



Agenda and Meeting Briefing Documents

May 22, 2012

Northeast Aquatic Nuisance Species Panel Meeting

May 23, 2012

**Great Lakes Panel and
Northeast Aquatic Nuisance Species Panel Joint Meeting**

May 24, 2012

Hydrilla Workshop

*Radisson Hotel Rochester Riverside
Rochester, NY*



NEANS Meeting Agenda
Great Lakes Panel and Northeast Aquatic
Nuisance Species Panel Meeting Agenda
Hydrilla Workshop Agenda
May 22-24, 2012
Radisson Hotel Rochester Riverside
Rochester, NY

Tuesday, May 22, 2012

8:30 AM Full Panel meeting: welcome, introductions, review of meeting agenda, and updates by Co-chair

Nancy Balcom, University of Connecticut and Ann Bove, VT Department of Environmental Conservation

ANS updates and Panel business:

- November 2011 meeting summary and February 2012 call summary acceptance – northeastans.org/meetings.htm
- November 2012 meeting in New Hampshire – Michele L. Tremblay, ANS Program Manager
- Spring 2013 meeting, possibly in collaboration with the International Didymo conference in March 2013 – Michele
- Schedule mid-term Panel conference call in August – Nancy, Ann, and Michele
- 2011-2012 NEANS Panel budget – Meg Modley, Treasurer
- ANS Task Force May meeting update – Nancy, Ann, and Michele
- Invasive Species Advisory Council and National Invasive Species Council – updates from members present

9:00 AM Highlights from the State of New York

Facilitated by Dave Adams, NYS Department of Environmental Conservation

9:30 AM Climate change and invasive species

Judy Pederson, MIT Sea Grant

9:45 AM Northeast ANS Roundtable¹ - *very fast-paced, one-minute updates from each province, state, and industry, academic, and NGO member. The Panel will discuss possible formats for the next meeting's Roundtable including sending updates or possible blog on NortheastANS.org.*

10:15 AM Break

10:30 AM NEANS Panel draft recommendations for Aquatic Nuisance Species Task Force for November 2012

¹ For more detailed updates, please bring approximately 35 copies of your written handout

- 11:00 AM** **Work plan presentation and Panel votes**
- 12:00 PM** **Luncheon provided to Panelists with instruction to NEANS Panel Work Groups**
- 12:45 PM** **New NortheastANS.org début**
Michele Tremblay with Jim Cradock, Yellahoose, LLC (via teleconference)
- 1:00 PM** **Northeast and Great Lakes Aquatic Nuisance Species Panels joint meeting preparation and NEANS Panel work group meeting time**
Nancy and Ann
- 2:45 PM** **Public comment period**
- 3:00 PM** **Meet in lobby: carpool to field trip to Braddock Bay Fish and Wildlife Management Area**
Gregory Sargis, The Nature Conservancy, Central & Western NY Chapter
This is a project that will restore wetland function and habitat through channel and pothole construction in an area dominated by invasive cattail due to stabilized Lake Ontario water levels. The site also features control of small patches of common reed within the wetland and determining a management strategy for starry stonewort with early detection mapping and monitoring.
- 5:30 PM** **Joint reception with Great Lakes Panel**
- 6:30 PM** **Meet in hotel lobby for supper as a group**

Wednesday, May 23, 2012 • Joint Meeting of GLP and NEANS Panel

8:30 AM Introductions, overview of agenda and joint meeting objectives

Luke Skinner, Chair, Great Lakes Panel, Minnesota Department of Natural Resources

Nancy Balcom, Co-Chair, NEANS Panel, University of Connecticut Sea Grant

Ann Bove, Co-chair, NEANS Panel, Vermont Department of Environmental Conservation

9:00 AM Ballast water update

- U.S. Coast Guard Report on Ballast Water Discharge Standard Final Rule
 - U.S. Environmental Report on Vessel General Permit Status
 - Ballast Water Collaborative Update
- Discussion: Challenges of coordinating ballast water management policy on a multijurisdictional level*

Moderator: Luke Skinner

Lorne Thomas, U.S. Coast Guard

Marcus Zobrist, U.S. EPA

Marvourneen Dolor, St. Lawrence Seaway Development Corporation

10:30 AM Break

11:00 AM Organisms in trade experts panel presentation and discussions

- Risk Assessment for Invasive Aquatic Species Arriving in the Great Lakes Through Trade
- U.S. Fish and Wildlife Service Report on Outcomes of Organisms in Trade Risk Assessments
- Binational Asian Carp Risk Assessment

Moderator: Ann Bove

Reuben Keller, Loyola University

Mike Hoff, U.S. Fish and Wildlife Service

Becky Cudmore, Fisheries and Oceans Canada

12:30 PM Luncheon provided for participants at hotel

- **Lunch Presentation: ANS Task Force Update**

Mike Goehle, U.S. Fish and Wildlife Service

1:40 PM Update on the International Commission's Rapid Response Binational Plan

Lizhu Wang, International Joint Commission

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|------------------|--|--|
| 1:50 PM | Instruction from Panels' co-chairs to organisms in trade joint work groups and assignment of groups with timekeepers and recorders and rooms | Nancy Balcom |
| 2:00 PM | Organisms in trade joint work group sessions | Moderators: |
| | <ul style="list-style-type: none"> ▪ Prevention, Detection and Monitoring ▪ Information, Education, and Outreach ▪ Policy, Regulation, and Coordination ▪ Research | <p>Mike Goehle and Luke Skinner Chuck O'Neill and Doug Jensen Kevin Cute and Mike Murray Leslie Surprenant and Phil Moy</p> |
| 4:00 p.m. | General session reconvenes for reports from joint work groups | Nancy Balcom and Kathe Glassner-Shwayder |
| 4:45 PM | Next steps for joint work groups to continue collaboration | Kathe Glassner-Shwayder and Michele L. Tremblay |
| 5:15 PM | Meeting adjourns | |

Thursday, May 24, 2012

Hydrilla Workshop

In light of the growing concern about the introduction and spread of hydrilla in the northeastern US and the recent introduction to the Cayuga Lake Inlet (Finger Lake in central NY), the Northeast Aquatic Nuisance Species Panelists and Great Lakes Panelists are invited to participate in this half-day workshop on the morning, immediately following the joint Northeast Aquatic Nuisance Species Panel and Great Lakes Panel meetings. The workshop will report on the distribution and management of hydrilla in the northeast, with a focus on the Cayuga Inlet eradication project. Attendees will then explore the strategies used by northeastern states in addressing this major ecological, recreational, and economic threat, including early detection programs, rapid response protocols, streamlined permitting, public education and outreach, and sustained funding and local support. Finally, participants will outline and refine objectives for a late summer Northeastern Hydrilla Summit focusing on the biology, management, and future research needs for *monoecious Hydrilla*.

- 8:00 AM Welcome, Why we're here, and What we hope to accomplish**
Scott Kishbaugh, NYSDEC Division of Water
- 8:10 AM The 5th Wave of Hydrilla Invasion: Unique challenges with hydrilla in the northeast**
Mike Netherland, USACE / University of Florida
- 8:40 AM Why Hast Thou Smote Me?: Hydrilla distribution and management in the northeastern US**
Scott Kishbaugh, NYSDEC Division of Water
- 9:00 AM Hydrilla in Cayuga Inlet: 2011 and beyond**
Bob Johnson, Racine-Johnson, Aquatic Ecologists
- 9:30 AM The State Response to Hydrilla in Cayuga Inlet: 2011 and Beyond**
Dave Adams, NYSDEC Office of Invasive Species Coordination
- 9:50 AM Break**
- 10:10 AM A Decade of Hydrilla Response in the Northeast: what works and how do we make that work elsewhere**
Moderated discussion Scott Kishbaugh and others
- 11:30 AM Next steps: Research Needs, Regulatory Issues, Management Experiences, Fall Workshop Planning**
Scott Kishbaugh, NYSDEC Division of Water
Mike Netherland, USACE / University of Florida
- 11:45 AM Summary and Closing Comments**
Mike Netherland, USACE / University of Florida
- 12:00 PM Adjourn**



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Conference Call Summary Draft • February 27, 2012

Panelists participating in conference call: Nancy Balcom, University of Connecticut Sea Grant; Ann Bove, VT Department of Environmental Conservation; Kevin Cute, Coastal Management Resources Council; Michael Goehle, US Fish and Wildlife Service; Karen Hahnel, ME Department of Environmental Protection; Andrea Locke, Department of Fisheries and Oceans; Mark Malchoff, Lake Champlain Sea Grant Project; John McPhedran, ME Department of Environmental Protection; Meg Modley, Lake Champlain Basin Program; Nancy Murray, CT Department of Energy and Environment; Judy Pederson, Massachusetts Institute of Technology; Theresa Portante-Lyle, New England Interstate Water Pollution Control Commission; Amy Smagula, NH Department of Environmental Services; Jan Smith, MA Office of Coastal Zone Management.

Others participating in conference call: Cristina Bourassa, Narragansett Bay Estuarine Research Reserve; Adrienne Pappal, MA Office of Coastal Zone; and Michele L. Tremblay, NEANS Panel contractor Program Manager (naturesource communications).

Review November 2011 meeting decision and action items – Nancy Balcom, Sea Grant, University of Connecticut and Ann Bove, VT Department of Environmental Conservation welcomed everyone to the conference call and outlined the agenda and reviewed the November 2011 meeting decision and action items.

Nancy Balcom, Judy Pederson, and Kevin Cute provided an update on the Aquatic Nuisance Species Task Force Lionfish work group. Group assignments have not yet been made. Jim Ballard will be issuing a call for volunteers to work on different sections of the plan. Michele is working on the policy and regulation review for the Snakehead work group (unpaid).

Karen Hahnel indicated that the website is nearly complete with current content converted to the new format. Michele is holding updates until the new site is launched.

New marine species are needed for the online guide. Mark Malchoff is working on a tench update that he will transmit to Karen.

Kevin provided an update on the HIP II Mitten Crab project. He will be posting a message to the listserv with an update and call for peer reviewers for the Chinese Mitten Crab Rhode Island draft regulations. There is currently a regulatory review within Coastal Resources Management Council. Judy Pederson said that MIT received full funding for its Chinese Mitten Crab project, including a management plan.

Mark Malchoff said that the Asian clam watch card is nearly ready and requested input on number of cards needed. Michele solicited a good quotation that came in well under budget. Meg said that her organization will see at least 10,000 members of the public in the coming year, which will need these cards.

