

Meeting Summary
Aquatic Nuisance Species Task Force Meeting
May 13 and 14, 2003, New Orleans, Louisiana

May 13, 2003 - Tuesday

Welcome, Introductions, and Approval of November Meeting Summary - *Tim Keeney, Deputy Assistant Secretary for Oceans and Atmosphere, National Oceanic and Atmospheric Administration*

Timothy Keeney welcomed the Task Force members and guests to the meeting. Mr. Keeney introduced himself as the new NOAA co-chair and made several announcements:

- The Task Force recognized Ron Lukens, representing the Gulf of Mexico Regional Panel for all his hard work in helping to set up this meeting.
- Recognition was also given to Mark McElroy (LA DWF), Marilyn Barrett-O'Leary (LA Sea Grant), and Dr. Marty McConnell (University of New Orleans) for their assistance in setting up both the meeting and the field trip.
- Cathleen Short, the USFWS co-chair of the meeting Task Force, is retiring and will be replaced by Dr. Mamie Parker. Dr. Parker could not attend this meeting and sent her regrets, but is planning to attend the next meeting.

The Task Force members then introduced themselves. After the introductions, Sharon Gross announced that this would be the last meeting for several members including Scott Newsham, Gary Isbel, and Mike Hauser.

Dean Wilkinson then highlighted some of Scott's work for the Task Force. He also announced that LCDR Kathy Moore would be Scott's replacement on the Task Force, working on ballast water regulations and IMO issues.

Sharon Gross acknowledged Gary Isbel and Mike Hauser for their hard work and dedication over the years.

- Gary Isbel has been an ex-officio member of the Task Force since 1993, representing the International Association of Fish and Wildlife Agencies. He has been a tireless advocate on behalf of states and worked hard to help get state ANS management plans in place. Gary thanked the Task Force and commented that he would like to see even more funding for States for State ANS management plans.
- Mike Hauser has been an ex-officio member of the Task Force since 1996, representing the Lake Champlain Basin program. He was vital in the development of the Lake Champlain interstate ANS management plan and he set the model for working on interstate management plans. He has also worked hard to participate in the activities of the Northeast Regional panel. He will be turning his responsibilities over to Bill Howland.

Mr. Keeney then reviewed the logistics of the meeting, went over the agenda, and briefly discussed how the public comment period works.

The minutes from the previous meeting (Feb. 2002) in Honolulu, Hawaii were reviewed and approved by the Task Force as written.

Overview of Regional Issues

Nutria – History and Management in Louisiana - Greg Linscombe, Louisiana Department of Wildlife and Fisheries

Nutria are native to South America, with the highest numbers occurring near Buenos Aires. They occur in very similar habitats in Louisiana. They were raised in captivity in Louisiana in the early 1930s and escaped and/or were released into the wild in the late 1930s. By 1943, they could be found all across Louisiana. At that time, the fur trade was based on the muskrat, and Louisiana produced over 4 million pelts per year – more than all the other States combined.

The nutria are very adaptive and can do well in both freshwater marshes (density of 18/hectare) and brackish marshes (density of 9/hectare). Their eating habits can severely denude the marshes. Males are sexually mature at 4-9 months and females are sexually mature at 3-9 months) – this varies with habitat quality. Litter sizes range from 1 to 13 with an average of 4.5 and the females can breed again a few days after giving birth. Litter size varies with the age of the female, habitat quality, and the time of the year. Newborn nutria are precocial and can feed on vegetation within hours of being born.

By the late 1950s, nutria were cutting through levies, eating in rice fields, and had moved into sugar cane fields. By 1958, nutria were put on an outlaw list and a bounty of \$0.25 was established, but never appropriated. Nutria damage continued until a fur market developed in the early 1960s.

The fur market for nutria developed in Germany in the early 1960's and nutria replaced the muskrat with harvests over 1 million nutria per year. Prices rose and in the 1970s and 1980s nutria were worth \$15 million in a \$25 million fur market. Eventually, market changes in 1980s, along with mild European winters, market saturation, a shift to leather, animal rights groups (more in Europe than in U.S.), and an overproduction of ranch mink in Scandinavia, caused a big drop in the price of wild fur.

In 1986, the Louisiana trappers, along with the Alligator Hunter's Association and coastal landowners, requested the creation of a Louisiana Fur and Alligator Advisory council. The Council's goals were to look for new markets for fur and alligator products and to educate the public.

Landowners eventually began reporting vegetative damage in marshes and the Louisiana Department of Wildlife and Fisheries first began observing damage in 1988. Mr. Linscombe showed many slides detailing the damage done by the nutria. The nutria eat so much of the vegetation that the marshes are converted into open water habitats thus exposing fragile organic soils to erosion. They have also done studies that show the nutria are having an impact by using

enclosures that demonstrate the difference in habitat quality between habitat with and habitat without nutria.

In 1998, Louisiana started a Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) funded project whose objective was to develop a market for nutria meat for human consumption. The goal of the project was to add the value of the meat to the value of the fur to increase trapper incentive.

In addition, funds have also been obtained for the Brown Marsh Nutria project to conduct additional research on the biology and socioeconomic aspects of nutria, evaluation of control methods, and the development of an educational media packet.

Some of the results of the ongoing project include:

- Chemical control is problematic because the techniques used would require substantial testing and registration. For non-specific use such as aerial baiting, many issues involving impacts to other fish and wildlife would have to first be addressed.
- Incentive payments are a useful technique to complete eradication, however, the nutria must be in isolated populations with no source of re-infestation and cold temperatures appear to be essential for full eradication. The United Kingdom actually eradicated nutria through a \$2.5 million dollar incentive program at approximately \$4 per tail.
- Trapping is a useful technique that could work if there was market for the fur and meat. Currently there is only a limited effort to harvest nutria.
- Hunting is generally opportunistic, but with concentrated hunting, the animals become shy. Control solely by hunting is unrealistic but could be more successful with the addition of an incentive payment.
- Inducing infertility has been investigated by APHIS and there are not currently any techniques available for field application that are not impractical and have significant environmental implications.
- Chemical repellents are also not an option. There are no repellents registered for nutria that would not cause damage to other animals as well. Multiple applications of the repellents would also be necessary.

Louisiana has now initiated a Coastwide Nutria Control Program. The objective of the program is to reduce or eliminate vegetative damage by increasing the harvest of nutria through an incentive payment. The program will provide funding to pay trappers \$4 per tail (for proof of harvest) for up to 400,000 nutria harvested annually. Participants must purchase a Louisiana trapping license and a program application. Participants must deliver fresh or well-preserved tails greater than or equal to 7 inches.

In January 2002, the Coastwide Nutria Control Program was selected for 5 years of funding. Since the program's initiation, transects have been flown to assess the severity and extent of the nutria damage, biologists have been hired to run the program, and public meetings have been held. The trapping season started at the beginning of November 2002, and by the end of November, the first tails were being collected and participants were receiving check 2-3 weeks later.

