



**Mid-Atlantic Panel Meeting Minutes – 9/13/06 to 9/14/06**  
**United States Fish and Wildlife Service – Chesapeake Bay Field Office, Annapolis, Maryland**

**In attendance:**

<b>Name</b>	<b>Affiliation</b>	<b>E-mail</b>
Julie Slacum	US Fish and Wildlife	<a href="mailto:Julie_thompson@fws.gov">Julie_thompson@fws.gov</a>
Sarah Whitney	PA Sea Grant	<a href="mailto:swhitney@psu.edu">swhitney@psu.edu</a>
Steve Minkinen	US FWS	<a href="mailto:steve_minkinen@fws.gov">steve_minkinen@fws.gov</a>
Tim Sinnott	NY DEC	<a href="mailto:txsinnot@gw.dec.state.ny.us">txsinnot@gw.dec.state.ny.us</a>
Robert Coxe	DE NHP	<a href="mailto:Robert.coxe@state.de.us">Robert.coxe@state.de.us</a>
Fred Kern	NOAA – NOS	<a href="mailto:Fred.kern@noaa.gov">Fred.kern@noaa.gov</a>
Jonathon McKnight	MD DNR	<a href="mailto:jmcknight@dnr.state.md.us">jmcknight@dnr.state.md.us</a>
Ray Fernald	VA DGIF	<a href="mailto:Ray.ferald@dgif.virginia.gov">Ray.ferald@dgif.virginia.gov</a>
Jennifer Greiner	USFWS/CBPO	<a href="mailto:Greiner.jennifer@epa.gov">Greiner.jennifer@epa.gov</a>
Brent McCloskey	CRC / CBPO	<a href="mailto:mccloskey.brent@epa.gov">mccloskey.brent@epa.gov</a>
Fredrika Moser	MD Sea Grant	<a href="mailto:moser@mdsg.umd.edu">moser@mdsg.umd.edu</a>
Ann Faulds	PA Sea Grant	<a href="mailto:afaulds@psu.edu">afaulds@psu.edu</a>
John Wright	USACE	<a href="mailto:John.s.wright@usace.army.mil">John.s.wright@usace.army.mil</a>
Matt Denning	US Coast Guard	<a href="mailto:Matthew.j.denning@uscg.gov">Matthew.j.denning@uscg.gov</a>
Keith Donohue	US Coast Guard	<a href="mailto:Keith.m.donohue@uscg.mil">Keith.m.donohue@uscg.mil</a>
Cathy Martin	DE Fish and Wildlife	<a href="mailto:Catherine.martin@state.de.us">Catherine.martin@state.de.us</a>
Louise Wootton	Georgian Court University, NJ	<a href="mailto:woottonL@georgian.edu">woottonL@georgian.edu</a>
Paul Fofonoff	SERC	<a href="mailto:fofonoffp@si.edu">fofonoffp@si.edu</a>
Jil M. Swearingen	NPS-NCR	<a href="mailto:Jil_swearingen@nps.gov">Jil_swearingen@nps.gov</a>
Bob Tichenor	MD Invasive Species Council	<a href="mailto:tichenrb@mda.state.md.us">tichenrb@mda.state.md.us</a>
Whitman Miller	SERC	<a href="mailto:millerw@si.edu">millerw@si.edu</a>
John Christmas	George Mason University	<a href="mailto:jchristm@gmu.edu">jchristm@gmu.edu</a>
Dave Heicher	SRBC	<a href="mailto:dheicher@srbc.net">dheicher@srbc.net</a>
Dieter Busch	EIAS	<a href="mailto:Dieter.Busch@EIAdvisoryservices.com">Dieter.Busch@EIAdvisoryservices.com</a>
Roger Mann	VIMS	<a href="mailto:rmann@vims.edu">rmann@vims.edu</a>
J. Kennett	US Coast Guard	

**DAY I – Wednesday, September 13<sup>th</sup>**

**\*\*ACTION ITEMS – LISTED ON LAST PAGE\*\***

**I. Welcome and Introductions** – Fredrika Moser, Panel Chair, opened the meeting at 9:10 am followed by a round of introductions.

**II. Review and Approve Agenda and Adoption of April 2006 Minutes** – The September 2006 meeting agenda and the April 2006 meeting minutes were approved “as is” with no edits made to either document.

