



PO Box 3019
Boscawen, NH 03303
603.796.2615 • info@northeastans.org
www.northeastans.org

Meeting Summary • November-10, 2009
Salem Waterfront Hotel, Salem, MA

Panelists present: Jay Baker, Massachusetts Bays Program; Nancy Balcom, University of Connecticut Sea Grant; Gary Croot, US Coast Guard; Kevin Cute, RI Coastal Resources Management Council; Mike Goehle, US Fish and Wildlife Service; Karen Hahnel, ME Department of Environmental Protection; Larry Harris, University of NH; Bill Harman, NYS Federation of Lake Associations; Bill Hyatt, CT Department of Environmental Protection; Susy King, New England Interstate Water Pollution Control Commission; Hope Leeson, RI Natural History Survey; Mark Malchoff, Lake Champlain Sea Grant; Leslie Matthews, VT Department of Environmental Conservation; John McPhedran, ME Department of Environmental Protection; Les Mehrhoff, University of Connecticut; Meg Modley, Lake Champlain Basin Program; Adrienne Pappal, MA Office of Coastal Zone; Isabelle Simard, Ministère des Ressources naturelles et de la Faune; Amy Smagula, NH Department of Environmental Services, Jan Smith, MA Office of Coastal Zone Management; and Jim Straub, MA Department of Conservation and Recreation.

Others present: Anne Carroll, MA Department of Conservation and Recreation; Clifton Dassuncao, Massachusetts Institute of Technology; Alexa Dayton, Gulf of Maine Research Institute; Jennifer Dijkstra, University of NH; Tom Flannery, MA Department of Conservation and Recreation; Sarah Kirn, Gulf of Maine Research Institute; Michele L. Tremblay, NEANS Panel ANS Program Manager (nature resource communications); and Barbara Warren, Salem Sound Coastwatch.

Full Panel meeting: welcome, introductions, review of meeting agenda, and updates by Co-Chairs – Susy King, New England Interstate Water Pollution Control Commission and Jan Smith, MA Office of Coastal Zone Management welcomed everyone to the meeting and outlined the agenda for the next two days.

ANS updates and Panel business:

- The Panelists and guests introduced themselves and their organizations.
- The Panel accepted the May 2009 meeting summary with the correction of Variable (not Eurasian) milfoil in the Vermont roundtable update.
- *NEANS Panel Business and May 2010 meeting scheduling* – Jan indicated that the May 2010 meeting rotation falls in the State of Maine Michele suggested Portland for the first week of May in conjunction with the federal Aquatic Nuisance Species Task Force spring meeting. This would mean that the Panel would meet Monday and Tuesday and the ANSTF would meet Wednesday and Thursday. The joint scheduling would include field trips for both organizations.

Action: Michele Tremblay will begin work coordinating with the executive secretary of the ANSTF and secure a facility for the May 2010 meeting.

- ANS Task Force (ANSTF) report – Jan reported that Gary Croot, Mike Goehle, Meg Modley, and Michele Tremblay participated in the meeting the previous week. Jan provided a report on Task Force business including a strategic plan prioritizing

session with breakout groups to discuss how to approach priorities and identifying funding sources. The Task Force discussed state management plan and regional panel funding. Jan indicated that most state and panel representatives could not advocate for funding. As a result of the first panel principals conference call in August, all of the regional panels were asked by the Task Force executive secretary for their panel funding needs. The results varied in their funding request levels. The panels will have an opportunity to revise its funding needs assessment. Jan requested that Michele distribute the link on the invasive species task force website for handout #3 and solicit ideas for projects. National Invasive Species Week will be held in January. The Quagga and Zebra Mussel Action Plan (Q-ZAP) was presented and discussed by the Task Force. Senator Feinstein has introduced legislation to support the plan's implementation. Four new plans were approved: Lake Tahoe, Georgia, South Carolina, and Minnesota. There was a presentation on a multi-organization Asian Carp eradication effort with Rotenone. There was presentation on school groups and supply houses as vectors for invasive species. After lessons or experiments, animals are sometimes released or sent home with students.