Mr. Linscombe concluded his presentation by mentioning some research that is currently being conducted. Projects include:

- Vegetative damage recovery
- Vegetative damage restoration
- Importance of nutria in alligator food habitats
- Potential for use of zinc-phosphide for control
- Nutria population differences between the Chenier and Deltaic Plains

Someone asked whether they used native plants in their restoration projects and the answer was yes, but the species composition may sometimes change due to loss of elevation as the exposed organic soils erode or settle.

Salvinia molesta* and *S. minima – Scott Longman, Louisiana Department of Wildlife and Fisheries

In 1980, common salvinia (*S. minima*) was found in St. Mary's Parish and started to spread throughout the coastal parishes. In July, 1998, giant salvinia (*S. molesta*) was collected in Bayou Teche and by September of that same year, giant salvinia was discovered in Toledo Bend Reservoir. Mr. Longman then showed several slides of the distribution of both species of salvinia in both the southeast and the U.S. as a whole. To date, common salvinia has infested approximately 70,000 acres, while Louisiana has about 500 acres of giant salvinia.

The plant is a rootless floating fern with larger folded fronds that can grow greater than 3cm in length and tolerate a salinity of 7 parts per thousand. Mr. Longman showed several slides of the plant to illustrate these points. The two species can be difficult to tell apart but one can do so with a hand lens by looking at the hairs on the fronds. In common salvinia, the hairs of the fronds project out from the plant without touching while in giant salvinia, the hairs project out from the plant but then bend inwards halfway along their length and touch at the end, forming the outline of a diamond.

The impacts of the introduction of both salvinia species:

- Ecological Impacts
 - Shading out desirable native vegetation
 - Reducing oxygen production by phytoplankton (via shading)
 - Reducing dissolved oxygen needed by fish and other aquatic life (from decaying vegetation)
 - Altering wildlife habitat by reducing or eliminating open water
- Economical Impacts
 - Reduction or elimination of hunting and fishing opportunities
 - Impaired navigation
 - Interference with agricultural irrigation: rice and crawfish farming
 - Interference with electric power generation

Mr. Longman showed several slides of small bodies of water totally covered by salvinia.

Preventing further introduction and spread are a primary objective of the State. This is being done by focusing on three areas:

- 1) The water garden and aquarium plant trade;
- 2) Human transport: boats, trailers, float planes; and
- 3) Natural flow in rivers and streams.

Control in natural rivers and streams is being conducted in several ways. Scott reports that the only herbicide specifically labeled for salvinia control is diquat dibromide (Brand names: Reward or Weedtrine-D). Glyphosphate is not specifically labeled for salvinia but is labeled for use in wetland/aquatic habitats (Brand names: Aquamaster, Eagre, Glypro, and Rodeo). They are also using biocontrol, and have recently released 100,000 weevils south of Houma. Near the coast, they also use habitat manipulation as a method for control by drawing off the water and waiting for saline water to be available. Unfortunately, giant salvinia is much more saline tolerant than common salvinia.

Mr. Longman ended his presentation with the announcement that a Louisiana Salvinia Task Force was established on May 23, 2000 to deal with the salvinia issue. The Task Force includes Representative Dan Morrish and Senator Gerald Theunissen as well as State agencies, universities, and private industries and organizations.

Persistence of non-indigenous Nile tilapia (*Oreochromis niloticus*) in coastal watersheds of southern Mississippi and their influence on native ichthyofauna - Mark Peterson, Gulf Coast Research Laboratory

Dr. Peterson started off his lecture with a map showing the number of non-native fish in various USGS hydrologic units of the U.S. He launched into his discussion on the Nile tilapia that have been escaping from aquaculture farms in Mississippi. He briefly touched on their life history, reporting that the Nile tilapia can grow to up to 433 mm (TL) and tolerate salinities of up to 14 parts per thousand. In the wild, natural selection seems to be favoring cold tolerant individuals.

He then gave an overview of a two-year study in which he has been sampling the waters downstream from aquaculture facilities. He presented several slides showing the sampling points for his research and reported that he has been finding Nile tilapia downstream from aquaculture facilities, including catching some of the biggest and smallest near the facilities. The fish seem to be thriving in the warm effluent of the aquaculture facilities.

In addition to ecological impacts such as increased competition and changes in species diversity, the Nile tilapia may also impact reproduction directly by using all suitable spawning habitat, given its nest building activities and aggression to native fishes. Sedimentation downstream from the aquaculture facilities has significantly altered the aquatic habitat creating good nursery habitat for the tilapia. Some of the results of Dr. Peterson's work show that:

- Young Nile tilapia are being caught downstream and in other remote areas of the watershed;
- There is a good chance that natural selection will help "create" a more temperature-tolerant fish;

- The tilapia are feeding on bottom sediments and the associated organisms at the base of the food web;
- Tilapia have eggs at sizes as small as 60 mm (TL); and
- Tilapia appear to tolerate salinity up to 13.5 ppt.

Young tilapia live in swampy habitats where diversity is low but conditions are such that it is an ideal nursery area. Thermal profiles for 3 years indicate the aquaculture facility is providing a continual thermal refuge for this species. There is a maximum of 12°C difference between effluent water and surrounding receiving waters in winter. Studying the tilapia in the early stages of infestation will help to guide the management of the species.

An Update on the Establishment of the Rio Grande Cichlid (*Cichlasoma cyanoguttatum*) in Southeastern Louisiana - Marty O'Connell, Pontchartrain Institute for Environmental Sciences, University of New Orleans

Dr. O'Connell started his presentation with some background on the Rio Grande cichlid. A native to Mexico, the Rio Grande Cichlid (*Cichlasoma cyanoguttatum*) range extends into the United States in the Rio Grande drainage. It is the only cichlid species that occurs naturally in the United States. Accidental or intentional introduction has allowed for populations to become established in central Texas and peninsular Florida while introductions into Arizona, Illinois, Kansas and Nebraska do not appear to have become established.

In June 1996, the cichlid was first collected in the canals and bayous of the Greater New Orleans Metropolitan Area (GNOMA). Since then, *C. cyanoguttatum* has rapidly become established throughout the canals of the GNOMA. This particular introduction is unique in relation to the other introductions of this species in that, unlike the introductions into more western or southern states, the Louisiana populations of *C. cyanoguttatum* experience habitat and climactic conditions similar to its native range. The cichlid is currently found in canals adjacent to Lake Pontchartrain which usually have a salinity of five parts per million, but in a drought year can be up to ten to fifteen parts per million. The Louisiana population of *C. cyanoguttatum* is only very recently established and thus offers an important opportunity to study the early expansion of an aquatic nuisance species. Dr. O'Connell is interested in finding out whether artificial habitats are helping the cichlid.

