learn if objectives were achieved and to better inform future plant management efforts.

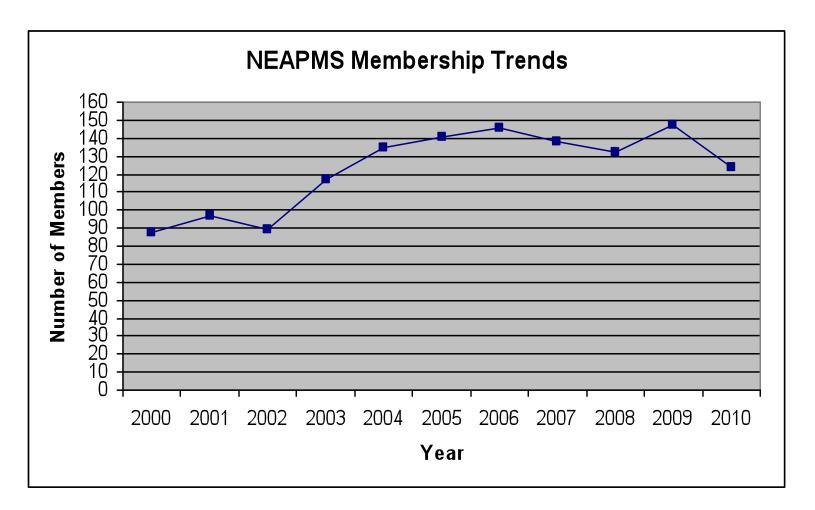
The Annual Conference of NEAPMS supports these needs and more. The plant ID sessions provide a jumpstart to motivating me to improve taxonomic skills on my own. I always appreciate when Barre Hellequist introduces me to a group of plants that that I ought to be concerned about. Industry presentations and innovative techniques give me new information to bring to our control efforts in Maine. And presentations on control projects usually include some degree of follow-up monitoring to assess effectiveness, further informing what we're doing to control infestations in Maine.

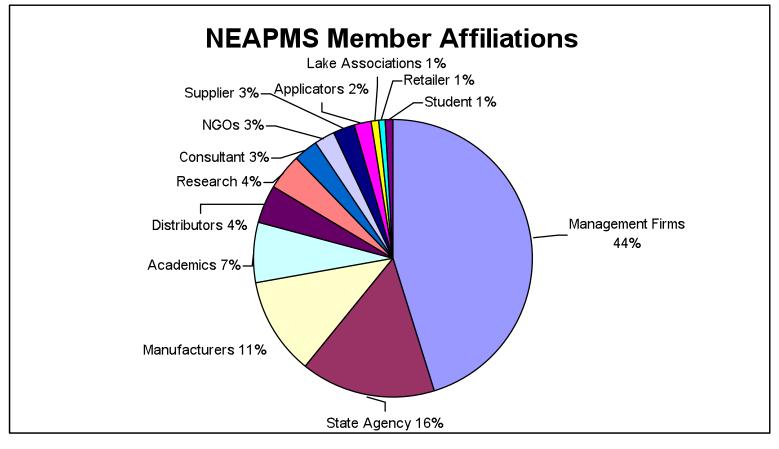
While our window into the world of freshwater aquatic plants may be a narrow slice of the invasives pie, it's still complicated, difficult to navigate, and in need of advanced knowledge of species and improvement in approaches. After further contemplation, no, we don't have it easy.

NEAPMS members represent over a dozen different affiliations from academics to suppliers and everyone in between. Each of us in NEAPMS brings something different to the Annual Conference, and I hope we each gain something. The Society – its members – *you and I* – continue to build a base of knowledge and experience that benefits the people and waters we serve.

The Board of Directors is planning our return to Wentworth by the Sea in New Castle, NH, for January 17-19, 2012. Our first visit to the Wentworth in January 2011 was a resounding success thanks to the hard work of several dedicated Board members, the financial support of our corporate sponsors, and your commitment to the Society.

As the field season ramps up, be thinking about what you could bring to the 2012 Conference in the form of a presentation about your work. In the meantime, the Board will continue to keep you informed via email of events and issues that can't wait until next January. If you have any suggestions for the Board feel free to contact me directly at john.mcphedran@maine.gov.





Remembering Jody Connor

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



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

Jody Connor

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, 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.

Remembering Jody Connor

"Although many of us knew that Jody was ill for the last couple of years, seeing how great he looked over the last six months and experiencing his positive attitude, many of us were lulled into a false sense of confidence that we would continue to enjoy Jody's presence among us indefinitely," conveys past NEAPMS BOD member Ken Wagner of Water Resources Services, LLC. "Losing Jody is indeed a huge loss for the lake-loving community, and this was evidenced at his memorial mass. Speaker after speaker, none of them lake professionals, told the capacity crowd of how hard Jody worked for lakes and how much he loved doing it. Those of us who work with lakes professionally knew this already, but I am not sure I realized how much his efforts were known and appreciated by others outside the professional community. Everyone seemed to know how Jody avoided the limelight, cared less about accolades than actual accomplishments, and really enjoyed educating people about lake issues...But I also learned something that I didn't know. Jody was himself a lake enthusiast outside professional circles. I didn't know that he had been a champion waterskier or that he spent as much time just enjoying lakes as he did. Many of us spend so much time studying and managing them that we forget sometimes to just enjoy them."