**III. Spotlight on Species – Eradication of zebra mussel from Millbrook Quarry - Ray Fernald, Virginia Department of Game and Inland Fisheries (VDGIF)** – Ray gave an in-depth account of VDGIF's involvement, among other agencies, in the eradication of zebra mussels from a quarry in northern Virginia. The 12 acre, 95 foot deep quarry in Prince William County was the result of excavations for road construction materials throughout the 1920s. The quarry eventually filled with water and has become a well-known diving hangout because of its inviting depths (and though a stream runs adjacent to the quarry, the quarry is completely closed and has no in-flow or out-flows of water). The water in the quarry is also remarkably clear and presents divers the opportunity to have better sight in the water at greater depths.

On Labor Day weekend in 2002, Fernald received a phone call from a USGS employee that had been diving in the quarry. The diver stated that he thought there were zebra mussels in the quarry. VDGIF confirmed the observation with a follow-up visit. DVGIF quickly established a workgroup that consisted of many state and federal agencies (VA DEQ, Department Of Mines, Minerals and Energy, Department of Health, MD DNR, USFWS, and state/county level officials). The group had their first meeting on October 18, 2002. The group was formed to discuss eradication and control options. A second meeting was held on November 22, 2002 to specifically discuss 7 eradication options. An attempt to assess the site to determine feasibility of control options was put on hold because the state was unable to gain access to the privately owned quarry. In response to the property access issue, Virginia introduced the HB 2752 Nonindigenous Aquatic Nuisance Species Act which gives VADGIF authority to access private property to control nonindigenous aquatic nuisance species. Field work was conducted from April 21-23, 2003. The group reconvened in July 2003 to talk about the results of the field work. The field work resulted in detailed information on quarry surface, bathymetry, and determination of quarry volume as well as visual assessment of quarry walls, fractures, and fissures, and to confirm the distribution of zebra mussels throughout the quarry. The amount of mussels found was large but not as large as what some predicted, possibly due to a lack of nutrient input into the quarry. At the July meeting, the workgroup outlined a plan-of-action but had no money to carry out the plan. The group cancelled emergency procurement in October 2003 and started to try to find funding sources to help fund the eradication effort. Funding from multiple sources was secured in November 2004. Approximately \$400,000 in funds were acquired through the USFWS Landowner Incentive Program and USDA's WHIP Program. The group needed another \$400,000, which they obtained from the Fairfax County Water Authority. Because of NEPA and FIFRA rules, the group had to have a work contract before an EA could be completed. Throughout the next year a contract was awarded and an EA was completed. In December 2005/ January 2006 the project was approved.

On January 27, 2006 the eradication process began at Millbrook Quarry. Approximately 174,000 gallons of 12% Potassium Chloride was distributed throughout the quarry over 31 days by a Canadian based firm. Eradication was confirmed through bioassays, collection of a sub-sample of mussels, a post treatment survey by divers, and video documentation by a ROV. Biological monitoring of the quarry will continue for the next two years.

**IV. Invasive Asiatic Sand Sedge (*Carex kobomugi*): New Jersey – Louise Wootton, Georgian Court University**

Dr. Wootton gave a presentation on her research involving the Asiatic Sand Sedge (*Carex kobomugi*) that is invading several parts of New Jersey and other areas of the Mid-Atlantic Coast. The plant is much shorter than a native beach grass and is very low to the ground. The plant has long and deep rhizomes and spreads easily. There can be up to 650 plants per square meter. From the 1960s to the 1980s it was planted as a dune stabilizer. The native form of the plant can be found throughout Japan, North/South Korea and China. It was first found at Sandy Hook, NJ in 1927 and has been spreading ever since. It is an active dune builder and stabilizer.

Wootton's research focuses on two areas in New Jersey (Sandy Hook and Island Beach State Park). Sandy Hook beach was surveyed in 2001 and was found to have a 450% increase in *Carex kobomugi* individuals since 1985 and a 20-fold increase in the number of beds; Island Beach State Park was also surveyed in 2001 and was found to have a 300% increase in *Carex* individuals since 1985, but only a 3-fold increase in the number of beds. This invasive plant affects native grasses by overcrowding and rapid expansion. There is also an impact on endangered species in the area, such as the Seabeach amaranth, Piping plover, and the Tiger beetle. Since *Carex* can overtake an area there is reason for concern regarding the impacts on higher trophic levels, such as changes in native plant abundances that may ultimately affect animals that depend on native plants for food and habitat. There is also concern that *Carex* may change a beach profile by making the dunes lower because the plant species is smaller and cannot catch as much sand as larger native plants resulting in speculation that dunes invaded by *Carex* may become lower and thus reduce the buffer for storm surge.