In the six years since the first collection of the *C. cyanoguttatum*, its expansion has been described using data from survey collections, collections from fish kills, specimens provided by anglers, underwater photography, and field observation by biologists. Initial collections of the cichlid were low in number and thought to be the result of isolated aquarium releases. However, identification of many individuals in a fish kill in 1998 was the first real evidence that the species was becoming established. In response to this discovery, an extensive survey was done of Jefferson Parish and the cichlid was discovered in all 20 of the canals that drain the region.

Since that time, populations of *C. cyanoguttatum* have remained established in these canals with verified reproduction. The cichlids are regularly observed at the pump stations that move canal water into Lake Pontchartrain during periods of heavy precipitation. In Orleans Parish, *C.*

cyanoguttatum have been observed yearly in several canals and a pond and continue to be observed in and collected in Bayou St. John.

C. cyanoguttatum have also been observed moving through estuarine habitats. Two underwater photographers recently photographed a healthy pair of the cichlids at an artificial rock jetty in Lake Pontchartrain. This area is regularly experiences salinities in excess of 5 ppt and is not associated with any canal pumping. In drought years the cichlid may have been held back somewhat, but with all the precipitation in the Mississippi drainage this year, salinities are down. They are also getting freshwater input from water management practices.

One method of spread that is a problem is bait bucket transfer. The fisherman transfer bait fish from canals and dump it after they are done fishing. The cichlid could be adapting to higher salinities. There seems to be growing evidence that there is a lack of environmental resistance to the exotic fish as they are seeing them in natural and artificial habitats. They also seem to be moving through stretches or poor habitat as they look for suitable breeding habitat. The bait bucket transfer issue is a bigger problem than initially estimated.

According to Dr. O'Connell, further expansion of Rio Grande cichlids from GNOMA appears likely because established populations of *C. cyanoguttatum* will annually supply a source of offspring to be pumped into Lake Pontchartrain and into potential habitats. Even if more natural aquatic habitats prove to offer effective resistance to these invaders, there are many other factors that could exacerbate the problem.

At the close of Dr. O'Connell's discussion, Ron Lukens commented that they are having a hard time finding funding to study this species because they have not yet found significant impacts caused by the cichlid.

Information Management in the Gulf Region – Ron Lukens/Pam Fuller, Gulf States Marine Fisheries Commission/US Geological Survey

Mr. Lukens reported that the Gulf States Marine Fisheries Commission (GSMFC) recently inherited a database from the Gulf Coast Research Laboratory (GCRL). The EPA Gulf of Mexico program had originally received a grant from the GSMFC/panel to set up the database. GSMFC is now hoping to expand the web site/database to include Gulf Coast Regional ANS Panel information. They are currently developing a plan to keep the website updated, and, while reworking the database, they are also working with Pam Fuller (USGS) to try and make the database compatible and consistent with the USGS database. They are currently testing a method to allow one to query several databases with only one query.

Pam Fuller reported that this all began as an effort to try and combine numerous databases that were already in existence or coming on line soon, including: the USGS and Smithsonian databases that were already up and running, the GSMFC database, and NatureServe. Integrating these databases was complicated due to differences among the databases. The SERC database, known as NEMISIS (National Estuarine and Marine Invasive Species Information System) is national in scope, focusing on specific ports and is mostly marine and estuarine with a limited

amount of freshwater data. The USGS database focuses mostly on freshwater; it has information on pathways, dates of introduction, and impacts, but lacks some of the biological attribute data. The first task was to create a query system that could access the data from both the SERC and USGS databases, thus allowing the user to be able to get both freshwater and marine data in one place.

The next step was to try and integrate the other databases into the same query process. The GSMFC database was new and focused mostly on marine species. The NatureServe database was duplicating some of the work that USGS was doing (involving rare species) but was also tracking both terrestrial and aquatic species. NatureServe uses a dynamic mapping component that is different than the static maps of some of the other databases.

The query system is similar to the way Expedia.com interacts with the airlines to get you airline data. Pam then showed a few examples of what the query page looks like and the results of some example queries. One example she used was for doing a query on crabs. The results showed who had what kinds of information, fact sheets, etc. could be obtained.

The three original partners in the development of this project are SERC, USGS and NatureServe. Soon, they should be adding the GSMFC database. They are also talking with people on the other Regional ANS panels as well as international groups about adding their databases to the project including people in the Baltic, Australia, and New Zealand. Terrestrial databases are also interested in joining. They are working on a way to create merged fact sheets that take data from various databases and put it into a format that is more easy to use/read.

One Task Force member asked whether they were working with Mexico via NAFTA. Pam responded that will be their next big task – to start to try and create distributed databases linking the United States, Canada, and Mexico.

Ron Lukens then commented that Greg Ruiz, from SERC, recently presented some of this same information to the Invasive Species Advisory Committee and that they are developing a Memorandum of Understanding between cooperators.

Gulf of Mexico Ballast Water Workshops - Marilyn Barrett-O'Leary, Louisiana Sea Grant

Louisiana Sea Grant, in partnership with the Gulf of Mexico Regional Panel and the Gulf of Mexico Program, initiated a project to conduct a series of three ballast water workshops to begin educating others about the importance of ballast water issues. The goal of the project was to stimulate and facilitate a greater level of interest for the development of implementation strategies by the shipping community, ports, regulators, and the research community to control invasive species through the ballast water vector in the Gulf of Mexico Region. The three port areas that LA Sea Grant chose for the workshops were Tampa, New Orleans, and Houston.

LA Sea Grant did this because the Gulf of Mexico currently houses five of the top international ports by volume or specialization. This volume consists primarily of bulkers, tankers and containerized vessels, tourism/cruise vessels, and military craft. Mobile, Alabama is the second

largest coal port in the U.S. Houston receives lots of oil related traffic, and New Orleans receives mostly grain and bulk shipments. The area is also the terminus for two major inland waterways and has substantial towboat and recreational traffic. Commercial and recreational vessels move from the Gulf ports to the intercoastal waterway. Commercial vessels go to third world countries with bulk cargo and come back empty with lots of ballast water. Ballast water may be a more serious problem in the Gulf than elsewhere in the U.S. because the winters are not very cold and organisms from other warmer waters may more easily survive here.

The objectives of the workshops were to:

- Review the strong association of invasive species with the shipping vector;
- Educate others on the Coast Guard regulations and guidelines;
- Identify implications, possible problems or results for U.S. Gulf Ecosystems; and
- Identify shipping related pathways not covered by the Coast Guard regulations and guidelines and identify associated research needs.

Progress has continued to move forward after the workshops. Mobile Bay is beginning to complete a rapid assessment. The Port of Corpus Christi did a qualitative risk assessment and the Port of Houston is now also considering conducting a risk assessment. The Port of New Orleans, which covers miles and miles of river, has new leadership and a new environmental outlook and is assisting Louisiana with the development of its ANS management plan.