Past President and Honorary NEAPMS member Gerry Smith of ACT Inc. reflects, "Jody was a true professional who was committed to doing top quality work. Whether writing a technical report, performing an aquatic plant survey or planning an alum treatment, he always somehow found the time to put out the best product possible. He did his work with a calm demeanor and a sense of humor. I never saw Jody frazzled."

Among other things, Jody will be fondly remembered for his passion, strong work ethic, approachable demeanor, sense of humor and easy going manner.

Wagner encourages us to, "Do Jody the favor of enjoying a lake this summer, then doing something to help protect it to make it better; you'll be doing a lot of people a favor that way, and I am sure that is how Jody would see it."



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.

NPDES Update

The National Pollution Discharge Elimination System (NPDES), thanks to a decision by the U.S. Sixth Circuit Court of Appeals, applies to the application of pesticides in, over and near waters of the United States (US). The past couple of years have revealed just how the Environmental Protection Agency (EPA) intends to implement this court-ordered process. EPA retains jurisdiction over NPDES permitting in Alaska, Idaho, New Mexico, Oklahoma, Massachusetts, New Hampshire, the District of Columbia, Indian Country, U.S. Territories, and federal reservations and installations. The remainder of the states have been delegated the authority to issue NPDES permits and have developed their own programs. Originally scheduled for implementation on April 9th, the EPA requested and was granted an additional stay by the 6th Circuit Court of Appeals to last until October 21, 2010. Even though the federal program has been put on hold, several states had to proceed with implementation because of their own state procedures.

It's important to keep track of the federal program because it drives what the states will ultimately do. Several things have occurred since March 1st that warrant your attention.

The National Marine Fisheries Services provided EPA with a draft Biological Opinion indicating the proposed EPA NPDES permitting program had not adequately considered the potential jeopardy to endangered species and/or their habitat. EPA has to resolve this issue before proceeding and the draft opinion was part of the justification for the request for the stay.

On April 1st the EPA published its final draft of the permit. The final permit will be issued later this summer.

The U.S. House of Representatives passed The Reducing Regulatory Burdens Bill 0f 2011 (H.R.872). Cosponsored by over 75 Representatives, the bill passed by a vote of 292 – 130. This Bill, should it become law, would amend both the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Clean Water Act and remove the requirement for NPDES permits for aquatic applications of pesticides and would reinstate FIFRA as the sole federal law authorized to regulate pesticides.

A Senate Bill was introduced in the Senate Agriculture Committee; but, at the urging of the Republican members of the committee, Chairman Debbie Stabenow, D Michigan, has indicated that the Committee will pass House Bill No. 872 through to the full Senate for a vote.

The Aquatic Ecosystem Restoration Foundation (AERF) and Responsible Industry for a Sound Environment (RISE) has once again sent out a "Call for Action" wherein you can make your wishes known to the Senate. This bill needs to be passed and sent to the President for signature. With a Democrat majority and mounting pressure against the bill from environmental activists, this will be an uphill battle that will require the involvement of everyone involved in the world of responsible aquatic plant management. Please be ready to help us out in this monumental task.

Carlton R. Layne, Executive Director

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

CONNECTICUT: Nancy Murray, Connecticut DEP

CT ANS Program Update

CT DEP Inland Fisheries Division established a part-time ANS Coordinator through a Cooperative Agreement with the University of Connecticut's Institute of Water Resources. Dr. Patricia Bresnahan, one of the original authors of the CT Plan, started work in December 2010. Nancy Balcom (CT Sea Grant), Pat and I have re-established the CT ANS Work Group, updated the CT ANS Species List, the vectors list and are drafting a rapid response plan. On April 7, 2011, we held our first CT Work Group meeting since the CT ANS Plan was approved. The Work Group reviewed and provided substantive input that will be incorporated into the final documents.

Species Update

New locations of **zebra mussels** were documented from Lakes Zoar and Lillinonah in September 2010. It was timely that we received a onetime allocation of funds from the USFWS ANS Program. Two projects will get underway this year. Ethan Nedeau will be conducting adult zebra mussel and veliger surveys in high risk waters in CT. Western Connecticut State University will be conducting more detailed surveys at Candlewood Lake, Lake Lillinonah and Zoar.

Didymo, was found in the West Branch of the Farmington River in March by knowledgeable anglers who contacted CT DEP. Specimens were collected and sent to Leslie Matthews with VT DEC to confirm the identification. Leslie shared protocols and experience that will be useful to developing a CT monitoring and education plan.

Invasive Investigator

Gwendolynn Flynn, DEP Bureau of Outdoor Recreation-Boating Division, has been running a Boating Education Assistant (BEA) Program for 6 years. BEAs are paid seasonal workers to visit state boat launches to educate the boating public about clean (using green cleaners, aquatic invasive species, etc) and safe (wear your life jacket, having the proper boating education, etc) boating practices. This year she initiated a project, called the Invasive Investigator Program, which trains volunteers to educate anglers and recreational boaters about aquatic invasive species. The Volunteer Invasive Investigator (II) Program is designed specifically to help educate people on ways to keep our waters clean and prevent the spread of aquatic hitchhikers into the lakes and rivers of Connecticut.

