Mid-Atlantic Panel on Aquatic Invasive Species

Thursday, December 3rd, 2009
Maryland Sea Grant College
Center of Marine Biotechnology, Baltimore, Maryland

Attendance

Name	Affiliation	Contact
Jonathan McKnight, Chair	MD DNR	jmcknight@dnr.state.md.us
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Ashley Walter	PA Dept of Agriculture	aswalter@state.pa.us
Sarah Whitney	PA Sea Grant	swhitney@psu.edu
Robert Wiltshire	Center for Aquatic Nuisance Species	bob@stopans.org

Action Items:

- Newly formed Social Marketing subcommittee is being chaired by Kerrie Kyde with Ashley Walter, Kevin Heffernan, and Ann Faulds as members. The group will focus on baitfish industry issues, utilizing the Maryland bait survey results as a basic model and starting point. The group will attempt to loop in Bob Wiltshire as an advisor.
- MAPAIS will pursue an annual merit award in addition to annual funding awards.
- MAPAIS will review and update the Invasive Species "Of Interest" List.
- Panel Chair will distribute the Invasive Species "Of Interest" List and cross-walk the list with the NPS invasive plants database.
- MAPAIS will increase the ANS Taskforce "wish list" funding request to $400,000.
- Panel Chair will distribute the Maryland bait survey report.

Announcements and Introductions: **Jonathan McKnight, Panel Chair**

Agenda was reviewed and approved by the Panel participants.

Vector Management: A Prevention Solution Workshop Highlights & "The Way Forward" for MAPAIS & Mid-Atlantic Region: Fredrika Moser, MD Sea Grant, All

The Panel group discussed the framework for priority areas synthesized at the AIS vector management workshop held on Dec. 2, 2009. The group identified the following opportunities from the framework for enhanced regulation as a priority area concerning live trade:

- Expanded production of "white lists" that are focused on preventing trade of species of high potential ecological or disease impact (disease screening protocols). Bait species proposed to potentially fall within this category;
- Point of sale information about what we are buying;
- Biological inventory of bait species in the trade and sale volumes to include value of industry to a particular state;
- Social inventory of the baitfish industry including wholesalers, retailers, tournament activity, et al.;
- Inventory of mid-Atlantic states regulation;
- Strategies to reduce associated organisms ("hitchhikers")-including replacement of live dunnage to ship bait with abiotic dunnage;
- Risk assessment of trade species that are likely to be disease, parasite, and pathogen agents;
- Protocol development for proper bait disposal to be distributed at point-of-sale;
- Increased bait tracking expansion across mid-Atlantic states by implementing a uniform receipt program proving point-of-sale from approved vendor bait stations
- Knowledge of bait sources
- Emphasis on native species to use for bait

Of all the vectors reviewed, the baitfish industry was chosen as a likely focus area for engaged Panel membership to pursue within their respective agencies. Social marketing subcommittee was formed. Reference was made to the ISAC Communications, Education, and Outreach Subcommittee which serves as an example of such workgroups in place. Perhaps the Panel could ask ISAC for support in developing the Panel's approach or strategy for newly formed social marketing subcommittee. Suggestion was also made to utilize the expertise of Bob Wiltshire. Idea presented was to consider training for agency personnel in communication with target audiences within their agencies to raise awareness of bait and invasive species issues. This would prepare conservation officers and field staff/biologists to engage in effective outreach to the public.

Results of Maryland bait survey will guide list of priorities for Panel funding and in-house projects. There was discussion about the creation of a survey model to help further define focus areas to pursue for communication to the ANSTF and member states for consideration. It should be structured to obtain ranking of Panel priorities.

Rapid Response Planning in Virginia: Kevin Heffernan, VA DCR, Division of Natural Heritage

At the Panel meeting on April 1, 2009, Fredrika Moser informed the group in attendance and those states not represented of available funding for up to six states to host a planning meeting to discuss the use of the Maryland Sea Grant rapid response plan for aquatic invasive species. Virginia obtained funding for this effort.