The workshops were a good start, but there is a lot more that needs to be done. Remaining needs identified by LA Sea Grant include:

- An aquatic invasive species management plan in each Gulf of Mexico state and neighboring countries.
- A regional plan, especially a regional rapid response plan, incorporating at least the United States but preferably all countries.
- Established monitoring in key areas of the Gulf region – have Dock Watch for some species started by Dauphin Island Sea Lab – but need more.
- Coordinated continuing education of the stakeholders and audiences on new technologies.

Water Hyacinth in Louisiana – *Charlie Dugas – Louisiana Department of Wildlife and Fisheries*

Water hyacinth (*Eichhornia crassipes*) is a native of South America that has been in the U.S. for approximately 120 years. The plant was introduced by the Japanese, in 1884, at the International Cotton expedition in New Orleans. It is a flowering, free floating plant whose ecological and economic impacts are very similar to giant salvinia.

Water hyacinth can double its area every ten days. One acre can contain as many as 90,000 plants and one plant can produce 65,000 daughter plants in an 8-month growing season. One acre of water hyacinths can yield up to 45 million seeds annually and the seeds remain viable for over 20 years.

In Louisiana, they have been trying to control water hyacinth since 1903. The herbicide 24-D is commonly used to control the plant. It cannot, however, be used in north Louisiana because cotton is also susceptible to 24-D. In 1970, water hyacinth weevils were released into the infested areas. In 1974, Louisiana added one dollar to the fishing license fee to work on water hyacinth control.

Mr. Dugas showed a map of the U.S. distribution of water hyacinth and a graph tracking the acreage infested with water hyacinth over time. The largest extent of aerial acreage of water hyacinth occurred in 1976 (approximately 1,700,000 acres). The current infestation is approximately 150,000 – 200,000 acres and is a result of both the spray program and the release of the weevils.

The spray program for water hyacinth in Louisiana spends approximately \$40/acre compared to \$60/acres for salvinia, and \$100-\$200 for hydrilla. Other control choices are more expensive than 24-D. In remote areas they can do aerial spraying. They try to do it before water levels rise and potentially spread the plant further.

The biggest source of funds for water hyacinth control comes from fisherman (\$2-3 million annually). Although there is no State funding specifically for water hyacinth, Louisiana does receive approximately \$2-\$3 million in funding through the Sportsfish Restoration Program. In addition, a bill was passed in the 2002 legislative session to raise boater registration fees and dedicate the increase to create an Aquatic Plant Control Fund. The fund is expected to generate more than \$800,000/year in dedicated funds for herbicides for species other than water hyacinth. Fifteen percent of the fund will go to Louisiana State University for research.

An audience member asked about the list of prohibited plants and what exactly it prohibited. Someone else answered that the list only regulates a plant's import into the state. If there is no specific regulation within the state, then the plants can still be sold within state. This is a huge problem that needs to be addressed.

Mr. Keeney then mentioned that he noticed that the issues of “funding” and “the need to regulate” keep coming up again and again. He strongly expressed that these issues must be brought to the attention of State legislatures.

Mr. Keeney then asked to what extent socioeconomic analyses are being done? This sparked some general discussion and the answer was that the issue is being explored very sporadically. There is some data from the Army Corps of Engineers on zebra mussels. Most of our information, however, is anecdotal. We need real numbers and data on impacts. The question then becomes “how do we generate numbers that catch the public attention? There are currently over 23 laws and regulations giving various agencies various authorities. How do we make them work together? The new version of NAISA may help at the Federal level.

Field Trip

The presentation portion of the first day of the meeting adjourned at 1:00 for the field trip. The participants were taken to see giant salvinia at Jean Lafitte National Historic Park and also visited the Port of New Orleans.

May 14, 2003 - Wednesday

Ballast Water

Report on International Maritime Organization (IMO) Activities - CDR Scott Newsham, U.S. Coast Guard

Scott Newsham reported that we are in the best position right now for the IMO to develop an International ballast water treaty. The ballast water working-group is holding an intercessional meeting to discuss the 49th meeting of IMO's Marine Protection Committee (MEPC). The key decision will be whether the treaty is far enough along to go to IMO. The document that is currently before the Committee would establish a single quantitative standard for ballast water discharge. The U.S. has been very adamant on the position that the standard needs to be scientifically sound, biologically meaningful, and enforceable. Ballast water exchange is an interim solution and would be phased out unless exchange could meet the standard. However, there is currently no agreement on what the standard should be.

Internationally, they are looking at a concentration-based standard. They could go to a diplomatic conference without the standard but MEPC probably will have to guide what the standard should be.

There is also the question of what to do about existing ships. The U.S. is suggesting to phase in the standards over period of time. A review process would be established that would allow the review of technology to determine when the technology had advanced to the point that it is practicable for existing ships to install it.

A Task Force member asked why the process was so slow and expressed concern over how that affected the U.S. position. CMDR Newsham answered that the process could move quickly, except that we still don't know what the technology will be or when it will be ready. The delay has been useful because back when discussions first started, we supported open ocean exchange for all ships. We would not support that now.

An audience member then asked whether the diplomatic conference happened over time or was it a specific event? Scott answered that it was a specific event. Another audience member asked whether NAISA was getting in the way of the International treaty. Scott answered that it has pushed the international discussions and that they want one standard.

Coast Guard Regulatory Activities - LCDR Kathy Moore, U.S. Coast Guard

Kathy Moore reported that the Coast Guard published a notice of proposed rule for penalty provisions for all mandatory components of the U.S. Domestic Ballast Water Regulatory Program. The proposed rule provides no solutions to improve the quantity and quality of ballast water data (online/electronic in cooperation with Smithsonian Environmental Research Center).

A proposed rule making the voluntary ballast water management program mandatory is expected to be published in Summer 2003. The Coast Guard is also working on development of an Environmental Impact Statement for a ballast water standard. In addition they will begin work to develop a system for approval of shipboard testing of ballast water technology.

A task force member asked how the Coast Guard will assess shipboard testing to minimize introductions and to provide incentives to the maritime industry. Kathy answered that it would probably be done through a pilot test. CMDR Scott Newsham said that the Coast Guard would not approve a standard that was not, at least, as effective as exchange. A concern was also raised on whether it would be difficult for ships in the Great Lakes to participate because the law says that the ships going into the Great Lakes must exchange ballast water.

Another Task Force member then stated that California was impressed with the progress that the Coast Guard has made. He acknowledged the difficulty of implementing shipboard ballast water technologies as he has found this to be true in California as well. Kathy replied that they would like to establish a process that would encourage ongoing technology development in hopes of finding better and cheaper technologies through time.

Ballast Water Demonstration Program awards for 2002 – Pamela Thibodeaux, USFWS

Under the National Invasive Species Act of 1996, the Secretaries of Interior and Commerce in cooperation with the Secretary of Transportation, were instructed to “conduct a ballast water management and 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.”