Action: Michele will distribute the ANS Task Force link to November handout #3 via Panel@NortheastANS.org.

- Invasive Species Advisory Council – Nancy reported that it meets next month. The focus is on biofuels. Nancy provided a handout with the nine recommendations to the Council. The next focus is on climate change.
- Susy opened the floor to nominations for the Panel's freshwater co-chair. Leslie nominated Meg Modley. Jim Straub seconded the motion. Meg Modley was elected as the Panel's freshwater co-chair. The Panel presented Susy with a certificate of recognition for her two years of service. Meg offered her additional recognition of Susy's intense work with the governance effort.

Highlights from Massachusetts – Adrienne Pappal, MA Office of Coastal Zone Management moderated the session and provided highlights from her agency's recent work. The Marine Invasive Species Monitoring Collaborative (MIMIC) covered 65 sites over the past year including several in Rhode Island and some in New Hampshire. There are several sites in Maine and Massachusetts. *Didemnum vexillum* was found at only a few sites but in 2009 it has expanded greatly in Massachusetts including sites where it was not found previously. It has been found in Boston Harbor on four islands and two mainland sites. *Grateloupia turuturu* is an emerging species and found at several sites but with no increases this year. A nearly two-pound male Dungeness Crab was found off Cape Ann (another male was previously found). Mitten Crabs are not at any of the MIMIC sites. The Dungeness and Mitten Crabs will be included in the most wanted poster. Another rapid assessment survey is planned for 2010 in the Gulf of Maine and Rhode Island in piers and adjacent habitats. The Panelist discussed monitoring buoys and moorings. MIMIC's volunteers have not been able to get to these sites because of the transport required. The MIMIC data is available online at the State.MA.US. She will send a link to panel@northeastans.org.

Jim Straub, MA Department of Conservation and Recreation (MADCR), reported that there is now a third Hydrilla infestation. With budget constraints, the agency is struggling between rapid response and maintenance of established populations. Water Chestnut is increasing. Spiny water flea and Didymo are emerging threats. The Massachusetts water supply agency is now taking notice of these infestations and looking at how to protect drinking water. Cochichuate Lake has milfoil but some

homeowners do not want to chemically treat the lake. The Panel resources have been valuable to the MADCR when it faced its first Zebra mussel invasion. The state was not receptive to the NEANS Panel and wanted to create its own. Anne Carroll found the NEANS Panel website and its contacts, particularly Nancy Balcom, Meg Modley, and Leslie Matthews were enormous help.

Tom provided an update on the volunteer Zebra and Quagga mussel volunteer monitoring group's activities, including vellager collection and identification. The volunteers are well educated and trained. In the Town of Lee, a volunteer found a bucket with adult Zebra mussels. The agency confirmed that the species was fairly established including in the outlet brook. The Laurel Lake boat ramp was subsequently closed. The consulting firm, Biodrawversity was contracted to conduct with MADCR SCUBA surveys on approximately two dozen seventeen lakes and the Housatonic River. The results will be posted on the Lakes and Ponds Program as soon as they are completed. There were no other Zebra mussels found in the surveyed waterbodies. The Governor has appointed a Zebra mussel task force. A decontamination station is operating at Quabbin Reservoir (the water supply for metropolitan Boston) including flushing of live wells with 140°F water and steam cleaning. There are concerns about injuries with steam and hot water.

Northeast ANS Roundtable

Maine

John McPhedran, ME Department of Environmental Protection, reported that the Salmon Lake Eurasian Milfoil infestation was treated chemically. The general permit that allows the agency to respond quickly to infestations has a 30-day appeal period so the Department waited until that time passed before filing. A radio station urged the public to appeal the permit. There were no appeals filed. Hydrilla was found in a small, isolated cove in Damariscotta Lake, which is undergoing a hand pulling effort. Lake associations and other groups formed a consortium to secure a \$500K earmark (to St. Joseph's College) to study invasive species eradication.