Action: Karen Hahnel will post to Panel@NortheastANS.org guidelines for photo submissions for the online guide and a call for marine species to add to the online guide.

Action: Kevin Cute will post to Panel@NortheastANS.org a call for peer reviewers for the Chinese Mitten Crab draft regulation for Rhode Island.

Action: Mark Malchoff will issue via Panel@NortheastANS.org a call for pre-orders of the Asian Clam Watch Card.

Approval of revised budget – The budget document was not available but Meg felt that new proposed projects should be presented (see work plan item below).

Action: *The new draft budget will be added to the May 2012 Panel meeting agenda.*

New website tour – The new website is not yet ready.

Action: *The new website debut will part of the May 2012 Panel meeting agenda.*

Update on Didymo 2013 conference – Michele and Meg have participated on recent planning calls. The Panel had previously agreed to serve as a fiscal agent for this event and sponsor it with the in-kind donation of paying a fee to naturesource communications for its fiscal and logistical management services. The event is tentatively slated for March 12 and 13, 2013 at the Providence Biltmore in Providence, Rhode Island. As a fiscal agent, the Panel has been asked to provide the hotel deposit of \$1,000. Michele has expressed concerns that the registration fee and other revenue sources be appropriate so that the Panel is not left paying more money in expenses than it is able to collect as revenue. A particular source of this concern is proposals for scholarships and paying travel expenses for presenters. Meg indicated that the group was discussing a higher registration fee to cover some of these cost concerns.

Decision: *The Panel agreed to provide a \$1,000 deposit to the hotel for the Didymo 2013 conference for which it will serve as fiscal agent.*

Spring NEANS Panel and Great Lakes Panel joint meeting planning – Michele reported that plans are proceeding for the week of May 21, 2013 in western New York State. A Hydrilla Summit has been proposed (one/two day or whole day tacked on to either end of the joint meeting), however, the US Army Corps of Engineers may receive the needed funding to convene a summit in September or October. That would unfortunately not allow taking advantage of the joint Great Lakes and NEANS Panel meeting (their separate meetings will be held in November 2012). Michele has purchased a new conference phone system with remote microphones to facilitate off-site participation. The agency that provides a computer for presentations is asked that WiFi and/or Ethernet capabilities are included for a webinar.

Forming recommendations for the May 2-3, 2012 federal Aquatic Nuisance Species Task Force meeting in Annapolis, MD – The Panel reviewed examples of other Panels' recommendations and discussed the procedure by which recommendations will be proposed and voted upon. Michele indicated that the Panel needed to vote by conference call or in-person on final recommendations before they are submitted; email is not an acceptable option due to the need for public discussion. The Panel voted in principle to support the following proposed recommendations for submission to the spring ANSTF meeting. It was further agreed that proposals for recommendations for submission to the ANSTF in fall 2012 would be raised during the spring NEANS Panel meeting and that final text of the recommendations would be circulated prior to the Panel's late summer/early fall conference call so that they could be voted on for final approval.

Adrienne would like to see the US Fish and Wildlife Service produce a time line for state work plans and funding process. She said it would be helpful to have a set date when state work plans proposals are submitted each year, with the understanding that subsequent budget decisions may affect whether or not the entire work plan is funded. The dates have varied over the years, and last minute scrambles cause difficulties for her agency. Michele indicated that this is the case with Panel funding because the agency receives varying authorization and direction from other decision makers. Meg Modley and Nancy Murray are concerned that the agency is likely doing its best but that it can only proceed with Congressional funding approval and other decisions that are beyond its control. Meg prepares her annual report by November 15, regardless of any changes in the agency time lines and prepares a proposal for January regardless of when the RFP is released

Meg proposed that the Panel recommend to the ANS Task Force that funding for species-specific or other national invasive species programs not come at the expense of state management plan funding. This is in response to an AFWA survey about how Zebra and Quagga mussel funds are spent. These national priorities should be funded outside of the allocations for the state management plans, which have already identified priorities they wish to address and may vary from one plan to the next.

Meg proposed that the Panel recommend to the ANS Task Force for its November 2012 meeting that the Champlain canal barrier feasibility study be considered as a priority to prevent the spread of AIS. WRDA 2007 contains language that authorizes the USACE to conduct the study, build the barrier, and operate and maintain the barrier at full federal expense.

Nancy suggested that a Didymo recommendation be formed. This can be drafted after the Didymo 2013 conference.

Decision: The Panel will recommend to the ANS Task Force that the US Fish and Wildlife Service develop and distribute to the states a management plan process time line.

Decision: The Panel will recommend to the ANS Task Force that national species-specific invasive species priority programs not come at the expense of state management plan funding.

Action: Adrienne Pappal will draft a management plan process time line and email it to Panel@NortheastANS.org for review and comment. The final draft will be emailed to Michele by March 26, 2012.

Action: Meg Modley will draft a state management plan priority funding recommendation and email it to Panel@NortheastANS.org for review and comment. The final draft will be emailed to Michele by March 26, 2012.

Action: Meg Modley will draft a Champlain canal feasibility study and barrier construction and operation be fully funded. This recommendation will be presented at the May 2012 meeting.

Action: Michele will collect the recommendations for the May 2012 ANS Task Force meeting and include them with the NEANS Panel report by the first week of April.

Update on Canadian voting on financial issues – There is no further information available from the legal office at the US Fish and Wildlife Service.

Action: Canadian voting on financial issues will be added to the May 2012 Panel meeting agenda.

Other work plan updates and proposals – Nancy Murray would like to see a Hydrilla project such as a control actions literature search. Northeast control is very different from that of Florida and other areas. Ann Bove and John McPhedran recommended that new Hydrilla initiatives be created. Michele suggested that new Hydrilla Watch Cards and Carp Watch Cards might be included in a new work plan proposal, such as HIP III.

Action: Proposals for new work plans will be sent to Michele by April 20, 2012.

Action: Michele will distribute the work plan template to Panel@NortheastANS.org with the due date of April 20, 2012.

Other business – Michele updated the Panel on the ME Department of Marine Resources representation. Pete Thayer, a charter Panelist, has not been able to participate for some time with Department and other priorities not addressing invasive species. He has been trying to identify a non-Department marine specialist and has recommended Beth Bisson from Maine Sea Grant to be the ME marine designee. Beth is not comfortable with voting on behalf of the Department, so Pete is exploring other options. This brings forward the idea that Beth Bisson could fill a valuable role for Maine's marine invasives perspective on behalf of her own organization. Everyone agreed that Beth should be invited to participate as a voting member on behalf of Maine Sea Grant.

Nancy provided an update of the general accounting office audit process. She, Ann, and Michele participated in a conference call to assess redundancy in federal agencies that participate in invasive species efforts.

Mark Malchoff contacted Chuck O'Neill to see if an editable copy of Biological Pollution in the Northeast was available. Michele may be able to convert from PDF to an editable version. Nancy Balcom has a student that can provide typing, if needed. Michele requested that everyone provide the electronic files of their watch cards and other products so that she can archive them for future revisions.

Decision: Maine Sea Grant will be added to the NEANS Panel as a voting member. Beth Bisson will be invited to be a Panel representative.

Action: Michele will draft an invitation letter to Beth Bisson, copying Paul Anderson, Maine Sea Grant.

Action: Work Group leads will provide to Michele Tremblay their electronic files of their watch cards and other products so that she can archive them for future revisions.

Meeting summary prepared by Michele L. Tremblay, naturesource communications



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Meeting Summary Draft • November 30-December 1, 2011
Hotel Providence • Providence, RI

Panelists present in Providence and via conference call/webinar (c/w): Nancy Balcom, University of Connecticut Sea Grant; Katie DeGoosh, RI Department of Environmental Management; Michael Goehle, US Fish and Wildlife Service; Karen Hahnel, ME Department of Environmental Protection; Susy King, New England Interstate Water Pollution Control Commission; Jason LeBlanc, NS Department of Fisheries and Aquaculture (c/w); Hope Leeson, RI Natural History Survey; Andrea Locke, Department of Fisheries and Oceans; Mark Malchoff, Lake Champlain Sea Grant Project; Leslie Matthews, VT Department of Environmental Conservation; John McPhedran, ME Department of Environmental Protection; Meg Modley, Lake Champlain Basin Program; Adrienne Pappal for Jan Smith, MA Office of Coastal Zone; Nancy Murray, CT Department of Energy and Environment; Judy Pederson, Massachusetts Institute of Technology; and Isabelle Simard, QC Ministère du Développement durable, de l'Environnement; and Amy Smagula, NH Department of Environmental Services; Jim Straub, MA Department of Recreation and Conservation; and Leslie Surprenant, NYS Department of Environmental Conservation.

Others participating: Cristine Bourassa, Narragansett Bay Research Reserve; Peg Brady, National Oceanic and Atmospheric Administration; Anne Carroll, MA Department of Conservation and Recreation; Jennifer Dean, New York Natural Heritage Program; Alicia Schaffner-Eichinger; NEANS Panel HIP II contractor; David Gregg, RI Natural History Survey; Niels Hobbs; Meaghan Johnstone, The Nature Conservancy; Sue Kiernan, RI Department of Environmental Management; Joe Livolsi, US Environmental Protection Agency; Don MacLean, US Fish and Wildlife Service; Susan Mangin, US Fish and Wildlife Service; Mark Nimiroski, RI Department of Environmental Management; Michele L. Tremblay, NEANS Panel contractor Program Manager (naturesource communications); and Wei Ying Wong, The Ocean Project.

Full Panel meeting: welcome, introductions, review of meeting agenda, and updates by Co-Chairs – Kevin Cute welcomed meeting participants to Providence. Meg Modley, Lake Champlain Basin Program and Nancy Balcom, Sea Grant, University of Connecticut welcomed everyone to the meeting and outlined the agenda for the next two days. Kevin arranged a field trip for Thursday afternoon for those who can stay at the end of the meeting.

ANS updates and Panel business:

- The Panelists and guests introduced themselves and their organizations.
- Kevin Cute moved to accept the April 2011 meeting summary. Judy Pederson seconded the motion. The motion carried.
- Meg called for nominations from the floor for the NEANS Panel freshwater co-chair. Several nominations were made but they were declined due to work conflicts. Ann Bove was nominated and she accepted the nomination. Ann Bove

was elected as freshwater co-chair. Nancy presented Meg with a certificate of appreciation from the Panel.

