

**Meeting Summary**  
**Aquatic Nuisance Species Task Force Meeting**  
**November 4 & 5, 2003, Arlington, VA**

**November 4, 2003 - Tuesday**

**Welcome, Introductions, and Approval of May, 2003 Meeting Summary** – *Dr. Mamie Parker, Assistant Director, Fisheries and Habitat Conservation, U.S. Fish and Wildlife Service*

Dr. Mamie Parker welcomed the Task Force members and guests to the meeting. Dr. Parker introduced herself as the new Fish and Wildlife Service co-chair of the Task Force. She announced changes to Task Force Membership:

- Brooke Ann Zanetell replaces Karla Heidelberg as the representative for the Department of State.
- LCDR Kathy Moore replaces CDR Scott Newsham as the representative for the U.S. Coast Guard.
- Larry Riley replaces Gary Isbell as the representative for the International Association of Fish and Wildlife Agencies.
- Paul Zajicek replaces Leo Dunn as the representative for the National Association of State Aquaculture Coordinators.
- Leo Dunn now represents the Chesapeake Bay Program.
- Bill Howland replaces Mike Hauser as the representative for the Lake Champlain Basin.
- Norm Stuckey retired and the new MICRA chairman will be asked to replace him.

After the Task Force members introduced themselves, Dr. Parker reviewed the logistics of the meeting, went over the agenda, and briefly discussed how the public comment period works.

The minutes from the May 2003, meeting in New Orleans, Louisiana were reviewed and approved by the Task Force with minor revisions.

**ANSTF Committee Reports**

**Prevention Committee** – *Richard Orr, National Invasive Species Council*

Richard Orr gave an update on the status of the combined Prevention Committee of the ANS Task Force and the National Invasive Species Council. More detailed information on the combination of these two Committees is available in the minutes from the May 2003 meeting.

The ANSTF/NISC Prevention Committee needs nominations for membership for both the Committee and the Working Groups. . Mr. Orr is hoping to have the membership of the working groups determined by the end of November.

Mr. Orr presented the Pathways Task Team's accomplishment report, including the pathways identified by the Team and a draft questionnaire to rank the priority of the identified pathways. Mr. Orr asked that the Task Force review the report and provide him with comments.

**Communication, Education, and Outreach Committee – Joe Starinchak, U.S. Fish and Wildlife Service**

The CEO Committee is currently in the implementation mode on both the Stop Aquatic Hitchhikers! Campaign and a new aquarium consumers public awareness campaign.

With the Stop Aquatic Hitchhikers! Campaign, the CEO Committee has created a social marketing vehicle for the entire conservation community. As part of its ongoing outreach responsibilities, the Committee supports an e-mail news update service about the invasive species issue and how it is playing out around the country. The CEO continues to promote the campaign and the web site to partners, provides outreach to environmental/outdoor writers throughout the country, and continues to generate traffic for the campaign web site. The web site averages approximately 15,000 hits per month.

The Committee is also working in partnership with the IAFWA to implement a Multi-State Grant Project that includes Stop Aquatic Hitchhikers! There are two components to this project. The first is to work with four pilot states to develop communication plans for making this issue important to high priority audiences. The second element will focus on holding four, regional, law enforcement, regulatory and policy coordination workshops to enhance the role of state fish and wildlife agencies and to coordinate with existing efforts.

The Committee continues to promote the Stop Aquatic Hitchhikers! Campaign and to solicit support for all affected agencies and other partners at all levels. Recently, the National Park Service became a formal partner.

The Committee would like to get the full support of the ANS Task Force agencies to promote a consistent message. A Federal Task Force member stated that just because the Task Force helped create and approve this public awareness campaign doesn't mean that all of the Task Force member agencies are fully participating partners. He emphasized that all the Task Force agencies and organizations should work to embrace and endorse the Stop Aquatic Hitchhikers campaign. Mr. Starinchak agreed and stated that he hoped they would all incorporate the educational materials from the Stop Aquatic Hitchhikers! Campaign into their outreach efforts. Several other members then stated that they were already partners or would be becoming partners soon.

Dr. Parker asked Mr. Starinchak to tell the Task Force exactly what they need to do to support the campaign. He responded that any agency can adopt the quality marketing products and take credit for the message and benefits of the website at no cost. Mr. Starinchak will gladly come and give a presentation to a member's leadership to help explain the issue, the campaign, and its benefits.

The Committee is also developing a new campaign focusing on aquarium users – both serious aquarium users and novice aquarium hobbyists. The campaign is a joint effort between the FWS, Pet Industry Joint Advisory Council (PIJAC), several Sea Grant Institutes and State Fish and Wildlife Agencies. The project was awarded a \$300,000 grant from the National Sea Grant competition and the Service also provided \$25,000 towards the project. In addition, the PIJAC

will provide \$1.1 million to the project in direct and in-kind contributions. The campaign will be designed in a manner similar to the Stop Aquatic Hitchhikers! Campaign, however the new campaign will rely on a unique federal-state government/industry partnership to promote a customized prevention message.

Mr. Starinchak then introduced Gwen White from D.J. Case and Associates. The firm is currently working on a project to develop public outreach communication strategies. The project involves developing messages for four pilot states and then assessing those strategies (what worked, what didn't) and the states can then adopt the strategies that work best for their state. A second component of the project is the development of regional workshops on law enforcement and regulatory activities in the four States and how they can better coordinate their efforts between states, regionally and with the Federal government. The workshops are being held in conjunction with the IAFWA regional meetings. D.J. Case and Associates is a contractor that specializes in environmental education. The project is overseen by a steering committee of states involved.

## **ANSTF Working Group Reports**

### **Asian Carp Control and Management Working Group – Greg Conover, U.S. Fish and Wildlife Service**

Asian carp are non-native fish that have invaded our interior rivers and lakes throughout much of the Mississippi River Basin. The term Asian carp refers to four species, bighead, silver, black, and grass carp. These fish are native to large rivers in eastern Asia that occur at the same latitudes as those found in the United States. Asian carp have been imported for use in private aquaculture facilities and universities in the southeastern United States and have also been investigated for potential as a food fish.

Each of these four species exploit a unique niche in the food web and threaten our native aquatic and terrestrial resources that are dependant upon the delicate balance that has evolved within these ecosystems.

- Bighead carp are filter feeders that specialize in the small zooplankton and directly compete with nearly all our native juvenile fish as well as several adult fish, such as gizzard shad (forage base), buffalo (commercially important), and paddlefish (species of concern).
- Silver carp forage on smaller phytoplankton and threaten to disrupt the primary productivity that drives the food webs within these systems. Silver carp had a super-spawn this year. Juveniles look a lot like gizzard shad and may be transported by bait dealers or individual fisherman
- Grass carp forage on aquatic vegetation that provides habitat for fish, invertebrates and other organisms. This species directly disturbs and alters the physical habitat.
- Black carp are molluscivores - they specialize in eating snails and mussels. Approximately 75% of our nation's mussels are already threatened or endangered. This species could extirpate the majority of our native mussels. Black carp are very difficult to distinguish from grass carp, especially when young. The best method to identify the

species is to look at the internal organs. Black carp may already be in the wild but not yet detected.

Grass, bighead, and silver carp have all escaped or been purposely introduced into the wild and have established naturally reproducing populations. . Grass carp have spread into most of the lower 48 states. Bighead and silver carp have been recorded from 20 and 13 states, respectively. Black carp are not believed to have yet established a reproducing population in the Mississippi River. However, 30 individuals escaped from a private aquaculture facility in Missouri during a flood in 1994. A single, triploid black carp (presumed sterile) was collected by a commercial fisherman from a backwater lake of the Mississippi River in southern Illinois in April 2003.

The Introduction of Asian carp present a number of threats & concerns including:

- Rapid expansion – Asian carp have invaded most of Mississippi River basin and threaten to invade other ecosystems (Great Lakes). Spread by bait transfer is also an issue.
- Abundance – Asian carp reproduce quickly, dominate habitats they invade and compete for space and habitat. They may be the most abundant large fish in portions of Mississippi basin.
- Impact biodiversity of native species – 97% of fish in a recent Mississippi River backwater fish kill were Asian carp. In one water body, only four native species were recorded, each represented by only one individual.
- Biomass – the fish grow fast (up to 40% of body weight per day) and large (100+ lbs). They compete with native fishes for food resources.
- Threaten safety of natural resource workers and users – Silver carp have a disturbing tendency to leap from the water (8 – 10 feet into the air) when disturbed and pose a legitimate physical threat to the health and safety of resource users.

To address the Asian carp problem, an Asian carp workshop was held in 2000 in St. Louis, Missouri. After the workshop, the USFWS developed a draft Asian Carp Management and Control Plan. A stakeholder and partner meeting was held in December 2003 which facilitated the development of an Asian Carp Working Group. The final draft of the management plan should be submitted to the ANSTF for approval during FY04.

Mr. Conover went over the Management and Control Plan in detail. The following information is a summary of the plan:

- Goals:
  - Prevent further introduction and movement of Asian carp into uninfested waters and control existing infestations within invaded waters.
  - Reduce Asian carp population levels to a threshold at which they do not have a measurable impact on native fish populations.
  - Eliminate all Asian carp in the Mississippi River basin.
- Objective 1: Pathway analysis, risk assessment, and management
  - Identify potential pathways - by which Asian carp can move across barriers within and between watersheds and factors that could facilitate their movements.
  - Assess risk of further infestation through each identified pathway.
  - Identify management options available to reduce risks associated with each pathway.

- Objective 2: Surveillance/Early Detection
  - Monitor expansion of known populations and the occurrence of newly established populations (using data from stakeholders).
  - Conduct sampling to monitor the expansion of known populations of Asian carp.
  - Conduct “early warning” surveillance sampling in locations likely to harbor newly established populations of Asian carp.
- Objective 3: Biological investigation
  - Continue to gather data on biology and life history characteristics and requirements
  - Develop environmentally sound tools and methods for eliminating or controlling Asian carp populations.
  - Evaluate the impact of Asian carp populations on native fish communities.
  - Develop, implement, and evaluate management tools and control activities.
- Objective 4: Population reduction
  - Develop integrated management programs to reduce or eradicate Asian carp populations.
  - Provide assistance to Federal, State, and tribal governments and public and private organizations in the development of regional management programs.
  - Develop a “Rapid Response” program to manage, reduce, eradicate, and prevent the expansion of newly established populations of Asian carp.
- Objective 5: Education and outreach
  - Develop educational tools and outreach programs to provide to government agencies and public and private organizations to increase awareness of the problems associated with Asian carp and prevent the expansion of Asian carp populations.
- Objective 6: Information access and data management
  - Coordinate collection and dissemination of information/data on the status and expansion of Asian carp populations and current regional, state, and local management activities.
- Objective 7: Coordination and leadership
  - Provide national coordination and leadership to Federal, State, and Tribal governments and non-government organizations in preventing future introductions and spread of Asian carp populations.
  - National framework to coordinate regional management and control efforts and more efficiently accomplish management and control goals.
- Objective 8: Waters of special concern (those without established populations of Asian carp)
  - Provide coordination and assistance to Federal, State, and Tribal governments and non-government organizations in addressing prevention and management issues in waters that are of special concern or are particularly vulnerable to Asian carp invasion and infestation that do not currently support established populations of Asian carp.
  - Examples may include, but are not limited to: The Great Lakes, Connections between ecosystems like the Chicago Ship and Sanitary Canal, and watersheds west of the 100th meridian.

Mr. Conover mentioned the video of the silver carp leaping from the boat that was seen on CBS Video. One can view that video through the internet at the following address:  
<http://www.cbsnews.com/stories/2002/09/26/eveningnews/main523372.shtml>

Potential Control Measures for Asian carp may include the following:

- Physical barriers – Electrical, bubble, sound
- Harvest – Overexploitation
- Pheromone barriers – Cyprinid fishes produce alarm pheromones in skin. Fish avoid areas containing the pheromone.
- Daughterless technology – Manipulate genes to produce only male progeny

A Task Force member asked whether the USFWS permitted or restricted the Asian carp. Sharon Gross replied that at the moment, none of the Asian carp species are federally regulated although they may be regulated by individual states. Another member commented that, at that time, silver and bighead carp were under an open comment period for listing as injurious under the Lacey Act.

Another member noted that silver and bighead carp have been found in lower Mississippi and wondered how tolerant they were to salinity. Mr. Conover answered that not much is known about their tolerance of salinity. Another question was asked whether anyone had done an economic impact or cost-benefit for Asian carp species. None has been done to date. The National Association of State Aquaculture Coordinators stated that they are very interested in being on the Task Force's Asian carp Working Group.