Peter Thayer, ME Department of Marine Resources, (via email) reported that the Maine Marine Invasive Species Working Group contracted with DMR's Robert Russell to conduct a dive survey of *Didemnum* at sites in Casco Bay and in Boothbay Harbor. They chose sites that had been surveyed in the spring to obtain a comparison of spring and fall abundance. They are currently waiting for the report of the results. Funding was provided through the US Fish and Wildlife Service's state ANS funds as well as by the Casco Bay Estuary Partnership. The results of the Casco Bay survey will likely be included in CBEP's State of the Bay report, which will be published in 2010.

Didemnum lobster trap project: MMISWG is using decommissioned lobster traps to observe *Didemnum* settlement at selected sites in Casco Bay. Staff and a volunteer at the Gulf of Maine Research Institute designed and constructed the prototypes. Plexiglass plates were placed in lobster traps to serve as a platform for *Didemnum* settlement. The vents on the traps were closed to prevent entry by lobsters. Two traps have been deployed off docks in Casco Bay and the plates have been checked and photographed at least once so far. Following is a list of creatures as identified by Larry Harris, University of NH, from inspection of photos of the plates: *Membranipora*, *Botryllus*, *Botrylloides*, *Spirorbis*, *Obelia*, *Onchidoris*, Egg mass of *Onchidoris*, juvenile *Onchidoris*, *Electra* colony, *Ectopleura*, large *Mytilus edulis*, and possibly *Alcyonidium*. They hope to expand the number of traps and have this become a long-term volunteer monitoring project. Sarah Kirn, Gulf of Maine Research Institute, will

be at the meeting tomorrow and would be happy to answer questions and show pictures to anyone interested in this project. She'll have copies available of the invasives poster "New England's Marine Invasion" produced this year by Maine Sea Grant, the Maine Coastal Program, and MIT Sea Grant in coordination with the MMISWG with 6,000 copies of the 18" x 24" poster were printed in the spring of 2009. At least 2,500 of the posters have already been distributed, based on Maine Sea Grant's distribution log as of early November, 2009. Groups and individuals who requested copies of the poster from Maine Sea Grant include: K-12 teachers, informal educators, interpretive centers and aquaria (including New England Aquarium), college professors, state and federal marine and coastal management agencies, departments of transportation, harbor masters, volunteer monitoring groups, the US military (Portsmouth Naval Shipyard), and a risk management organization based at Harvard University.

Vermont

Meg Modley, Lake Champlain Basin Program, reported that the Program has used the new state bill and is looking at other models that have identified inconsistencies. The plan was approved in May. Memoranda of understanding will be drafted to officially appoint individuals and organizations to the effort. The rapid response plan has been featured at the International Joint Commissions and Aquatic Nuisance Species Task Force (ANSTF) meetings. Other panels are considering rapid response plans. This is an opportunity for all panels to work together. The spiny water flea is in NY and close to Champlain. About \$100K has been secured to explore filtration and super saturation modalities. The boat launch steward programs, coordinating with Paul Smith College, and looking at all of the NEANS Panel states.

Québec

Isabelle Simard, Ministère des Ressources naturelles et de la Faune, reported that the agency is still working on our priority species list for all taxa of invasive species. They are being validated by experts according to NatureServe and Belgium criteria. They are continuing the water chestnut eradication program in Montérégie. There was a lot less plants this year compared to last year. However, three new infestation sites were found in Lac des Deux Montagnes in the St. Lawrence River, coming from a new infestation from Ontario. They will continue to monitor these sites and other possible sites in the future. Didymo blooms were reported in one new river this summer, for a total of fifteen rivers with cells or mats. Water sampling this year will be focused on rivers never sampled before. The early detection network in the St. Lawrence River: the network (fish and invertebrates) is expanding this year to cover a larger part of the river by commercial fishermen. The first one new network started this year. A Web site will be online by the end of the year for the public to report observations of invasive plants. The second one is part of the volunteer lake monitoring program and should be running in 2010-2011. Five hundred lakes are part of the network and we are hoping to reach 700 lakes in two years. There are no VHS cases detected in Québec's waters. The State of Illinois asked for Québec's support for the Asian Carp control with rotenone in the Chicago Ship and Sanitary Canal. The Government of Quebec has sent a letter of support and money for the project. Ontario and Canada Federal Government are also involved. Risk assessments and work plans were developed for Golden star tunicates, Vase tunicates, and Diplosoma for Magdalene Islands. A simulation exercise will be conducted in November for early detection and rapid response for tunicates