- Susy King has been promoted to Director of Water Quality Programs at NEIWPC. Her successor as NEANS Panelists is Teresa Portante-Lyle. Because of her promotion, Susy feels that it is best for her to resign as NEANS Panel Treasurer, Nancy called for nominations from the floor for that office. Meg was nominated to serve as Treasurer. There were no further nominations. Meg was elected Treasurer.
- *NEANS Panel Business and Spring 2012 meeting scheduling* – The May 2012 meeting location is proposed for western New York State to coordinate with the Great Lakes Panel’s meeting. The proposal includes sharing presentations and field trips, while maintaining separate business meetings. Leslie Suprenant suggested a ballast water focus for the joint meeting in New York.

Action: Michele Tremblay will begin working on the May 2012 meeting with the Great Lakes Panel in western New York State.

- ANS Task Force (ANSTF) report – Susan Mangin reported on the November 2011 business meeting in Washington, DC. The joint awards program call for nominations is nearly ready for distribution. Michele Tremblay has participated on the work group. The Lionfish Work Group, chaired by James Ballard, is seeking volunteers to serve on its efforts. Judy Pederson volunteered for the effort. The Snakehead Work Group does not yet have a confirmed chair but will also be soliciting volunteers. The US Geological Survey (USGS) funding for the Nonindigenous Species Database has been eliminated. The ANSTF is asking Regional Panels to document their use of the database so that that information may be included in a letter to USGS. The ANSTF conditionally approved the state plans for Texas and Arizona. The ANSTF is forming an ad-hoc group to address research gaps associated with ballast water and is seeking volunteers. The USFWS will provide a report on strengthening screening and monitoring of animals and plants in trade. There were several climate change presentations. AS a result there is now a joint ANSTF and National Invasive Species Committee (NISC) committee to examine climate change ramifications on invasive species. Meg indicated that climate change will be included in Vermont’s plan. The ANSTF is revising its strategic plan and is asking for input and comments. Some of the regional Panels are concerned due to the US Fish and Wildlife Service’s (USFWS) payment processing. The Northeast Aquatic Nuisance Species Council will participate in a conference call with those regional Panels and the USFWS to explore fiscal agent opportunities. The ANSTF will write a letter to NISC regarding federal waterbody management and inspection to prevent invasive species transfer. The Task Force Research Committee will be meeting in the spring. The ANSTF’s charter is renewed every year and was signed in August. All Panels’ agendas must be approved by the Executive Secretary due to FACA regulations. A USFWS staff must be in attendance at all regional Panels’ meetings.
- Mid-term NEANS Panel conference calls – To better prepare the Panel to form recommendations for the ANSTF and to manage its business in a more timely way, there is a proposal to convene mid-term calls of the Panel. Judy Pederson moved to convene full Panel conference calls in between the spring and fall meetings. Susy King seconded the motion. The motion carried.
- Invasive Species Advisory Council – Nancy Balcom updated the Panel on ISAC. Although she is no longer a member as of this past summer, Nancy updated the Panel that the next ISAC is meeting in Washington, DC next week with a focus on

commerce with concern about Internet sales of non-native species and discussions on ballast water.

Decision: The Panel will convene mid-term conference calls (half-way in between the spring and fall meetings) to manage business in a more timely way and to prepare recommendations for the Aquatic Nuisance Species Task Force.

Action: Michele Tremblay will poll the NEANS Panelists for their availability for the first mid-term conference call in February 2012.

Action: Judy Pederson will be added to the Aquatic Nuisance Species Task Force Lionfish work group.

Highlights from the State of Rhode Island and Providence Plantations – Kevin Cute moderated the session and thanked all of the participants who have worked as a result of the Rhode Island state management plan and the funds that it has facilitated. Katie DeGoosh, RI Department of Environmental Management presented an update on zebra mussel and invasive plants in freshwater habitats. Joe Livolsi, US Environmental Protection Agency presented “Atlantic Ecology Division Leave No Trace” program. Hope Leeson, Rhode Island Natural History Survey presented an update on Narragansett Bay volunteer monitoring.

Updates are posted by panel participants at

http://www.northeastans.org/blog/?page_id=30

The presentations are online at <http://www.northeastans.org/docs/meetings/201111/>

Northeast ANS Roundtable

Massachusetts, Jim Straub MA Department of Conservation and Recreation,

thanked the Aquatic Nuisance Species Task Force for its funding for their boat washing station with a lower-pressure device that is less likely to damage boats and trailers and drive organisms into tighter spots. Only one or two boaters refused the courtesy wash so the program was enormously successful. The public was very helpful in promoting the program. There have been no further zebra mussel infestations in the Connecticut River watershed. The approach is focused on outreach and education. The Dowding Bill, pending legislation, would make it illegal (civil penalties) to transport invasive species. The sticker program, proposed several years ago, was not passed into law.

Adrienne Pappal, MA Office of Coastal Zone Management, reported that the Marine Invaders Monitoring and Information Collaborative (MIMIC) now has ten partners in the program.

Updates are posted by panel participants at

http://www.northeastans.org/blog/?page_id=30

Maine

Karen Hahnel and John McPhedran, ME Department of Environmental Protection,

reported that \$35,000 was taken from the boat registration dedicated fund and it will likely happen again. The Department is slated for re-organization. Hydrilla has been found in a private pond in mid-coast Maine. It is dense and was likely established for quite a long time. Pete Thayer, ME Department of Marine Resources can no longer participate. The Department is nominating Beth Bisson, Maine Sea Grant, to serve as its representative.

Updates are posted by panel participants at

http://www.northeastans.org/blog/?page_id=30

Vermont

Meg Modley, Lake Champlain Basin Program, reported that Asian Clam management is ongoing with partners. Suction harvesting and other manual removal should be completed this week. Several acres at three sites have been matted. Mandatory boat washing is being considered: there is legal authority to do so but politically, there is some hesitation but the public and political attention as been positive, overall. Paul Smith College has received \$300K to expand their boat launch program in the Great Lakes basin. Variable leaf milfoil was found in the southern part of Lake Champlain in an area of about 80 acres. Spread prevention efforts, including a media release has been implemented. Six new boat programs were initiated. Warren Community in New York (the first county to do so) passed an invasive species transport law.

Leslie Matthews, VT Department of Environmental Conservation, added that tropical storm Irene caused catastrophic damage in several parts of Vermont including her agency's offices and that they are now in temporary quarters. Their laboratory was destroyed but a brave and dedicated staff waded through chest-high water to save computer hard drives. The storm damage has also obliterated monitoring and survey work schedules.

Updates are posted by panel participants at
http://www.northeastans.org/blog/?page_id=30

Rhode Island

Kevin Cute, RI Coastal Resources Management Council, reported that his updates were covered during the Highlights from Rhode Island during yesterday's session.

New York

Leslie Surprenant, NYS Department of Environmental Conservation

Updates are posted by panel participants at
http://www.northeastans.org/blog/?page_id=30

New York

Mark Malchoff, NY Sea Grant

Updates are posted by panel participants at
http://www.northeastans.org/blog/?page_id=30

Québec

Isabelle Simard, QC Ministère du Développement durable, de l'Environnement

Updates are posted by panel participants at
http://www.northeastans.org/blog/?page_id=30

Nova Scotia

Jason LeBlanc, NS Department of Fisheries and Aquaculture

Updates are posted by panel participants at
http://www.northeastans.org/blog/?page_id=30

Federal, nonprofit, and academia

Susy King, New England Interstate Water Pollution, reported that with her promotion at NEWIPCC, this is her last meeting after seven years. Teresa Portante-Lyle will be her successor.

Updates are posted by panel participants at http://www.northeastans.org/blog/?page_id=30

Andrea Locke, Department of Fisheries and Oceans, reported that no new AIS reported since the last Panel meeting. Monitoring is ongoing with Didemnum. Spread of existing species, including green crab has extended to Prince Edward Island and the western coast of Newfoundland. Commercial fisheries such as for lobster bait were issued in Nova Scotia. Previously, a fine of \$1 was levied on a fisherman who sold green crab for bait. Some tunicates have spread. Several vectors have been identified in the spread such as derelict vessels. There have been two meetings to develop regulatory lists for aquatic species as an implementation of the Fishery Act. This would prevent movement of species through any vector (beyond ballast water regulations). The lists would be what cannot come into Canada and the second would be what could not be moved from one part of the country to another. DFO is collaborating with the Huntsman Marine Center in St. Andrews, NB to create invasive species education modules for students. The AIS Marine Monitoring Network works with partners who use has been use media including plates and tubes. The resulting data are incorporated into a GIS database.

Mike Goehle and Don MacLean, US Fish and Wildlife Service

About ten people participated in the HACCP training as an adjunct to the Panel meeting this week. Don reported that forty-one states have approved management plans. The program will be included in Grants.gov soon. The Services continues to try to identify and secure additional funding for Panels and states. It is challenging to keep the existing funding. Updates are posted by panel participants at http://www.northeastans.org/blog/?page_id=30

Judy Pederson, Massachusetts Institute of Technology Sea Grant and Nancy Balcom University of Connecticut Sea Grant, reported on a restaurant that is serving invasive species, There is a great deal of state agency concern about the ramifications of spread of the species and diseases carried by them. Judy found Mile-a-minute plant on her Cape Cod property, the identification was verified by Jennifer Forman Orth, University of Massachusetts in Lowell.

Updates are posted by panel participants at http://www.northeastans.org/blog/?page_id=30

The Invasive Paradigm

James T. Carlton, Williams College

The presentation will be posted when it is received from Dr. Carlton.

Spotlight on Species: *Palaemon macrodactylus* and *P. elegans*

Niels Hobbs, marine scientist

The presentation is online at <http://www.northeastans.org/docs/meetings/201111/>

Work group updates

Website revision and online guide

Leslie Matthews reported that the Online Guide revisions are complete and will be posted online. The largest revision will include a second printing format of 4 x 6 inch identification card. Currently, the guide is only printable as an 8 ½ x 11 sheet. There is now a standard back page that will print on both formats of the online guide. Michele suggested that QR codes that link to the online guide be added to the back page. Leslie reminded Panelists and ANS friends that the online guide is dynamic so information can be changed and additional species can be added. There is a need for more marine participants on the work group. Adrienne Pappal indicated that Niels Hobbs will be creating pages for *Palaemon elegans* and other species. Meg Modley committed to provided images for Asian Clam. She suggested that information from past NEANS Panel Spotlight on Species sessions would be good resources.