Wootton's research also focuses on management strategies for control of the species and confirmation of the invader in surrounding states. For example, Massachusetts' population seems to have died out – maybe due to habitat loss. In Rhode Island there are several known populations but no management control in place. Delaware has aggressive monitoring and removal of new populations which has resulted in few if any established beds in the state. Maryland has several known populations that are managed in Assateague and Chincoteague to protect seabeach amaranth but unfortunately the species is not monitored elsewhere in the state. Virginia and North Carolina also have known populations but have no management or monitoring in place. As for New Jersey, they have several known populations and management efforts have been put into effect. Wootton's research is testing to see which methods work the best. State park employees at Island Beach created a program that lasted from 1999 to 2004 that targeted populations with the application of the herbicide, Roundup®. Alternative management strategies that Wootton's group is focusing on are: burial, tarpaulin, and removal. Results from the studies indicate that the burial method seems to be most effective for control. Wootton's future research directions include: long term dune profiles in *Carex* versus native *Ammophila*; analysis of impacts at higher trophic levels; comparative micro- and macro-morphological analysis; chromosome analysis; and genetic analysis. There is also a new threat to the dune community, *Carex macrocephala*. The plant is similar to *kobumugi*. It has a relatively sparse growth pattern and has no detectable effect on native species abundances or diversity. However, both species are wind pollinated and could potentially hybridize.

## **V. State Updates**

**Maryland (Jonathon McKnight, Maryland Department of Natural Resources (MDNR))** – Smithsonian Environmental Research Center (SERC) has just submitted a paper regarding the recent discovery of two mitten crabs in the Patapsco River. The discovery of two adult crabs were confirmed by MDNR and SERC and there have been other unconfirmed reports from watermen. SERC and MDNR will survey for the crab this Fall by trawling and will use specially made traps from China to capture juvenile and adult mitten crabs. The crab is catadromous so it is likely that the crab will travel into Virginia waters to spawn. Juveniles migrate upstream into freshwater. The crabs can clog utility intake pipes and can burrow holes in stream banks. Possible sources of introduction include ballast, or live import for the Asian food market. This species is regulated under the Federal Lacey Act, which prohibits interstate transport, import, and export. Maryland's Invasive Species Council was able to consult with the pet industry (in which they have a great partnership established) to make them aware of possible new regulations on invasive species by MDNR. MDNR will regulate the release and transportation of 19 species. McKnight stated that Maryland is still working on implementing management actions contained in the six Chesapeake Bay Program regional management plans. MDNR has been working with Maryland Department of Agriculture on a National Fish and Wildlife Foundation project in which they are using *Galerucela* as a biocontrol agent to control the spread of purple loosestrife. Maryland has also just received \$1 million from U.S. Fish and Wildlife for Landowner Incentive Program, about half of which is being spent on invasive species management. U.S. Department of Agriculture's Wildlife and Habitat Incentive Program is being used to control phragmites on private lands.