incursion in Magdalene Islands. Tunicate plates (IDM, Gaspésie and CN) as part of the Atlantic early detection monitoring program- since 2006.

Connecticut

Bill Hyatt, CT, Department of Environmental Protection, reported that they lost the dedicated invasive plant funds. The account balance was swept and ten projects that were funded were cancelled. Supplemental Environmental Projects Program (SEPP) funds have been secured to support the ten projects. The state will be looking at this source for future projects. There is an ongoing eradication effort in the Silver Mine watershed. Zebra mussel monitoring is ongoing. Here has been a change in the transport laws from a misdemeanor to an infraction. This will result in state police enforcement. There is an online training module for fishfishfish. The state is working collaboratively with the US Fish and Wildlife Service and the State of Massachusetts to enforce importation of invasive species.

Nancy Balcom, University of Connecticut Sea Grant, reported that Bob Whitlatch and his students discovered a new tunicate, *Clavelina sp.*, in Stonington Harbor. It may be *C. lepadiformis* (AKA the light bulb sea squirt). Samples have been sent to Gretchen Lambert for identification.

Les Mehrhoff, G. Safford Torrey Herbarium, reported that IPANE has been working with USGS on data management. A private firm has approached them to help with the program. They are working with the Invasive Plant Atlas of the United States to combine data with IPANE. They are approaching IPANE to collaborate. The Atlas continues to receive interesting records such as an impoundment with yellow floating heart near the boat launch (on state land) on the Rhode Island border.

Rhode Island

Kevin Cute, Coastal Resources Management Council, reported that the mitten crab costume was created and he displayed it at the meeting. It is an outreach tool to use at fishing and boating meetings. Kevin offered its use to other Panel members for their outreach efforts. Kevin reported that his agency completed its first year of MIMIC participation on five sites. No new species were identified but tunicates seem to be spreading rapidly. A field coordinator has been hired to build onsite quality control/quality assurance. Kevin thanked Adrienne Pappal and Barbara Warren for their help with training and the use of the laminated identification key cards. The program was able to work with the Center for Biotechnology and Life Sciences for laboratory sessions to process samples.

Hope Leeson, RI Natural History Survey, reported that they are conducting seminar in cooperation with URI's Watershed Watch Program and Department of Environmental Management to further public knowledge. Participants brought in samples that experts identified. One of the Survey's interns identified Water Chestnut at Chapman Pond, Nyad, and Eurasian Milfoil. Handpulling has been conducted at the waterbody. Handpulling of Water chestnut continues at Bellville Pond every two weeks. There is an unconfirmed report of water chestnut on the Blackstone River and in a private pond in Middletown. Corbicula was reported in the Pawtuxet River.

New Hampshire

Amy Smagula, NH Department of Environmental Services, reported that there were no new plant infestations in the state. Milfoil is still actively growing in areas. Didymo has expanded to three new rivers systems in the Connecticut River watershed. The program received a \$2.50 increase in the registration program (now \$7.50) that raises the total annual program revenue to \$750K. An annual program report is now posted at DES.NH.gov. The Northeast Aquatic Plant Management Society will meet in Saratoga Springs, NY in January with a focus on Zebra mussels. There was a Milfoil summit in October that driven by the state's legislators. The budget request was not granted in state operating funds. The Governor asked for the summit and another is planned to determine results of the actions from the October event.