Volunteers are required to attend an initial training of 2.5 hours and visit local boat launches. DEP Boating staff will familiarize you with the local invasive species, teach you how to conduct a voluntary inspection and provide instructions regarding data collection. The program is administered under the authority of the DEP and training is held at local sites. Volunteers will be under the local supervision of the lake or pond organization with whom they register.



CONNECTICUT: Nancy Murray, Connecticut DEP ... con't

At the boat launch, the DEP asks that IIs interact with boaters, familiarize them with invasive species present at the waterbody, distribute invasive species educational materials, conduct a voluntary inspection to see if there are any visible plant fragments or zebra mussels, and show the boater the steps needed to ensure they are not spreading unwanted plants and animals. The Invasive Investigator will also conduct a voluntary survey to determine what, if any cleaning precautions were taken prior to launching, and return surveys and other information gathered to the DEP-Boating Division on a weekly basis.

NPDES Update

Brad Robinson, DEP Pesticide Program, reports that CT is developing the NPDES general permit, but on a more relaxed timetable given the stay until October. The feeling here is that we cannot count on H.R. 872 making its way through the rest of the Congress. We hope to go to public notice sometime in late spring/early summer, and proceed with the enactment of the General Permit, which will have an effective date of October. The permit issuance process is back to standard operating procedures for this spring.

Bantam Lake Fanwort Control

This project used diver-assisted suction harvesting to remove fanwort along the north shore of Bantam Lake and at the inlet of the Bantam River. Results were encouraging. Benthic barriers were also tested in limited areas to determine the efficacy in controlling fanwort in the lake and portions of Bantam River. These results were less encouraging. When the benthic barriers were removed in late autumn, fanwort was found growing under the barriers. However, some control was observed.

Legislation

DEP Inland Fisheries staff worked with the State of CT Judicial Branch to correct an oversight and have CT General Statutes section 15-180 (requires removal of all plants from boats and trailers prior to transporting the boat or trailer) included in the schedule of mail in violations/infractions. This change simplifies enforcement of the statute as court appearances will no longer be required. This action should increase compliance of the law and help prevent the spread of invasive aquatic species.



www.CygnetEnterprises.com

MAINE: John McPhedran, Maine DEP

Boat inspections for 2010

The 2010 boating season was another record-breaker: inspectors conducted 72,428 Courtesy Boat Inspections--an increase of 14,876 over 2009. To achieve this, 5781 additional inspection hours were logged in 2010 for a total of 37,165 hours, roughly equivalent to 18 full-time employees. Boats were inspected both entering and leaving a lake with the majority of inspections (60%) conducted on boats entering. Maintaining this high level of prevention effort is a tremendous achievement for local and regional groups running the inspection programs.

A total of 2,334 plants were found during inspections; 281 of these were invasive plants. For the seventh consecutive year the Courtesy Boat Inspection Program again confirmed several instances of invasive plant interceptions *prior* to boat launching.

Another first for 2010: <u>all</u> 63 bass clubs participating in bass tournaments were required to conduct inspections as a condition of their permit. As a result, bass tournament participants logged 6,327 inspections, utilized 129 inspectors, and inspected their tournament boats at 36 rivers and lakes that don't have a Courtesy Boat Inspection Program.

Boater self inspections:

According to two years of DEP observations, less than 20 per cent of the boating public inspects boats and boating gear before entering and exiting Maine lakes. In 2011 the Maine DEP will apply tools of social marketing (surveys, field observation, focus groups) to study both factors that thwart self inspection and cues to foster improved compliance.

DEP 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 along with benthic barrier deployment and aggressive hand pulling before and after. SCUBA surveys in 2010 revealed no rebound of this infestation. A Surface Use Restriction was reissued for 2010 to minimize boat traffic within the cove, and DEP divers deployed nets at the cove's outlet and

mouth to minimize opportunities for fragments to escape. In anticipation of when (and not if) this infestation returns, DEP will resume manual control activities, 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 a 1/3rd-acre lagoon within the lake in 2009. DEP immediately isolated the lagoon with screens. That autumn, DEP staff hand removed two full pick-up truck loads of hydrilla biomass (including tubers), and then treated last summer (2010) with herbicide (fluridone). No viable hydrilla was observed within the lagoon in September 2010. Two plants found outside lagoon in 2010 were removed by SCUBA divers. Benthic barriers for most of this lagoon have been ordered for deployment by DEP in the lagoon in May.

Pickerel Pond, Limerick: The Pond has been treated with fluridone for hydrilla control since summer 2003 with an objective to deplete tuber bank with consecutive annual applications. A single SCUBA survey in 2010



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

MAINE: John McPhedran, Maine DEP ... con't

revealed no emergent hydrilla growth for the first time in treatment history. DEP divers will conduct further SCUBA surveys in late spring, and continued herbicide treatment of the Pond is slated for 2011. Repeated treatment of the Pond is intended as a test to determine whether eradication can be achieved under favorable conditions and with sustained resource allocation.