Karen Hahnel reported that the web re-design edits are complete. The work group will provide these edits to the website contractor, Yellahoose, LLC, who will implement the changes. The plan is to go live in the next month. There was a discussion as to whether or not Panel approval is needed or that a guided tour is necessary. Either of these options could be facilitated by the mid-term call with natureresource communications' webinar service.

Action: The new website will go live within the next 30-60 days.

Action: The Panel will be treated to a guided tour of the new website during its first mid-term call in late winter 2012 via a webinar that natureresource communications will set up.

HIP II

Kevin introduced Alicia Schaffner-Eichinger; NEANS Panel HIP II contractor, who provided an update on the early detection rapid response plan for Chinese Mitten Crab. The final draft should be ready for the NEANS Panel's vote at its May 2011 meeting. The draft includes identification of gaps in monitoring and policies to help form recommendations for provinces and states on a region-wide basis. For instance, memoranda of understanding could be developed and executed between jurisdictions and through the New England Governors and Eastern Canadian Premiers (NEGECP). This follows up on previous work conducted by the NEANS Panel Policy and Legislation Committee. Doug Fine at the MA Department of Environmental Protection organizes NEGECP agendas so he can work with Kevin Cute on the proposed memorandum of understanding or proclamation. Judy Pederson suggested that each NEANS Panel jurisdictional representative provide their NEGECP contact information to Kevin. There was discussion about whether a proclamation would be better received by the NEGECP to include terrestrial species. Departments of Agriculture would need to be engaged in that process and they are not part of the Panel at this time. They sometimes have a different view of invasive species and their spread prevention and management. Terrestrial species are also not included in state management plans and funds cannot be spent on them. Kevin felt that the onus should be on each province and state to determine if terrestrial species and departments of agriculture should be included and that it would likely not be an effective approach if they were all not in agreement.

Action: NEANS Panel provinces, states, federal partners, and other organizations will provide to Alicia Schaffner-Eichinger; NEANS Panel HIP II contractor, invasive species policies, regulations, and laws for the Chinese Mitten Crab early detection rapid response plan. Monitoring activities with effectiveness analysis should be also included.

Corbicula Asian Clam Watch Card

Mark Malchoff distributed a draft watch card for Corbicula and received several comments. He will complete the final version with a QR code that naturesource communications created that will direct smart phone users to the Asian Clam page of the NEANS Panel's Online Guide. The card may not be able to be easily converted into a poster or sign.

Action: Mark Malchoff will work with his associate to incorporate into the final version the work group's comments into the Panel's Asian Clam watch card.

Action: naturesource communications will obtain a second printing services quotation for the Panel's Asian Clam watch card.

Didymo 2012 conference and other collaborative opportunities for future meetings

Michele has been working with the Didymo Work Group on their conference on the east coast, possibly in New Hampshire in November 2012. Meg indicated that the proposal was for the Panel to pay for a contract revision for Michele to work on the conference and combine it with the NEANS Panel's fall meeting. The site selection criteria include a venue that is close to an airport and can accommodate 200-300 attendees for two days of sessions. The Center of New Hampshire in Manchester is not available in November and only has one week in October. There are other venues that are further from the Manchester Airport. Michele will also look at Massachusetts and Maine. She will continue to work with Leah Elwell and the work group and keep the Steering Committee updated. Field trips are not likely to be part of the agenda and travel time would take an entire day to reach Didymo site, even if they are in evidence during the fall or winter.

NEANS Panel: ten years of communication and collaboration and plans for the next decade and recognition of participants' contributions

Panel members were recognized and thanked for their work over the last ten years. They were presented with NEANS Panel dry bags to help them with their field work. The presentation is online at <http://www.northeastans.org/docs/meetings/201111/>

iMapInvasives: news and resources

Jennifer Dean, New York Natural Heritage Program

The presentation is online at <http://www.northeastans.org/docs/meetings/201111/>

Other business and public comment period

Nancy announced that the following slate of officers was conditionally voted to the Northeast Aquatic Nuisance Species Council: Nancy Balcom, chair; Ann Bove, vice-chair; Meg Modley, treasurer (effective January 1, 2012); and Michele Tremblay, secretary. Nancy Balcom nominated Kevin Cute to serve as a director, Kevin indicated that he would stay on but would happy to step aside if someone else was willing. Mark Malchoff is willing to serve in the future. The Panel agreed to the vote of the slate of officers.

There were no comments from the public.

Meeting summary prepared by Michele L. Tremblay, naturesource communications



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 www.NortheastANS.org

Science and Technology Committee Work Plan Template
 October 1, 2011 through September 30, 2012

Work Plan Action

| | |
|---|------------------------------|
| Conduct review of scientific literature on <i>Hydrilla verticillata</i> with an emphasis on the monoecious form. Research on the plant's natural history in northern climes, longevity of tuber viability and efficacy of control measures. | Complete by November 1, 2012 |
|---|------------------------------|

Narrative

In 2006 the NEANS Panel initiated the Hydrilla Initiative Project (HIP) in an effort to curb the spread of this invasive plant in the Northeast U.S. Several components of HIP were initiated but the broad regional approach to prevention and control was never realized. The spread of hydrilla, unfortunately, *has* been realized, including a 2011 find in Cayuga Lake, New York.

The Cayuga Lake discovery has pumped new life into work on hydrilla in the Northeast. Northeast invasive plant biologists discussed hydrilla at the NE Aquatic Plant Management Society Annual Meeting in January 2012 and highlighted the need to re-examine scientific research on hydrilla.

State plant biologist and managers in the Northeast, many of whom are NEANS Panelists, are familiar with the invasive aquatic plant hydrilla but aren't necessarily current with the latest research on the plant. Frequently cited "facts" about hydrilla may not reflect recent research. Review of the latest literature could shed new light (and accuracy) on our knowledge of the plant's biology and how best to control it. Given most NEANS Panelists lack the time to keep up with the research, this project will hire a short-term contractor to conduct an exhaustive literature review and provide a synopsis of significant findings related to the plant's natural history in northern climes (including modes of spread), duration of tuber longevity, and efficacy of control measures specifically for the monoecious form found in New England.

Measure

| |
|---|
| The eventual contractor will submit a synopsis of research findings to the panel by November 1, 2012 and will attend the fall NEANS Panel meeting to present her/his findings and answer Panel member questions. To help keep the project moving and on track, the contractor will provide one progress report on September 15, 2012 via conference call with project lead and other workgroup members. The contractor will required to participate in the Northeast hydrilla conference to be held in New York State (in the September, date to be determined). |
|---|

Funding or other support needed? Please detail budget below

In-kind services in the form of NEANS Panelists' staff time will support this project. The amount requested from NEANS Panel is as follows:

| | |
|-------------------|----------------|
| Contractor | \$5,000 |
| Total | \$5,000 |

Lead contact: Leslie Surprenant. Other Panelists involved include Ann Bove, John McPhedran, and Nancy Balcom.



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Education and Outreach Committee Work Plan Template
 October 1, 2011 through September 30, 2012

Work Plan Action

| | |
|---------------------------------------|-------------------------|
| HYDRILLA WATCH CARD, REVISE & REPRINT | Complete by: March 2013 |
|---------------------------------------|-------------------------|

Narrative:

The monoecious form of hydrilla (*Hydrilla verticillata*) has continued to spread in the Northeast. The most recent confirmation was in 2011 in Cayuga Lake, NY. Anecdotal evidence suggests watch cards are an educational, spread prevention and early detection tool for a broad spectrum of recreational water user audiences. These cards alert users to the problem, and provide identification specifics, spread prevention tips and who to contact if a suspected population is discovered. During the 27 Feb 2012 full Panel conference call, it was suggested that the Panel-produced hydrilla watch card, developed in 2002, be revised and reprinted. The hydrilla watch card is available from the Panel website and can be found in the “Resources” section: <http://www.northeastans.org/version-1.0/docs/hydrillawatchcard.pdf>

A work group will be convened to revise the hydrilla watch card produced by the Panel in 2002. The current hydrilla watch card is outdated. Needed revisions include: update current Northeast distribution; add Panel web address and QR code; change contact information to report sightings from individual states to 1-877-STOP-ANS; update current Northeast distribution; revise “what to do” steps to mirror recently finalized Asian clam watch card; etc. The revised card should also be translated into French.

Measure

| |
|--|
| <ol style="list-style-type: none"> 1. Completed draft of revised card layout and content. 2. Card finalized and translated into French. 3. Quantities (both English and French versions) determined from interested Panel states/provinces and other partners. 4. Vendor selected. 5. Card printed and distributed to participating states/provinces/partners. 6. Revised card added to panel website. |
|--|

Funding or other support needed? Please detail budget below

In-kind services in the form of NEANS Panelists’ staff time will support this project.

| Line item | Cost |
|--|----------------|
| Printing - based on Feb 2012 quote for Asian clam watch card, 10,000 a@ \$0.103 per card | \$3,500 |
| Shipping - for distribution | \$100 |
| Total (up to) | \$3,600 |

Lead contact: Ann Bove, VTDEC, 802-777-4083, ann.bove@state.vt.us

From the Northeast Aquatic Nuisance Species Panel – response draft provided by
Nancy Balcom, Marine co-chair, Ann Bove, Freshwater co-chair, and Michele L. Tremblay, contractor

ANSTF Regional Panel Coordinators and Chairs –

NOAA will be hosting an aquatic invasive species (AIS) workshop for internal staff on June 6, 2012; Silver Spring, MD. The purpose of the workshop is to increase understanding of invasive species priority issues within NOAA regions to better inform coordination and collaboration across NOAA. During the workshop, participants will focus on the alignment of current NOAA projects with the ANSTF Strategic Plan and Regional Priorities. This information will be used for coordinating efforts throughout NOAA, to reduce overlap, report to the ANSTF, and contribute to the ANSTF Operational Plan.

The following information is needed from the Regional Panels for NOAA to complete this objective. Please take time to answer each of the questions below and return to Peg Brady (Peg.Brady@noaa.gov) or Susan Pasko (Susan.Pasko@noaa.gov). Thank you for your time.