New York

Bill Harman, NYS Federation of Lake Associations, reported that *The Diet for a Small Lake* watershed management plan guidance document is completed. Printed copies can be purchased for \$20. Visit NYSFOLA.org for ordering information. Zebra mussels have been found in outlets and in places where flow is faster and where it was previously believed the species could not colonize.

Mark Malchoff, Lake Champlain Sea Grant, reported that he continues his work on a survey with bass anglers and is working with the NY chapter of BASS to determine their level of knowledge of invasives. The electronic survey garnered about 100 responses from approximately 1,000 members. They survey will be mailed as a hard copy. Some surveyed indicated that they can identify various invasive species. These are self-selected data. Only about 10% thought that Eurasian Milfoil was harmful, 35% felt that way about water chestnut, and 48% were concerned about Snakeheads. The survey shows that members visit multiple or dozens of lakes. About 38% indicated that they always inspect their boats for invasive species. The results are posted online. Spiny water flea is in Tex Lake. There was a Rotenone treatment in a lake in Orange County.

Federal and nonprofit

Susy King, New England Interstate Water Pollution, reported that the agency is involved in an effort to look at TMDL and invasive species.

Mike Goehle, US Fish and Wildlife Service, reported that the 70/30% funding split of Great Lakes funding for the two regions that cover the watershed. \$ will go to ANS as pass through funding and the. \$10MM will go to states for their management plan implementation. About \$400K will be available to help with Lacey Act implementation including monitoring and enforcement. Some of the pass-through funding will fund a joint RFP for ballast water, integrated pest management, and education and outreach. The HAACP program is now operating under an official policy that requires plans and staff training. In 2008, Water Chestnut was at the west end of the Erie Canal, relatively isolated from the next nearest invasion but it is now covering about 600 acres in a county park. They have produced a laminated Water Chestnut Watch card.

Gary Croot, US Coast Guard, reported that he is working on its notice of proposed rule making with a December 4 end date for comments. He will provide additional information during his presentation next week. There is an issue in Minnesota with ANS transport and researched what is effective to reduce spread. The funds spent on

explaining to boaters the issues vs. enforcement were much more effective. Identifying the trigger or important issues for each of the boating population sectors was the key to provide insights into motivations. There is a comment period for Great Lakes RI project funding with \$60MM targeted for aquatic nuisance species.

Governance discussion and proposed bylaws

Susy projected the bylaws on the screen and reviewed the summary of proposed changes (both documents were posted to panel@NortheastANS.org).

The question was raised as to what Sea Grant or academic organizations are limited in the ability to be Panelists. There was a debate as to whether or not the bylaws provide that specificity. Should there be a process to determine how non-governmental organizations are made members? A sentence will be added to provide guidance on nomination. The ANS Task Force Executive Secretary will remain as the confirming entity.

The structure of the Steering Committee has moved from being composed of committee leadership to that of geographic balance. In addition, more federal government and non-governmental representation is proposed. The quorum has been changed to provide more representation.

The standing committees would remain with a different role to provide guidance and ideas for initiatives—essentially think tanks for projects. Work groups would be formed to implement projects. Once a project was completed, the work group would dissolve. The work groups will report to the Steering Committee on their progress. They can elect their co-chairs. Members do not have to be Panel members. Will there still be agenda time during Panel meetings to have committee or work group meetings? Can committees meet between meetings and work groups meet or convene calls in between meetings?

At least four individuals representing four different states, one federal agency, and the co-chairs constitute the proposed quorum. A defined (three options) consensus is the proposed decision making. When there are issues that require a record vote, such as financial decisions or after a defined period of time where there is no consensus, a vote will be taken. A policy and guidance document can be drafted to provide definition and guidance on the process, such as in cases where someone objects but does not propose an alternative. Is the consensus or the vote that constitutes the Panel decision? Kevin proposes that there only be a vote (not consensus) to decide on financial or officer election decisions (Panel assent).

The bylaws can be changed by the Panel (vs. currently by the Steering Committee). Jay Baker proposed that a super majority of 2/3 of the Panel can vote to change the bylaws (Panel assent).