The objective of the program has been to demonstrate effective ballast water treatment technologies that are practicable for use on commercial ships in American waters.

Since 1998, NOAA and FWS have supported demonstration projects to improve ballast water treatment and management through an annual ballast water competition. In 2002, the consultation and cooperation role of the Department of Transportation was expanded with the addition of the U.S. Maritime Administration as a third Federal Program partner.

Because most of the expertise in the development and demonstration of ballast water technologies was located outside the federal government in a number of academic, commercial, and entrepreneurial centers, the program is run as a grant competition program. Federal entities,

if they have expertise in the area and statutory authority that allows them to seek funding from the Program, are allowed to compete on an annual basis with non-federal applicants.

Pam showed a graph summarizing the number and types of projects funded through the program. Early in the program's history, several projects were funded studying the presence of microorganisms in ballast water as a technology-independent analysis of ballast water field conditions. More recently, projects were funded to look at ballast tank sediment as an invasive species vector. The program has also tried to support the development of technologies through larger-scale experiments, while still continuing to support initial experimentation on new technologies. Last year, the program tried to support several shipboard experiments - some are continuations of past work supported by this program, some are supported for the first time. Another category of projects exists for field tests of commercial prototypes. This is what the program feels is the next stage of development in this research. The program hasn't funded any of these projects yet, but the technologies are getting close to this stage.

In 2002, funds were available in the following program areas:

- \$870,000 for projects that clearly target ballast water priorities of the Chesapeake Bay
- \$980,000 for projects that clearly target ballast water priorities of the Great Lakes
- \$250,000 projects that clearly target documented national or regional ballast water management priorities

Forty proposals were submitted to the 2002 Ballast Water Technology Demonstration Program competition, requesting over \$13 million. Ten grants have been awarded (9 from the competition, 1 by Congressional direction) totaling \$2.3 million.

Treatment technologies being developed and demonstrated by these grants include: ozonation, deoxygenation, chemical disinfection, ultraviolet irradiation, exchange, thermal treatment, and acoustic cavitation. Several projects will use several technologies in combination. Projects involved computational simulations, laboratory experiments, pilot scale tests, and full-scale shipboard demonstrations.

Funded proposals were from academia (5), government labs (3), and private industry (2).

Three of the successful grantees also requested and received permission to use a MARAD vessel as a test platform for their project.

The 2003 competition has been cancelled due to temporary lack of funds. Instead of a competition this year, the program will concentrate on ensuring that there are alternative test platforms to the MARAD ships that were called into war duty, and planning for a more effective competition in 2004. This may include workshops or other activities to ensure that all applicants have all the information and tools they need to write effective proposals to the competition.

In 2004, the program expects that the funding will be at the 2002 level and that MARAD will offer their ships again. The program may require pre-proposals to provide additional assistance to applicants. In 2004, the emphasis will be on facilitating commercialization. The category "prototype field test" will become a separate program area in the RFP. Business viability will

become an evaluation factor. In addition, a long-term development plan will be required with each submission and the program will seek commercialization advice from NIST Advanced Technology Program.

Questions about the ballast Water Demonstration Program can be directed to Dorn Carlson, NOAA Research/Sea Grant, at 301-713-2435 x123, or to Pam Thibodeaux, USFWS/Division of Environmental Quality, 703-358-2493

The program's web page can be found at: <http://www.nsgo.seagrant.org/research/noninigenous>

ANSTF Committees and Working Groups – Sharon Gross, ANS Task Force

Sharon Gross reported that they are still in the process of establishing some of the Committees approved last year. She emphasized the need for prevention efforts to focus on different pathways and referred to some of the issues brought up in the previous day's presentations.

Prevention Committee – Richard Orr, APHIS

Richard Orr presented a proposal to the Task Force to combine two existing Prevention Committees that are currently doing some of the same things into one larger, all-encompassing committee. Currently, the Aquatic Nuisance Species Task Force and the National Invasive Species Council both have Prevention Committees that are involved in screening and other pathway related projects. Richard and others believe that these Committees should be combined because 80% of the people working on these Committees are working on both Committees. In addition, both of the committees have similar invasive species goals, both generally use the same Federal and non-federal contacts, and both focus on increased coordination and reduction in Federal redundancy.

Both of these Committees are still in an early stage that should make for an easy transition. Forming joint working groups early on will be far easier than combining different approaches and products from separate invasive species screening and pathways working groups in the future. The new Committee will address those things that are similar but also on the things that are specific to each of the current Committees. The goals and objectives of the new combined Committee will be based on those already outlined in both the strategic plan of the Aquatic Nuisance Species Task Force and the Invasive Species Council's National Invasive Species Management Plan, but will also remain open for new issues confronting the Council or the Task Force. The proposal also includes five working groups within the Committee: Pathways, Risk Analysis, and three for Screening (Hawaiian Islands, Propagative Plant Material, Aquatic Organisms).

Members will be a mix of Federal and non-Federal experts. Chairperson(s) will be Federal and matched with the relevant agencies that will take on the responsibilities of enforcing the outcomes and products of the working group. The Committee will be task and product oriented,

working to provide usable products that are relevant and feasible and can fit into existing regulatory programs or those currently in development.

The next step of the process to combine the Committees is to draft roles and responsibilities. Richard Orr handed out a first draft of the roles and responsibilities at the meeting for Task Force review. Richard is requesting review/approval from the Task Force and Council on the new structure along with the draft roles and responsibilities. To move forward, he will need approval from both the NISC and the ANSTF. He is presenting the proposal to the ISAC on June 25th and would like to have Task Force approval by June 13th.

Once the combined Committee is approved, Richard will work to incorporate existing prevention activities into the new structure and move forward with establishing the new Committee and working groups. The membership of the Committee and the working group will be decided by the Prevention Committee Chairperson, the Executive Secretary of the Task Force and the Executive Director of the NISC staff. Each of the newly formed working groups will finalize their detailed specific roles and responsibilities with input from the Prevention Committee for approval from the NISC and the ANSTF.

One Task Force member noted that this will broaden the scope of the Prevention Committee and questioned the laws and authorities for both. Ron Lukens, a member of both the Task Force and the Invasive Species Advisory Council of the Task Force, stated that he supported this proposal. Leo Dunn, representing the Chesapeake Bay Invasive Species Working Group, also supports this. The working group will address both terrestrial and aquatic invasive organisms and it makes sense to combine the Committees into one Committee. Pennsylvania is also looking to start a State Invasive Species Council and they have decided that they cannot separate terrestrial and aquatic species. Mr. Keeney then stated that he also thought having the two groups is confusing and it would be more efficient to have both groups together. Several other Task Force members stated that they supported the proposal, though one ex-officio member stated that some state regulators should be involved in these processes.