In the spring of 2009, the EDRR subcommittee of the Virginia Invasive Species Advisory Committee met to discuss an outline for an EDRR plan. Additional meetings are anticipated to focus on plan goals and objectives. Kevin is currently working on a draft plan for Virginia which he hopes to complete by May 2010. Plan implementation will involve inreach efforts to provide EDRR training for Virginia natural resource and conservation professionals-park rangers, naturalists, et al.

Conducting an AIS Early Response in Pennsylvania: A workshop for evaluating the effectiveness of Pennsylvania's draft Rapid Response Plan: Sarah Whitney, PA Sea Grant

The AIS Early Response in Pennsylvania was funded by the Panel through the small grants competition in support of regional efforts to build upon early detection and rapid response to AIS. Workshop objectives were to 1) to perform a tabletop exercise, based on a simulated AIS outbreak, to develop and critique a rapid response protocol based on the draft RR plan guidelines; 2) to create a dialogue about AIS early response among the local, state and federal agencies involved with regulating Pennsylvania's waterways; 3) to identify gaps and challenges in implementing an effective early response plan for AIS in Pennsylvania. Twenty-five individuals from state, federal, private industry, and non-profit organizations participated in an eight hour workshop over the course of two days in Bellefonte, PA. The majority were field biologists with a desire to learn how to identify aquatic invasive species. A mock scenario involving non-native (rusty) crayfish was used to guide participants through each step of the rapid response plan, incorporating group discussion. The workshop facilitated the recognition of those issues affecting plan implementation and provided the perspective from which to approach rapid response plan revision. The need for internal agency training and federal agency involvement was a key lesson learned. Ann inquired about specific goals for the rapid response plan revision process. She further inquired about jurisdictional issues highlighting further the importance of interagency coordination. Fredrika Moser questioned how the

rapid response exercise complements the Sea Grant rapid response plan and Sarah replied that many elements were pulled from the plan and the ICS framework, but avoided using the specific terminology or jargon. Fredrika agreed that people are intimidated by "ICS" for its Coast Guard/military impression. Rusty crayfish was the species chosen for exercise because it is included on the focus list within PA's AIS management plan. The ultimate goal for the AIS program is to have consistent and regular rapid response exercises to effectively train staff, preparing them to successfully respond to new AIS invasions and new species sightings for established AIS. Bob Wiltshire shared a Texas example of rapid response in action. As a result of a flooding incident, a 2,000 acre reservoir was overgrown with giant salvinia. It was discovered on a Thursday and treated by Sunday.

Break

Invasive Plants Atlas of the U.S. Demonstration & Early Detection & Distribution Mapping System (EDDMapS) Update: Jil Swearingen, National Park Service

EDDMapS can be accessed at http://www.invasiveplantatlas.org and is a database for a variety of vegetation, including aquatic plants. Online navigation within EDDMapS was performed to demonstrate how the website is structured. Information about invasive and exotic vegetation types is housed within multiple categories and native alternatives are provided. An example was shown in which an invasive plant was queried. Cathy Martin raised the point of a comparison of the database aquatics list with the MAPAIS AIS "Of Interest" List. It was decided it would be looked into further. Jil explained that the database is still in an early and formative stage and more data is required. EDDMapS interfaces with the Invasive Plant Atlas of New England. More comprehensive geographical information was projected for 2010. Don MacLean commented about not reinventing the wheel and suggested Jil contact Pam Fuller of USGS, as she has created a way to query multiple databases. Ann Faulds referred to the mapping capabilities of the USGS NAS database. Cathy stated that beach vitex is now in New Jersey which led to discussion of reporting new invasive species occurrences in EDDMapS. Jil explained the reporting capability as via Google, allowing the user to indicate site or location of an infestation.