The chair of the Mississippi River Basin Panel (MRBP) stated that the folks that developed the draft management plan had done a great job. He emphasized the severity of the Asian carp issue and the possibility of significant detrimental effects on fish and wildlife. The whole Mississippi flyway is affected and the fish are affecting the whole food chain. He also stated that Minnesota is already involved in the issue and has held a meeting on how to keep the carp out of Minnesota. The MRBP would also like to be on the Asian carp Working Group. Minnesota is currently doing a feasibility study on creating another barrier. Finally the MRBP chair expressed his wish that the Task Force devote as much of their resources as possible to the Asian carp issue.

Another Task Force member asked whether there was a fishery for Asian carp. One member responded that their current market value is approximately ten cents per pound. Another responded that there is a small market in Illinois but that fisherman need to be able to make at least 25 cents per pound. Someone then asked if it was the big fish that were marketable and the answer was no, it is the smaller fish. Another member suggested setting a bounty instead of a commercial fishery. Finally, someone pointed out that there are a large number of trucks that pass through Pennsylvania with carp bound for Boston and that there is a growing market for fish on ice, particularly in Asian markets.

**New Zealand Mud Snail Control and Management Working Group** – *Tina Proctor, U.S. Fish and Wildlife Service*

The NZMS was first discovered in the Snake River and then in Yellowstone and has now spread to other locations. A watch card has been developed because the snail was being found elsewhere (lower Colorado River) and was being misidentified and thus not reported. The NZMS has now shown up below Glen Canyon Dam, in the Green River, in the Owens River in

California, the Colombia River, and several places in Utah. NZMS seem to be showing up in places good for flyfishing, so it could be spread by fishing enthusiasts. It may also be spreading due to biological monitoring activities.

Most of the research, to date, has been in Montana (MT State University) and Idaho. The NZMS is having impacts on native macroinvertebrates, as well as impacts on trout and sculpin. The native fish seem to be experiencing slower growth in infested areas. The first meeting of the New Zealand mudsnail Working Group met in Bozeman, Montana in 2003 with a goal of trying to prevent/delay the spread of the NZMS to new areas. Sub-groups of the working group are drafting different parts of the management plan and they expect to have a draft to submit to the Task Force by their next meeting.

A Task Force member stated that they had heard that the snail had been sighted in the Great Lakes. Someone answered that it supposedly has been found in Lake Superior and maybe New York. Another member inquired that if biologists might be spreading the NZMS, has the Working Group looked into using Hazard Analysis and Critical Control Point (HACCP) planning. Ms. Proctor responded that they were indeed looking at using HACCP. A third member asked whether birds might be transporting the NZMS. There is no data to answer this question. An audience member asked whether there were any parasites or diseases associated with the NZMS that might be used as a biocontrol. A study is currently being funded to look into this.

### **Green Crab Control and Management Working Group – Fred Kern, National Oceanic and Atmospheric Administration**

At the Spring 2003 ANSTF Meeting, the Task Force approved the Green Crab Control and Management Plan. The plan was published in the Federal Register for public comment. One non-Federal group from Anchorage Alaska responded to the Federal Register notice. This group had a concern about ballast water dispersal of the green crab versus planktonic dispersal and suggested the development of an education working group. Two comments were received from Federal agencies, FWS and NOAA. The FWS comment was not substantive. The NOAA comment related to the environmental review process. In response to a comment made at the May 2003 Task Force meeting, the Working Group expanded the scope of the plan to include the East coast, as well as the West coast.

The Working Group requested that the Task Force approve the final Green crab Management Plan so that their focus on implementation of the plan could begin..

Mr. Keeney thanked the Working Group for their effort, and asked what their next steps would be, and asked what the expectations of the Task Force are now. Sharon Gross responded that after the Task Force approves the Plan implementation can officially begin. The Working Group will oversee implementation of the Plan. The Task Force does not guarantee funding to implement the Plan; funding for Plan implementation must be garnered from individual agencies.

One Task Force member asked whether Mr. Kern thought the green crab would be a concern in the Gulf of Mexico region. Mr. Kern responded that he was not sure but that the issue should be

looked into in more detail. More plasticity in invasive species is being seen than expected (Nile tilapia is good example). Perhaps green crabs could put on the Gulf Coast "watch list." Pathways for spread/introduction should also be investigated in more detail, which is something that was not done by the working group. The species may also be a commercial bait species.

The Task Force approved the Green Crab Control and Management Plan.

**Chinese Mitten Crab Control and Management Working Group** – *Susan Ellis, California Department of Fish and Game*

The National Management Plan for the Genus *Eriocheir* was presented to the Task Force at the May, 2003 meeting. The goal of the Management Plan is to prevent or delay the spread of the Chinese Mitten Crab (*Eriocheir* species) to new areas and reduce the negative impacts of existing populations.

Comments from the New Orleans ANSTF meeting and from the public comment period have been incorporated into the plan. Public comments included incorporation of a specific prevention group, expanding the rapid response section, and updating the plan with new information.

The Chinese Mitten Crab Working Group requests the Task Force to approve the Plan. The Working Group also requests that the ANSTF members review the implementation activities within the Plan and look within their budgets to fund priorities and needs.

The implementation outline for the National Management Plan includes three five-year phases. Examples of phase one priorities include the following:

- Prevent Transport & Spread
  - Coastal ballast transport risk
  - Increase enforcement capabilities (smuggling conviction)
  - Support development of regulations for high risk states
- Early Detection
  - Raise awareness and establish early detection networks (West and East Coast states)
- Rapid Response
  - Develop RRP's in high risk areas (Chesapeake, Coastal states)
- Research & Development of Mgmt Options
  - Need more research on recruitment dynamics and environmental tolerances
  - Review permitting issues for control strategies
- Outreach & Education
  - Distribute materials to support detection efforts
  - Identify partnerships for prevention and early detection in new areas

Priorities currently being addressed include the following:

- Prevention
  - Columbia River program
  - WA, OR, CA Coastal Ballast Transport



- Early Detection/Rapid Response
  - Columbia River network & Rapid Response plan development
  - Columbia River has an early detection network for mitten crabs that could be adopted for the east coast as well.
- Monitoring
  - Sacramento/San Joaquin Delta (ongoing)
  - South San Francisco Bay (ended this summer with no one to continue)
- Research
  - Mercury, burrowing, life stages, habitat use, lung fluke, juvenile settling, benthic impacts
  - Salmonid egg predation
  - New San Francisco Bay environmental parameters/ recruitment study (Sea Grant & FWS funded)
- Control Strategies
  - Downstream migration “trapping”
- Outreach
  - Crab plastomounts to FWS law enforcement
  - Watch cards, ID signs, Website

A Task Force member pointed out that it may be difficult to get permits for control activities because of endangered species issues. Another Task Force Member asked about the crab’s diet. Its diet consists mainly of invertebrates and small fish. An audience member asked about the crab’s upstream range. The crab has been found quite far upstream in California and a map in the plan shows this range.

The Task Force approved the National Management Plan for the Genus *Eriocheir*. Implementation of the Plan may now begin.

**Proposal for a new Mid-Atlantic Regional Panel – Leo Dunn, Chair, Chesapeake Bay Program Exotic Species Working Group**

The Chesapeake Bay Program (CBP) is a regional partnership that has been directing and conducting the restoration of the Chesapeake Bay since 1983. The CBP partnership includes Maryland, Virginia and Pennsylvania, the District of Columbia, the Chesapeake Bay Commission (a tri-state legislative body), the U.S. Environmental Protection Agency (representing the federal government), and participating advisory groups. CBP’s mission is to defend and restore the Chesapeake ecosystem.

At a workshop in August of 2002, 46 species were identified by the Chesapeake Program Partners (VA, MD, PA, DC, CBC), neighboring states of DE, NY and WVA, USFWS, NPS, and USGS as causing or having the potential to cause significant negative impacts to the Bay’s aquatic ecosystem. Six of these species - mute swan, nutria, zebra mussel, phragmites, purple loosestrife, and water chestnut – have been recognized as posing the greatest threat to the Chesapeake Bay and its resources. For these six species, management plans are being developed and should be complete by the end of 2003.

To facilitate the management of invasive species, the CBP proposes the formation of a Mid-Atlantic Regional Panel (MARP) of the Aquatic Nuisance Species Task Force with the CBP acting as host organization.

The Chesapeake Bay Program feels it is an ideal choice to host the Regional Panel due to its past experience with and commitment to nuisance species management. The CBP's Invasive Species Workgroup has worked on nuisance species issues since 1991 and developed its 1993 Policy for the Introduction of Non-Indigenous Aquatic Nuisance Species. The Task Force requires that ANS regional panels be administered through an existing body with cross-jurisdictional responsibilities, such as CBP.

The CBP recognizes that ANS are not just unique to the Chesapeake Bay but pose a challenge to resource managers and industry groups throughout the Mid-Atlantic region. The CBP feels that a MARP would allow for better management and monitoring of invasive species that impact the entire region.

A MARP would connect the Mid-Atlantic region to a national network increasing communication and hopefully facilitating potential funding for staff and projects. Regional Panels have been established across the United States with the exception of the Mid-Atlantic region. The formation of the MARP would be the final puzzle piece to a national effort to manage aquatic invasive species. In addition, the CBP's Invasive Species Workgroup will dissolve at the end of 2003 and there is more work to be done in the region that can best be accomplished via a MARP. Finally, the MARP would be responsible for the formation of a rapid response plan that could increase regional monitoring and detection of new infestations and invasions.

The roles of the proposed MARP would include:

- Advocating prevention and control of nuisance species in the region;
- Involving all stakeholders in cooperative regional actions;
- Identifying priorities and making recommendations to the ANSTF on nuisance species;
- Developing and implementing accountable management techniques;
- Creating and implementing emergency response strategies;
- Coordinating regional efforts to prevent new introductions and control established species;
- Educating stakeholders and the public by focusing on ways to prevent further spread and unintentional introduction of nuisance species;
- Supporting current and future research on prevention and control methods;
- Assisting ANSTF with coordination of federal programs;
- Advising the ANSTF on regional legislative policy needs;
- Serving as the main channel to the ANSTF on Mid-Atlantic nuisance species issues.

The proposed MARP would involve diverse interests in the Mid-Atlantic region to ensure regional nuisance species issues are fully addressed. Potential invitees to the MARP will likely include:

- Representatives from MD, PA, VA, WV, DE, DC, NJ, NY
- Federal agencies (USFWS, EPA, ACE, USGS, and USDA)
- Interested industry, conservation organizations and other stakeholders

Realizing that only limited funding to support MARP formation and activities is available through NANPCA, the CBP will work with its members to actively locate creative funding sources that may include Federal grants and general operating funds, sportsman and fisherman association gifts, and various regional and national foundations and programs monies.

If approved, the CBP's Invasive Species Workgroup would develop an initial MARP work plan and secure a diverse and committed membership. Initially, MARP chairs would be appointed by CBP's Invasive Species Workgroup members. CBP staff time would be dedicated to performing initial Project Coordinator duties. Once funding is secured from ANSTF, CBP would hire a full time project coordinator.

Initial MARP structure would be as follows:

- The MARP would assemble two to four times a year.
- The Chairperson and Vice-Chairperson would serve minimum one-year terms and will be elected by state and federal representatives.
- The Vice Chairperson would be elected by MARP members.
- The MARP Project Coordinator would coordinate MARP activities and provide administrative support.
- The MARP would establish committees, workgroups, and panels as needed.
- The extent of MARP activity would be dependent upon available funding.

An estimated timeline for establishment of the MARP is outlined below:

- November 2003 – ANSTF approval of MARP's Organizational Proposal.
- December 2003 – CBP's ISW develops initial MARP work plan and membership list.
- January 2004 – ISW secures member commitment and invites members to a preliminary meeting.
- March 2004 – MARP preliminary meeting to review MARP structure and work plan, and engage in information sharing.
- July 2004 – First MARP meeting to establish workgroups and assign responsibilities.
- November 2004 – Second MARP meeting to present updates and discuss future activities.
- January 2005 – Release of draft annual report.

The Task Force approved the formation of the Mid-Atlantic ANS Regional Panel.

A Task Force member noted that the formation of the MARP still does not give the ANSTF complete coverage of the whole U.S and asked whether a Southeast Panel is needed to cover a few remaining states. Ms. Gross replied that only a few states are not included in Regional Panels and that we need to analyze the situation to see if we are able to pull them into an existing panel. Another panel member noted that Puerto Rico and the Virgin Islands may need their own regional panel as their issues are different enough that they would not fit well with the Gulf of Mexico Regional Panel. Didn't Ron Lukens suggest that the Gulf of Mexico panel be changed to the Gulf of Mexico and South Atlantic Panel to capture NC, SC and GA?