Richard asked that the Task Force generally approve that this is the way they would like to see things move. He wants to be able to tell ISAC that the ANSTF supports this proposal. He would also like to have comments on the roles and responsibilities of the proposed Committee by June 13th. At this point a Task Force member brought up the subject that the ANSTF has a legislative mandate and NISC does not. It is important that the ANSTF not lose any authority or status as we combine these two Committees.

Action Item: The Task Force agreed with the proposal in concept. Comments on the proposal or on the draft roles and responsibilities should be sent to Sharon Gross by June 13th.

Communication, Education and Outreach Committee - Progress of the Stop Aquatic Hitchhikers! Campaign and New Campaign for Pet/Aquaria Users – Joe Starinchak, ANSTF.

Joe started off his presentation with a quick history of the CEO Committee. He reviewed some important milestones that occurred through the initial committee process that has allowed the Committee to achieve its success. These milestones have included:

- Shortening our collective learning curve about what everyone could bring to the table by putting aside their individual agendas to develop a consensus approach.
- Taking advantage of electronic meeting resources to facilitate their process.
- Adopting a strategic marketing approach that has provided them with tremendous guidance.
- Identifying the TF policy products that promoted action to define their target audiences.
- Linking the Committee's divergent efforts to leverage more awareness.

The CEO Committee has accomplished a lot in the past year. They have gotten the Stop Aquatic Hitchhikers! campaign up and running as a 2-tiered national public awareness campaign. This has enabled us to expand ownership of this issue and leverage external funding (approximately \$500K) to support our activities. We are also making the issue relevant by translating the impacts into economic terms, which is the only way to sell this in policy arenas.

Future plans for the Committee will focus on the continued implementation of the Stop Aquatic Hitchhikers! campaign. The Committee will conduct an evaluation of the campaign at the State level and partnerships will continue to use Stop Aquatic Hitchhikers! as their primary vehicle. The Committee will also be initiating a new campaign in conjunction with the Pet Industry, Sea Grant and State Fish and Wildlife Agencies, with an estimated \$1.4 million in leveraged funding.

The Committee has done much of this by itself, but it needs greater support from the Task Force. The Committee has created the perfect vehicle for Task Force agencies and organizations to do outreach for this issue; however, Joe indicated that there has been very little formal participation from the TF members. The Committee would like to see the Task Force:

- Recognize the value-added services created by the CEO Committee.
- Visibly support the Stop Aquatic Hitchhikers! by the TF member agencies and organizations.
- Integrate the Stop Aquatic Hitchhikers! campaign into agency/organization outreach efforts.
- Provide National leadership to secure the necessary resources to enhance coordinated outreach efforts on a national level.

Joe then went into more specific activities that can be accomplished to integrate the Stop Aquatic Hitchhikers! into the agencies and organizations of the Task Force. These include:

- Assessing how this campaign fits into each agency/organization's outreach.
- Making a commitment to using what the campaign offers.
- Dedicating a small part of budgets to support the production of materials for each agency's needs

- Creating direct link from each agency’s web site to the campaign web site: www.protectyourwaters.net
- Downloading and customizing campaign materials by adding agency logos.
- Formally declaring a partnership by submitting agency names to the partnership database on the web site.
- Promoting campaign internally and externally and using the customizable campaign materials to advance a prevention message through each agency networks.
- Presenting the campaign to agency leadership to show how participation in the TF adds value to this issue.

Joe went on to say that he was sure that some of the Task Force members were saying to themselves, “Great campaign, but we don’t interact with recreational users!” Examples of potential interaction include:

- NOAA through Sea Grant and NMFS interacts with recreational boaters, anglers and divers.
- Coast Guard through its Auxiliary interacts with recreational boaters.
- EPA through its network with environmental educators can use the campaign to bring relevance to the issue.
- APHIS through Wildlife Services interacts with recreational users
- The Corps manages recreational lakes throughout the country which provides a platform to promote this campaign; and
- The State Department can promote this campaign as a collaborative initiative between many federal agencies.

Each Ex Officio organization has a network of members that it represents. While the campaign has direct relevance for many organizations, it only has indirect relevance for a few Task Force organizations. Joe encouraged the Task Force to look hard at the campaign, think outside of the box, and see how their agencies/organization can become an active participant in it.

In the discussion that followed, one Task Force member brought up the concern of making sure that the Stop Aquatic Hitchhikers! campaign efforts don’t conflict with messages on fishing. Another member asked whether Joe had partnered yet with the National Estuary Program. Joe responded that they are one of many partners that he has not yet had time to pursue. Finally, an audience member asked whether Joe was going to branch the Stop Aquatic Hitchhikers! out to commercial vessels? Joe answered that the campaign was moving in that direction.

Working Groups

Chinese Mitten Crab – *Erin Williams, USFWS* - Status of Plan and public comment review.

Erin Williams gave a quick overview of the management plan for the Chinese mitten crab. The goal of the Management Plan is to prevent or delay the spread of *Eriocheir* species to new areas and reduce the negative impacts of existing populations. The objectives of the management plan include:

- Preventing new introductions and spread

- Detecting new populations and monitoring existing populations
- Reducing negative impacts
- Developing strategies and methods for population control and management

Short-term priorities of the management plan include preventing transport/spread, conducting risk assessments, early detection activities, and developing rapid response capabilities. Long-term priorities including obtaining more information on the crab's life history, control strategies, negative impacts, and adaptive management.

The plan was released for public review in February 2003. Comments were received from only two people. One of the comments stated that the plan lacked clear prevention activities while another stated that the plan lacked sufficient rapid response guidance. Information in the plan that needs to be updated includes the Asian fluke information, future needs versus completed projects, and other geographical areas with crabs. Things that need clarifying in the plan include the plan's priorities and ranking, and its organization, figures, and references.

The mitten crab working group has evaluated the public comments and will try to revise the plan by June 2003. They will then send out the revised plan to the mitten crab working group for final review and will then submit the plan to the Task Force for final consideration.

Erin and the working Group are asking for preliminary approval from the Task Force now, and after the working group incorporates the public comments, Sharon Gross will then send to the Task Force for final editorial approval.

National Invasive Species Council and Advisory Committee Activities – *Chris Dionigi, National Invasive Species Council*

Chris started his presentation with a quick overview of the structure of the National Invasive Species Council. He described the fact that the Council is made up of the Secretaries of the Departments (Ag, Interior, and Commerce) and are represented by the co-chairs principals of each secretary. He also discussed the policy liaisons, agency representatives, and the Invasive Species Advisory Council (ISAC).

The policy liaisons for each department act as the chief advisor to principals, have internal coordination responsibilities, serve as liaisons with other members of the council, and act as subject matter experts. The agency representatives are subject matter experts that understand agency and department roles and responsibilities. ISAC is a non-federal FACA committee with about 30 members with many different areas of expertise (different taxa, regions, views) who advise the Council and help them work with other non-ISAC stakeholders.