- Delaware (Cathy Martin, DE Fish and Wildlife)** – Cathy stated that the Landowner Incentive Program that helps control invasives is still active and includes cost-share activities. Two invasive species are being targeted in DE that are currently interfering with bog turtle habitat. In 2006, approximately 10,000 acres of phragmites was sprayed – the cost share for spraying is approximately 88% for both the state and Natural Resources Conservation Service (NRCS) and the cost to the landowner is about \$4/acre. On October 11<sup>th</sup>, there will be a Delaware Invasive Species Council meeting in Georgetown, Delaware. Delaware has developed an invasive species tracking system through their Heritage program. They have been working with USGS but Olan Allen is leaving so they are uncertain what will happen with the tracking program. They were hoping to develop a regional system. Currently the system is hosted on the USGS server and is using ARC IMS as the server platform; a sister database is being developed for the Park Service and most likely includes the tracking of invasive plants in Park Service areas.
- Pennsylvania (Ann Faulds and Sarah Whitney, PA Sea Grant)** – PA is developing an aquatic invasive species management plan. A subcommittee has been formed for the invasive species management plan and Sarah Whitney of PA Sea Grant is serving as Chair. State agency folks as well as NGOs serve on the committee. The first topic of focus is on aquatic invasives and then terrestrial invasive will be addressed. PA Sea Grant has received a grant from Boats US to develop an information card that would educate boaters on how to wash their boats off and detect invasive species. They have also developed watch cards for zebra mussels, quagga mussels, and northern snakehead. PA Sea Grant has taken over the zebra mussel monitoring plan. There are currently 140 sites that are monitored and they want to expand the number of sites – Coastal Zone Management of PA has given a little money to expand the monitoring program. There is a focus on a quarry in Williamsburg, PA that may have zebra mussels; they continue to have new sightings of mussels in the headwaters of the Susquehanna River. Ann Faulds concluded that PA's purple loosestrife program is not very active and very little funding has been appropriated to the program; plants continue to grow.
- New York (Tim Sinnott, NY DEC)** – In 2004 a state bill was passed that called for an Invasive Species Task Force (ISTF) to make long-term, programmatic recommendations for addressing both aquatic and terrestrial invasive species issues. A copy of the Task Force's final report can be obtained at [www.dec.state.ny.us/website/dfwmr/habitat/istf/istf.html](http://www.dec.state.ny.us/website/dfwmr/habitat/istf/istf.html). In the State Fiscal Year (SFY) 2006-2007 budget, the ISTF was awarded 3.25 million for implementation of the report. Some of the projects that will be funded include creation of Invasive Species Management Areas (analogous to IPC Weed Management Areas), education, research and outreach projects, and funds to support the expansion of the National Aquatic Nuisance Species Clearinghouse. The National Aquatic Nuisance Species Clearinghouse (NANSC) addresses some 30+ freshwater and marine aquatic invasive species of interest to the Great Lakes, Atlantic and Pacific and Gulf Coasts. If the Clearinghouse receives the additional funding from the State of New York, a clearinghouse will be built on top of the existing NANSC infrastructure to address aquatic and terrestrial invasive species of interest to NY, the Northeast and Mid-Atlantic. The new project will be entitled, "New York Invasive Species Clearinghouse" and will try to address the entire range of invasive species. The goal of the Task Force is to obtain an annual funding level of \$10 million and they are hoping to have \$5 million in 2007. The biggest issue they currently face is permanent staffing.

Independent of the Task Force, the 2005-2006 State budget provided \$1 million for an invasive species eradication grant program. This program, which had a 2 to 1 match and was strictly for eradication, awarded 31 grants ranging from \$10,000 - \$100,000. All of the grants approved were for control of invasive plants. Methods of eradication ranged from use of herbicides to hand-pulling. The SFY 2006-2007 State budget included another \$1,000,000 to continue the Invasive Species Eradication Grant program. However, the match requirement was reduced to 1:1 and the minimum grant size was reduced to \$7,500. Information on the grant program can be found at

[www.dec.state.ny.us/website/dfwmr/habitat/erad.html](http://www.dec.state.ny.us/website/dfwmr/habitat/erad.html).

The snakehead issue has been minimal in NY but they did find some in a lake in Queens, NY (appears to be a one time event). NY's Bureau of Fisheries is also looking to develop a "clean list" bait program over the next two years. This is an aggressive management plan to address restrictions on the type of bait that people may use.

- **Virginia (Ray Fernald, VDGIF)** – There was a surplus of about \$10K left over from the eradication project from Millbrook Quarry and they are in the planning stages of developing a poster on zebra mussel that will be distributed to dive shops. VA is also continuing to add species to their list of aquatic invasive species, including some crayfish. They have banned the sale of crayfish for bait since July 1, 2006. On the snakehead front, Virginia is continuing to monitor the species in the Potomac and some of the universities are conducting studies to examine ecological effects. Virginia's Invasive Species Council was tasked to develop a state invasive species plan (under the Warner administration). The plan was recently completed. The current administration is reconvening the group and has given it a new charge but hasn't allocated any funding for the taskforce. There is concern over a predatory gastropod (snail) that was recently discovered in Virginia. Virginia Institute of Marine Science is currently working to sort out the different species and related species of this gastropod along the mid-Atlantic to south Atlantic coast. They should know next Spring what species it is. Members of MAPAIS briefly had a discussion on rapid response issues and how you can cover an area in a short amount of time. Roger Mann, from the Virginia Institute of Marine Science, discussed how they used waterman to effectively harvest and document site locations for the invasive rapa whelk.
- **New Jersey (Louise Wootton, Georgian Court University)** – An invasive species council did form in NJ but only got as far as creating a plan to control invasive species throughout the state. The group seems to have stalled and has little or no independent movement of its own.