Songo River: In 2010, NGO Lakes Environmental Association (LEA) sought closure of the Songo Lock between upper and lower portions of the River. LEA's formidable success in controlling variable-leaf water milfoil (*Myriophyllum heterophyllum*) 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 state. Department of Conservation (which administers the Lock), DEP and Department of Inland Fish and Wildlife 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.

Infestation scorecard:

Mid-summer 2010 brought two new variable-leaf water milfoil finds in Great Meadow Stream in Belgrade and Purgatory Stream in Litchfield. The Belgrade Regional Conservation Alliance spearheaded control projects at the Great Meadows Stream site (mostly hand removal, benthic barriers) with technical assistance from DEP. DEP also collaborated with the DIFW to issue a Surface Use Restriction in Great Meadow Stream to minimize powered-boat traffic through control areas.

Pleasant Lake, Otisfield/Casco, was removed from the state list of infested waters after three consecutive years of no infestation by variable-leaf water milfoil. Local efforts by the Pleasant Lake/Parker Pond Association earned kudos for their methodical use of benthic barriers and consistent, high-level volunteer efforts.

Maine now stands today with these documented findings: 33 inland waters out of Maine's entire lake and stream population are contending with five aquatic invaders—variable-leaf water milfoil, (Maine also has the hybrid *M. heterophyllum x laxum*); hydrilla; curly-leaf pondweed (*Potamogeton crispus*), Eurasian water milfoil and European naiad (*Najas minor*). Twenty seven waterbodies have documented infestations of variable milfoil while two infested sites contain hydrilla. Two lakes are known to contain Eurasian water milfoil infestations, two host curly-leaf pondweed of which one also contains European naiad.

Maine remains free of didymo (*Didymosphenia geminata*). DEP will further its outreach on prevention with advertising in outdoor-interest publications in 2011. Maine will likely add didymo to the official list of invasive plants in the near future. State agencies are also charged with evaluating potential restrictions on felt-soled waders to limit didymo spread, with recommendations for the legislature due in the fall.

Maine Milfoil Summit:

The 12th annual event drew record attendance on April 15th. Hosted by Lakes Environmental Association with support from DEP, this meeting provided current information on policy and issues impacting communities and organizations involved with invasive aquatic species (including fish) control and/or prevention. Courtesy Boat Inspection training required of all volunteers was also provided.

More information

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

N E A P M S 12TH ANNUAL MEETING NEW CASTLE, NEW HAMPSHIRE













N E A P M S 12TH ANNUAL MEETING NEW CASTLE, NEW HAMPSHIRE













NEW HAMPSHIRE: Amy Smagula, New Hampshire DES

Like other states across the country, New Hampshire is facing some very tough budget cuts associated with economic difficulties. In the end, a total of three budgets will be submitted for review, one each proposed by The New Hampshire House of Representatives, the New Hampshire Senate, and the Governor's Office. Each has their shot at preparing a new biennium budget for New Hampshire. Although each will recommend severe decreases to the budget that will impact all agencies, some will impact the Department of Environmental Services more than others. When all the dust settles, ideally we hope to see a compromise between the three budgets that spares watershed positions and programs.

What this means for the Exotic Species Program is up in the air right now. The program is fee funded and reviews of these programs have been put off until the 2012 legislative session. One bill seeks to rollback fee funded programs to 2007 funding levels. The Clean Lakes and Exotic Aquatic Weed Program are two of the Biology Section programs that will be scrutinized next session. A fee rollback for the Exotic Aquatic Weed program could result in a \$250,000 reduction in program funds that are granted to others for control and prevention type work each year.

With that said, we do have a number of projects lined up for summer 2011, (any budget cuts would be effective for the next fiscal year, starting July 1, 2011 so summer 2011 projects are already approved and funded at this point out of current fiscal year funds), including 22 projects funded with state grants that include a mix of herbicide treatments, Diver Assisted Suction Harvesting (DASH) projects and/or simple dive projects around the state. Projects range in size from a couple hundred acres to less than one acre in size. There are also a number of projects proposed by lake associations and municipalities using only local funds, amounting to nearly a dozen additional projects across the state in 2011. Over the winter, long-term management plans were prepared or updated for the majority of these waterbodies. Also, there are partnerships established with local entities to ensure good follow-up monitoring through volunteer Weed Watcher activities, so that new growth or re-growth in these sites is found early and reported so that we can continue to build off from successes that we realize through these various planned control efforts.

In terms of legislative initiatives over the winter, there was one bill proposed in the House relating to exotic aquatic plants and endangered species. This bill seeks to prohibit endangered species from precluding exotic plant control activities in New Hampshire. We have had some philosophical differences between agencies in NH when it comes to controlling exotic plants like milfoil, with some agencies supporting milfoil growth because it potentially offers habitat for some threatened and endangered species. The bill passed the House by majority vote and it is currently being retained in Senate committee, pending the outcome of inter-agency mediated discussions on this and other related issues. Hopefully in the fall/winter edition of the newsletter I will be able to report on the resolution to this issue.