## **Federal Agency Activities for FY04**

### **U.S. Fish and Wildlife Service – Sharon Gross, Chief, Branch of Invasive Species**

Problems with Aquatic Nuisance Species have exploded - it seems that every time we turn around, a new problem species has become established somewhere in the U.S. or has spread to a new location where it poses additional threats. Today, there is widespread recognition that ANS concerns in the U.S. are much larger than zebra mussels and have impacts far beyond industrial water use. In addition to the more obvious environmental impacts, there are both direct and indirect impacts on various business and other sectors from both the invasive species and actions taken to prevent or control them.

The largest and most comprehensive efforts in the United States to address aquatic invasive species are the activities that fall under the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990. The primary goal of the Act was to help focus efforts to do three key things - prevent the introduction of new ANS, ensure prompt detection of and monitor changes in existing ANS, and control established ANS in an environmentally sound manner. The FWS has responsibility under every single section of the Act – no other agency has the magnitude of responsibility that the Service has.

The Act also established the ANS Task Force to coordinate the multitude of Federal efforts that relate to ANS. It laid the groundwork for the development of the Aquatic Nuisance Species Program, which has provided the framework within which federal agencies focus their activities. Two of the most important parts of the Act were the establishment of Regional Panels to help coordinate and prioritize regional issues and the development and funding of state/interstate ANS management plans. These two components of the Act have helped to mobilize state efforts to address various aquatic nuisance species issues.

There are also other, more specific components of the Act, such as the Intentional Introductions Policy Review and the Brown Tree Snake Control Program.

Through its Aquatic Nuisance Species Program, the Service supports both NANPCA and the ANS Task Force. The Service supports ANS Coordinators in all seven FWS Regions. These Coordinators provide technical assistance within their Regions, support Regional Panel activities, establish partnerships, and generally implement the Service's ANS Program. They also provide technical assistance to the National Invasive Species Council.

One component of the Service's ANS Program includes non-Federal Assistance. One part of this non-Federal Assistance is the support for the Regional ANS Panels. The Service provides approximately \$50,000 per panel each year. The second part of the non-Federal Assistance is the cost-share funding for the State/Interstate Aquatic Nuisance Species Management Plans. The Service currently provides cost-share grants to 15 States/Tribes for 13 approved plans. In 2003, \$825,000 was provided for State ANS Plans; individual awards ranged from \$5,000 to \$62,800.

The following information describes some of the activities that the Service and its partners are conducting to help the Task Force collectively achieve its Goals. To address prevention, the

Service and the Task Force have been and will continue efforts to identify high-risk pathways and species of concern. Using the Generic Risk Assessment Process developed by the Task Force Risk Assessment and Management Committee, the potential risks of species introductions can be assessed based on invasiveness characteristics as they relate to the risks of establishment. Another effective way to prevent both introduction and spread is through public awareness activities. Other prevention activities include the Ballast Water Demonstration program, the 100<sup>th</sup> Meridian Initiative, the Alaskan Ballast Water Initiative program, the NY State Canal Prevention program, and HACCP pathway management activities.

The Task Force has developed cooperative control programs that are focused on coordinating member activities to help manage established invasive species. Some of the species with ongoing control efforts include: the Brown tree snake, Eurasian ruffe, Chinese mitten crab, European green crab, Asian swamp eel, New Zealand mudsnail, Asian carp, Giant salvinia, *Caulerpa*, and *Cryptocorone*. We will be working, over the next year or so, to develop capabilities to rapidly respond to newly established populations.

The Task Force Communication, Education & Outreach Committee has launched an initiative focusing on aquatic recreation and raising awareness about the ANS issue with this segment of the population. The effort focuses on the Voluntary Recreational Activities guidelines developed by the Task Force and issued by the Coast Guard last year. The initiative includes a web site that includes information on what individuals can do to prevent the introduction and spread of invasive species as well as the development of the “Stop Aquatic Hitchhikers!” brand. Recreational activities are a major recognized pathway by which invasive species may be spread to other water bodies. It is a pathway that can be addressed with increased awareness of the issues. The Service is also developing a new public awareness campaign focused on aquarium users and hobbyists.

The Service also contributes to activities to detect new introductions and monitor established populations of invasives. This includes conducting ecological surveys such as those being done in Hawaii and the Sacramento/San Joaquin River system as well as species-specific monitoring such as the goby/carp monitoring. The Service also helps maintain detection/monitoring data by supporting the USGS Nonindigenous Aquatic Species Database.

In FY 2004, the Service’s ANS Program will reportedly receive a \$1 million increase in its funding. This increase will be used for the following activities:

- Increased support for State ANS Management Plans,
- Support for Asian Carp Control/Management including the development of Asian Carp Mgt/Control Plan and monitoring at key sites,
- Increased support for 100th Meridian Initiative including rapid response planning, development of a monitoring network, and pathway management activities such as HACCP,
- Conducting risk assessments on high risk species,
- Development of the new aquarium users public awareness campaign.

In FY 2003 the total ANS Program Budget was \$4.54 million. It was divided up among the following program Components

- Coord/Technical Assist. \$1,400,000
- Non-Federal Support \$1,085,000
- Prevention \$850,000
- Control \$900,000
- Detection and Monitoring \$250,000
- General Outreach \$60,000
- TOTAL \$4,545,000

One Task Force member pointed out that under the current funding situation, the regional panels are struggling and pleaded that any decreases that may occur not be applied to the regional panels.

**National Oceanic and Atmospheric Administration** – *Tim Keeney, Deputy Assistant Secretary for Oceans and Atmosphere, Department of Commerce*

Mr. Keeney started his presentation by announcing that a major change that has recently occurred in NOAA is a greater degree of coordination and cooperation in implementing invasive species activities. Both the Aquatic Nuisance Species Task Force and the National Invasive Species Council have played a key role in encouraging this trend. For the last two years, agencies have participated in a crosscutting budget exercise for the Office of Management and Budget. With agencies setting common goals and performance measures, it is hopeful that OMB will seriously consider new funding initiatives. Although Mr. Keeney could not address items in the FY 05 budget yet, a couple of examples from FY 04 demonstrate increasing cooperation. NOAA, the Fish and Wildlife Service, the Maritime Administration, and the Coast Guard were all part of a ballast water submission. NOAA, USGS, and the Smithsonian are working together to establish a monitoring program for coastal areas, including establishing baselines for vulnerable areas.

A similar thing is happening within NOAA. The NOAA invasives program has been designated a matrix managed program. This means that even though three different line offices—the Office of Oceanic and Atmospheric Research, the National Ocean Service, and NOAA Fisheries—are involved in invasives work, there will be central management with the three line offices participating in the selection of priorities. NOAA is currently in a program baseline assessment that will look at both capabilities at existing funding levels, and what would be a fully funded program under the statutory mandates.

NOAA is also now distributing the recently approved list of Sea Grant awards. Mr. Keeney stated that he wanted to bring some of these awards to the attention of the Task Force to show both cooperation and how they are addressing some of the needs identified by the Task Force. NOAA is sponsoring two economic studies on zebra mussels—one to get a better handle on actual current costs and one a prospective study relating to the 100th Meridian initiative. The Fish and Wildlife Service also is providing some funding for the latter. NOAA is also providing funding for the development of the Smithsonian's database. Finally, NOAA has begun to look at

interdiction of pathways other than ballast water including a look at the significance of hull fouling as a pathway for introduction and a cooperative program with the pet industry to educate aquarium owners on the importance of not discarding unwanted organisms.

Similarly, out of the \$800,000 that NOAA has received for implementation of NANPCA, NOAA has tried to fund projects that are Task Force priorities. In FY 2003, NOAA provided \$20,000 to each of the Regional Panels for development of rapid response plans. NOAA continues funding a portion of the *Caulerpa* eradication program in California and a portion of the research on NOBOB vessels in the Great Lakes. NOAA also funded two projects to improve baseline data on occurrence of nonindigenous species—a survey in Mobile Bay and a project to separate nonindigenous species occurrences out of their massive surveillance database.

**Environmental Protection Agency – Marilyn Katz, Office of Wetlands, Oceans, and Watersheds.**

Standing in for David Redford, EPA's Representative to the ANSTF, Marilyn Katz gave a summary of EPA activities targeting aquatic nuisance species.

- The Office of Research and Development (ORD) continues to sponsor the Environmental Technology Program under which new environmental, including ballast water treatment, technologies are tested.
- ORD is developing predictive models to estimate the probability of invasions of particular ecosystems.
- Under ORD's Science to Achieve Results, or STAR, grant program, eight researchers have grants to study various aspects of terrestrial and aquatic invasions. The grantees will report on their research results in early 2004.
- In February 2004 ORD will sponsor an EPA-wide workshop to identify the Agency's priority invasive species action items and to have Headquarters, Regional, and Great Water Body offices share information on their aquatic nuisance species activities.

EPA is working on identifying invasive species points-of-contact in each of its 10 Regional Offices. In 2001, the Office of Water's National Estuary Program funded four grants to address various aquatic nuisance species issues in the Pacific Northwest, the Gulf of Mexico and Florida coasts, and along the mid-Atlantic and New England coasts. The projects, which are nearing completion, involve rapid assessments, development of monitoring protocols, and education/outreach activities in the watersheds of 15 of the 28 National Estuary Programs.

A petition to EPA requesting that the Agency regulate vessel ballast water discharges under the Clean Water Act was denied on September 2, 2003. EPA's Office of Water is working with other International Maritime Organization (IMO) nations to develop an international ballast water standard. EPA is also participating in IMO work on hull fouling and on the Biodiversity Convention.

The Agency's Office of Water, Office of Wetlands, Oceans and Watersheds (OWOW) developed a draft OWOW Action Plan. Some of the priority actions include: analyzing barriers to rapid response, developing guidance on rapid response activities, and developing economic estimates

of aquatic nuisance species impacts. Currently, there is very little data on the economic impacts of aquatic nuisance species.

A Task Force member asked whether EPA was coordinating with NOAA and FWS on its monitoring efforts? Ms. Katz answered that they need to develop a formal plan to facilitate this cooperation. Ms. Gross then stated that the Monitoring Committee should help with this and that the Task Force needs to get it up and running. Another member stated that the Invasive Species Advisory Committee has stated that economic impacts are one of its top priorities.

### **Review of the U.S. Coast Guard's Ballast Water Program – LCDR Kathy Moore, U.S. Coast Guard**

Lieutenant Commander Kathy Moore, Chief of the Environmental Standards Division at the U.S. Coast Guard reviewed their Ballast Water Program and provided an update on their regulatory activities, some of their associated research efforts, and a summary of what they are doing internationally.

The USCG is developing a set of regulations that will implement a robust national ballast water management (BWM) program that maximizes the use of existing BWM methods by all vessels and fosters the development of new, more effective, ballast water treatment (BWT) technologies. The initial regulatory steps toward this end include the three key projects listed here.

- Penalties for Failing to Report BWM Practices
  - Proposed Rule published on January 6, 2003
  - Expands reporting to include coastwise voyages
  - Final Rule in draft
- Mandatory Ballast Water Management
  - Proposed Rule published on July 30, 2003
  - Final Rule Spring 2004
- BW Discharge Standard
  - Advanced Notice of Proposed Rulemaking published on March 4, 2002
  - Notice of Intent published on September 26, 2003
  - Proposed Rule in development within USCG
  - Environmental Impact Statement Scoping during Fall 2003

These regulations address complex issues, and their development includes the analysis of potential environmental and economic effects, as required by the National Environmental Policy Act and the Endangered Species Act. To assist in the NEPA analyses, the USCG has made the EPA a formal cooperating agency, thereby adding considerable expertise and resources to the effort. The USCG is also currently engaged in consultations with both the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, under the provisions of Section 7 of the Endangered Species Act, to insure that ballast water management regulations do not have unintended impacts on threatened and endangered species.

The regulations that make the national voluntary ballast water management program mandatory were published as a proposed rule on July 30, 2003. The regulations apply to all vessels inbound



from outside the EEZ. These vessels are required to have a ballast water management plan and conduct exchange or other BWM practice. A mid-ocean exchange is conducted beyond 200 nautical miles from shore and involves emptying and refilling each ballast tank or flow-through of 3 times the tank capacity. Other ballast water management practices include retention, offloading to an approved facility, or treatment with an approved on-board BWM system.

The program in the rule allows for ship-based or shore-based treatment practices that are yet to be developed or are in development. Vessels are not required to delay their voyage or divert from their intended transit in order to conduct an exchange.