#### **VI. Federal Updates**

- **NOAA (Fred Kern, Oxford lab)** – Ballast water demo projects have been funded as well as several invasive species research projects. National Sea Grant received 8 pre-proposals to address MAPAIS regional research priorities as part of the Sea Grant Aquatic Nuisance Species Education and Research grant program; full proposals are due in December. John Wright and Jil Swearingen volunteered to review pre-proposals. There was another RFP that focused on green crab research on the east coast. NOAA Chesapeake Bay Program Office has been administering a multi-year research program for the Asian oyster, *C. ariakensis*, and has funded 46 projects. Results will be used for an Environmental Impact Statement currently being developed to evaluate introduction of this oyster into the Chesapeake Bay. NOAA's Beaufort Lab is studying the lion fish. They believe the species won't survive the winter because of cold water; they are trying to figure out their impact on reefs. NOAA was asked to participate in the Maryland Chinese mitten crab taskgroup but are deferring to the US Fish and Wildlife Service because they are primarily in freshwater. Update: NOAA CBPO has agreed to serve on the Chinese mitten crab taskgroup.
- **Army Corps of Engineers (John Wright)** – John Wright announced that he would also be sitting on the Northeast Regional Panel. The ACOE is spending \$80 million a year on invasive species – they have issues with canals being conduits for invasive species. The Corps has agreed to put together a project management plan to address invasive species and John has agreed to write the policy paper for it. They are focusing on the link between state and Corps activities on invasive species.
- **USFWS (Steve Minkinen)** – USFWS is currently working on a northern snakehead draft management plan and they are hoping to have it published in the federal register sometime in December 2006. Maryland



has taken a pro-active stance on certain non-native aquatic species that were legal to import into the state but now has made some of these species illegal due to their environmental tolerance for a temperate climate. They are proposing to add the Oriental Weatherloach (a fish species) to the MD DNR regulatory list of invasive species.

- **US Coast Guard (Keith Donohue)** – Keith Donohue introduced other USCG representatives (Mr. Matt Denning, Virginia) and (Mr. Kennett, Baltimore District, Ballast Water Division). USCG's main focus is ballast water and hull fouling. They stated that they have a role to play in outreach throughout the different regions. USCG set up a mandatory reporting program for ballast water in the Hudson River, everywhere else was voluntary. A mandatory program for reporting on ballast water was enacted by Congress in 2004. From 2004 to present they have done over 20,000 ballast water searches and have received over 100,000 ballast water reports. A compliance program is in place and they now board ships regularly to search for documents on ballast water and management plans. The ships now hold their ballast water, exchange it, or treat it with alternative methods. Exchanging ballast water is not always the best option because there is still residue ballast water in the tank. The Coast Guard is presently working on ballast water standards. The Coast Guard implemented the "STEP" program that tests experimental treatment technologies aboard ships, but unfortunately no one has yet utilized this program. Hull fouling regulations for cleaning hulls have also been developed. The IMO and the Coast Guard will be attending the Great Lakes Ballast Water Conference in Cleveland, Ohio next month to represent many issues of concern. The U.S. has argued for a more stringent standard than the IMO, but what standards they will end up with will unfold in the regulatory process.
- **National Park Service (Jil Swearingen, NPS)** – \*\*No Update\*\*

#### **VII. Aquatic Nuisance Species Taskforce (ANSTF) Update (Karie Duncan, USFWS )**

ANSTF is currently operating on a 2002-2007 strategic plan and beginning in 2007 a new plan will be drafted that will extend to 2012. The plan's focus will be on measurable goals. The Taskforce is currently drafting a 2005-2006 report to Congress. They are soliciting input from the federal agencies, regional panels, and ex-officio members. The new report will focus on accomplishments instead of funding issues. Future meetings of the Task Force will include less agenda items (presentations, updates, etc.) and instead will include more focused discussions on a selected topic. In the future they would like to extend the length of the national meetings. November's meeting will focus on "rapid response." The Taskforce would like to take one day of the meeting and discuss rapid response in-depth. Karie Duncan also stated that there will be a regional panel heads meeting the day before the ANSTF meeting in Arlington, Virginia. The idea is that the Regional Panels could meet and discuss topics and then report back to the ANSTF. It is ANSTF's hope that the Regional Panels will see themselves as advisors to the Taskforce. The recommendations from Regional Panels are key to setting the federal agency agenda. More state management plans are being developed, the downside is that funding continues to shrink within ANSTF to help assist with state management plan design and implementation. Also, control plans have been developed for the Asian Carp and the New Zealand Mudsail – the plans will be going out for public comment soon.