And, the good news to report is that we are finally getting groups around the state's largest lake (Lake Winnipesaukee) to work together on a broader scale on invasive aquatic plant control. This 44,586 acre lake lies within the boundaries of eight separate towns, has numerous individual cove/marina/island lake associations and probably close to 800 acres of variable milfoil around the lake (or more). Coordinating management strategies on this lake has been scattered at best in the past, with local groups responding to expanding infestations in their area individually, resulting in acre-by-acre fragmented control and no overall reduction in variable milfoil density or distribution to make a lasting difference. Now, more than half of these towns have formed Milfoil Committees associated with town infrastructure (Conservation Commission or similar), and town-wide and multi-town projects are being coordinated more and more these days, resulting in a much more strategic approach at milfoil reduction. There is even a tri-town effort to build and operate two DASH units to focus on small-scale infestations over time and to be responsive to new growth or persistent growth following scheduled herbicide treatments. While eradication will likely never be the goal in this vast

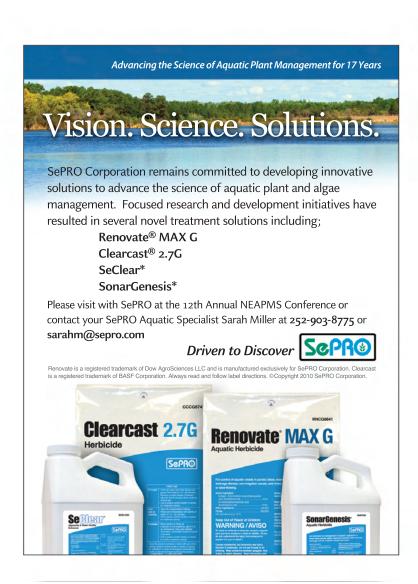
NEW HAMPSHIRE: Amy Smagula, New Hampshire DES ... con't

system (with other infested feeder lakes/ponds in the watershed and other complicating factors), significant reductions in milfoil can be expected with a much more coordinated approach. Time will tell.

And, though the fiscal status of the state may not be certain, exotic aquatic plant growth *is* a certainty for at least 76 infested New Hampshire waterbodies right now, not counting any new infestations which may occur this season and beyond. Action is needed before infestations expand further and shorefront property values and the value of our lakes for recreation and tourism plummets, driving the state, which is dependent on those dollars, even further into the red.

NEW JERSEY: Glenn Sullivan, Allied Biological, Inc.

The New Jersey Department of Environmental Protection (NJDEP) has followed EPA's lead closely on formation and approval of the state's Pollution Discharge Elimination Permit for aquatic pesticide use. NJDEP issued a draft permit on December 30, 2010, but then later learned that EPA intended to make substantial changes to their own draft. As a result, NJDEP finalized their draft permit prior to the April 9, 2011 deadline, and then simultaneously stayed the permit requirements. This allows NJDEP to make revisions to the existing permit and meet public notice obligations, but does not subject the regulated community to complying with the permit finalized before April 9. NJDEP is now awaiting



final changes and adoption of the EPA permit, and expects to follow with their own final permit some three to four months later. More details are available at <u>http://www.nj.gov/dep/dwq/pdf/</u> <u>pesticide_gp_intro.pdf</u>

This Spring has been a tumultuous one for New Jersey lake managers relaying on aquatic pesticide use. The NJDEP's staff cutbacks lead to significant delays in permit approvals. Historically, approval of an aquatic pesticide permit took 4-5 weeks to receive from NJDEP, but this Spring delays extended reviews to 8 weeks or more. Under pressure from applicators and lake owners, NJDEP issued a directive on June 3, 2011 allowing applications to take place immediately for permits still under review, provided certain conditions were met. This type of action has not occurred in at least the last two decades, and suggests a change in attitude for regulatory affairs at NJDEP.

The NJDEP has been monitoring the spread of Hydrilla through its pesticide permitting program, but staff cuts have limited their attention to the spread of invasive plants. The NJ Invasive Species Strike Team (www.njisst.org) has steadily expanded their scope of operations, focusing primarily on terrestrial invasive plants, but also raising awareness of aquatic invasives like water chestnut.

NEW YORK: Scott Kishbaugh, New York DEC

Invasives Management

In this troubled economy, lake communities and invasives managers are struggling to find ways to keep on top of new and bothersome invaders. The state Office of Invasives Species took a major hit in the last year; between retirements and loss of staff, the number of full time staff was cut from 4 to 2, and no additional funds were authorized for revitalizing the Invasive Species Eradication Grants program. In addition, the dedicated coordinator for the Long Island PRISM (Partnership for Regional Invasive Species Management) lost her position, and although she continues to be a part of the PRISM, her leadership responsibilities were assumed by the New York Natural Heritage Program (NYNHP) staff many miles away. Yet committed individuals and lake associations forged ahead.

In 2010, the first use of an aquatic herbicide within the Adirondack Park occurred in a small partitioned plot in an EWM-infested cove in Lake Luzerne in the southeastern portion of the Park. Agency staff continue to evaluate the Renovate® treatment and will work to apply the lessons learned for the review and permitting of the next proposed treatment within the Park. Small but measurable progress was made in using sterile grass carp in halting the spread of hydrilla from small ponds and large lakes in Orange County (southern NY) and Long Island. A survey conducted by Chuck Boylen from Rensselear Polytechnic Institute began documenting the large and growing expenditure of public and private funds used for managing invasive plants in New York states lakes: Chuck presented the initial findings at the NEAPMS conference in January.