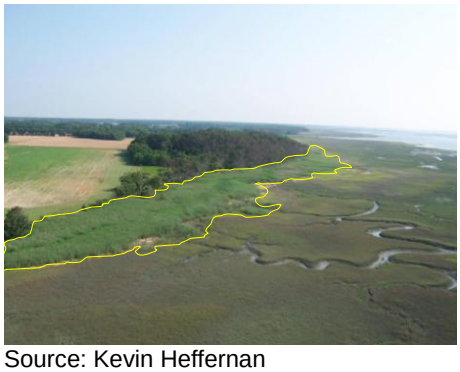
Aquatic Nuisance Species Task Force Update: Jonathan McKnight, Panel Chair

In the fall of 2009, the ANS Taskforce requested "wish list" funding amounts from the six regional panels for a four year period. The panels' funding requests for multiple activities, including funding for full-time staff, were presented at the November 2009 Taskforce meeting, ranging from several thousand to millions of dollars. Copies of this budget needs spreadsheet were provided to the group in attendance. The initial request for the Mid-Atlantic Panel equated to travel support for our coordinator because we did not have the opportunity at the spring 2009 meeting to discuss Panel needs prior to the Taskforce meeting. Don

MacLean spoke of a typical annual budget for the Service's AIS programs being less than 1.1 million dollars to be divided up among all the states. Most of the dollars are not spent on control, but rather coordination. The Directorate is planning a full assessment of AIS programs. There is the ongoing challenge of competing priorities. An increase of two million dollars is projected for the Taskforce in 2010 as a separate component of the budget. If given more funds, MAPAIS would in turn fund more projects at increased dollar amounts and fund the Panel coordinator as an FTE.

Phragmites Aerial Survey and Mapping in Virginia: Kevin Heffernan, VA DCR, Division of Natural Heritage

This project was funded by MAPAIS in 2008. The northern neck reach of the Chesapeake Bay shoreline is one of VA DCR's highest conservation priorities in VA. The presence of phragmites is of great concern as it poses a threat to beach habitats supporting populations of federally listed (threatened) northeastern tiger beetle. The purpose of this project was to obtain accurate representations of Phragmites distribution within the Northern Neck and Middle Peninsula regions extending from the Potomac River to New Point Comfort and 2) produce maps for all documented phragmites locations on the shoreline. Aerial surveys were conducted via the Robinson R44 helicopter in conjunction with the Trimble Geo 3 Explorer and an array of supportive equipment. Large patches of phragmites (>1/8 acre) were mapped as polygons and small patches (<1/8 acre) as points for estimation of the extent of cover in a particular area. Results of the survey indicate a significantly greater number of acres infested with phragmites in the Middle Peninsula (1153) compared to the Northern Neck (556). However, the number of patches or density of phragmites per acre within Northern Neck region exceeded that of the Middle Peninsula. There was virtually no phragmites presence in the Piankatank River watershed and upper stretches because of the more pristine environment. This area is less disturbed with very little residential development. It is mainly agricultural. The prevalence of phragmites is high in developed and populated areas, including Sandbridge Beach and North Bay. An ultimate goal of VA DCR is to create an atlas of phragmites distribution. Treatment requires hovering above the phragmites stands at less than 20 feet. The Northern Neck is inundated with black rail. Large numbers were flushed out of the native type and muskrat seem to like both native and non-native types.



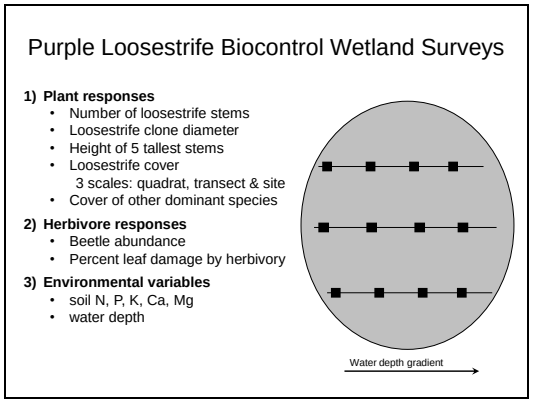
Source: Kevin Heffernan

Lunch Break

MAPAIS Funded Project Update: Lisa Moss, Panel Coordinator/ Fish & Wildlife Service & Sarah Whitney, PA Sea Grant

(2007) Biological Control & Nutrient Enrichment : Investigating the Effectiveness of Purple Loosestrife Control using *Galerucella calmariensis*: Walter P. Carson, Steve Hovick and Chris Peterson, University of Pittsburgh & University of Georgia -

As project background, Lisa presented the location on map slide of 46 wetlands in Ohio, Pennsylvania, and New York surveyed in the summer of 2008. The biocontrol release history (number of beetles released, date of release, etc.) is known for all 46 sites. There were 12 quadrants per wetland. The following slide provided by Walter Carson represents a brief overview of data collected at every quadrant.