#### **VIII. MAPAIS Logo and Website Update (Ann Faulds, PA Sea Grant)**

Ann Faulds updated the group on the newly designed MAPAIS website and briefly discussed each section and asked the membership for feedback.. Linkages to the six CBP regional invasive species management plans are being developed (**Action: need to take the word "draft" off of the species management plans**) and species eradication/control "success stories" are also being developed. There will be an on-line success story template for website visitors to fill out if interested. A "breaking news" section will be featured on the splash page of the website. There will be a password protected area on the website for Panel members to access for review of

documents before posting occurs (i.e., draft management plans, breaking news, agency news, etc.). Ann Faulds will continue to finalize the website with approval and review of items through the Panel membership.

**Suggestion:** A person is needed to update the website on a permanent basis.

**Suggestion:** Use a content management system called “contribute” to edit/review content before it is posted on the net. This software costs approximately \$120.

**ACTION** – Julie Slacum and Ann Faulds will work on developing a process for what is put on the web.

**ACTION** – Ann Faulds is in need of breaking news articles to post on the net. Anyone with information, please relay it to her.

**ACTION** – Tom Smith and Roger Mann will send Ann Faulds Virginia’s management plan; Cathy Martin will send Delaware’s state management plan as well.

**ACTION** – Julie Slacum and Ann Faulds will work together to finalize the membership list for posting on the new website.

**ACTION** – All members are to check and make sure that their contact information list on the draft website is correct.

#### **IX. Update on Policy Working Group Survey (Sarah Whitney, PA Sea Grant)**

The purpose of the survey is to gain knowledge of AIS prevention and control activities within each state. The survey would ask questions such as: 1) what are the impacts of AIS in your state? 2) what are the challenges? 3) how do you obtain funding? 4) how do you deal with education and public awareness? 5) what can MAPAIS do to help your state with AIS control efforts? Sarah Whitney requested edits from the membership by the end of the meeting. Sarah Whitney stated that she was concerned that many state representatives won’t reply to the survey and there needs to be some sort of incentive for them to respond. Deiter Busch suggested doing a raffle to get a response. Louise Wooton suggested using an electronic format to make it easier for the state representatives to respond.

**Suggestion:** have an incentive program for the survey so that representatives will complete.

**ACTION** – Jill Swearingen has agreed to be the National Park Service representative to complete the survey

**ACTION** – Julie Slacum will check on whether or not MAPAIS can use Panel funds to reward survey participants.

#### **X. Science and Management Working Group Update on Invasive Species List (Jonathan McKnight, MD DNR)**

The goal of the Science and Management Group is to establish a comprehensive invasive species list for the Mid-Atlantic states. The hope is that this activity will help define us as a region and define us as an organization and allow us to derive other products from the list. From more than 1,642 records with more than 700 species, Jonathan’s McKnight’s team was able to narrow the list to approximately 105 species. The Science and Management Workgroup made edits to the list over a 3 week period through email and were able to narrow it down to the most invasive species to the region. Cuts were made on species that were introduced but not invasive; native invaders such as white perch, alewife, sea lamprey, and blueback herring; controversial species such as the Asian oyster; and species that would be difficult to classify as invasive such as the brown pelican. After some discussion the Panel decided to focus on three questions to focus on regarding the list: 1) what are arguably invasive species versus what do we want to actively manage or have the resources to manage? 2) what modifications can we make to our geographic scope? 3) what is next? (i.e., – do we cut this list of species into identifiable regional polygons that identify where these species are?).

**Suggestion:** make additional cuts to the list so that all members can agree on the list by the end of the meeting on Thursday, September 14<sup>th</sup>.