1. What invasive species and pathways are the highest concerns within your region?

| FRESHWATER PLANT | FRESHWATER ANIMAL | MARINE PLANT | MARINE ANIMAL |
|---------------------------------|---------------------------|--------------------------|---|
| Hydrilla | Zebra and quagga mussel | Caulerpa | Tunicates: star, club, sheath, Didemnum, Sea squirt |
| Milfoils: Eurasian and variable | Asian clam | Red alga | Chinese mitten crab |
| Water chestnut | Asian carp | | Membranipora |
| Brazilian elodea | Spiny and fish hook fleas | | Green crab |
| didymo | Northern snakehead | | Lionfish |
| | Round goby | | Asian shore crab |
| | Rusty crayfish | | Orange striped anemone |
| | tench | | |
| PATHWAYS – FW PLANTS | PATHWAYS – FW ANIMALS | PATHWAYS – MARINE PLANTS | PATHWAYS – MARINE ANIMALS |
| | | Ballast water | Ballast water |
| | | Hull Fouling | Hull Fouling |
| | | Live seafood | Live seafood |
| | | Aquaculture | Aquaculture |
| | | Live bait | Live bait |
| | | | |

MLT note and question: The above list is based on Panel projects, such as watch cards and species that come up in discussions frequently. Do we want to add all species on the <http://www.northeastans.org/aquatic-nuisance-species-in-the-northeast/> page?

2. What are the top 3 – 5 current AIS activities that are ongoing in your region?
- A. ED/RR initiatives and species specific efforts (e.g. hydrilla, Chinese mitten crab)**
 - B. boat launch stewards/greeters**
 - C. education and outreach**

3. Are there any emerging AIS, pathways and/or projects (e.g. research, restoration, control, etc) you anticipate within the next 1-2 years? Explain briefly.
ED/RR on a regional level. The Panel is currently discussing forming a bank to provide provinces and states with funding that they can use to implement a truly rapid response action.
4. Identify key partners (i.e. feds, state, tribes, NGO, academic, etc) that have assisted in previous projects and/or those listed above.
Nonprofits, provincial/state agencies, Sea Grant programs, US Fish and Wildlife Service
5. Do you have any needs for the completion of these projects or which may delay implementation of others? Are you aware of opportunities for collaboration with NOAA to fulfill these needs? If so, please identify the potential NOAA programs.
Reliable Panel and additional funding is needed to support meetings, workshops, and other tools to coordinate and develop efficient, economical, and effective regional early detection and rapid response.
6. In your opinion, what are the emerging issues within your region (in the next 5 years) that NOAA should respond to?
ED/RR, hull fouling

April 24, 2012

President Barack Obama
The White House
1600 Pennsylvania Av NW
Washington DC 20500

Dear President Obama,

I am writing regarding the proposed elimination of funding to states with approved Aquatic Nuisance Species Management Plans, also known as State Management Plans in your FY 2013 budget in the fisheries section of the US Department of Interior, Fish, and Wildlife Service.

I am a member of the board of directors of the Northeast Aquatic Nuisance Species Council, a nonprofit organization that supports the implementation of the federal government's goals under the National Invasive Species Act 16 U.S.C. § 4701 et seq (NISA) in the northeastern United States. I respectfully request your attention regarding the following accomplishments, none of which would have been achieved without the critically needed funds provided to states through NISA.

In the **State of Maine**, lakes, rivers, and streams provide habitat for vibrant native populations of plant and animal species. Maine's lakes generate approximately \$3.5 billion annually for the state's economy. Funding to implement state management plan priorities is needed to protect habitats in and to ensure the resulting economic benefits from Maine water bodies.

- Development of Maine's *Rapid Response Plan for Invasive Aquatic Plants, Fish, and other Fauna*, a key task identified in the management plan, the rapid response plan task ensures that appropriate protocols, trained personnel, equipment, permits, and other resources are prepared to contain or eradicate newly detected illegal aquatic plant or animal introductions. Since adoption of the plan, state agencies have responded to new infestations of invasive aquatic plants including hydrilla (*Hydrilla verticillata*) and Eurasian watermilfoil (*Myriophyllum spicatum*) and have conducted reclamation projects to restore arctic charr (*Salvelinus alpinus oquassa*) fisheries affected by illegal stocking.

In the **Lake Champlain Basin** – which falls in the states of Vermont and New York, and the province of Quebec, the state management plan funding is paramount for implementing a basin management plan where it supports:

- Water chestnut control in Lake Champlain—a long-term management program that has made significant progress reducing and controlling the water chestnut population. These funds support a large partnership effort in which resources are contributed by local nonprofit organizations, state, and federal partners.
- Boat Launch Stewardship Program including education and outreach tools
- *Aquatic Invasive Species Identification* guide and pocket-sized watch cards, brochures, and other tools to inform the public about invasive species spread prevention
- Placement of aquatic invasive species spread prevention advisory signs at public access points
- Grants to enforcement agencies for aquatic invasive species education and enforcement of applicable laws and regulations
- An invasive species coordinator

In the **State of Massachusetts**, the state management plan funding is essential to invasive species management and fully funds a staff specialist tasked with coordinating the Massachusetts Invasive Species Working Group. The Massachusetts Aquatic Invasive Species Working Group facilitates regional coordination throughout the state, evaluating current and new invasive species threats, conducting rapid response planning, and regional monitoring and early detection for marine invasive species including the Marine Invader Monitoring and Information Collaborative (MIMIC), and the Rapid Assessment Survey (RAS) for marine invasive species.

In the **State of Rhode Island**, the loss of the state management plan funding would have several harmful effects:

- The state's only coastal ecosystem monitoring program exclusively focused on ANS would be entirely lost.
- Rhode Island's first marine ANS regulations, completed in draft form, would not be implemented.
- A marine Early Detection/Rapid Response Plan (EDRR plan) which is identified in both the Rhode Island and National Invasive Species Management Plans as a top strategy to address ANS would not be implemented. This EDRR plan is earmarked for implementation under the ANS regulations noted above, and as such, the lack of state management plan funding in Rhode Island will have a cascading effect toward eliminating the state's most important tools for ensuring long-term capabilities to detect and respond to ANS in its coastal ecosystems
- The state's first estuarine and marine invasive species website, developed using state management plan funds, would go permanently dark.
- The state management plan funds were used to characterize the extent of aquatic species in freshwater lakes and ponds through summer seasonal surveys conducted statewide since 2007. The resulting data, documenting one or more of invasive species present in 59% of lakes inspected, was used in a 2012 RI Department of Environmental Management report that outlines recommendations

to strengthen lake management, including aquatic invasive plant management. State management plan funding allowed the development of outreach materials and expanded website information tailored to the specific ANS plant issues prevalent in RI freshwaters. The improved understanding of ANS in RI freshwaters was the basis for including \$200,000 for ANS control in a state environmental bond currently under consideration by the RI legislature.

In the **State of Connecticut**, state management plan funding has been critical for prevention planning and the detection of zebra and quagga mussels.

- The funding was used to prepare a draft *Connecticut Early Detection-Rapid Response Plan* based on the Incident Command System modeled after another state's plan. This will be the guide for early detection and rapid response approaches to invasive species.
- The funding was instrumental in conducting zebra and quagga mussel surveys of high-risk water bodies with a final report due in November 2012
- The funding was also used in a pilot zebra mussel veliger early detection program using cross-polarization light microscopy and Polymerase Chain Reaction conducted in 2011.

In the **State of New York**, loss of state management plan funding will have a significant impact on programs implemented in NY, particularly in light of the extremely difficult process the state has for state fund procurement.

- The funding has resulted in a fruitful partnership Paul Smith College to support the Adirondack boat steward program for two citizen stewards and the equipment necessary to help boaters. This funding leveraged grants from the Great Lakes Restoration Initiative to expand the program.
- The funds are used to monitor the invasive species hydrilla in Cayuga Lake inlet.

In the **State of New Hampshire**, a management plan is under development. However, this action has brought together a diverse group to coordinate and collaborate on invasive species prevention, eradication, and control priorities and programs.

These accomplishments address very real and deleterious impacts caused by ANS on uniquely vulnerable sectors of our nation's economy. These sectors include commercial fisheries, recreational fisheries, tourism, real estate (in particular waterfront property values), and aquaculture among others that cannot succeed without the *irreplaceable ecosystem services* provided by our nation's freshwater and coastal resources. In economic terms, *there is no substitute* for ecosystem services. Without healthy, native eelgrass beds that provide critical nursery grounds for scallops, flounder, and numerous other economically important species, those species are at great risk should these native beds be outcompeted by ANS. This is not supposition. If the invasive algae *Caulerpa taxifolia* had not been discovered in time to be eradicated from native eelgrass beds near San Diego, southern California would be well on its way to suffering the same profound and irreversible changes to its native coastal ecosystem that the Mediterranean Sea has experienced. Since its introduction to the Mediterranean Sea in the 1980s, *Caulerpa taxifolia* has smothered

and replaced thousands of hectares of native seagrass beds, and it is protected from predation that could otherwise control its spread by the toxic chemical caulerpenyne that it produces.

While potential new invasions are a constant threat to our economy and ecosystems, actual invasions best illustrate the importance of continuing to fund current initiatives to prevent invasions, eradicate ANS when necessary, and control their spread. The case of the zebra mussel is well documented; the ANS Task Force reports: *“Zebra mussel infestations in the Great Lakes area cost the power industry \$3.1 billion between 1993-1999, with an economic impact to industries, businesses, and communities of more than \$5 billion.”* Such impacts from zebra mussels, the Chinese mitten crab (*Eriocheir sinensis*) and a host of other ANS have unfortunately become permanent. The need to continue to address the problem of ANS is clear and the dedicated response of states with federally approved ANS management plans has grown stronger over time. Since 2004, the small annual investment of \$1.075 million total for all of the states that have brought together federal, state, and local agencies, academia, nonprofits, and other organizations has reaped natural resource and economic benefits valued exponentially higher. Without the continued State Management Plan funding, local agencies will not have the necessary tools to leverage other monies and resources to continue to wage this important program with profound ecosystem, public health, and economic impacts.

Thank you for your consideration of maintaining this essential funding for our states.