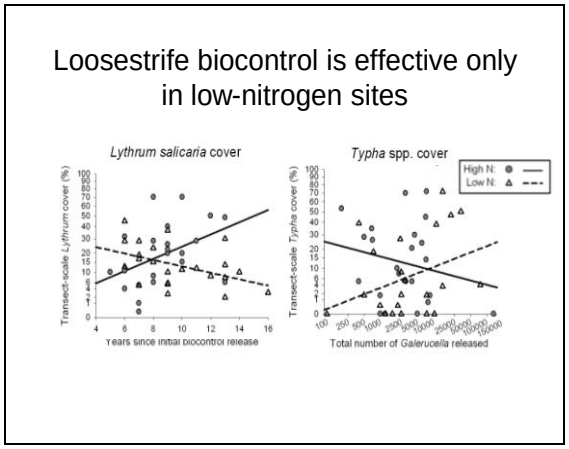


Summary of study results and conclusion was presented to the group and copies of the following update from Walter P. Carson were provided:
Purple loosestrife (*Lythrum salicaria*) abundance (percent cover, estimated at three spatial scales) was unrelated to biocontrol release histories and to site-specific environmental conditions in 46 wetlands with past releases of the loosestrife biocontrol agent *Galerucella calmariensis*. However, these two factors interacted such that both loosestrife abundance and plant size decreased with increasing biocontrol efforts (years since beetles were released) *in low-nitrogen sites only*. Moreover, increasing biocontrol efforts in low-nitrogen sites also led to increasing abundance of the native broad-leaved cattail (*Typha latifolia*). Damage by *G. calmariensis* was higher in sites with greater biocontrol efforts, but the fact that increasing damage did not lead to loosestrife suppression in high-nitrogen sites suggests that in those conditions loosestrife is highly tolerant of insect herbivore damage.

Overall, our data suggest that increasing biocontrol efforts will improve success rates, but only in sites that are relatively low in nitrogen. This study has important implications for present and future biocontrol programs, both in the implementation and monitoring phases. Further, since nutrient enrichment is

often tied to human activities our findings emphasize that local biocontrol success may be contingent on the degree to which humans impact the surrounding landscape.

The pair of graphs also provided shows plant abundance averaged across three 2-m wide transects per wetland. Although nitrogen is shown here as a categorical variable (high versus low), this is only done to facilitate interpretation of the figures. The analyses were conducted using soil nitrogen as a continuous variable. Note that both y-axes and the *Typha* x-axis are scaled according to how those variables were transformed. Thus these graphs show transformed data (as it was analyzed).



(2008)Tracking Invasive Species in Pennyslvania: *i*MAPInvasives: Jeffrey Wagner, Western Pennsylvania Conservancy -

As background, Lisa presented project objectives which involved development of a comprehensive dataset to track AIS in PA through collaboration with *i*MAPInvasives consortium. Utility and application goals for the dataset include an on-line GIS based map display and query tool with a common structure that enables sharing by different users and agencies participating in project. Copies of the following progress report for March to November 2009 submitted by Mary Walsh were provided to the group:

Data inventory

Species priorities for data gathering were developed. Available data for aquatic invasive plants and animals were reviewed. A number of requests were made to museums, state agencies, federal agencies, universities and to Pennsylvania Invasive Species Council. We found that invasive species data are not well organized or centralized at Pennsylvania state natural resource agencies and are continuing to gather data.

Database development

The format of database tables from *i*MAPInvasives was expanded for Pennsylvania data. Initial data were entered into the tables, including 208 records

from the PA Natural Heritage Program at Western Pennsylvania Conservancy and from the Zebra and Quagga Mussel Monitoring Program. Additional data formatting is ongoing and we anticipate entering at least 1,000 more records.

Partnerships

Project staff participates in conference calls with others around the country working on the *i*MAPInvasives database. A meeting with PA Fish and Boat Commission established a relationship for future work on AIS and collaboration on the *i*MAPInvasives database for Pennsylvania.