## **XI. Discussion on Invasive Species Databases and Mapping (Whitman Miller and Paul Fofonoff, SERC)**

Drs. Whitman and Fofonoff from SERC reported on non-indigenous species databases. They focused on four on-line databases that SERC is in different stages of developing: 1) AIRD (Aquatic Invasion Research Directory), 2) NEMESIS (National Exotic Marine and Estuarine Species Information System, 3) NBIC (National Ballast Information Clearinghouse), and 4) NISbase, a distributed database that is a portal site for searching multiple databases and sources (7 total) at one time to increase the robustness of invasive species data searches. Through NISbase, a person can query the database to search on a specific species. The databases can search species through analytical approaches (still in development stage). The database will search through museum species occurrence records, north American fouling surveys, vector operations data, and environmental data – it is then pulled into predictive models of invasion and spread of the invasive. **Potential applicability for MAPAIS-** use existing records for species in Mid-Atlantic; add new occurrence records at finer spatial scales (bays, watersheds within states, etc.); coordinate regional, state and local efforts for early detection and spread for species of concern; use data to help formulate long term control or rapid response strategies to NIS within Mid-Atlantic. For example, the NEMESIS website provides extensive information on a given species including, where it is found, maps, and regions where it has invaded, established, or has been found. The site also lists references and comments associated with species and its invasions. The database has the capacity to map distributions of estuarine/coastal species at marine bioregion, watershed and point scales for US coastal and Great Lakes regions, including the Mid-Atlantic States. It can also query taxonomic, historical, ecological and impact data by category and number. The potential for use of these databases is high. This is only a sample of what type of information these databases can provide.

**Discussion:** Discussion continued on the invasive species list that the Science and Management Working Group is developing. Tim Sinnott mentioned that the Northeast Regional Panel is taking a regional focus on hydrilla prevention and control efforts. The list needs to be categorized to define “clear invaders.” We need to view the list as evolving and not static. Products should have a regional focus. Use the list as a tool, categorize the list, and ensure transparency and explanation of why species were chosen for the list. Products of this list could include maps of geographic range of the species in each state with a focus on species that: 1) all states have an interest in prevention and management activities, 2) red-alert list, 3) represent different vectors, 4) and species that represent different habitats. Paul Fofonoff suggested putting *Caulerpa taxifolia* as a red list species. There was also a suggestion to add the list to Sara Whitney’s survey to get input from the states. It was also suggested that we have a paragraph that states how we got to the short list of species and to provide weblinks for each of those species.

**MOTION:** to accept using the current working draft of the list as long as there are footnotes or a paragraph describing how the list was derived. **(Motion Accepted).**

## **ADJOURN DAY 1 (5:00pm)**

## **DAY 2 – Thursday, September 14<sup>th</sup>**

### **I. Welcome and Tasks to Working Groups (Fredrika Moser, Chair)**

The Working Groups were given discussion topics for breakouts later in the morning. Discussion topics for each group were:

- **Policy** – Discuss survey and tasks for getting the surveys completed.
- **Education and Outreach** – What is next? Products for the web and other materials for distribution.



- **Science and Management** – Species list discussion, products, mapping, what is next?

**Fredrika Moser summarized the focus of the species list discussion from the previous day and referred to the list as “Species of Note”, which include:** 1) species that represent multiple state interests, 2) species to manage, 3) species that represent different vectors, and 4) species that represent different habitats. She requested that the working groups think about priorities with regard to the species list such as mapping, outreach, etc.

## **II. Budget Update (Julie Slacum, Panel Coordinator)**

Carryover of 2004 funds plus 2005 funds = \$32,877

2006 Funds = \$50,000

Total = \$82,877

**Expenditures:** salary for coordinator - \$25,000 and travel for 2006 - \$1,500

**Remaining Funds: \$56,377**

## **III. Working Group Break-out Updates (Science and Management, Education and Outreach, Policy)**

- **Science and Management** - The group worked on looking at the short list. There was discussion of whether or not dune species belonged on the list. At the end of the discussion there was agreement that the work group could keep them on the list. The following species will be added or cut from the list:
  - **Cuts from species list:** 1) Asian Mystery Snail
  - Additions to species list:** 1) New Zealand mudsnail, 2) fishhook water flea, 3) flathead catfish, 4) gracelaria vermicuacila 5) eel swim bladder nematode, 6) Japanese knotweed, 7) mile-a-minute, 8) giant hogweed, 9) microstegum 10) slimy seasquirt, 11) quagga mussel, 12) red algae (need genus species name)

**ACTION:** The Science and Management Working Group will make a coarse map of where the organisms occur (this will be a sub-set of the 45 species)– they will not use point data but instead a coarse spatial distribution. “Species of Note” for the map will be mute swan, northern snakehead, rusty crayfish, purple loosestrife, zebra mussel, codium, and hydrilla. They will bring this project back to the Panel in approximately six months.

**Suggestion:** Invite the Chinese mitten crab Task Group to submit a proposal for reconnaissance of mitten crabs in the Chesapeake Bay and beyond. The membership will then consider whether to fund the project.