Outreach and Education

Continued development of 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, led to the launching of iMapInvasives 1.4.5. This version includes functionality for entering treatment and survey data, and on-screen polygon mapping for trained users. The early detection email alert system and smart phone apps will be coming soon. Since the beginning of the year, NYNHP has hosted 12 training sessions, including four "train-the-trainer" sessions. Several of these trainings targeted educators, such as school teachers and 4-H leaders.

The New York Natural Heritage Program continued work on developing a Floristic Quality Index (FQI) for New York state. They anticipate that the list of coefficient of conservatism values for the more than 2000 evaluated plant species will be completed in the fall. It is expected that the FQI will help to evaluate the efficacy of plant management actions.

Several workshops and conferences hosted sessions dedicated to the surveillance and management of invasives. NYNHP sponsored an Invasive Species Symposium in Albany in April as part of the Northeast Natural History Conference. Workshops included an iMapInvasives training session, an aquatic plant identification workshop, and a presentation on monitoring waterbodies for invasives. An iMapInvasives training session and presentations on invasive animals and plants were also held at the New York Federation of Lake Associations annual conference in Hamilton. The Adirondack Research Consortium sponsored a session dedicated to assessing emerging threats and the impact of invasive species as part of their annual symposium in Lake Placid.

Regulatory Update:

The NYSDEC Division of Water continued work on the development of a state NPDES pesticide permit, but the stay issued by the 6th Circuit Court suspended the final implementation of the permit. Staff continue to work on elements of the permit, with a particular focus on Pesticide Discharge Management Plans (PDMP), IPM, and categories of waterbodies subject to the permit. It is anticipated that the final state NPDES permit will be rolled out concurrent with the issuance of the federal permit in the fall.

VERMONT: Ann Bove, Vermont DEC

Infestation Status, 2010

One new Eurasian watermilfoil (Myriophyllum spicatum) water was confirmed in 2010, 54-acre Ticklenaked Pond in Ryegate, bringing the total number of known lakes with populations to 66 and 27 other waters. No new variableleaved watermilfoil (Myriophyllum heterophyllum), water chestnut (Trapa natans), yellow-floating heart (Nymphoides peltata), European frog-bit (Hydrocharis morsus-ranae) or curly leaf pondweed (Potamogeton crispus) sites were identified. Didymo blooms were confirmed in two new Vermont rivers: the Gihon River in the vicinity of Johnson, Vermont; and the Passumpsic River in the vicinity of West Burke, Vermont. Interestingly, major blooms were not observed in the White and Mad Rivers that experienced significant blooms in previous years, and the Batten Kill in Vermont continues to remain nuisance-bloom free despite the microscopic detection of didymo cells in samples collected in previous years. Extensive monitoring for didymo has not been conducted due to staff limitations. VTANR's efforts emphasize spread prevention – new infestations were reported by alert citizens.

Rapid Response

With New York appointments in January 2011, the Lake Champlain Basin Rapid Response Task Force, as outlined in the Lake Champlain Basin Aquatic Invasive Species Rapid Response Action Plan (May 2010) is complete. The Task Force, which also includes representatives from Quebec and Vermont, met for the first time in February and followed with an EPA-lead Incident Command System training in April.

Vermont's new emergency permitting authority aimed at initiating a rapid response to a new invasive species invasion was authorized under a General Permit in March 2011. VTDEC requested and received coverage under the General Permit for the use of diver operated suction harvesting on variable-leaved watermilfoil in Lake Champlain. Variable-leaved watermilfoil was first confirmed in Missisquoi Bay, lake Champlain in fall 2008. Bids for a contractor to conduct the work are under review; if funds and a Threatened and Endangered Takings Permit for threatened and endangered mussel species can be obtained, control is expected to begin in May 2011.

Legislation

On April 1, 2011, a ban on the use of feltsoled wading boots in Vermont waters became effective. The full text of the ban is available at http://www.leg.state.vt.us/docs/2010/Acts/ ACT130.pdf



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VERMONT: Ann Bove, Vermont DEC ... con't

Cooperative Invasive Species Management Areas (CISMA)

One of two newly forming Vermont "CISMA's," the Ottauquechee River watershed CISMA, received a two year, \$45,000 grant from the National Fish and Wildlife Foundation Pulling Together Initiative to kick start the formation process and fund management activities. CISMAs are partnerships of federal, state and local government agencies, individuals and non-government groups that manage invasive species in a defined area.

Boat launch monitoring and volunteer early detection, 2010

Boat access area greeter programs receiving partial state funding were operated at 20 Vermont lakes in 2010; two or three other lakes, and Lake Champlain, operated greeter programs funded through other sources. Collectively, state-funded programs inspected more than 8000 boats and reported 190 boats carrying plant or animal material, including some with identified invasive species (including several Eurasian watermilfoil and one fanwort specimen).