(2008) Rusty Crayfish Ban & Public Outreach Campaign: Sarah Widman & Kerrie Kyde, Maryland DNR Invasive Species Matrix Team -

As background, Lisa presented factors leading to the ban on rusty crayfish. Rusty crayfish discovered in upper Monocacy River and Conowingo Lake in 2007. Catch, use, and possession was banned for all crayfish species in 2008 with the purpose of rusty crayfish containment and prevention of further species transfer. Originally 200 signs were produced and posted at all public access points. In the fall of 2009 the ban was conditionally lifted; headless crayfish allowed and signs replaced with those reflecting change. Map was presented indicating watershed areas where rusty crayfish have been found. Signs informing the public of special regulations to be enforced were placed in the Upper and Middle Potomac River and Lower Susquehanna River watersheds. Copies of the following update submitted by Sarah Widman were provided to the group with a map of rusty crayfish distribution:

We printed and disbursed approximately 100-150 plastic crayfish posters in areas where the rusty crayfish has been located. We received approximately 10 calls over the course of the next six months based on individuals seeing these posters and wanting to know more about the issue. Most of the posters were intact when we went out to check this spring and summer. This fall we passed new rules and replaced these signs. We had been completely banning catch and use as bait of crayfish in certain areas and now we allow the catch and use as bait so long as the head is removed. We will evaluate this new rule over the next year and determine if we need to return to the old rule or not. The original signs will be stored for the time being with the intent that they may be used again in the future depending upon management decisions.

(2009) Estimating the risk of fish invaders in the Mid-Atlantic region: Paul Angermeier, Ph.D., Department of Fisheries & Wildlife Sciences, Virginia Tech

Copies of the following update submitted by Nick LaPointe were provided to the group:

We've been making excellent progress collecting the data required for our project. We are currently wrapping up a survey of fisheries biologists on the abundance and impacts of non-indigenous fishes in Mid-Atlantic drainages. Participation rates in the survey are high so far, and the data we are collecting will be used both for a project evaluating methods for describing impact, and for

our risk assessments. We have also succeeded in collecting ecosystem characteristic data for nine variables for each drainage which will be used to identify drivers of ecosystem invasibility. We are continuing to collect data on the remaining characteristics, including dam data and surrogates of propagule pressure such as the number of bait shops.[1] We have added 26 species to FishTraits (Frimpong and Angermeier 2009), which will be used in either the creation or running of risk assessment models. We expect to complete data collection and begin analysis by December 2009, and will have written results by April 2010.

(2007) AIS Prevention Signs for Pennsylvania Waters: Sarah Whitney, PA Sea Grant

Sarah presented the sign with the SAH! logo to the group. Copies of the following three updates provided by Sarah in advance of the meeting were provided to the group:

Pennsylvania Sea Grant coordinated with the Department of Conservation and Natural Resources, Department of Environmental Protection, Fish and Boat Commission, and other interested parties to draft language and design a layout for a sign to be installed at public boat launches in Pennsylvania. The design has gone through several versions and is in the final revision process. The language and graphics are based on the Stop Aquatic Hitchhikers campaign. As an added benefit to the project, FBC has agreed to use the language and graphics developed from this project in future FBC boater license materials and in their outreach materials for boaters.

(2007) Conducting an Aquatic Invasive Species Early Response Exercise in Pennsylvania

On October 28-29, 2009 Pennsylvania Sea Grant hosted the workshop: "Conducting an Aquatic Invasive Species Early Response Exercise in Pennsylvania: A Workshop for evaluating the effectiveness of Pennsylvania's DRAFT Rapid Response Plan". The workshop took place in Bellefonte, Pennsylvania at the Pennsylvania Fish and Boat Commission Stackhouse facility. 23 participants, including state agencies, non-profit organizations, resource managers, private entities, and others participated in a mock early response exercise for rusty crayfish, a specific aquatic invasive species with potential impacts in Pennsylvania. This exercise gave participants the opportunity to walk through the steps outlined in the DRAFT rapid response plan, and opened up a dialogue among various stakeholders to identify gaps that may prevent a timely response in areas such as policy, staffing, coordination, and communication.