The Council also has eight FACA chartered teams/subcommittees that have both a Federal and an ISAC representative. Those teams include: Leadership and Coordination, Research, Early Detection and Rapid Response, Information Management, Control and Management, Prevention, Communication and Outreach, and International Cooperation.

Chris announced that there was a handout in the Briefing materials that gave more details on many of the recent NISC activities. Chris then briefly discussed several NISC and ISAC meetings, a list of invasive species legislation, a Congressional Hearing, a Canadian workshop on Invasive Species, an Invasive Species “Index” Development Meeting, and a recent OMB briefing. For more information, please see Some Recent Activities of the National Invasive Species Council provided in the briefing materials for the May 13 - 14, 2003 ANSTF Meeting in New Orleans, Louisiana.

One audience member asked if the Council was working with environmental groups. Chris answered that work has been done with the Nature Conservancy, but that more work should be done with other organizations. Another member asked if Chris was the contact for setting up State Invasive Species Councils. Chris answered affirmatively emphasizing the importance of the States as partners and saying that they will do what they can to help coordinate, get States in contact with others, etc.

Regional Panel Reports

As he introduced the session on Regional Panel Reports, Mr. Keeney noted that the Regional Panels are where the real work gets done. He also noted that the Task Force asked the Pacific Islands to submit a proposal for the formation of a new regional panel – the Pacific Islands Regional Panel – and that the proposal is still under development.

Mississippi River Basin Regional Panel – Gary Isbell, Ohio DNR

Gary Isbell, from OHIO DNR, gave an overview of the formation and early implementation of the Mississippi River Basin. Norm Stucky, the Chairman of the Mississippi Interstate Cooperative Resource Association (MICRA), presented MICRA’s “Organizational Strategy for a Mississippi River Basin Panel (MRBP) on Aquatic Nuisance Species at the ANS Task Force meeting in Hawaii in November, 2002, and received Task Force approval to proceed with formation and implementation of the Regional Panel.

MICRA’s Executive Board met in late February, 2003 for a final MICRA endorsement of the Strategy and ANS Task Force guidance to develop a list of invitees to an MRBP Organizational meeting, and to appoint a Chairperson and Vice Chairperson to run the MRBP during its organizational phase and first year of operation. Jay Rendall, from the Minnesota Department of Natural Resources, was nominated as the Chairperson and Michael Hoff, from the Fish and Wildlife Service, was nominated as the Vice Chairperson.

A list of 60 potential member entities and several interested parties was developed and letters were mailed to all 60 representatives in March and April asking for MRBP appointments. Affirmative responses have been received from five Federal agencies, 16 states, one Canadian Province, five Regional natural resource management groups, two private user groups, and one university/research group. Other appointments are known to be pending and more members are anticipated. Seven non-member interested parties have also been identified.

An organizational meeting has been scheduled for late June or early July in the Twin Cities, Minnesota area. A two-day meeting is planned to review Mississippi River Basin ANS issues and problems, National ANS issues and initiatives, and panel organization and functioning.

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

Kathe Glassner-Shwayder started of her presentation by saying that the Great Lakes Regional Panel is currently involved in a number of projects. The Panel met last winter on December 10-11, 2002. The meeting agenda included the following diverse topics and subtopics:

- NAISA Update
- USEPA Great Lakes Strategy
 - Goals
 - To greatly reduced introductions by 2010
 - To develop a multi-agency rapid response plan
 - GLP Flyer: NAISA: A sound investment in the ecological and economic future of the Great Lakes and our nation's waters (www.glc.org/ans/pdf/naisaflyer.pdf)
- U.S. GAO Report on Invasive Species
 - Economic impacts of ANS
 - Nat. Invasive Species Management Plan
 - U.S./Canadian cooperative efforts – ballast water
- Regional reports
 - Asian carp
 - Dispersal barrier project
 - Council of GL Governors Ballast Water Initiative
- USCG Ballast Water Standards
 - Probable 95% volumetric reduction
 - No organisms larger than an undecided micron size
 - Final rule expected in fall 2004
- Reports on Panel initiatives
 - Rapid response plan for Great Lakes aquatic invasions
 - Early detection and monitoring for Great Lakes aquatic invasions
 - GIS assessment of ANS in Michigan waters

The next meeting of the Great Lakes Panel will be on July 22-23, 2003 in Ann Arbor, Michigan. The meeting will be held in conjunction with a workshop to develop a rapid response plan for Great Lakes invasions. Key agenda items for the upcoming meeting include: an update on the dispersal barrier project, predicting invasive fishes in the Great Lakes, NAISA legislative updates, election results, and Panel priorities. The purpose of the rapid response workshop is to initiate the development of a Model rapid response plan that will:

1. Facilitate the timely implementation of appropriate eradication/control measures upon discovery of ANS invasion; and
2. Anticipate, detect, prevent, and respond to new invasions on a state/regional basis.

More information about the rapid response workshop can be found in Ms. Shwayder's second presentation summarized later in this document.

The Great Lakes Panel is also working on a project called "NIS Early Detection & Monitoring: A Pilot Project for the Lake Michigan Basin." The goal of the project is to develop a set of guidelines and recommendations for a coordinated system to detect new invasions of nonindigenous aquatic species in the Lake Michigan basin. Working in partnership with the Lake Michigan Monitoring Coordination Council, this new project aims to provide existing monitoring networks with a framework for reporting invasive species, and identifying ANS biological monitoring gaps and needs in the Lake Michigan basin.

The initial meeting of the project advisory team has occurred and the partners are now beginning their assessment of the Lake Michigan Monitoring Inventory. They are also developing the criteria for the determination of High Probability Sites and High Risk Sites. These are areas that are at high risk for impacts from ANS establishment and include protected areas such as national/state parks, TNC designated sites, etc.

The Great Lakes Panel is also developing a Model GIS Assessment of Aquatic Nuisance Species. An initial meeting of the project advisory team has already occurred and they are currently developing guidelines for data requirements. The next steps are to contact data sources gather data, find answers to questions regarding level of reporting detail, researchers concerns, and coordination with other efforts.

Other Great Lakes project include:

- An online list of 162 Great Lakes invaders – developed by NOAA Great Lakes Environmental Research Laboratory, this is a list of 162 invasive species is organized alphabetically by common name and was compiled from peer-reviewed literature and confirmed sightings and catches.
- The Chicago dispersal barrier activities, and
- An Aquatic Invasive Species Summit – hosted by Mayor Daley with the U.S. Fish and Wildlife Service – will be held in Chicago on May 14-15. Experts from around the world will participate.

Western Regional Panel - *Bettina Proctor, USFWS*

The Western Regional Panel has been involved in many activities since the last Task Force meeting. To facilitate better rapid response capabilities, the Panel distributed its Model Rapid Response Plan in January 2003. The Panel Coordinator has also served on the National Invasive Species Council's Early Detection and Rapid Response Task Team.