**MOTION:** approve the species list “as is” with the condition that it can be changed as needed (motion was seconded by Jil Swearingen and Fred Kern). The list will be posted on the web. Paragraphs will accompany how the list was reduced from 700 to 45 species. **MOTION PASSED – unanimous**

**MOTION:** propose to invite the Chinese mitten crab Task Group to bring forward a proposal for funding or partial funding for mitten crab reconnaissance. The proposal would be reviewed by the whole panel and should be submitted within 30 days of this meeting. (seconded by Steve Mikkinen)

**MOTION PASSED – unanimous**

- **Education and Outreach** –Matt Denning (USGC) stated that it is possible for the Coast Guard to distribute informational material to boaters and watermen regarding MAPAIS and aquatic invasive species. Ann Faulds, Chair, made a request to receive funding (approximately \$3,500) to help lay out a professional poster to use as an education tool at meetings, events, and public awareness activities. In the short term,

Julie Slacum and Brent McCloskey could work on a poster. Ann also updated the Panel on the issue that Executive Committee and staff would be able to make necessary minor changes to the web. All major changes would have to be vetted through the Panel. An announcement would go out to the Panel on any new information that would be posted to the web. The use of a web based conference to educate agency personnel about AIS issues was also discussed.

**ACTION:** Ann Faulds will be the contact person to work with Matt Denning, USGC to explore options for educating waterman and boaters about MAPAIS and AIS. Mitten crab could be the first AIS the working group focuses on.

**ACTION:** Minor editing to the website will go through Brent and Julie. Major changes will be vetted through the entire Panel.

**ACTION:** Julie will write up the intentions on how web material will be posted and send it out to the group.

**MOTION:** request for funding to complete a table display poster(s) for education and outreach. Cap of \$3,500. Check with Jim Bean of BASF if we can utilize their graphic artist.

**MOTION PASSED – unanimous!**

- **Policy Working Group** – The group is moving forward with the survey. The group discussed how they could motivate the states to fill out the survey. State representative contact information will need to be researched to make sure the best suited person to answer invasive species questions will be in charge of filling out the survey. A prize may be awarded to people who complete the survey as an incentive to complete the survey. Discussions began on the development of an action plan, and strategic guidance for the states to help assist them in making good AIS management decisions. The Policy group also discussed the need to educate stakeholders and state legislatures about MAPAIS. They would like to target key groups such as Ducks Unlimited, Trout Unlimited, TNC, etc. The group discussed the issue of rapid response and that there should be an interactive map of all MAPAIS states in which visitors to the website could click on each state and access contact information available. Lastly, the group brought up the idea of an RFP for economic impacts within the area of aquatic invasive species. Economic analysis will help with funding in future years.

#### **IV. Panel Business**

- **Nominations for Membership** – Dieter Busch was nominated by Tim Sinnott to become a member of MAPAIS and this recommendation was seconded by Jonathan McKnight. Dieter's nomination was accepted by the Panel and he will be an "At Large" member.
- **Spring 2007 Meeting** – Date range of April 24–26, 2007. Location will be Philadelphia, PA.
- **Environmental Law Institute (ELI) Update** – ELI's project has been put on hold because of staffing issues. They hope to get the project done by early 2007 but the date is subject to change.

**ADJOURNED (12:30pm)**

## **ACTION ITEMS**

- All members please supply Ann Faulds with any relevant invasive information and/or breaking news for the new website.
- Julie Slacum will keep a list of all outstanding action items and lists of potential projects for funding.
- Tom Smith and Roger Mann will send Ann Faulds Virginia's state management plan; Cathy Martin will send Ann Delaware's state management plan as well.
- Julie Slacum and Ann Faulds will work together to finalize the membership list for posting on the new website.
- All members are to check and make sure that their contact information list on the draft website is correct.
- Jill Swearingen has agreed to be the National Park Service representative to complete the Policy Working Group survey.
- Julie Slacum will check on whether or not MAPAIS can use Panel funds to reward survey participants.
- The Science and Management Working Group will make a coarse map of where organisms occur that are listed on the species list – the list will not include all 45 species. "Species of Note" for the map will be mute swan, snake head, rusty crayfish, purple loosestrife, zebra mussel, codium, and hydrilla. They will bring this project back to the Panel in approximately six months.
- Ann Faulds from the Education and Outreach group will be the contact person to work with Matt Denning, USGC on an education campaign for watermen and boaters.
- Minor editing to the website will go through Brent and Julie. Major changes will be vetted through the entire Panel.
- Julie Slacum will write up procedures for how web material will be reviewed before posting and send it out to the group.
- The list of Maryland's regulated species shall be included on the new MAPAIS website.