[1] As for surrogates- because there's no actual information on the number of baitfish or pets released, we can't really figure out whether the establishment patterns of species released by these vectors are driven by propagule pressure or ecosystem characteristics. The number of bait shops or bait regulations in a drainage might be the next best thing.

(2009) Aquatic Invasive Species Field Guide for Pennsylvania
Pennsylvania Sea Grant received funding from the Mid-Atlantic Panel on Aquatic Nuisance species to develop a Pennsylvania specific AIS field guide to be utilized by regional biologists and water conservation officers. Sea Grant has partnered with students at Penn State Erie, the Behrend College's creative writing class to begin developing species profiles for the guide. The guide will include over 60 AIS species from all taxa, and will be small, durable, water-proof, and convenient for use in the field.

European Water Chestnut (trapa natans) at Delmont Lake on the Unami Creek, tributary to the Perkiomen Creek, Montgomery County, PA: Crystal Gilchrist, Perkiomen Watershed Conservancy

This was a separate Power Point presentation provided by Crystal prior to the meeting. It consisted of photos showing the density and coverage of the water chestnut on Lake Delmont in the summer of 2009. Photos also highlighted the valuable importance of volunteers as the initial efforts were very labor intensive. Initial inspection in late 2008 and early 2009 indicated about 1/3 of the 13 acre lake was covered, but by the time PWC and volunteers were back on site in the spring, coverage had increased to over half. Actual pulling of water chestnut occurred over 12 days in July and early August by nearly 50 volunteers. Pulling needs to happen after May to ensure entire plant is removed and before seed maturity in mid August. Several different techniques were tested with the most effective being flat bottomed boats tied to canoes with two individuals paddling and pulling plants until boat in tow was full. Boatload was then dumped at a composting corral. Water chestnut appeared to break down and compost very quickly. Early season herbicide application, continued volunteer hand pulling efforts, additional downstream surveys to track infestation, and outreach to property owners along the Unami Creek are activities being planned for 2010.

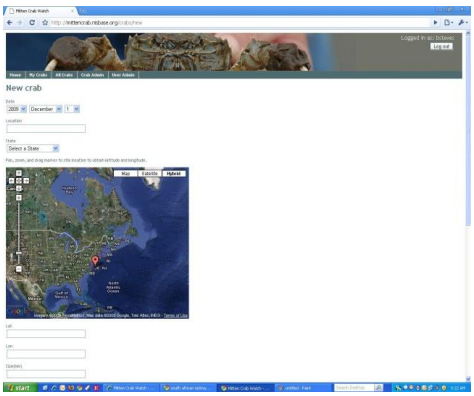
Members Forum

Triploid grass carp: Steve Minkkinen, U.S. Fish & Wildlife Service -
An independent national review is being proposed for the regulation, production, triploid certification, shipping, and stocking of grass carp. Steve is representing the Mid-Atlantic Panel on the committee tasked with coordinating the review effort under the leadership of the Mississippi River Basin Panel (MRBP). The purpose is to ensure that all parties involved with grass carp are enforcing necessary actions and taking precautions to prevent diploid grass carp introductions and those of triploid grass carp where it is prohibited. The basis for this review lies with the Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States. Included among a host of recommendations is prohibited stocking of diploid grass carp and triploid fish only in areas where grass carp are occurring naturally in the wild, an evaluation of the FWS National Triploid Grass Carp Inspection and Certification Program, and a review of Standard Operating Procedures and Best Management Practices at

aquaculture facilities. The Plan states several recommendations to prevent the improper release and escape of domestic shipments of live Asian carps. The MRBP in partnership with the U.S. FWS, ANSTF, and Private Grass Carp Producers plans to request proposals for an in-depth analysis of SOPs and BMPs, inspection programs, regulations, pathways of undesired diploid grass carp introductions into the triploid supply chain, and a host of others. Steve provided the draft RFP document to the Panel group in attendance.