In preparing the rule for the mandatory program, the USCG took a close look at vessel arrivals to estimate how often a vessel would be able to conduct an exchange. In looking at 70,000 vessel arrivals across 13 transit tracks, the Coast Guard identified one of the major difficulties with a regime that relies too heavily on Ballast Water Exchange - over 60% of the vessels never travel beyond 200 miles from land on their trip to U.S. waters. This is what makes the development of a ballast water discharge standard so important. Other findings of the Coast Guard that further substantiate the need for ballast water discharge standards include:

- Vessels with-out ballast (NOBOB's) cannot do ballast water exchange
- Weather and safety exemptions remain a problem
- The effectiveness of ballast water exchange varies

The USCG is developing an Environmental Impact Statement for ballast water discharge standards. It is currently in the Public Scoping process. The public scoping process helps to define the scope of the EIS, identify concerns, issues and needs, and ensure stake holder involvement in the decision making process.

The last public meeting will be held in DC at EPA on Friday. The NEPA process for approval of specific technologies will happen separate from this process.

Another program the USCG hopes to launch soon is the Shipboard Treatment Evaluation Program (STEP). STEP is designed to encourage vessel owners to team with technology developers and install experimental systems on ships and to learn about the performance of these systems. The Coast Guard is working out the details of the program. It recognizes that placing technologies in an operational vessel environment is a critical step in maturing and improving these treatment systems.

For both exchange and alternative treatments, many challenges remain. The USCG needs to develop methods for verifying that the practices have been conducted and for testing shipboard technologies.

To date, no vessels have applied to the USCG for approval of an alternative technology for use in lieu of mid-ocean exchange. Although some shipboard testing of ballast water treatment systems is taking place, they indicate that no systems have been demonstrated to be consistently effective over a range of conditions for one type of vessel or across a range of vessel types and operating conditions. Working with EPA's Environmental Technology Verification Program, the Coast Guard is currently developing test protocols for evaluating the performance of BWT systems

through standardized type tests. Although the ETV Program is not a regulatory program, many of the test protocols could be directly applicable to type testing procedures for CG approval.

Some Background on the Coast Guard's International Efforts – NANPCA (NISA) calls for the U.S. to engage in foreign negotiations to address NIS and ballast water issues. These are taking place at the Marine Environmental Protection Committee (MEPC) of the International Maritime Organization, where the Committee's Ballast Water Working Group is developing the text for an international convention for the control and management of ship's ballast water and sediments. The U.S. delegation is well aware of our national position and is working to get what we want out of the international standard.

Over recent years, the MEPC has made advances in developing the details of the Convention, particularly those sections dealing with discharge standards, the approval process for BWT systems, and concepts associated with special requirements for certain areas. While considerable progress was made in all areas, a significant amount of work remains, particularly on the issues of treatment standards and approval protocols. At MEPC 49, scheduled for July 2004, a decision is expected as to whether the Convention text is sufficiently developed to recommend the holding of a diplomatic conference in early 2004.

An Overview of the U. S. Position – The U.S. recognizes the difficulty of developing a legally binding international regime for which there is currently no universal technological solution, and remains committed to developing an international solution for this global problem. The U.S. delegation believes that by taking a long-range view on this issue, the MEPC can establish a framework that is not limited by what is available in the near term, and will allow the global community to address this serious issue in an orderly and scientific manner. The U.S. has proposed that the following concepts should form the basis of the Convention, for which the remaining details could be resolved:

- Biologically Effective Performance Standard by Date Certain - The BWT performance standard that is established must be viewed by the international scientific community as likely to significantly reduce the threat of aquatic invasions; and compliance with the standard must be verifiable.
- Phase-in of Implementation Dates - Recognizing that there is a significant BWT technology gap, and that the shipping community will need time to test, verify, and install treatment technologies as they become commercially available and proven aboard ship, the date by which identified ships must meet the performance standard should be set sufficiently far into the future to allow for the development of technology and an orderly transition into shipboard service. Further, a formal and regular technology review process should be established to determine whether appropriate technologies are available for shipboard application on the agreed schedule.
- Mid-Ocean Exchange Until a Performance Standard can be Met - Until technology is sufficiently developed and ships are obligated to meet the performance standard, they would be required to perform BWE when possible.

It is clear that the continued introduction of nonindigenous species by ships poses a serious threat to the environment, economies and health of all nations. While it is easy to say that effective BWT systems must produce predictable results and function effectively under most operating

conditions, these objectives can be achieved only through intensive research and development activities coordinated among concerned countries. The USCG is seeing the early stages of these efforts in the Pacific, North America and Europe and is optimistic that they will grow and bear fruit. In the U.S. the phrase "scientifically supportable, biologically meaningful, and verifiable" is used to characterize what the domestic BWM regime should be. The U.S. recognizes that a standard of 99% is not biologically meaningful - if you are talking about 1.2 million organisms per liter, then a 99% standard still leaves 1% which is approximately 120,000 organisms. Cumulative effects of multiple ships discharging ballast water in the same ports must be considered. The USCG looks forward to working with others who share this view for their countries, as well as for the global environment.

To summarize the preceding information, the future of the U.S. Coast Guard ANS Program will include:

- Domestic rulemakings
- Development of the International Convention
- Research and development to support enforcement and evaluate treatment systems
- Coordination with stakeholders to develop/implement ANS prevention and control strategies

A Task Force member told LCDR Moore that they hoped that Congress was being kept informed of this issue. They had heard that ballast water exchange was being promoted as the recommended method for use through the Convention. LCDR Moore responded that although some countries were pushing BW exchange as the preferred method, the Convention has evolved past that. Another member suggested that it would be a good idea to have LCDR Moore brief the Regional Panels on this issue. She had already done so for the Western Regional Panel.

Another Task Force member asked how the Coast Guard's new position within the Department of Homeland Security is affecting its ANS activities. LCDR Moore responded that the ballast water standard is still the number one environmental priority of the Coast Guard.

### **U.S. Army Corps of Engineers – *Al Cofrancesco, Waterways Experiment Station***

Al Cofrancesco gave an overview of the U.S. Army Corps Engineers activities in FY 2003.

The Corps participated on 8 of the 10 teams for the FY 05 Crosscut Budget. The Corps Headquarters also participated in meetings with OMB. The total cost of items submitted in the budget is approximately \$55 million. Within that total, approximately \$40 million of the funding was for control and management activities and approximately 90% of that was for aquatic habitats. The Corps is also implementing a new accounting system in FY04 that should better be able to track funding on invasive species.

The Corp's Aquatic Plant Control Program has a research component that is funded at \$3 million and an aquatic plant removal component at \$2 million. They also have a cost-share program that has been identified but not funded in six years. Two primary concerns of the Corps are marine algae that are creating problems as well as hydrilla and salvinia which both continue to spread.

The Corps's Aquatic Nuisance Species Research Program has been revamped from a focus on zebra mussels to all ANS (i.e. aquatic animals). There are approximately 20 to 30 important aquatic invasive fauna that the Corps is interested in, but probably about 100 that they should be working on. One of these species is the sail fin catfish. Juvenile sail fin catfish are sold as algae eaters for aquariums but often get dumped when they outgrow their tanks. FY 2003 funding for aquatic animal work was only \$750,000. The Corps is also developing information system on aquatic nuisance fauna.

The Corps is also working on the second barrier system in the Chicago Sanitation and Ship Canal. They participated in workshops and meetings on this high visibility project. Preliminary work has now been conducted (placement and specifications). Mr. Cofrancesco emphasized that the barrier is not a final solution because no matter how good it is, if we truck live fish around the barrier for food or anything else, then the barrier isn't doing any good.

Finally, invasive species were identified as major areas of concern for major restoration projects being developed in Louisiana and the Florida Everglades.

A Task Force member asked about the unfunded cost-share program. Mr. Cofrancesco responded that the total program authorization level is \$15 million but that funds have never been appropriated to the program.

Another Task Force Member asked about their ANS information system and whether they were coordinating with USGS in Gainesville. The member also suggested that the Corps be part of the Distributed Query System under development by the USGS.

Finally, a Task Force member suggested that we have a presentation about the sailfin catfish. It is a huge armored catfish that could be a very serious problem on banks and levees.

**Animal and Plant Health Inspection Service** – *Bill Wallace, Assistant Director, Policy and Program Development*

Bill Wallace provided an overview of recent and upcoming APHIS activities of interest to the Task Force. Future updates will encompass highlights from other USDA agencies, notably the Forest Service, which has important responsibilities and capabilities regarding aquatic nuisance species impacts on freshwater ecosystems.

Mr. Wallace started off his presentation by announcing that, Hilda Diaz-Soltero, has been designated as the new USDA liaison to the Invasive Species Council.

A new APHIS strategic plan, completed in mid-2003, explicitly broadens the scope of the agency's mission: "To protect the health and value of American agriculture and natural resources." Several recent acts of Congress, including the Plant Protection Act (2000), Animal Health Protection Act (2002), and Public Health Security and Bioterrorism Preparedness Act (2002), have mandated additional protection responsibilities. APHIS has structured its strategic plan around a system of protection – an interdependent set of goals and objectives based on the

premise that safeguarding the health of animals, plants, and ecosystems makes possible safe trade and reduces losses to agriculture and natural resources. The new plan establishes priorities for program plans and budgets, including strengthening emergency preparedness and response, resolving trade barrier issues, increasing offshore threat assessment and risk reduction, enhancing risk analysis capability, and expanding wildlife and invasive species research programs.

APHIS prevention activities have a new look with the transfer of certain import and entry inspection functions – and 2,500 port-of-entry inspectors – to the Department of Homeland Security in March 2003. APHIS has retained risk analysis, policy development, and specialized scientific functions; training oversight; and user fee management. In the area of early detection and rapid response, APHIS's use of Commodity Credit Corporation funds to combat new pest and disease outbreaks continues to increase. The FY 2004 budget calls for stronger plant pest detection and animal health surveillance and diagnostics to minimize the impacts of these outbreaks. APHIS also recently established an Emergency Operations Center in Riverdale, MD, featuring advanced communications systems to strengthen emergency response.

In FY 2003 and/or 2004, APHIS has and/or will provide funding for hydrilla, giant salvinia, and *Caulerpa* survey and/or control efforts and continue its support for infectious salmon anemia and spring viremia of carp emergency programs. APHIS continues to work with other Joint Subcommittee on Aquaculture agencies to improve cooperation on aquatic animal health.

**Department of State – Dr. Brooke Zanetell, Bureau of Oceans and International Environmental and Scientific Affairs (OES).**

Dr. Zanetell started her presentation by expressing her gratitude for having State Department representation on the ANSTF. While the State Department has a history of participation, Dr. Zanetell is new to the Task Force and would appreciate any guidance on how to make the most of the State Department's involvement in the Task Force.

Dr. Zanetell wanted to outline why the State Department is on the Task Force. The State Department is engaged in any issue/activity that involves foreign policy or is an international activity that may affect the U.S., whether that is economically, environmentally. Dr. Zanetell cautioned that everything non-native in the U.S. is native somewhere else in the world. Efforts to prevent the introduction and control the spread of these organisms from abroad into America's terrestrial and aquatic ecosystems is where the State Department's Bureau of OES plays a significant role. There are many offices and many individuals involved.

Domestic Involvement by the State Department includes membership on the Task Force and Jeffrey Fisher who is involved with NISC and the interagency committee on Invasive Terrestrial Animals and Pathogens (ITAP).

Bilateral Activities (U.S. and Canada) of the State Department include: A branch in the State Department works with Great Lakes Fisheries Commission (GLFC). OES administers \$12 million in annual contributions to GLFC, primarily to control sea lampreys. Last year the GLFC

allotted \$170,000 for a backup power source to an electric barrier that was erected to prevent movement of Asian carp into the Great Lakes via the Chicago Sanitary Canal.

Under the Boundary Waters Treaty of 1909, the International Joint Commission (IJC) assists with invasive species problems along the U.S. – Canada border. The State Department is responding to the request by IJC for a formal mandate from the U.S. and Canada to address invasive species.

The State Department also actively supports Salmon Commissions (Pacific and North Atlantic) related to invasive species, genetically modified fish and sustainability of salmon.

Multi-lateral initiatives include interagency preparations for the International Maritime Organization's (IMO) diplomatic conference scheduled for February 2004. In August 2003, Asia-Pacific Economic Cooperation (APEC) senior officials endorsed a State Department proposal to host a workshop on invasive species issues. On the fisheries side, the State Department is active in APEC's Fisheries Working Group where efforts focus on reducing the threats of IAS (primarily aquatic pathogens) to the aquaculture sector and building capacity for "import risk assessments" on aquatic animals. The State Department is also promoting the establishment of a network of aquaculture centers in the America's to facilitate information exchange.

The State Department is also hosting a workshop in the Association of S.E. Asian Nations (ASEAN) region in March 2004 on prevention and management of transboundary pathogens and diseases.

Finally, on a global level, OES is working with USGS and the Global Invasive Species Program to develop a database named the Global Invasive Species Information Network. A meeting is scheduled for April 2004 to coordinate the mechanisms for creating the database.