Sincerely,



Kevin R. Cute, Board of Directors
Northeast Aquatic Nuisance Species Council

CC: Senator Jack Reed, (D - RI) Commerce Appropriations Committee and Chair, Subcommittee on Interior, Environment, and Related Agencies
Senator Patrick Leahy, (D - VT) Commerce Appropriations Committee
Senator Susan Collins, (R - ME) Commerce Appropriations Committee
Senator Richard Blumenthal, (D - CT)
Senator Joseph I. Lieberman, (I - CT)
Senator John F. Kerry, (D - MA)
Senator Scott P. Brown, (R - MA)
Senator Olympia J. Snowe, (R - ME)
Senator Jeanne Shaheen, (D - NH)
Senator Kelly Ayotte, (R - NH)
Senator Charles E. Schumer, (D - NY)
Senator Kirsten E. Gillibrand, (D - NY)
Senator Sheldon Whitehouse, (D - RI)
Senator Bernard Sanders, (I - VT)
Congressman Maurice D. Hinchey, (D - NY)
Congressman José E. Serrano, (D - NY)

NISC NEWSLETTER

U.S. Department of the Interior • Office of the Secretary (OS/SIO/NISC) • 1849 C Street, N.W • Washington, DC 20240
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April 2012

News and Announcements

FICMNEW AWARD

This year at National Invasive Species Awareness Week, in honor of Mr. Jerry Asher, FICMNEW established the "Jerry Asher National Invasive Plant Management Memorial Award", to be given annually to someone who exhibits the kind of spirit, passion, and knowledge that Jerry exemplified throughout his career. From the earliest days of FICMNEW, Jerry was a valued consultant and promoter of interagency collaboration and cooperation. Jerry's knowledge of the operational needs of field practitioners was transmitted upwardly into the policy centers of government at all levels. His life achievements led to the establishment and implementation of sound invasive plant management policy and guidance which will last for decades to come.

On this inaugural year of the award, FICMNEW has chosen to present the award to another great leader in this field. Dr. Randy Westbrooks U.S. Geological Survey, for his significant contributions to the advancement of invasive plant management in the United States.

Coast Guard issues standard for living organisms in ships' discharged ballast water

United States Coast Guard News

March 16, 2012: WASHINGTON – The [U.S. Coast Guard](http://www.uscgnews.com) announced Friday the final rule for standards for living organisms in ships' ballast water discharged into waters of the United States is scheduled for publication March 23 in the Federal Register.

A public inspection copy of the final rule is available online. Go to <http://www.archives.gov/federal-register/public-inspection> and select the option "View the Special Filing Document List."

The Coast Guard is amending its regulations on [ballast water management](http://www.uscgnews.com) by establishing a standard for the allowable concentration of living organisms in ballast water discharged from ships in waters of the United States. To read entire article, go to: <http://www.uscgnews.com/go/doc/786/1340435/Coast-Guard-issues-standard-for-living-organisms-in-ships-discharged-ballast-water>

NPS Lionfish Management Plan Released:

The National Park Service (NPS) has developed a service wide response plan for the lionfish invasion in the South Atlantic, Gulf of Mexico and US Virgin Islands national parks. The plan pro-

vides service-wide guidance on lionfish with the goal of protecting the integrity of park resources and values, and address visitor safety. Information gained from this plan will contribute to the Aquatic Nuisance Species Task Force-sponsored Lionfish Plan. To read the plan, please go to: <http://nature.nps.gov/water/marineinvasives/lionfish.cfm>

Control effort goes mobile with new Forest Service app

April Reese, E&E reporter

March 22, 2012: Walking along a forest trail somewhere in the South, you spot an unfamiliar plant. Is it native or invasive? Now, there's an app for that.

The free iPhone/iPad [app](#), developed under a partnership between the Forest Service and the University of Georgia's Center for Invasive Species and Ecosystem Health, allows users to quickly look up a plant to see whether it is invasive. The agency hopes the new digital guide will encourage more people to get involved in the effort to stem the spread of foreign invaders in Southern ecosystems, Forest Service officials said.

"Ultimately, we hope this app will give people a new tool to go out and identify invasive plants and map their occurrence," said James Miller, a Southern Research Station research ecologist who co-authored the field guide the application is based on. "Effective control relies on understanding of species and how they spread across the landscape. Those are important first steps in stopping and containing the invasions of harmful nonnative plants." To read entire article, go to: <http://www.eenews.net/Greenwire/2012/03/22/9>

In The News

Illegal shipments add to Asian carp problem

Greenwire

March 27, 2012: As the debate over how to handle Asian carp spreading in the Great Lakes continues, the species continues to make its way northward through illegal truck shipments.

Special points of interest:

- FICMNEW AWARD
- FINAL RULE—USCG BALLAST WATER
- NPS LIONFISH MANAGEMENT PLAN

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Last month, Canadian border patrol agents confiscated 14,000 pounds of live Asian carp in what was the third bust in less than two months at the border and the fifth in the past year. In January, inspectors nabbed a combined 9,400 pounds of live carp on two separate busts.

In each case, the carp were brought north from fish farms in the southern United States to be sold in Toronto, where the fish is popular in Asian cuisine. *To read entire article, go to:* <http://www.eenews.net/Greenwire/2012/03/27/11>

Hotter summers could eventually spell doom for brook trout

Lacey Johnson, E&E reporter

March 27, 2012: Climate change is a known threat to fish that rely on cold water for survival. Now, research conducted in an upstate New York lake is revealing just how dangerous warmer waters might be for a common species of trout.

Brook trout typically lay their eggs in late summer or fall, but nesting data gathered from a lake in the Adirondack Mountains reveal that hotter summers are delaying those spawning times -- and sometimes trout are too hot to bother laying eggs at all.

"It suggests that having warm, hot summers is not going to be good for brook trout," said Cliff Kraft, a professor of natural resources at Cornell University and co-author of the new study, published in *Global Change Biology* this month. He says hotter weather forces the cold-water fish to "basically shut down" and wait for the temperature to drop, so they can continue feeding, growing and reproducing. *To read entire article, go to:* <http://www.eenews.net/climatewire/2012/03/27/6>

First-ever rule for cleansing ballast water criticized by greens

Paul Quinlan, E&E reporter

March 23, 2012: The first-ever national regulation requiring ships to cleanse their ballast water of nonnative critters such as the zebra and quagga mussels, whose invasion of the Great Lakes caused billions of dollars in damage, was finalized today.

A decade in the works, the [rule](#) published by the U.S. Coast Guard adopts standards set by the International Maritime Organization and embraced by industry but that environmental groups say are too weak to protect water bodies from future species invasions.

It comes as U.S. EPA continues to review its own set of standards, released in draft form and expected to be finalized later this year. *To read entire article, go to:* <http://www.eenews.net/Greenwire/2012/03/23/6>

Growing coyote presence could rid NYC of pests, scientists say

Greenwire

March 22, 2012: As coyotes become an increasing presence in New York City, researchers say having them in human territory may not be a bad thing.

The animals prey on pests that New Yorkers hate: rodents. The coyotes may also be competing with other animals like raccoons for food resources, which may lessen the city's overpopulation of raccoons.

"What happens is that when there's a top predator, it will help control other levels of the food chain," said ecologist Mark Weckel, who is working with other scientists to track the migratory patterns of coyotes in New York. *To read entire article, go to:* <http://www.eenews.net/Greenwire/2012/03/22/12>

Stink bugs migrate south, threatening crops

Greenwire

March 19, 2012: The stink bug population in the mid-Atlantic region has shrunk, but the invasive species has made its way south, potentially threatening crops from South Carolina to Florida.

In the mid-Atlantic region, brown marmorated stink bugs caused an estimated \$37 million in damage in apple crops alone in 2010. Maryland farmers said the insects ruined a third of peach crops and half of raspberry crops last year.

And as the bugs head south, they could be capable of doing more damage, especially to Florida's crops. *To read entire article, go to:* <http://www.eenews.net/Greenwire/2012/03/19/9>

Bats in Maine's Acadia National Park succumb to deadly fungus

Phil Taylor, E&E reporter

March 20, 2012: A deadly fungus that has killed several million bats in more than a dozen Eastern states has spread to coastal Maine, where it has infected bats in Acadia National Park, federal scientists announced today.

The discovery of infected bats in the 47,000-acre park marks the latest spread of white-nose syndrome (WNS), which was discovered five years ago in upstate New York and has swiftly moved as far south as Alabama and as far north as Canada.



The deadly fungus grows on the muzzles of infected bats and causes them to awake prematurely from hibernation, leading to excess energy use, starvation or freezing to death, scientists suspect ([Land Letter](#), March 1). But researchers still don't know what cues the process. To read entire article, go to: <http://www.eenews.net/eenewspm/2012/03/20/11>

Brutal bat fungus spreads south

Greenwire

March 15, 2012: A ruthless disease that targets bats has spread to Alabama, home to millions of endangered gray bats.

White-nose syndrome has killed nearly 7 million bats in 12 states and four Canadian provinces, according to the U.S. Fish and Wildlife Service.

The disease is connected to a type of fungus called *Geomyces destructans*. To read entire article, go to: <http://www.eenews.net/Greenwire/2012/03/15/15>

Start spreading the news -- frog species discovered in NYC

Colin Sullivan, E&E reporter

March 15, 2012: NEW YORK -- Scientists have discovered a new frog species within a cab ride of downtown Manhattan.

Researchers at four universities investigating the "weird croak" of what they thought was an already-identified leopard frog say they found instead an entirely new species.

The discovery on Staten Island and in metropolitan New Jersey and New York surprised scientists at the University of California, Los Angeles; Rutgers University; the University of California, Davis; and the University of Alabama. To read the entire article, go to: <http://www.eenews.net/Greenwire/2012/03/15/12>

No rats in sight on atoll, but FWS not ready to declare victory

Laura Petersen, E&E reporter

March 13, 2012: An effort to eradicate rats on a remote Pacific atoll appears to be succeeding, federal biologists say.

Targeting hundreds of thousands of rats that had swarmed Palmyra Atoll, rat hunters armed with slingshots and rodenticide swooped in by helicopter last June in a \$2.7 million project aimed at killing every invasive rodent. Joining FWS in the rat raid were the Nature Conservancy and Island Conservation ([Land Letter](#), May 5, 2011).

Since June, there has been "absolutely no sign of living rodents," said Beth Flint, the FWS biologist for Palmyra Atoll, which is near

the equator about 1,000 miles from Hawaii. The island's only human occupants are caretakers of the national wildlife refuge, Nature Conservancy staff and occasional visiting scientists. To read the entire article, go to: <http://www.eenews.net/Greenwire/2012/03/13/8>

Stowaway seeds pose threat to Antarctica

Laura Petersen, E&E reporter

March 5, 2012: Seeds are hitching a ride to Antarctica on the clothing and gear of tourists and scientists, increasing the risk of invasive plants taking root in the ice-free areas of one of the relatively pristine environments left on Earth.