There were some who were concerned that the Steering Committee is now larger by definition but it would be rare to have all members present.

Each state decides who are its two agency Panelists (one should be a Steering Committee member) but another can serve in his/her stead. In the case of Rhode Island, there is one active agency representative and one active non-governmental (NGO) representative. Can the latter serve on the Steering Committee? Can a state agency designate him/her? Yes, it is the state's choice as to who it designates to serve on its behalf and it will provide a letter specifying its choices. Can the bylaws specify that a state can designate a non-governmental organization to serve in this capacity? He/she cannot vote on behalf of a state agency so he/she would have to recuse his self/herself and therefore cannot be counted as part of the quorum. The objective of the proposed structure is to ensure geographic representation. Using one of the NGO-

designated position to represent one state does not further this objective. What if there are four people from one state that currently participate? Will there only be two with the new structure? Yes, the proposed bylaws will allow for one two voting representatives from each state. When will the bylaws, if voted on today, be effective to allow for the nominations/appointments/designations necessary for the new structure? Susy suggested January 29, 2010 as the effective date. Leslie Matthews moved to approve on the bylaws as revised. Bill Harman seconded the motion. The motion carried.

Decision: The Panel accepted the new bylaws as revised with an effective date of January 29, 2010.

Committee updates (committees will be preparing and submitting detailed work plans and funding proposals)

Communication, Education, and Outreach (CEO) Committee - Karen Hahnel and Leslie Matthews, Co-chairs

Karen and Leslie provided an online demonstration of the online guide including querying, producing a PDF, and preparing it for printing. Yellahoose, LLC, was contracted to build the tool and has nearly completed all of the programming and coding. The demonstration included selecting species and creating and printing the resulting PDF. There is an option to create a guide and have the online tool email a link to the user. The result would be that the formatting and all selection information would be saved but the information would always be current with up-to-date data, information, and images. Formatting can also be modified to accommodate different products such as smaller booklets, watch cards, and other tools. To facilitate keeping the information current, there is a password protected administrative page or control panel where information can be updated including uploading new images. The co-chairs plan to work with Panelists to suggest species and provide their images and information to expand the online guide selections. Black and white line drawings might be useful. This may be a challenge to acquire consistent images for all species. The Salem Sound Watch cards, University of NH experiment station, and a CD-ROM available for purchase may be good resources. It may also be helpful to include generic pictures to help with species morphology. The CEO would like to complete the current project and then work on the enhancements with Panel project funding. A cover page would be a good addition to the project with decisions about what is discretionary information, logos, and other elements that users can add.

Action: The CEO will provide information so that Panelists can access and provide feedback on the online guide demonstration/development site.

Policy and Legislation (PL) Committee – Bill Hyatt and Susy King, Co-chairs

Bill reported that the committee would again try to get the governors and premiers to sign the proclamation that the Panel prepared. The committee is considering forming a database of contacts to work with other states on management plan implementation.

Science and Technology (ST) Committee – Adrienne Pappal and Meg Modley, Co-chairs

Meg reported that they are working on Spotlight on Species: Canadian Risk Assessment and a field trip in Casco Bay or Portland Harbor and Sebago Lake for the May meeting. They are also looking into working with the Gulf of Maine Research Institute for transportation. They suggested that Grateloupia be the Spotlight on Species for November 2010. Adrienne reported that the most wanted poster details are still being worked out. Adrienne asked what states wanted the posters and whose