#### **ANSTF Business – Sharon Gross, U.S. Fish and Wildlife Service**

Sharon Gross reminded the Task Force of the membership changes that were announced by Dr. Mamie Parker at the beginning of the meeting. She also announced that the Task Force will be acquiring two new members. One member will be the U.S. Geological Survey, and the other will be the Smithsonian Environmental Research Center.

#### **National Invasive Species Council and Advisory Committee Activities – Lori Williams, National Invasive Species Council**

Lori Williams started off her presentation with an announcement that the Invasive Species Council has recently hired a secretary, program assistant, and an Assistant Director for International Policy. The USDA has hired a full-time website coordinator to work with the Council's web site, and Hilda Diaz-Soltero has been named the USDA Policy Liaison to the Council. It is anticipated that the position opening for an Assistant Director for Partnerships and

Communications will be announced this fall. Filling this position will complete the Council's staffing plan. Council staff offices are now located at 1201 Eye St. NW.

The following information summarizes activities/actions that are underway, organized by the headings in the National Invasive Species Management Plan. Opportunities for ANSTF assistance were outlined in the ISC update provided in the briefing packet for the November 2003 ANSTF meeting.

Leadership and Coordination - Drafts documents have now been completed for the oversight mechanisms (Action Item #1 from ISMP), dispute resolution mechanisms document (Action Item #2), FY 05 crosscut budget (Action Item #5), and the NEPA guidance (Action Item #12). The establishment of the joint ANSTF and Council prevention committee provides a basis for collaboration on these issues.

Prevention - As was mentioned earlier in this meeting (and at the last ANSTF meeting) a joint Prevention Committee has been formed from the ANSTF and ISAC Subcommittees. The screening processes for aquatic organisms are being drafted (Action Item #16) and pathways have been identified, and a pathway ranking criteria is under review (Action Item #20). Ballast water standards and research are being established (Action Item #6c) and solid wood packing material standards are being established (Action Item #16c).

Early Detection and Raid Response – A taxonomic expert database is available and systematic monitoring for early detection of aquatic invasive species is being initiated in Hawaii (Action Item #21). The Council has also completed the first version of their guidelines for early detection and rapid response (Action Item #22).

Control and Management – Sanitation methods have been adopted by many agencies (Action Item #26) and an improved process for considering threatened and endangered species in the review of potential biological control agents was submitted to USFWS (Action Item #28). Federal-wide IPM testing and a training program proposal is being drafted by CSREES (Action Item #29). In addition, a list of interconnected waterways has been prepared and research concerning barrier systems is being conducted (Action Item #30) and guidance for ranking projects is being drafted by the Control and Management Subcommittee (Action Item #32).

Restoration – Sources of plant restoration materials are now available on the internet (Action Item #33) and several terrestrial system restoration research needs have been identified (Action Item #35).

International Cooperation – A North American Strategy has been drafted and is under review (Action Item #38). A summary of international organizations that actively address invasive species is also available.

Research – Information concerning weed identification, IPM practices, and other control methods are available (Action Item #46). Research activities have also been included in crosscut budget processes (Action Item #46).

Information Management – The Council has continuously worked to maintain and expand its web site. The web site currently has over 350 pages and 4,000 independent linkages to information (Action Item #52) and consultation workshops to improve the web site have been held for USDA and DOI web site users (Action Item #47). In addition, case studies on the use of volunteers in early detection and rapid response programs have been posted on the Council’s web site (Action Item #49). Beyond the internet, several Council agencies have now adopted monitoring guidelines (Action Item #50) and State and county distribution records are available for some species and locations (Action Item #54). Finally, information about many invasive species that are currently regulated is also available (Action Item #55).

Education and Outreach – Aquatic public outreach materials have been catalogued.

**Ballast Water Report to Congress** – *Dorn Carlson, National Oceanic and Atmospheric Administration*

Section 1104 of the Nonindigenous Aquatic Nuisance Prevention and Control Act directs NOAA and FWS to “conduct a ballast water management demonstration program to demonstrate technologies and practices to prevent aquatic nonindigenous species from being introduced into and spread through ballast water in the Great Lakes and other waters of the United States.” As part of this program, NOAA and FWS are required to “prepare and submit a report to the Congress on the demonstration program... “ The report is to include the findings and recommendations of both NOAA and FWS concerning technologies and practices.

The Ballast Water Technology Demonstration Program (BWDP) is a competitive grants program conducted in partnership by NOAA, FWS, and the Marine Administration (MARAD). Initiated in 1998, the program has funded 31 ballast water demonstration projects (and also helped facilitate the funding of another seven projects through Sea Grant). The program has expended \$5.8 million in funds, to date, and helped facilitate the leveraging of another \$1.4 million in other Federal funds and \$3 million in non-Federal funds. Seventeen different technologies have been studied with the level of the study varying from bench scale to shipboard testing.

The average grant award is approximately \$190,000 and the grants have been awarded to investigators from academia, industries, government, and NGOs. Approximately 36% of proposals are funded. Decisions are based on the following criteria:

- 70% - Impact of Proposed Project - The effect this activity will have on reducing the impact of invasive species
- 30% - Scientific or Professional Merit – The degree to which the activity will advance the state of the science or discipline.



Technologies examined through the BWDP have included:

- Oxidizing biocides such as peracetic acid, ozone, and chlorine
- Nonoxidizing biocides such as juglone, menadione, and gluteraldehyde
- Separation via filtration, hydrocyclone, and centrifugation
- Energy such as ultraviolet, acoustic, and thermal
- Other practices such as depressurization, deoxygenation, exchange, onshore treatment, and redesign of Ships or Tanks

Basic research has also been conducted on ballast water microorganisms and on no-ballast-on-board (NOBOB) ships. As the program has evolved, more and more technologies have advanced to the point where they can be tested on board ships.

Because the Report to Congress is still being finalized, Mr. Carlson could not yet talk about the results. However, the findings of the report will be divided into the following categories: program administration, engineering, environmental, shipping, and business. Recommendations in the report deal with the following:

- Program capacity relative to increasing interest
- Support at multiple levels of development
- Need for clear technological goals
- Value of partnerships

Mr. Carlson closed his presentation stating that he is hoping that this year the BWDP will get their funding back. They plan to publish a request for proposals in the Federal Register and that interested parties should keep an eye on the Ballast Water Technology Demonstration Program web site at: <http://www.nsgo.seagrant.org/research/nonindigenous/ballast>.

### **November 5, 2003 - Wednesday**

#### **Regional Panel Reports**

##### **Mississippi River Basin Regional Panel - Jay Rendall, Minnesota Department of Natural Resources**

Jay Rendall gave a quick overview of the initiation of the Mississippi River Basin Regional Panel. His goal for FY 2003 was to get the Panel established and up and running. The panel currently has approximately 50 members. The first Panel meeting was held in July 2003 in Minneapolis and approximately 40 of the members were in attendance. The goal of the meeting was to expose the Panel members to an array of ANS issues and species, including: Asian carp, New Zealand mudsnail, round goby, risks of the plant trade, and the Chicago barrier. The meeting also included presentations from other Regional Panels to allow the members to learn from the experience of the well-established panels as well as updates from the representatives of various agencies and various initiatives.

The Panel currently has four Committees: the Executive Board (Steering Committee), Education, Control and Research Committees. They have designed letterhead stationary for Panel

correspondence and created a Panel web site. The Mississippi River Basin Regional Panel web site address is: <http://wwwaux.cerc.cr.usgs.gov/MICRA/MRB%20Panel%20on%20ANS.htm>.

The Panel is now trying to expand its membership since some states are still absent. They are adding two more observers as well. The Panel held an Executive Board meeting on October 2<sup>nd</sup> to discuss their upcoming winter meeting, which was going to occur in New Orleans, Louisiana. They also decided that the Panel Chairs should be working with the Panel Committees to identify short and long-term priorities and projects. Because the Panel covers a large geographic area, the Panel will also develop sub-basin priorities. They also plan to rotate the meetings between the sub-basins.

The Task Force's representative from EPA asked whether EPA was participating on the Panel. Mr. Rendall responded that EPA was one of the invitees that had not responded. Another Task Force Member stated that maybe the Task Force needs a specific process for inviting new Panel members and that we should probably start our communication at the top. Sharon Gross responded that while we ultimately send our invitations from the top down to the invitee, it is sometimes better to go to the field to find the right person, and then go to their superiors to ask for their participation. A Task Force member then agreed with Ms. Gross's comment. Ms. Gross then stated that information on panel membership should be posted on the MRB web site.

### **Great Lakes Regional Panel - *Kathe Glassner-Shwayder, Great Lakes Commission***

Kathe Glassner-Shwayder started off her presentation by thanking Jay Rendall for his work on Great Lakes Regional Panel (GLP); his assistance was instrumental in the beginning. She then reminded the Task Force of the Great Lakes Regional Panel's two recent meetings in Ann Arbor, Michigan: the summer meeting of the Great Lakes Panel (July 22-23) and a Workshop on Developing a Rapid Response Plan for Great Lakes Aquatic Invasions (July 23-24). Actions items resulting from these two meetings include:

- Identification of panel priorities
- Redefinition of consensus and its role in the development and implementation of Panel projects
- Revision of the Panel's Operational Strategy
- Formalization of eligibility criteria for members for leadership positions on the Great Lakes Panel

The Rapid Response workshop was well attended, although initially, travel restrictions threatened to generate low attendance. The GLP may have a draft of the Great Lakes Rapid Response Plan soon before the next Task Force meeting.

New guidelines for GLP elections have been developed as part of the Great Lakes Panel's operational strategy:

- The position of Panel chair can only be held by a state representative of the Panel.
- The vice-chair and committee chair positions can be held by any formal Panel member.
- At-large members serve three-year terms and are allowed to run for committee chair.
- Panel elections are to be conducted every two years.

- A suggestion has also been made that eligibility of Panel members to run for committee chair should depend on serving at least one year on the Panel to get a sense of how the Panel operates.

These additions to the election guidance will be incorporated into a revised operational strategy for the Great Lakes Panel that will undergo Panel review before finalized. Other additions to the strategy will include mission statements from each committee and defined roles and responsibilities of the Panel chair, vice chair, committee chairs and respective members.

Newly elected members of the Great Lakes Panel include the following:

- Panel Officers
  - Chair: Roger Eberhardt, Michigan Department of Environmental Quality
  - Vice Chair: Marc Tuchman, U.S. EPA, Great Lakes National Program Office
- Committee Chairs
  - Information/Education: Emily Finnell, Michigan Dept. of Environmental Quality
  - Research Coordination: Phil Moy, Wisconsin Sea Grant
  - Policy and Legislation: Helen Brohl, U.S., Great Lakes Shipping Association
- At-Large Members (3 year term)
  - Ted Batterson, North Central Regional Aquaculture Center
  - Hugh MacIssac, Great Lakes Institute for Environmental Research
- Federal Members
  - U.S. Fish & Wildlife Service - Mike Hoff (primary) and Mark Dryer (alternate)
- State Members
  - Indiana DNR - Tom Flatt (primary)
  - Ohio DNR - Joe Mion (alternate)
  - Pennsylvania DEP - Lori Boughton (primary)

Work to support the GLP continues to grow. One area of growth is in the definition of ANS priorities as guidance for the development of Panel projects. The Research Coordination Committee is in the final stages of creating a priorities document and the Information/Education Committee is working on an initial draft of their priorities. These priority assessments, as recommended by the Panel, will allow the Great Lakes Commission to determine which projects they can accomplish with existing general operating support for ANS related issues, and which initiatives will require procurement of special project funding. Once the Panel develops priorities, it was recommended that action plans be developed as a way to facilitate implementation.

In addition, the GLP has developed a fact sheet for member agencies to use to get Congress and governors to support NAISA. The fact sheet can be obtained at the Great Lakes Commission web site at: <http://www.glc.org/ans/pdf/naisaflyer.pdf>.

The Great Lakes Commission recognizes that ballast water is a primary vector for the introduction of aquatic nuisance species (ANS) to the Great Lakes-St. Lawrence system. A ballast water management program based on efficient, effective, scientifically based, environmentally sound and economically viable regulations, guidelines, and polices must be developed and implemented on a regional level to prevent the introduction and spread of ANS via commercial shipping. The Commission submitted a position statement on the U.S. Coast

Guard's Programmatic Environmental Impact Statement for Ballast Water Discharge Standards at a public scoping meeting held in Cleveland, Ohio on October 31, 2003. The statement reflects a resolution on ballast water management adopted by the Commission on May 16, 2001. The Commission's position was informed by the Policy Statement on Ballast Water Management of the Great Lakes Panel on Aquatic Nuisance Species.