Four Vermont Invasive Patrollers (VIPs) basic training workshops were held around the state in 2010 with a total of 41 participants. This brings to approximately 400 the total number of VIP volunteers trained since the program's inception four years ago. Certified Vermont invasive patrollers (VIPs) documented at least 25 surveys on 9 water bodies during 2010. No new invasive species infestations were discovered by VIPs during the 2010 season. Trainings for both greeters and VIPs are planned for 2011.

Grants

Approximately \$416,000 from a portion of state motorboat registration funds and federal Army Corps of Engineer monies will support 35 grants to municipalities managing aquatic invasive species in 2011: 22 for Eurasian watermilfoil efforts, 11 for spread prevention projects and two for other species control efforts. Additional state and federal funds are available in 2011 to support VTDEC initiated variable-leaved watermilfoil and water chestnut control programs, and state supported watch and access greeter program materials.

NPDES

VTDEC, Water Quality Division has drafted a PGP for internal review but no public notice of the draft has yet been distributed, in part because we are waiting on the anticipated final EPA permit, now expected on July 30, 2011. Vermont's current aquatic pesticide statute and pesticide permit decision conditions actually cover much of what we understand, at this point, EPA will require. However, Vermont will likely have two separate permitting tracks: one for the aquatic pesticide statute and one for NPDES.

PENNSYLVANIA: Jack Hanish, Pennsylvania Lake Management Society

At the March 2011 Pennsylvania Lake Management Society (PALMS) Annual Conference, in addition to some fine presentations on invasive aquatic plant management ID and control, there were two interesting departures from the standard aquatic plant management fare: use of cattails (the plant type, not the furry type) in a sewer management system; and a presentation, on rare, threatened, and endangered (RTE) aquatic plant species in Pennsylvania.

The folks at Alcoa's Technical Center, located just east of Pittsburgh, put together a full scale waste water treatment facility that processes 45,000 gallons/day of waste water (all of the wastewater from the 270 labs on the 127 acre site) and discharges the processed effluent directly into a nearby creek. Frequent tests have shown that the effluent meets all required DEP parameters for a discharge into Commonwealth waters. The system known as the Novel Ecological Water Treatment (NEWT) system features a series of low energy stages designed to remove organic, inorganic, and

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PENNSYLVANIA: Jack Hanish, Pennsylvania Lake Management Society ... con't

pathogenic contaminants found in wastewater streams. A key feature of the system is the use of cattails as a major component of the system. This does away with the familiar and somewhat odiferous separating tanks and aerators normally found with standard sewage treatment systems. Cattails also happen to be associated with riparian buffers, therefore the loose connection to the riparian buffer theme of the PALMS conference. It's nice to be able put in a good plug for those weeds in the water once in awhile. Any ideas for brine removal? For more information, contact Dr. Shannon Parks at shannon.parks@alcoa.com.

More to the aquatic plant point, Dr. Timothy A. Block, Morris Arboretum of the University of Pennsylvania, gave the much too time-constrained talk on RTE aquatic plant species in Pennsylvania. The presentation deserved much more time than the misers-of-the-minutes at the PALMS conference allowed. The saddest part is that these RTE aquatic plant specimens don't even make the honorable mention list (except in the most general terms) in most forums where insults to the environment by man's intervention are discussed. Obviously, the ulterior motive here is to generate more specific references to aquatic RTE, and other RTE species, whenever possible to prevent destruction of habitat before



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the nurturing environment is altered. (If you haven't quite locked on to the name yet, Timothy Block is the co-author with Ann Fowler Rhoads of the reference guide 'Aquatic Plants of Pennsylvania', University of Pennsylvania Press.)

Elections are over in PA, a new administration is in place, new legislators went through their orientation, and the challenge of paying for every thing is back to the front page. Meanwhile, the unelected functional managers, scientists, engineers, and technicians involved with aquatic plant management have pressed on with the implementation of their Aquatic Invasive Species Management and Rapid Response Plans. John Breitsman from the PA Dept. of Agriculture was named the new Chairman of PA's Governor's Invasive Species Council and Leo Donovall was appointed Council coordinator earlier this year.

At the April PA Invasive Species Council (PISC) meeting, it was announced that work on an unofficial (guidance only at this point), multitiered disinfection procedure for water-related activity was nearing completion. A brief description of the planned disinfection procedure for watercraft and related equipment is contained in the aforementioned Aquatic Invasive Species Management Plan. Signage supporting developed procedures is available for posting at

STATE UPDATES

PENNSYLVANIA: Jack Hanish, Pennsylvania Lake Management Society ... con't

boat ramps and other pertinent locations. PALMS has signs available at cost, plus shipping. Other sources may have free signs. (Check with PA Sea Grant or PA Fish and Boat Commission for more sources).

Also at the Council meeting, the PA Fish & Boat Commission, one of the drivers for the disinfection procedure, announced that a training program for their technicians and office personnel, based on the disinfection protocol, was 100% complete. The program is available to all other state agencies and NGO's.