An international research team vacuumed the clothes, footwear, walking poles, day packs and camera bags of more than 850 visitors to the continent in 2007 and 2008. They collected more than 2,680 seeds from tourists, scientists, support personnel and ship crews, or an average of 9.5 per seed-bearing person.

Scientists and their support personnel were found to carry more potential invaders than tourists, according to the study published today in the *Proceedings of the National Academy of Sciences*. To read the entire article, go to: <http://www.eenews.net/eenewspm/2012/03/05/3>

Budget

House GOP proposes 10% reduction in federal workforce, extending pay freeze

Emily Yehle, E&E reporter

March 20, 2012: Federal employees would pay almost eight times more toward their retirement plan -- and suffer a 10 percent reduction to their numbers -- under the fiscal 2013 budget framework House Republicans unveiled today.

Released by Budget Chairman Paul Ryan (R-Wis.), the spending blueprint would knock almost \$20 billion from the \$1.047 trillion cap on discretionary spending that congressional leaders agreed to in the August deal to raise the federal debt limit ([Greenwire](#), March 20). Cuts to the federal workforce would account for \$368 billion in estimated savings.

The cuts mirror those Ryan proposed in his budget last year. Specifically, it would reduce the federal workforce by 10 percent through attrition, extend the current pay freeze through 2015 and require employees to pay half the cost of their pensions. To read the entire article, go to: <http://www.eenews.net/eenewspm/2012/03/20/7>



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Job Opportunities

ISDA has openings for Invasive Species Technicians and a Supervisor position:

There are two separate postings for these positions. Click on the link below based upon the work location. Both job postings will be open until April 23rd with a projected start date of April 30th. If you have any questions about this position, please give HR a call at 208-332-8520.

[Click Here for the Boise opening](#)

[Click Here for the Panhandle opening](#)

Conferences

April 24—27, 2012: Weeds Across Borders (WAB) 2012—“Meeting the Challenges of the Future” is being held in Cancun, Mexico. WAB is an international conference covering the interests of professionals and organizations involved in weed management and regulation. *For more information, please go to: <http://www.weedcenter.org/wab/2012/index.html> or send an email to: weedsacrossborders2012@gmail.com*

Preventing the Introduction and Spread of Invasive Weeds Workshop 2012: The U.S. Forest Service, National Park Service, California Department of Food and Agriculture, UC Cooperative Extension and the California Invasive Plant Council is hosting and sponsoring this workshop in California during the following dates, times and locations:

Sonora: Monday, April 9, 2012; 10 a.m. – 3 p.m.

Truckee: Wednesday, May 2, 2012; 10 a.m. – 3 p.m.

Participants will gain an understanding of how to incorporate prevention, best management practices and guidelines into work in the construction, aggregate production and maintenance fields. Valuable resource and materials, available at the workshop will assist participants in environmental stewardship planning and saving money by stopping invasive weeds before they move into a new area.

May 1-2, 2012: 2012 AGRICULTURE STAKEHOLDER CONFERENCE: PESTS, PATHWAYS, AND PARTNERSHIPS is being held at the APHIS Headquarters in Riverdale, MD. Conference announcements, including registration information, will be sent out through the Stakeholder Registry in mid February. Space is limited so early registration is recommended. For more information please contact Melonie Torillo at (301) 851-2269 (Melonie.J.Torillo@aphis.usda.gov)

May 2-3, 2012: Aquatic Nuisance Species Task Force (ANSTF) Meeting is being held at the O’Callaghan Annapolis Hotel in Annapolis, MD. A block of rooms has been reserved

under ANS TASK FORCE for \$116.00 plus tax/night. The block will be released on April 1, 2012. Make your reservations by calling O’Callaghan’s at (410) 263-7700/toll free: (866) 782-9624.

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Miscellaneous

Bureau of Reclamation Equipment Inspection and Cleaning Manual (addresses quagga/zebra mussels): See <http://www.usbr.gov/mussels/>, link to manual (13 MB) is on right side under “Documents”.

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NISC NEWETTER

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May 2012

News and Announcements

Federal Register Notice Request for Nominations for the Invasive Species Advisory Committee

The U.S. Department of the Interior, on behalf of the interdepartmental National Invasive Species Council, proposes to appoint new members to the Invasive Species Advisory Committee (ISAC). The Secretary of the Interior, acting as administrative lead, is requesting nominations for qualified persons to serve as members of the ISAC.

ISAC includes nonfederal invasive species experts, stakeholders and representatives of state, local and tribal government as well as industry and NGO's. The current terms for 15 members will expire on October 24, 2012, eight of which are term-limited and are not reappointment eligible. The ISAC provides advice and recommendations regarding the prevention and control of invasive species to the Council.

Nominations must be postmarked by June 18, 2012. *To read the entire notice, please go to:* <http://www.gpo.gov/fdsys/pkg/FR-2012-04-19/pdf/2012-9379.pdf>

Federal Register Notice Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters

The Coast Guard is amending its regulations on ballast water management by establishing a standard for the allowable concentration of living organisms in ships' ballast water discharged into waters of the U.S. The [new regulations](#) were published in the March 23rd Federal Register and are effective June 21, 2012.

The final rule establishes a ballast water discharge standard that is protective of the marine environment and consistent with the discharge standard adopted by the International Maritime Organization in 2004. The regulations include requirements for designing, testing, installing and operating ballast water management equipment on board vessels. The implementation schedule is based upon a vessel's construction date and ballast capacity.

The numerical limits set by the discharge standard in this rule are

supported by reports from the National Academy of Sciences and the EPA Science Advisory Board in 2011 as the most stringent that vessels can practicably implement and that the Coast Guard can enforce at this time.

The Coast Guard and EPA continue to work closely on the development of ballast water discharge standards, and to synchronize requirements to the extent feasible and appropriate under their respective statutory mandates.

On Thursday, April 26, 2012, there was a House hearing on Coast Guard and EPA maritime regulations. *To watch the hearing, go to:* <http://transportation.house.gov/hearings/hearingdetail.aspx?NewsID=1608>

Special points of interest:

- FR NOTICE REQUEST FOR NOMINATIONS FOR ISAC
- FR NOTICE BALLAST WATER

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In The News



Taming the lionfish: Florida fights back against invasive species

Philippe Cousteau and Matthew Knight, CNN

April 26, 2012: Four years ago, lobster fisherman Gary Nichols had never laid eyes on a lionfish, but today his traps are full of them.

"You'll get two or three decent traps with lobster, but if you get four or five lionfish, the lobster don't like it," Nichols said.

He says he catches so many lionfish now (up to 200 pounds every day) that he's started to sell them. But where his lobsters sell for \$16 per kilogram, lionfish only make him \$12. *To read the entire article, go to: http://www.cnn.com/2012/04/24/us/lionfish/index.html?hpt=us_t4*



Putting the squeeze on pythons

Darryl Fears, *Washington Post*

April 29, 2012: EVERGLADES NATIONAL PARK, Fla. — Kristen Hart's search for a cold-blooded killer came to an end at a perfect hideout — thick scrub brush, dense trees and shade. She crouched with three scouts and whispered.

"Do you see her?" asked Hart, a research ecologist for the [U.S. Geological Survey](#). "Yeah, she's in there," answered Thomas Selby, a wildlife biologist. "I think she knows we're here," said Brian Smith, another biologist.

Within seconds, the 16¹/₂-foot Burmese python uncoiled and made a run for it. What happened next is a drama that plays out every week or so, as state and federal biologists try to prove — or disprove — that the giant invasive snakes are the reason for [the near disappearance of rabbits, opossums, raccoons, foxes and even bobcats](#) in the southernmost section of the 1.5 million-acre Everglades. *To read the entire article, go to: http://www.washingtonpost.com/national/health-science/in-everglades-tracking-pythons-may-provide-clues-to-vanishing-wildlife/2012/04/28/qIQAWRvenT_story.html*

Plants, fish hitched a ride in last year's floodwaters

April 30, 2012: Although roads have been cleared of debris and homes

dried out, one effect of the epic hurricanes and floods that plagued many parts of the United States last year is still playing out: the dispersal of aggressive invasive species. In Vermont, Tropical Storm Irene's floodwaters and the subsequent work to dredge rivers and remove debris helped spread fragments of Japanese knotweed, a sturdy plant that threatens to take over floodplains.

In the Midwest, the surging Missouri and Mississippi rivers last year carried Asian carp to lakes and oxbows from Iowa to the Great Lakes that were previously untouched by the voracious species. *To read the entire article, go to: <http://www.eenews.net/Greenwire/2012/04/30/11>*

USDA Urges Americans to Prevent Invasive Pests, Protect American Agriculture

April 2, 2012, Washington—The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) today announced that it is dedicating the month of April to sharing information about the threat that [invasive plant pests, diseases and harmful weeds](#) pose to America's fruits, vegetables, trees, and other plants—and how the public can help prevent their spread. APHIS works each day to promote U.S. agricultural health and safeguard the nation's agriculture, fishing and forestry industries.

"Invasive pests hit close to home and threaten the things we value," said Rebecca A. Blue, Deputy Under Secretary for USDA's Marketing and Regulatory Programs. "We need the public's help because these hungry pests can have a huge impact on the items we use in everyday life, from the fabric in our clothing, the food on our table, the lumber used to build our home and the flowers in our garden. During one of the most successful periods in history for U.S. agriculture, it is important that we step-up our efforts to educate Americans about USDA's good work to protect our nation's food, fiber, feed and fuel from invasive pests." *To read the entire article, go to: <http://www.hungrypests.com/press-room/prevent-invasive-pests.php>*

Growing Risk for Taxpayers and Wildlife National conservation group urges precaution on cultivating invasive plants for bioenergy

Mézell Mikell, Ph.D., *National Wildlife Federation*

April 4, 2012: Good biofuel crops can make great invasive species. That's one of the findings of a new report released



today by the National Wildlife Federation. Growing Risk: Addressing the Invasive Potential of Bioenergy Feedstocks explores the challenges and policy solutions surrounding the use of non-native and potentially invasive bioenergy crops. Numerous non-native and genetically modified species are already being considered for use as biomass feedstocks.