Chinese Mitten Crab Update: Carin Ferrante, Smithsonian Environmental Research Center –

The Chinese Mitten Crab Task Force was established in June 2006 after the second mitten crab discovery in the Chesapeake Bay. It is comprised of SERC, MD DNR, NOAA, and FWS and has expanded to include multiple states and organizations along the entire east coast. Its purpose is to foster coordination of reporting, response, and information surrounding new mitten crab sightings and to facilitate monitoring of the existing population(s). Field surveys from 2007-2009, were conducted in state and area park and marinas in the Patapsco, Back, Middle and Gunpowder Rivers, as well as the Bay. Walking surveys in freshwater streams emptying to the larger rivers focused on small dams, barriers, and culverts looking for burrows and small crabs. Eighty-four crabs were discovered in 2009 with the majority being located in NY and NJ. Fifty-six of those were inadvertently found near Albany, while fyke netting for eels. Hundreds of molts were observed. A total of 124 crabs across four states-DE, MD, NJ, and NY are on record to date. Both sexes and a range of sizes (carapace width) have been recorded in all four states, but juveniles so far have been observed only in NY. Genetic analysis at this time is indicative of European strain. Demonstration of the Chinese mitten crab online reporting and monitoring database as housed within NEMESIS-National Exotic Marine and Estuarine Species Information System (http://mittencrab.nisbase.org/). The Information Page provides task force downloads such as a regional distribution map and alert flier. Also, news stories and features can be accessed. There is a new crab reporting page in which discovery date, state, location, lat & long, and crab size are inputted. An online crab log or listing is kept for a user that additionally maintains images and additional details such as collection method, gender, etc.



Source: Carin Ferrante

State Membership Updates -

Cathy Martin, Delaware Department of Natural Resources & Environmental Control-Division of Fish and Wildlife:
Seeking funding opportunities for Fish and Wildlife Division to remove invasive plants and replant with native vegetation. Gave awards to invasive species folks in management, education, other.

Rob Nichols, North Carolina Wildlife Resources Commission:
An invasive species management plan is being considered for development. Barbara Doll with NC Sea Grant has experience with zebra mussels and is working with eastern and western NC. There is currently cooperation with Rob Emens to coordinate within NCWRC to develop a management plan. Rob would like a better sense of what the Panel does. NCWRC works with freshwater fisheries and invasive issues -not marine.

Ashley Walter, PA Department of Agriculture-Bureau of Plant Industry:
Working on a general invasvies species plan and it is on the desk of the PA governor. The agriculture department is the lead on revamping the invasive species website for the terrestrial side and is looking to incorporate reporting into this website. There will be a three tiered approach implemented in which response actions taken will based on the level of threat or concern a species poses. The PA Fish and Boat Commission is working on biosecurity issues. There is concern about the new interest in natural gas reserves in PA and that the equipment to do test drilling for this might become contaminated with golden algae. PA River Basin Commission may require disinfection of equipment for all drilling crews that come to PA and want to move around in the Ohio River watersheds within state boundaries.

Don MacLean, U.S. Fish & Wildlife Service- Branch of Aquatic Invasive Species/ ANSTF:
Handed out a current effort titled Categorization of Pathways and Sub-Pathways (A continual 'Drill Down' of Pathways to the Lowest Levels). Don created the series of diagrams with some input from the National Invasive Species Council working group as an exercise to identify as many invasive species pathways as possible for eventual development of a tool to prioritize among pathways. There is the breakdown of pathways-transportation related, living industry, and miscellaneous with a listing of subcategories that are further broken down by nature/type. It represents a comprehensive step towards use as a valuable tool for identifying possible points of intervention and concentrated screening. The diagrams were derived from a larger report prepared by the NISC Prevention Committee Pathways Team (now inactive) and ANSTF. The document is available here.

Jonathan McKnight, Maryland Department of Natural Resources:

Planning on another rapid response zebra mussel meeting to prepare for what the state will do when zebra mussels are found. So far, they have been identifying appropriate chemical treatments for zebra mussel and have been posting signs for establishing quarantine areas for the zebra mussels. Addressed the MAPAIS species “of concern” list expressing the need to update this with didymo and other species. Would like to accomplish updating through email discussion and keep a strong consensus about what should be on or off the list.

Panel Business

Due to a previously scheduled time for a tour of the Port Covington Maritime Center, it was decided the Panel Chair would provide meeting highlights and action items to the Panel group in attendance via email and follow-up with the Panel Coordinator to arrange for spring 2010 meeting dates.

Adjourn & Departure of Registered Participants for PCMC