telephone numbers should be included. There is a recommendation to form a work group to follow up on the boat launch survey project. John McPhedran and Ann Bove are working on the Hydrilla Initiative Project (HIP) and would like it to be a discussion on the next Panel meeting. The Committee discussed funding a contractor or intern to draft decontamination protocols, such as recommended in the Q-ZAP. Does the Panel want to support the effort with about \$5,000 from its annual \$50,000 from the US Fish and Wildlife Service? Jan recommended that the committees write work plans for the Steering Committee. There was some confusion about if that was appropriate with the new structure. The new bylaws indicate that project ideas are proposed by the committees, the panel approves them, and then work groups are formed by the Panel to implement them. Can work groups be formed now? No, this would follow in the Panel's decision making and budget process. Leslie suggested that idea proposals be sent to the entire Panel, which will decide on them and form work groups. Would this happen at the next May meeting? Should the Panel work under its past bylaws to decide on projects or wait until January to use the new process? The CEO is concerned that it may not have time to receive comments on the online guide and draft its new work plan. The Panel could use the current process for funding decisions but then transition into the work group structure. The budget information will be ready as soon as the Steering Committee/NEANS Council wishes to draft it. Michele will provide any financial reports that the Steering Committee or Council requests.

Action: The HIP will be an agenda item on the May 2010 agenda.

Action: The Science and Technology Committee recommends that rapid response be a half-day workshop for the Panel principals at the next ANSTF meeting.

Action: The Steering Committee/NEANS Council will set the 2009-2010 budget

Action: The current committees will prepare work plans and funding proposals.

VitalSigns: Middle school students, citizen scientists, and researchers collaborate to map invasive and native species

Sarah Kirn and Alexa Dayton, Gulf of Maine Research Institute provided an overview of the organization's initiative, including Vital Signs, their citizen science learning and monitoring program. The program monitors a variety of parameters, works with experts, and uses technologies to facilitate monitoring, data collection, and information access. All of the data is online and is fully searchable. Sarah provided an overview of the program, which starts with teacher training in the science, methodology, pedagogy, and technology. The students are actively engaged in a study design process initiated by a question such as "What is the biodiversity of our schoolyard?" There is an online community (VitalSignsME.org) where questions can be posed and VitalSigns can respond, such as "What do scientists most want us to look for?" The forum can be used for experts to post requests and information and answer questions. Sarah's presentation included a YouTube clip from the Panel's very own Larry Harris.

Spotlight on Species: Invasives and the changing face of natural communities

Larry Harris, University of NH, provided information on dramatic changes in populations in the Gulf of Maine (contact Michele for a copy of the presentation). Anthropogenic and other conditions such as habitat shifts and harvesting have caused shifts in the Gulf of Maine benthic communities. For instance, extensive urchin harvesting in Downeast Maine have cause other species to move into the newly created niche. In turn, food supplies change for existing and the existing and new

communities. Many of these species are able to move to nearly 100% coverage in a matter of weeks.

Clifton Dassauncao, Massachusetts Institute of Technology, presented information (contact Michele for a copy of the presentation) on predicting the likelihood of marine species invasions. He developed the presentation in collaboration with NEANS Panelists Judy Pederson. The study posed the question as to why have some high-risk species not yet invaded the Northeast US. They examined expected invaders along with shipping patterns and the likelihood of survival along the US Coast. The species *Austrominium modestus* was fully explored in this presentation at the egg, larvae, and adult stages for survival. The study also looked at several species that are from Asia and are in various stages of invasion. The data were acquired from the nation ballast water information clearinghouse.

Ballast Water Discharge Standard Notice of Proposed Rulemaking

Commander Gary Croot, US Coast Guard, presented the new rulemaking process. Gary discussed several programs and events including decontamination training that is available at no cost to government agencies. The training is portable so it could be a good feature to include with the May NEANS Panel and ANS Task Force meetings in May or at another event. The presentation included an overview of the purpose and structure for ballast water and its holds. Some vessels are not safely capable of conducting ballast water exchange while some can create a flow through exchange. The subdivisions in the tank make the effectiveness uncertain: 75-95%. It does, however, eliminate at least a percentage of the organisms but there are a significant number that are not removed. The current standard includes a phased approach and is 1,000 times more stringent than those of the International Marine Organization. The Commander encouraged everyone to review and comment on the proposed rulemaking by the public comment period close date of December 4, 2009.

Other business and public comment period

There were no comments from the public.

Meeting summary prepared by Michele L. Tremblay, ANS Program Manager, NEANS Panel