Growing these plants may appear to be a great source of home-grown renewable energy, but without proper precaution, producers run the risk of unleashing the next big invasive species catastrophe that could devastate native ecosystems, deplete scarce water resources and require significant resources to control. *To read the entire article, go to:* <http://www.nwf.org/News-and-Magazines/Media-Center/News-by-Topic/Wildlife/2012/04-04-12-Growing-Risk-for-Taxpayers-and-Wildlife.aspx>

Plant nursery imports said to be responsible for many destructive pests, diseases

Greenwire

April 16, 2012: Imported nursery stock could pose a threat to the environment as the plants bring invasive species into gardens across the country, a new study underwritten by the Nature Conservancy warns.

In order to block the import of species such as the citrus long-horned beetle, federal officials are considering banning popular plants grown in Europe, including cherry trees, rhododendrons and roses from the Netherlands. But Europe's imports are a fraction of the \$500 billion international plant-exporting business that sends more than 3 billion plants to the United States each year.

According to the study, those imports could account for as much as 70 percent of the most damaging nonnative insects and diseases afflicting U.S. forests today. *To read the entire article, go to:* <http://www.eenews.net/Greenwire/2012/04/16/8>

Global warming could bring disease-spreading mosquitoes to northwest Europe

April 26, 2012: Warmer weather in northwestern Europe and the Balkans may attract a disease-spreading species of mosquito, said scientists at the University of Liverpool on Wednesday.

The Asian tiger mosquito, an invasive species that is native to Southeast Asia, has already crept into 15 countries on Europe's southern rim since the 1970s. The insect can transmit West Nile fever, yellow fever, dengue fever, types of encephalitis and other diseases. *To read the entire article, go to:* <http://www.eenews.net/climatewire/2012/04/26/14>

Deadly bat disease likely from Europe -- study

Laura Petersen, E&E reporter

April 9, 2012: Evidence is mounting that the deadly disease wiping out North American bats by the millions came from Europe, according to new research published today.

An international team led by researchers at the University of Winnipeg in Manitoba found that infecting North American little brown bats with the *Geomyces destructans* fungus from either North America or Europe caused the associated disease known as white-nose syndrome. Yet European bats have not faced an epidemic.

"It suggests there is something different about European bats that allows them to survive as opposed to something different about the European fungus," said Craig Willis, a wildlife biologist who oversaw the research project. *To read the entire article, go to:* <http://www.eenews.net/eenewspm/2012/04/09/5>

Tree-destroying beetles continue eastward sweep

Greenwire

April 18, 2012: The emerald ash borer, an invasive beetle that has destroyed millions of ash trees over the past decade, has been discovered east of New York's Hudson River.

The beetle colony was found less than a year after it was established, researchers said. Colonies can sometimes go unnoticed for several years.

Ash trees are used as a commercial hardwood and a feature in urban plantings. *To read the entire article, go to:* <http://www.eenews.net/Greenwire/2012/04/18/16>

Climate Change and Invasive Species

Annotated Bibliography on Recent Climate Change-Related Articles

Bradley, B.A., D.M. Blumenthal, R. Early, E.D. Grosholz, J.J. Lawler, L.P. Miller, C.J.B. Sorte, C.M. D'Antonio, J.M. Diez, J.S. Dukes, I. Ibanez and J.D. Olden. 2011. **Global change, global trade and the next wave of plant invasions.** *Frontiers in Ecology and the Environment.* doi: 10.1890/110145

With the advent of climate change and changing hardiness zones, this article looks at potential increases in demand for drought-tolerant species that can be used in dryland regions. An influx of new species into the horticultural trade could thereby sow the seeds for the next crop of invasive plants. The authors



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argue that additional effort needs to be made to screen species and to use regulatory tools such as APHIS Q37 Not Authorized Pending Pest Risk Analysis (NAPPRA) rule. (<http://www.esajournals.org/doi/pdf/10.1890/110145>)

Canning-Clode, J., A.E. Fowler, J.E. Byers, J.T. Carlton and G.M. Ruiz. 2011. **'Caribbean creep' chills out: Climate change and marine invasive species.** PLoS One 6(12): e29657. doi: 10.1371/journal.pone.0029657

Referring to past trends where marine invasions have spread north from the Caribbean, the article examines whether prolonged cold events might check that expansion. For example, the prolonged cold spell from December 2009 to January 2010 along the southeastern coast of the U.S. saw significant mortality of the green mussel (*Perna viridis*) in Tampa Bay. The authors replicated such conditions in laboratory experiments with the green porcelain crab (*Petrolisthes armatus*), which similarly experienced increased mortality under cold conditions. The article concludes by noting that even in the face of a warming climate prolonged and extreme cold events may serve as an important check or reset mechanism for some marine bioinvaders. (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0029657>)

Capinha, C., P. Anastácio and J.A. Tenedório. 2012. **Predicting the impact of climate change on the invasive decapods of the Iberian inland waters: An assessment of reliability.** Biological Invasions. doi: 10.1007/s10530-012-0187-z

The authors use a series of niche-based models to assess the habitat suitability for the Yabby (*Cherax destructor*), Chinese mitten crab (*Eriocheir sinensis*), signal crayfish (*Pacifastacus leniusculus*) and red swamp crayfish (*Procambarus clarkia*) in the Iberian Peninsula under climate change scenarios. Overall results showed a decline in climatic suitability for the four species, however there were also significant differences in the predictive uncertainty of those results (higher reliability for the red swamp and signal crayfish, lower confidence for the Yabby and high variability across models for the Chinese mitten crab). The authors underline that the application of niche-based models needs to clearly assess levels of uncertainty across models and predictions. (<http://www.springerlink.com/content/p8t2232678051643/fulltext.pdf>)

Kliejunas, J.T. 2011. **A risk assessment of climate change and the impact of forest diseases on forest ecosystems in the Western United States and Canada.** Gen.Tech.Rep. PSW-GTR-236. Albany, CA: USDA, Forest Service, Pacific Southwest Research Station.

This report assesses the effects of forest diseases under two climate change scenarios (warmer and drier, warmer and wetter). Specifically the diseases addressed include: foliar diseases, *Phytophthora* diseases, stem rusts, canker diseases, dwarf mistletoes, root diseases and yellow cedar decline. The diseases are assigned a risk value of high, moderate or low depending on the scenario. Uncertainty in the evaluations can be attributed to lack of information on the degree of climate change that will occur, pathogen biology under a changing climate, climate change effects on the host, and interactions across the pathogen, host and

climate. (http://www.fs.fed.us/psw/publications/documents/psw_gtr236/psw_gtr236.pdf)

Pederson, J., N. Mieszkowska, J.T. Carlton, S. Gollasch, A. Jelmert, D. Minchin, A. Occhipinti-Ambrogi and I. Wallentinus. 2011. **Climate change and non-native species in the North Atlantic.** In P.C. Reid and L. Valdes (eds.) ICES status report on climate change in the North Atlantic. ICES Cooperative Research Report No. 310. 174-190.

Starting with an overview of marine bioinvasions and general climate trends for the region, the chapter examines possible impacts on several high profile marine invaders including Pacific oyster (*Crassostrea gigas*), *Codium fragile* subsp. *fragile* – a microalga, Manila clam (*Ruditapes philippinarum*), slipper limpet (*Crepidula fornicata*) and *Styela clava* – a tunicate. It closes with a discussion of community and regional-level impacts and future projections. (<http://www.ices.dk/pubs/crr/crr310/CRR%20310%20Climate%20Change.pdf>)

Bellard, C., C. Bertelsmeier, P. Leadley, W. Thuiller and F. Courchamp. 2012. Impacts of climate change on the future of biodiversity. Ecology Letters. doi: 10.1111/j.1461-0248.2011.01736.x

This article provides a framework for looking at climate change effects on biodiversity across the genetic, inter-species and community levels. Biodiversity responses to climate change are similarly examined along spatial, temporal and self-adaptation axes. The authors then examine a range of available models and provide suggestions for improvements when looking at climate scenarios, choice of scale, biodiversity measures, species responses, population dynamics and extinctions. (<http://onlinelibrary.wiley.com/doi/10.1111/j.1461-0248.2011.01736.x/pdf>)

Lawler, J.J., T.H. Tear, C. Pyke, M.R. Shaw, P. Gonzalez, P. Karreiva, L. Hansen, L. Hannah, K. Klausmeyer, A. Aldous, C. Bienz and S. Pearsall. 2010. **Resource management in a changing and uncertain climate.** Frontiers in Ecology and Environment 8 (1). doi: 10.1890/070146

This article looks more broadly at the considerations that site managers need to take into account when addressing climate change impacts. Starting with a reliance on adaptive management and the uncertainty inherent in different data types, the article looks at climate projections and potential management responses for three North American sites: California's Central Valley, the Klamath River in Oregon, and North Carolina's barrier islands and sounds. While the analyses are relatively brief, they do point to a critical body of work that needs to be further explored and documented. (<http://www.esajournals.org/doi/pdf/10.1890/070146>)

Federal

House passes spending transparency measure in wake of GSA scandal

Emily Yehle, E&E reporter

April 26, 2012: The House unanimously passed a bill yesterday to



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increase transparency in federal spending and set sharp new limitations on government-sponsored conferences.

The "Digital Accountability and Transparency Act" -- known as the DATA Act -- would create a single electronic system to keep track of spending from agencies, the Treasury and recipients of federal funds. Oversight and Government Reform Chairman Darrell Issa (R-Calif.) introduced it in June 2011, and his committee passed it in October. *To read the entire article, go to:* <http://www.eenews.net/EEDaily/2012/04/26/12>

Job Opportunities

Western Regional Panel on Aquatic Nuisance Species 2012 Call for Proposals

Proposals Due 15 May 2012

Program Description: The Western Regional Panel (WRP) on Aquatic Nuisance Species requests proposals for coordination of panel activities. This service will help advance the goals of the WRP by ensuring the Panel's business of helping to prevent, monitor and control ANS in Western North America is conducted efficiently and effectively through: annual meeting of panel members, monthly meeting of Executive Committee (ExCom), committee meetings as needed, and reporting to and from the Aquatic Nuisance Species Task Force. More information about the WRP can be found at <http://answest.fws.gov/>.

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September 9-12, 2012: Association of Fish & Wildlife Agencies (AFWA) 102nd Annual Meeting is being held at the Westin Hotel in Hilton Head, SC. Accommodations are available for \$147 plus 11% tax. The rates are available 2 days pre and post conference, if made by August 9, 2012 (www.westinhhi.com) Registration information will be available in June at www.fishwildlife.org. The nomination period for AFWA's Annual Award is open now through June 29, 2012.

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