Projects of the GLP's Information/Education Committee have recently included:

- Winter/Spring, 2003 - Watercraft Inspections- An Opportunity to Prevent the Spread of Aquatic Nuisance Species
- Summer, 2003 - Mail-order Sales of Aquatic Plants - A Pathway for ANS Introduction
- Project currently underway: The Live Food Industry: New Challenges in Interrupting ANS Introduction and Spread

The Information/Education Committee has also been working on updating the GLP web pages to raise the profile of the ANS issue and related work of the Great Lakes Panel and Great Lakes Commission. They are also adding links to the other regional ANS panels as well as the ANS Task Force homepage.

Ongoing ANS Projects of the GLP include the following:

- Rapid Response Plan for Great Lakes Aquatic Invasions
- ANS Early Detection & Monitoring: A Pilot Project for the Lake Michigan Basin
  - Survey may go out in a month
  - Funding source: EPA, Great Lakes National Program Office
- A Model GIS Assessment of Nonindigenous Invasive Species
  - Funding source: Michigan Great Lakes Protection Fund

Newly funded projects of the GLP include:

- Educational and Management Tools to Address Aquatic Invasions
  - Includes revision of Great Lakes Panel brochure – “Biological Invasions”
  - Includes development of Model Species Specific Regional Management Plan
  - Funding source: USEPA, Great Lakes National Program Office
- A Collaborative Approach to Advance Implementation of State Management Plans for the Prevention and Control of Aquatic Nuisance Species
  - Objective: Identify and pursue opportunities to advance state management plans based on the goals of the Panel's model plan
  - Project Funding: Michigan Sea Grant College Program

The 2004 Great Lakes Panel Meeting will occur in conjunction with a workshop of the Baltic Sea Fellowship Program in March 2004.

The representative from the Canadian Embassy stated that Canada has not yet nationally taken a leading role in invasive species. She asked if each of the border Regional Panels included Canadian membership. Each panel does include Canadian membership, although the degree of participation varies. Ms. Gross then agreed to send a list of Canadian representatives on Regional Panels to the Canadian Embassy. Another Task Force member then asked to what degree have indigenous people been included on the panels. Regional Panel representatives

responded that they do have tribal representation on the panels, although in some cases, their role could be strengthened. Ms. Gross also responded that the ANSTF does have Native American representation. Finally, an audience member asked if the Task Force is active with the CEC on their work plan. Ms. Gross responded that the Task Force has worked with the CEC.

### **Western Regional Panel - Tina Proctor, U.S. Fish and Wildlife Service**

Tina Proctor started off her presentation by reviewing some of the activities that comprise the FY 2003 work plan of the Western Regional Panel:

- Development of a West Coast Estuarine Invasive Species Database – USGS and EPA – This project is an in-depth literature review of 173 estuaries and 481 sub-estuaries. The beta version of the database will be ready for review in December or January. The WRP will release version 1.0 of the database in early 2004. The database includes native and indeterminate species as well as nonindigenous and cryptogenic species.
- Needs Assessment to Increase Capacity of West Coast Watershed Groups to Detect, Monitor and Prevent Invasions – Oregon Sea Grant – This project included a document review of protocols and methods for specific watershed councils and subsequent surveys mailed to watershed groups. So far, general awareness of ANS tends to be low. The watershed coordinators view education and training as being helpful to the watershed groups. The Oregon Sea Grant received a National Sea Grant for \$100,000 funding to develop ANS support to watershed groups for guidance materials, training workshops.
- Facilitation of US/Mexico/Canada Cooperation Regarding Common Ballast Water and Other Invasive Issues – Provided travel funds for two Mexican scientists – Dr. Porfirio Alvarez and Dr. Roberto Mendoza – to attend the WRP meeting in La Jolla, CA and give presentations.
- Compilation of Information from Western States on Regulations for Fishing Tournaments – Best Management Practices – The North Dakota Department of Fish and Game is contracting with a North Dakota University to do a survey of angling tournament regulations all 50 states. The results will be used to develop management practices for fishing tournaments regarding ANS.

The Western Regional Panel's FY 2004 Work Plan, developed at the annual meeting in La Jolla, CA on September 2003, contains the following items:

- Facilitating US/Mexico Cooperation – \$5,000 –
- Support for Creation of State Management Plans – \$10,000
- Facilitating US/Canada Cooperation – \$5,000
- Pilot Project – Pre-invasion Rapid Response Team – \$5,000 – Address 1 or 2 top priority freshwater plants
- Convene Workshop to Develop Research Priorities – \$5,000
- Facilitate Involvement of Tribes in Regional Panel and State ANS Plans and Working Groups \$2,500

- Coordination and/or Workshop for Spartina Management – \$5,000
- Educational materials catalog on searchable database (in process) – \$2,500

The Western Regional Panel also received a \$20,000 grant from NOAA to be used to develop a Zebra Mussel Rapid Response Plan for the Western U.S. This is especially important in light of the recent discovery in August 2003 of zebra mussels in El Dorado Reservoir in Kansas. Ms. Proctor also pointed out that our efforts seem to be paying off because the woman who first reported the El Dorado infestation had received information on zebra mussels from the State in her boater registration information.

Another project that the Western Regional Panel is involved with is the 100th Meridian Initiative's Lewis and Clark Bicentennial Missouri River Team. Ms. Proctor showed a map of the route of the Lewis and Clark trail and expressed our concern about the possibility of ANS being spread during the Lewis and Clark Bicentennial Celebration. This Missouri River Team is working to prevent and reduce this possibility. The team has worked to get the western States through which the Lewis and Clark trail runs (MO, IA, KS, NE, SD, ND, and MT) to agree on a common sign to be used at all boat launch sites along the Missouri River. In addition, the Pacific States Marine Fisheries Commission hired a contractor to visit all the marinas and portage operations along MO River and provide educational materials, "Power Wash Here" banners, examples of zebra mussels, and other giveaways such as key chains and drink holders with ANS messages on them. The Missouri River Team has also:

- Helped develop maps of the Lewis and Clark trail with invasive species messages on them.
- Sent mailings to customer lists with educational ANS materials in them.
- Developed 11 traveler information systems (TIS) in MN, MO, SD, ND and MT with humorous zebra mussel prevention messages using celebrity voices.

Members of the Western Regional Panel also took part in a meeting in December, in Boise, Idaho with Columbia River Basin group to specifically create a 100th Meridian Columbia River Team to extend the efforts of the Missouri River Team. This group is a sub-group of the 100<sup>th</sup> Meridian Initiative.

Finally, members of the Western Regional Panel helped facilitate the initiation of an economic study to evaluate environmental and economic damages from zebra mussel invasion into the Colorado and Columbia River Basins. 100th Meridian Initiative Funds were used to fund the project by Dr. David Lodge from University of Notre Dame. Dr. Lodge also received a grant from the National Sea Grant program for this project. He will utilize other investigators from University of Wyoming and the University of Central Florida.

The next meeting of the Western Regional Panel is tentatively scheduled to be held in Anchorage, Alaska.

## **Gulf of Mexico Regional Panel - Ron Lukens, Gulf States Marine Fisheries Commission**

Mr. Lukens started off his presentation with a schedule of recent and upcoming meetings. The Gulf of Mexico Regional Panel (GOMP) held two meetings in 2003. The first meeting occurred on February 5-6, 2003 in Pensacola, Florida. The second meeting occurred on October 20-21, 2003 in New Orleans, Louisiana. The next meeting is proposed for March or April, in Gulf Shores/Orange Beach, Alabama.

The (GOMP) has several work groups covering common invasive species topics. Some of the work groups are active and some are currently inactive as follows:

- Pathways/Prevention – Currently Inactive
- Eradication/Control/Restoration – Currently Inactive
- Vessel-Mediated Transport – Currently Inactive
- Research and Development – Active
- Education and Outreach – Active
- Early Detection/Rapid Response – Active
- Information Management – Active

Current work activities of the GOMP's Workgroups include the following:

- Research and Development Work Group
  - Review lists of research needs from other groups, including the original list from the EPA Gulf of Mexico Program
  - Develop and maintain a list of recommended research and development needs
- Education and Outreach Work Group
  - Review existing education and outreach materials and activities
  - Develop guidelines for the use of non-native/invasive species in school science fair projects
  - Develop a brochure of high priority invasive species and issues in the Gulf region
  - Develop a Kids/Teachers Corner to add to the web site
  - Develop a newsletter
- Early Detection/Rapid Response Work Group
  - Develop a Gulf-wide rapid response plan
- Information Management Work Group
  - Review and revise the Gulf of Mexico Invasive Species web site hosted by the GSMFC
  - Provide guidance for maintaining and updating the web site on an ongoing basis
  - Assist in the development and maintenance of a web-based non-native/invasive species data base for the Gulf of Mexico

The GOMP has also recently established an ad-hoc work group called the Taxonomic Registry Work Group. The group was formed to develop a list of taxonomic experts to assist in identification of non-native/invasive species. The group is trying to gain cooperation of taxonomic experts to serve in an official capacity. If successful, they plan to establish a permanent Taxonomic Work Group.

The status of State ANS Management Plans of the GOMP member states are as follows:

- Texas – Expects to have a complete first draft near the end of the year
- Louisiana – Expects to have a complete draft by December or January
- Mississippi – Governor has identified MDEQ as lead agency and directed plan development – held two meetings to date
- Alabama – Held initial planning meeting during 2002 – interest is high to begin plan development
- Florida – Ready for federal agency and public review – perhaps submit for preliminary review by January 2004

Two new members have recently joined the GOMP. The first, Roberto Mendoza, is a Mexican representative from the Universidad Autónoma de Nuevo Leon. The second new member, Phil Bass, is from the Mississippi Department of Environmental Quality. The GOMP is also extending invitations to the Mexican Government and to Cuba.

Mr. Lukens then asked whether there was a specific procedure for asking the Mexican government to join the Regional Panel. Sharon Gross responded that the Task Force has been less formal with the Panels at times and that we should work with the State Department to determine how to proceed.

The GOMP made the following recommendations

- Sponsor a conference in early 2005 on the current status of invasive species in the Gulf of Mexico region
  - Identify and develop a strategy to address constraints to effective invasive species management
- Work with the ANSTF to consider inviting the States of Georgia, South Carolina, and North Carolina to join the Gulf of Mexico Regional Panel, renaming the panel to be the Gulf and South Atlantic Regional Panel

Finally, the GOMP has developed a Science Fair Protocol for schools to use when performing science fair projects that involve invasive species. It seems that most science fairs don't allow live animals, but live plants are okay. Mr. Lukens is seeking approval of the Protocol and asks that the Task Force send a letter to the GOMP giving the Panel its approval.

Although the Task Force members liked the Protocol, several had comments. One Task Force member noted that some of the references are outdated or refer to biotechnology or genetically modified organisms and they would like a chance to edit the document. Another Task Force member noted that the document could be more user-friendly. A third Task Force member noted that the Task Force is referenced in more than one manner within the document. Mr. Lukens stated that he would take all these comments back to the Panel. He also stated that he is interested in writing a companion guide written in an easier language.

The Task Force gave a conceptual approval of the Science Fair Protocol pending changes discussed above. Other comments on the protocol are desired and should be forwarded to Mr. Lukens.



Larry Riley made a motion that the Regional Panel send a draft letter to Ms. Gross who can then edit/improve it and send it on to the Intel International Science and Engineering Fair. Dr. Parker also suggested that the Task Force might want to actually go talk to the ISEF in person and tell them about the protocol before sending it to them.

### **Update on the National Aquatic Invasive Species Act** – *Dean Wilkinson, National Invasive Species Council/NOAA Liaison*

Dean Wilkinson reported that Congress will not pass NAISA this year. This does not mean, however, that the bill needs to be reintroduced. In the House, the bill is split into two bills – a primary bill (HR 1080) and a secondary bill on research (HR 1081). The primary bill may be introduced into the House Transportation and Infrastructure Committee early in the 2<sup>nd</sup> session. The secondary bill was introduced by Congressman Ehlers of Michigan. It was referred to the Science Committee with sequential referrals to the House Administration Committee and others. The bill was reportedly referred out of the House Administration committee with amendments. They have asked NOAA and probably other Federal agencies for comments. The House Administration Committee's deadline for comments was Oct. 20, but an extension was requested and progress is being made.

On the Senate side, the single NAISA bill (S525) was referred to Senate Environment and Public Works Committee and a hearing was held in June where input was requested. The bill contains 32 separate mandates requiring action from the Task Force agencies in 18 months. The Federal agencies met to combine mandates, extend some timelines, and determine what could and could not be reasonably accomplished. There are indications that the Senate EPW Committee is working on revisions. The Council has been asked to collect comments on the Bill and it may move in the 2<sup>nd</sup> session. NOAA was also contacted by Congressional staff to discuss the bill's technical issues – there are still some basic problems in the bill that are of concern to Federal Agencies such as:

- 1) How will the research bill in the House be combined with the primary bill?
- 2) The monitoring requirements differ in the two bills and need to be worked out.
- 3) There are still concerns about the ballast water standards.