When the protocol was brought up at the meeting, a prolonged discussion followed on elements of the procedure, implementation concerns, and adequate provisions for enforcement. Some examples: Who is checking the installation of screens at the end of open water withdrawal pipes? Who is tracking discharge water from cradle to grave? Who is checking seals and manifests? Who is providing disinfection equipment at ramps? Who is monitoring the clean up at ramps? And most importantly, when will the procedure become required for everyone? The Chairman requested a committee to draft the concerns in a letter for transmittal to the Governor's Marcellus Shale Advisory Committee. As you all know, Marcellus Shale activity is a recent major addition to the threat of the spread of invasive species and other significant environmental disruptions in PA.

Later in the meeting and related to the spread of invasive species, Dr. Mortensen from Penn State announced the results of a study on the ability of rural road maintenance activity to move invasive species along rural roads and into the forest interior. Culverts and ditches are a major contributor here for forest intrusion. Preliminary results indicated that road grading does indeed move seeds along a road at a more rapid pace and over longer distances than natural dispersal among other important findings. There are some solutions to this problem, including altering the pH of the grading material, and finding efficient ways to remove seeds from vehicles and personnel traversing the roads. In related studies, L. Rew and B. Maxwell from Montana examined how vehicles move the seeds and the effectiveness of various commercial washers for removing seeds.

There was general agreement at the meeting that public awareness and involvement has to be a significant component of any successful environmental management program. A number of simple, user-friendly, tracking programs for volunteer reporting or requesting technical assistance were mentioned and must become more available to garner necessary political support and overcome funding shortfalls affecting adequate numbers of field personnel. So far, the strategy seems to be working. I heard from a Senator at a subsequent meeting of County Conservation Districts with state legislators, "Where is the science behind the existing and proposed environmental rules and regulations? Give us some help here!" Wow! Where did that come from? Maybe there is some hope left to protect RTE species and maintain an ecological balance in PA. Anyone for environmental impact studies before remedial action? That's it from the Keystone State for this session.



Aquatic Plant Management Society is now on LinkedIn

The Aquatic Plant Management Society now has an online group through the social network LinkedIn, which is at <u>http://www.linkedin.com</u>. LinkedIn is a social network for professionals which emphasize developing a professional network of business colleagues. The APMS group has a discussion board, jobs board, and membership list. Opened by the Membership committee and moderated by the current chair, it is open to all individuals interested in aquatic plant management issues. So long as the discussions remain polite, all membership and postings will be open. Of the more than 60 current members of this group, less than half are members of the national APMS. Our goal is to use this tool to encourage membership in the national and regional APMS and involvement at conferences.

To create an account on LinkedIn, go to <u>http://www.linkedin.com</u> or use the LinkedIn link under Social Networks on the APMS webpage. Once you have an account on LinkedIn, search for the Aquatic Plant Management Society group under the Groups Directory in LinkedIn.

John D. Madsen, Ph.D., e-mail jmadsen@gri.msstate.edu GeoResources Institute, Mississippi State University

New AERF Newsletter

The Aquatic Ecosystem Restoration Foundation is now publishing a quarterly newsletter which is delivered as a PDF email attachment. The next issue will be published in June. If you received the February newsletter or any of the Action Alert emails about the NPDES issue, you are already subscribed. New subscribers can sign up by visiting the AERF website at <u>www.aquatics.org</u>, clicking on the Subscribe button, and completing the opt-in form. You will receive a confirmation email. If you don't receive this email, please whitelist aquatics.org as described below. This will also subscribe you to the occasional Action Alerts we issue. If you are subscribed, and don't receive a confirmation email, or the newsletter mailings, please have your IT person "whitelist" the AERF domain aquatics.org on both your email server and your individual email account.

David Petty, Editor, AERF

The State University of New York College at Oneonta Master of Science in Lake Management

Contact: Bill Harman, SUNY Oneonta Biological Field Station, ph.607.547.8778, harmanwn@oneonta.edu.

The Biology Department at SUNY Oneonta is accepting applications for a Master of Science degree in Lake Management that is beginning during the fall semester of 2011. The program will train students for careers as lake managers capable of modifying the character and quality of our aquatic resources to meet the needs of water providers, lakeside municipalities and recreational lake users, as well as improving the quality of life for those who live, work and play on our tens of thousands of inland lakes, ponds, reservoirs and the streams tributary to them. Degree recipients will meet the requirements to apply for certification as Lake Manager (CLM) by NALMS. The program will include 32 hours of theory and closely-aligned field and laboratory experiences as well as thesis research involving the development and implementation of a lake management plan and monitoring of short-term responses. Admission to the program will require a baccalaureate, including undergraduate courses in the natural sciences, communications, business, government and statistics. Those deficient in undergraduate requirements may be accepted provisionally on the condition that such deficiencies are made up. It is expected applicants may have a diversity of widely varying technical and liberal arts backgrounds.

UPCOMING EVENTS



The Aquatic Plant Management Society 51st Annual Meeting July 24-27, 2011 Baltimore, MD http://www.apms.org/2011/2011.htm

31st Annual International Symposium North American Lake Management Society

Spokane, WA October 26-28, 2011 http://www.nalms.org



NEAPMS 13th Annual Meeting, January 17-19, 2012 Wentworth By The Sea, New Castle, NH