During the brief discussion that followed, the Environmental Protection Agency expressed their interest in taking part of any redrafting of the bill. Another Task Force member pointed out that the 18-month deadline is not a good deadline because it doesn't match the Federal budget cycle.

### **Approval of State ANS Management Plans**

#### **Hawaii State ANS Management Plan** – *Dean Wilkinson, National Invasive Species Council/NOAA Liaison*

The state of Hawaii submitted a draft ANS Management Plan to the Task Force in the summer of 2003. The draft was then put out for public comment. Dean Wilkinson stated that he has been following the development of the Hawaii's Plan and that it has continued to improve. The State

of Hawaii apparently took comments from Task Force very seriously as they contacted Dean on four separate occasions to incorporate comments and improve their plan. Ms. Gross agreed and stated that Hawaii had gone out of their way to involve many non-governmental organizations in the plan. She stated that others might want to be as inclusive as it may be easier to implement a plan that has had wide stakeholder input.

The final Hawaii State ANS Management Plan was included in the briefing packets for this meeting and the State now seeks the Task Force's approval.

The Task Force approved the Hawaii State ANS Management Plan.

A Task Force member then stated that perhaps it was time to have some sort of State ANS Plan Summit to review what we have learned about the development and implementation of various State ANS Plans. Ms. Gross agreed that this was a good idea and would especially be needed if NAISA passes with its new State ANS Management Plan requirements.

### **Indiana State ANS Management Plan – Gwen White, D.J. Case and Associates**

As with the rest of the U.S., Indiana has a diversity of invasive species, impacts, and affected stakeholders. Before the State of Indiana initiated the development of its ANS Management Plan, a variety of agencies and organizations were each at different stages of development on their ANS issues. Activities and communication were inconsistent in Indiana as they had no central clearinghouse for information, no single point of contact for the State, and no full-time employee dealing with the invasive species issue. Effective prevention relied significantly on individual knowledge and responsibility.

It was decided that Indiana needed a comprehensive statewide plan for education, prevention, early detection, regulation, and control measures for ANS problems. Indiana Department of Natural Resources hired D.J. Case & Associates as a contractor to facilitate a one-year public participation process. The plan would be produced by a work group with agency and stakeholder representatives and participation of over 120 project reviewers.

Members of the Indiana State ANS Management Plan work Group include:

- IN Dept of Natural Resources
- IN Dept of Environmental Management
- Indiana University, Purdue, and Notre Dame
- Bloomington Parks & Recreation Dept
- Board of Animal Health
- IN State Dept of Health
- Office of the State Chemist
- Great Lakes ANS Panel
- U.S. Fish & Wildlife Service
- IL-IN Sea Grant
- The Nature Conservancy
- Lake Associations
- Circle City Aquarium Club
- Wetland Plant Nurseries
- Aquatic Herbicide Applicators
- Sierra Club
- IN Aquaculture Association
- Riverwatch
- IN Lakes Management Society
- IN BASS Federation

The first public meeting was held on April 15, 2003. Its purpose was to develop the steering committee and reviewers and to identify issues and solutions. A draft was reviewed and regulatory concepts were discussed at a second public meeting on July 29. The draft plan was presented to the Natural Resources Commission on September 16. The final plan was approved and discussions of implementation and funding occurred at a third public meeting on September 18. The plan was approved by the Natural Resources Commission and published in the Indiana Register.

Ms. White then went over some of the guiding principles used to develop the Indiana ANS Plan and discussed the components of the plan. A copy of the plan was enclosed with the briefing packet for this ANSTF meeting.

Ms. White then gave a quick overview of the various ANS throughout Indiana.

- Nonnative fish in Indiana as a result of aquaculture and fisheries include carp (bighead, silver, black, grass, and common), gizzard shad, and white perch. Fisheries impacts of ANS cost up to \$2 million annually, including draining and restocking of reservoirs.
- Aquarium fish found in Indiana waters include: pacu and piranha (in every type of water all over the state), several alligators and caiman, tin foil barbs, tiger Oscars, Bala sharks, aruanas, and Oriental weatherfish.
- Snails, clams, and mussels include the Chinese mystery snail, Asiatic clam, zebra mussel, and possibly New Zealand mudsnails. Costs include over \$43 million spent in five years on zebra mussel control at 84 water withdrawal locations in the Great Lakes.
- Diseases and parasites including whirling disease (trout and salmon), largemouth bass virus, *Heterosporis*, spring viremia, and probably unknown others.
- Weedy exotic plants include Eurasian watermilfoil, *Cylindrospermopsis* (a toxin-producing algae), purple loosestrife, reed canary grass, and *Phragmites*.

Indiana currently has regulations that cover some part of the following pathways: aquaculture, the bait industry, anglers, biocontrol, and connected waterways. However, exemptions exist for aquarium and pet owners, landscape ponds, and live food fish.

Some of the high priority strategic actions within the plan include:

- Integrating the state plan with regional actions
- Developing a baseline public understanding
- Planning for rapid response activities
- Educating the public on prevention
- Building institutional capacity
- Developing control methods
- Coordinating control programs
- Regulating introduction of exotics

A summary of the approval process is as follows:

- September 16, 2003 – Plan approved by the Natural Resources Commission (NRC) as a nonrule policy document
- October 7 – Plan signed by Governor Kernan
- November 1 – Plan published in the Indiana Register
- November 5 – Plan delivered to the ANS Task Force

Ms. White closed her presentation by stating that the State of Indiana currently spends approximately \$3 million per year on aquatic invasive species issues. Indiana needs at least

another \$1 million per year to implement effective ANS prevention and control. This funding will allow the State of Indiana to determine highest immediate priorities, identify feasible projects, and submit funding requests.

One Task Force member asked about a reference to impacts to drinking water utilities and why they were included. Ms. White stated that the toxin emitting algae was the cause. The EPA representative to the ANSTF stated that since impacts to drinking water are involved, EPA funding sources may be available.

The Task Force approved the Indiana State ANS Management Plan.

Another Task Force member asked whether the Oriental mystery snails could be golden apple snails. Ms. White answered no, but that they also have the golden apple snails. The Task Force member then asked if the snails were being killed off each year by the cold or was the water heated. Ms. White responded that the snails don't need to be associated with warm water effluents to survive, however they are concerned that piranha may be overwintering in the warm water effluents.

#### **Wisconsin State ANS Management Plan – Dr. Shawn Alam, U.S. Fish and Wildlife Service**

Dr. Alam gave a presentation on the Wisconsin State ANS Management Plan on behalf of the State of Wisconsin. The plan was prepared by the Wisconsin Department of Natural Resources in cooperation with the University of Wisconsin Sea Grant and the Great Lakes Indian Fish and Wildlife Commission. The purpose of the plan is to:

- Provide for a coordinated response to aquatic invasive species problems in Wisconsin
- Establish a comprehensive statewide strategy to deal with this issue
- Qualify Wisconsin for federal funding to implement the actions in the plan

The goals of the plan include:

- Prevent new AIS introductions into Wisconsin waters
- Stop the spread of established AIS populations
- Abate harmful impacts resulting from invasive species infestations

Dr. Alam went over some of the information in the Wisconsin ANS Management Plan including species of concern, vectors of transport, and specific program elements within the plan. A copy of the plan was enclosed with the briefing packet for the November 2003 ANSTF meeting.

Examples of partnerships within the plan to promote prevention/control efforts include:

- Volunteer assistance in monitoring efforts
- Lake organizations and local units of government assistance with watercraft inspection/boater education at landings
- Lake associations, UW Extension, schools, community organizations will partner with DNR to further education efforts and promote public awareness

A summary of key plan elements include:

- Provides for a 5-year detailed work plan
- Requests \$466,683 federal funding per year
- Follows regional model plan guidance developed by Great Lakes panel, and is consistent with federal guidance

One Task Force member noted that the plan had some typographical errors that needed to be corrected. Another noted a reference to a linkage between blue-green algae and cancer cases. That reference needs to be cited or taken out.

The Task Force approved Wisconsin's State ANS Management Plan with revisions.

Mr. Gross then mentioned that she had been sent a comprehensive state plan from FL that included both aquatic and terrestrial species. She stated that the Task Force might need to revise the ANS management plan guidance document to accommodate these types of plans. It was at this point in the Task Force meeting that Dr. Parker revealed that Ms. Gross, the Executive Secretary of the Task Force, was leaving the Fish and Wildlife Service to take a position with the U.S. Geological Survey. Several Task Force members expressed their disappointment and complimented Ms. Gross on the job she had done. Other Task Force members expressed their opinion that her placement must be chosen carefully.

## **Other Aquatic Nuisance Species Issues**

### **Status of Injurious Wildlife Activities – Kari Duncan, U.S. Fish and Wildlife Service**

The most effective means of dealing with invasive species is to prohibit their introduction. The Injurious Wildlife Provisions of the Lacey Act and the corresponding regulations are tools that we can use to prevent the importation and introduction of those invasive species that fall under the definition of injurious wildlife.

The injurious wildlife provisions of the Lacey Act defines injurious wildlife as those species, including offspring and eggs, that are injurious to:

- Health and welfare of human beings
- Interest of forestry, agriculture, and horticulture
- Welfare and survival of the wildlife or wildlife resources of the U.S.

The Service is directed by Congress to make listing determinations under all of these categories, not just wildlife and wildlife resources.

If a species is listed as injurious it is unlawful to import the species into the United States or to ship them between the continental U.S., the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any territory of the U.S. If a person has the species prior to a listing, possession and intrastate movement are not prohibited except under State regulations. Importation and interstate movement are prohibited except by permit for the following purposes: zoological, educational, medical, and scientific. Federal Agencies do not need a permit to possess the species for their own use, such as scientific research.

Under Title 50, Part 16, the types of animals that may be listed under the Injurious Wildlife Provision include:

- Live wild mammals,
- Live wild birds or eggs,
- Live or dead fish (including mollusks and crustaceans) or eggs,
- Live amphibians or eggs, and
- Live reptiles or eggs

This list includes live specimens, offspring, or viable eggs/gametes. The statute doesn't actually limit the Service to only live specimens; that restriction is in the regulations. Plants and insects are not covered under the Injurious Wildlife Provision.

The species that are currently listed include:

- Mammals
  - Flying fox or fruit bat genus
  - 7 mongoose genera
  - European rabbit genus
  - Indian wild dog, red dog or dhole genus
  - Multimammal rat or mouse genus
  - Raccoon dog
  - Brushtail possum – The final rule was published on June 11 and effective July 11, 2002. The decision was based on the possum's potential to cause habitat destruction, prey on wildlife, and act as a vector for bovine tuberculosis. It also has only limited use as a pet. APHIS has prohibited importation from New Zealand due to bovine tuberculosis.
- Birds
  - Pink starling or rosy pastor
  - Species of dioch – predated cereal grain crops in native habitat in Africa
  - Java sparrow – predated cereal grain crops in native habitat in Southeast Asia
  - Red whiskered bul-bul – detrimental to the interests of horticulture in native habitats of Southeast Asia
- Fish, Mollusks, Crustaceans
  - Walking catfish family – competes with native fish for food and habitats; ineffective controls in Florida.
  - Mitten crabs
  - Zebra mussels
  - Live or dead whole fish, live fertilized eggs, or gametes of salmonids unless they have a health certificate – listed due to potential to transfer pathogens to native salmonids
  - Snakehead family *Channidae* – October 2002
- Reptiles
  - Brown tree snake
- Amphibians – none listed at this time

Permits to import or ship species listed as injurious can be obtained from the Service's Division of Management Authority (800-358-2104). The permit application is Federal Fish and Wildlife

License/Permit Application Form 3-200-42. The form can be obtained from the Internet at: <http://forms.fws.gov/3-200-42.pdf>

The process for listing a species as injurious is as follows:

1. Initiate evaluation (with or without a petition).
2. If warranted, publish a Federal Register notice requesting biological and economic information.
3. Evaluate scientific data using established criteria.
4. If the data supports listing, publish a proposed rule to list and request public input.
5. Publish a final rule to list or a notice explaining why the species will not be listed.

Biological data is analyzed to make listing determinations. Economic data is considered as a part of the Record of Compliance but does not factor into the listing determination. The process is coordinated among the involved programs in the Service. Field biologists may be involved in completing the evaluation.

Species currently being evaluated by the Service include:

- Black carp - by petition
- Swamp eel family of fishes
- Bighead carp - by petition
- Silver carp - by petition
- *Boiga* genus of snakes – by petition

The following information is evaluated before a decision is made on whether or not to list a species as injurious:

- Factors that contribute to injuriousness
  - Release/escape
  - Survival/establishment
  - Spread
  - Impacts on
    - Wildlife resources and/or ecosystems (hybridization, competition for food/habitats, habitat degradation/destruction, predation, pathogen transfer)
    - T & E species and their habitats,
    - Human beings, forestry, horticulture, agriculture
  - Wildlife/habitat damages due to measures used to control injurious species
- Factors that reduce or remove injuriousness
  - Ability to
    - Prevent escape/establishment
    - Eradicate
    - Manage established populations
    - Prevent/control the spread of pathogens
    - Rehabilitate/recover disturbed ecosystems
  - Ecological benefits to introduction
  - Other factors (sterility, triploidy)

Occasionally, the question comes up as to whether or not the Service can do an emergency listing. The Service does not have the authority to complete an emergency listing under the Lacey Act. With “good cause,” the Service can publish an interim rule under the Administrative Procedures Act. The rule is effective immediately and the Service must provide a public comment period with the interim rule. The Service will then evaluate the public comments and publish a final rule.

An audience member asked if the listing only applied to non-native species. The response is that this is currently being researched and we don’t have an answer yet.

A Task Force member then asked whether a full blown risk assessment was required before a species can be listed. Ms. Duncan replied negatively – the brushtail possum was listed without completing a risk assessment.

Another Task Force member asked whether listing a species would prevent the establishment of a fishery. Ms. Duncan replied that a listing wouldn’t prevent a non-live fish fishery or a fishery within state lines.

Another audience member asked if there had ever been any evaluation of the listing done so far to see if it really does help. While an official evaluation has not been completed, the biggest advantage of listing is the prevention of further importation of that species. The species are probably crossing state lines on their own.

Another Task Force asked about the recommendations contained within a risk assessment and whether the Service is required to explain why they might not follow recommendations provided. The Service uses the information from the risk assessment to help them make their decision based on the injurious wildlife criteria. The criteria are available to the public.

Finally, an audience member asked if there was any way to consider plants and insects under the Lacey Act. A Task Force member replied that insects and plants are covered by APHIS under the Plant Protection Act.

### **Workshop on Pathway Management Using the HACCP Process – Bob Pitman, U.S. Fish and Wildlife Service**

Mr. Pitman started his presentation by making the point that in the world of aquaculture and fish hatcheries, not everything that is collected and moved is a target species and not everything that is stocked is the intended target species.

One way to stop the spread of non-target species is through the application of a HACCP concept to manage natural resource pathways. HACCP is a quality control planning process also known as Hazard Analysis and Critical Control Point planning. The process was originally developed by Pillsbury Foods to insure food purity and has become a standard in the food processing industry. The process uses a series of five linked forms to identify hazards (non-target species in this case) and remove contamination at critical control points.



Sea Grant Universities have adapted the HACCP planning process for use in the seafood industry. In 1998, the Great Lakes Sea Grant Universities adapted HACCP for use in the aquaculture and wild baitfish harvesting industries as a process to prevent the spread of aquatic nuisance species in fish shipments or by equipment used in field operations.

Managing natural resource pathways using the HACCP planning process allows one to be preventive instead of reactive by focusing on the critical control points in a pathway. It can be used as a planning tool to identify best management practices to prevent the unintended spread of non-target species of plants and animals.

The Seven Principles of HACCP Planning include:

- Identifying Critical Control Points (CCP)
- Establishing control measures
- Monitoring each CCP
- Establishing corrective action to be taken when a critical limit deviation occurs
- Establishing a record-keeping system
- Establishing verification procedures
- Conducting hazard analysis and identify preventive measures

The Service introduced the HACCP planning process to its Southwest Region in April 2000, through a one-day workshop at the Inks Dam National Fish Hatchery in Texas. HACCP related materials and training were provided by Sea Grant. As a quality control planning tool, HACCP was determined to “fit well” with the objectives and needs of the National Fish Hatcheries in the southwest. After the workshop, an implementation team was formed and the field stations started drafting HACCP plans.

To support the HACCP pathway management planning process the Service has developed a HACCP web site (<http://www.HACCP-NRM.org>). Covering both terrestrial and aquatic pathways, the web site contains forms, instruction, technical assistance and a database of completed HACCP plans. The Service’s National Conservation Training Center is also developing HACCP training opportunities. A “train the trainer” course is scheduled for January 12–16, 2004. After that course, trainers will be ready to set up regional workshops in 2004.

HACCP is a planning tool that could be used to prevent the spread of Asian Carp. HACCP could also be used to prevent the spread of invasives in terrestrial pathways as well.

Bob Pitman then introduced David Britton who gave a presentation on the structure and content of the HACCP web site.

A Task Force member asked where one could get additional information on HACCP (beyond the website). Mr. Pitman answered that one can also do a general search for HACCP on the internet. Another Task Force member stated that HACCP is not a new concept and that it is a very useful and novel approach for wildlife management. A member of the Great Lakes Panel then expressed an interest in getting some help or maybe some HACCP templates. A member of the

Gulf of Mexico Regional Panel has already had a HACCP workshop and expressed an interest in seeing HACCP become regional policy.

**North American Brown Tree Snake Control Team** – *Bob Pitman, U.S. Fish and Wildlife Service*

The North America Brown Tree Snake Control Team (NABTSCT) is a complimentary group to the Aquatic Nuisance Species Task Force that was formed to inspire and facilitate communication, cooperation, and understanding within and between agencies and organizations and to provide coordination of efforts between agencies concerning brown tree snake issues. Its mission is to prevent the invasion of brown tree snakes into continental North America through education and awareness and through rapid response assessments of potential sightings via a partnership of stakeholders.

The NABTSCT is working to achieve this mission by:

- Developing a coordinating website (<http://users.tamuk.edu/ksmah00/index.htm>)
- Developing educational material that can be downloaded from the website
- Conducting rapid response to investigate potential brown tree snake sightings
- Representing NABTSCT at scientific meetings

The website is under development and will probably be the main communication tool for the NABTSCT. Educational material will include news alerts, information on brown tree snake identification and look-alike species, and presentations and posters to increase people's awareness of the BTS issue/threat. Plans are underway to develop a modified rapid response plan, but completion is dependent on the degree of future participation.

The NABTSCT also serves as an "expert" on the brown tree snake for ANSTF Regional Panels by providing requested information and conducting requested research.

Membership on the NABTSCT consists of individuals from numerous agencies, and includes USFWS, USDA, USGS, DOD, State Agencies, the Pet Industry and a few miscellaneous individuals. Additional membership is needed to increase awareness of the brown tree snake problem, to act as an information distribution network, and to have potential rapid response personnel locally placed. Members are still needed from the following organizations: Gulf Coast Regional Panel, Western Regional Panel, Zoos, Herpetological Organizations, The Nature Conservancy, Audubon, The Wildlife Society, and Commercial Airlines.

Current activities of the NABTSCT include research into the current BTS issue in North America and efforts to get the information into a user-friendly format. Activities include:

- Placing an advertisement in the Herpetological Review for native snake photos (completed).
- Sending a letter to the USFWS to add the entire *Boiga* genus to the Injurious Wildlife list (completed).
- Establishing a hotline for the general public to call if they see a brown tree snake in North America (completed).

- Obtaining information from the military, pet industry, and commercial airlines as potential pathways for brown tree snakes to enter North America.
- Developing brown tree snake information, including an annotated bibliography and a Powerpoint presentation for on-line use and an alert for distribution on-line and to media.

Future activities of the NABTSCT include (depending on increased membership):

- Increasing both individual and organizational membership in the NABTSCT, especially with state wildlife agencies.
- Establishing a regional network of volunteers who are willing to search for brown tree snakes if sightings occur in North America.
- Writing news releases about NABTSCT for publication in lay-group magazines
- Advertising the NABTSCT at wildlife and conservation-related professional

The NABTSCT is currently involved in two main issues. The first is the fact that the threat of the brown tree snake threat to the continental U.S. is not yet fully obvious. This problem will be addressed through the NABTSCT's education and outreach efforts. The second problem is a general lack of response to NABTSCT requests. This problem is much more difficult to address and will take a lot of leg-work and encouragement.

A Rapid Response Program is under development. It is based on a program originally developed by USGS and used in the Pacific to respond to snake sightings. So far, two groups of searchers have been trained. The ultimate goal is to train enough searchers from around the Pacific to have a self-sustaining population of searchers and increase the reaction time in response to a snake sighting.

The Rapid Response Program is seen as complimentary to the other elements of the BTS Control Program. Two other components of the BTS Control Program include prevention (cargo inspections before leaving Guam) and interdiction (cargo inspections in Hawaii and other places that receive shipments from Guam). The Rapid Response Program has had great success in developing relationships and awareness among the local wildlife agencies.

The Rapid Response Teams conduct searches in the vicinity of the initial snake sightings and are ultimately looking for signs of an established population (i.e., more than one snake). To date, reported snake sightings have resulted in few actual captures (the proverbial needle in the haystack). Snake searchers are aided by traps as they perform visual searches during both day and night. Searchers inform the public on their activities and how to deal with snakes should it be found, and work closely with the local agency. Future rapid response tools may include chemicals and dogs.

A secondary mission of the Rapid Response Teams is the education of the local population and development of rough surveys of local prey base and habitats. By letting the public know what the search team is doing, public awareness and concern is increased. Local citizens on smaller islands without snakes do appear concerned and do not want to lose their birds and other natural resources to the snake. They are very helpful and show a great willingness to learn how to deal with snake sightings.

Recent search team deployments have gone to the Commonwealth of the Northern Mariana (CNMI), and they have worked closely with the Division of Wildlife in the CNMI. The division also has a phone number that people can call to report a sighting. So far, the system seems to be working.

To date the Rapid Response Program has exhibited good collaboration with local agencies, helped develop public awareness in Saipan and Tinian, and produced a well-developed training course. Overall, the program has been fortunate because local populations are very concerned and are very understanding as to the effort being put forth. Besides time and money, the main factor inhibiting success is whether the team will get enough snake searchers trained for future responses. It definitely is a program that should be supported and closely monitored as to its progress and development.

In the continental United States, the Rapid Response Program will be difficult to replicate due to the enormous acreage involved. The number of snake searching teams you would need to properly cover the area is staggering. Other issues that will make it difficult to implement include insufficient resources to train enough personnel, private property issues, and increasing public awareness. The NABTSCT will continue to develop the Rapid Response Program, look at stateside models, and continue efforts to get the word out. They will also monitor how Hawaii develops its program and determine a future course.

To date, the NABTSCT has received two calls about snakes – one from Oklahoma, which ended up being a brown snake and one from Texas that ended up being a Texas blind snake. Both calls reached the NABTSCT from other agencies and neither response can be considered “rapid.” Each case illustrates the point that we need to continue to focus on increased awareness and developing a faster response time (e.g., direct contact rather than through other agencies).

## **Public Comment Period**

*Jay Rendall, Minnesota Department of Natural Resources*

Mr. Rendall wanted to provide some of his thoughts from a State perspective during the public comment period. He began by stating that he feels that communication and coordination are becoming more and more important. Many potential stakeholders are still not aware of key things that are occurring. He has also conveyed this to the Director of the Invasive Species Council. He would also like to see some sort of national calendar that lists all invasive species events, meetings, conferences, etc.

For management plans for specific species, he would like to see some sort of generic plan created – a framework for everyone to work from. Information dissemination is also very important. He would like to see some sort of national list of state contacts and other organizations that could be used for e-mailing the minutes from meetings. He would also like to see even more information posted on web sites.

Another topic is the development of priorities – from State Plans, Regional Panels, agencies, etc. – he has yet to where these things are meshed together. He would especially like to see priorities worked into requests for proposals.

On the topic of regulations, it is his personal opinion that listing a species as Injurious under the Lacey Act is not successfully preventing their movement from state to state. National laws are needed to prevent the transport of zebra mussels or aquatic plants on public roads. We have been working on the species for years but no regulation prohibits their movement.

Species of concern in Minnesota include bighead carp, *Daphnia locultzi*, zebra mussels, spiny water flea, pacu, *Cylindrospermopsis*, frozen snakehead fish in markets, salvinia being sold, mute swans, blue-green algae and many more. This is a huge job and they need as much help as they can get.

A Task Force member then responded to Mr. Rendall's comment about priorities, stating that Sea Grant has tried to go to the Regional Panels to get general priorities. He asked that the Panels take this request seriously when asked.

### **Other Comments**

The Task Force member representing the American Water Works Association requested that Regional Panels and States (and state plans) work to engage the local drinking water agencies through state regulatory agencies.