On the communication front, the winter issue of Nuisance Notes was produced and The WRP web site was moved to a Fish and Wildlife Service server and its information was updated. In addition, an e-mail reflector has been used to keep membership informed of activities, meetings, and issues. The panel has also communicated with its members on a regular basis to encourage their support of NAISA.

The WRP also created a two-page flyer entitled “Recommendations on State Actions to Improve our Regional Capacity for Managing Aquatic Invasive Species.” This flyer contains two sets of recommendations. One set for of recommendations are actions to build state capacity for managing aquatic invasive species. They include:

- Appointing a state ANS or Invasive Species Coordinator
- Establishing state ANS or Invasive Species Committees
- Creating state ANS management plans
- Appointing a rep to the WRP and providing resources for participation

The other set of recommendations are actions to improve state authorities and increase funding for implementation. They include:

- Providing a long-term stable source of state funds
- Implementing programs to prevent spread of ANS from boating and other pathways
- Creating a state early detection and rapid response plan
- Providing state authority to designate water bodies as “infested waters”
- Implementing a classification program to screen potential ANS

The WRP also supported the development of State ANS Management Plans by providing a professional facilitator that worked with California and Arizona and helped them start the process of developing a State ANS Management Plan. In FY 2003, the WRP plans to have this facilitator work with Utah and North Dakota to start the process of developing their Plans.

Finally, the 2003 work plan for the WRP includes the following activities:

- Development of West Coast estuarine invasive species database – USGS/EPA
- Needs assessment to increase capacity of West Coast Watershed groups to detect, monitor and prevent invasions – Oregon Sea Grant
- Compilation of information from western states on regulations for fishing tournaments – North Dakota Department of Fish and Game.
- Lewis and Clark Commemoration Signature Events – 2004-2006; prepare to staff booths and provide ANS materials
- Facilitation of US/Mexico/Canada cooperation regarding common ballast water issues – provide travel funds for scientists

The WRP’s next meeting will occur in La Jolla, CA, on September 9 - 11. A new process has been developed for Committee work plan development. The FY 04 work plans will be completed before the meeting. The meeting will include sessions on ballast water, ANS programs in Mexico and Canada, success stories in California, and a field trip.

Gulf of Mexico Regional Panel - Ron Lukens, GSMFC

The Gulf of Mexico Regional Panel had its second meeting in February 2003, in Pensacola, Florida. At that meeting, the panel established seven work groups, including: Pathways/Prevention, Eradication/Control/Restoration, Vessel-mediated Transport, Research/Development, Education/Outreach, Early Detection/Rapid Response, and Information Management.

The work groups established members, discussed potential activities and operating procedures, and developed a proposed work plan. The operating procedures adopted by the Panel were developed largely from Western Regional Panel procedures and will be finalized next week. Ron will transmit the operating procedures to the Executive Secretary once finalized.

The Gulf of Mexico Regional Panel Draft Work Plan for 2003 – 2004 includes the following activities:

- Research and Development Work Group
 - Review and evaluate a list of research and develop needs for management and control of aquatic invasive species developed by the Gulf of Mexico Program.
- Education and Outreach Work Group
 - Develop an inventory of activities
 - Discuss developing guidelines for the use of aquatic invasive species in school sponsored science fairs
 - Discuss using annual report as an education/outreach tool
- Early Detection and Rapid Response
 - Begin the development of a regional rapid response contingency plan
- Information Management
 - Revise invasive species web site
 - Provide guidance and recommendations for format and content of the web site, mechanisms to update the database, and recommendations for information dissemination

The Gulf of Mexico Regional Panel is currently waiting on comments on the work plan. It is ambitious, but gives them many things to try and achieve and has several years worth of potential accomplishments. The list of research and development needs came from the previous leadership. The new Education and Outreach workgroup will determine if it is still relevant and will coordinate with Joe Starinchak to get the national perspective. They are also revising their web site with the working groups providing input and oversight.

The Gulf of Mexico Regional Panel is working in collaboration with Mississippi and Alabama to conduct a Rapid Assessment of the Mobile Bay area. The work is scheduled for September 2003. The Gulf of Mexico Regional Panel is also looking at the potential of developing guidelines for the use of invasive species in science fair projects. The next rapid assessment will be the Mississippi Sound area in whole or in part.

Finally, the Gulf of Mexico Regional Panel has finished and distributed its 2002 Annual Report that was facilitated by the Gulf of Mexico Program. Special thanks go to Amanda Bourque-Battelle for her work on the report. The next Gulf of Mexico Regional Panel meeting is scheduled for a September, 2003 time frame and will likely occur in Gulf Shores, Alabama.

Northeast Regional Panel - *Jason Baker, MA Coastal Zone Mgt. Program*

The Northeast Regional ANS Panel is now 2 years old and will be holding its spring meeting and a rapid response workshop in Bar Harbor next week. The meeting will include a discussion of purple loosestrife, the Maine Lake and River Program, Canada's Invasive Species Program, and research priorities. Two running agenda items include a species spotlight (Green Crab this time) and a skill development session (communicating with legislators this time).

Ongoing projects by include:

- Science/Technical Committee
 - Data management efforts (marine invaders; integrating with other databases)
 - Analysis of priority species and criteria
- Education/Outreach
 - Development of a portable display
 - Development of fact sheets
 - Development of outreach materials for the pet stores/pet enthusiasts (funded by EPA, distributed regionally, and coordinated with the SAH campaign)
- Policy and Legislation
 - Summary of regional invasive species legislation/regulations
 - Drafting support letter for NAISA from the Gulf of Maine Council
- New Ballast Water Committee
 - Developing a regional ballast water management plan (focuses on identifying safer discharge areas based on currents, etc.).
 - Organizing a regional ballast water workshop

The Northeast Panel is also organizing a 10-day Regional Rapid Assessment event in August.

Progress Toward the Louisiana Aquatic Invasive Species Management Plan – *Alysia R. Kravitz, Center for Bioenvironmental Research, Tulane University*

In accordance with the ANS Task Force's Guidance for State and Interstate Aquatic Nuisance Species Management Plans, three organizations - LA Sea Grant, LA Dept. of Wildlife and Fisheries (LDWF) and the Center for Bioenvironmental Research - are partnering to develop a State ANS Management Plan for Louisiana. The objective of the partnership is to produce a highly effective, interesting, and useful management plan, that will:

- Be innovative and focused projects spanning the full gamut of management activities;
- Include detailed maps, graphs, images, and tables;
- Be heavily referenced, to point the reader to additional sources;
- Serve as a clearinghouse for up-to-date Louisiana invasive species information; and
- Be an interesting and useful tool, not a boring bureaucratic document.

This process began in 1999, around the same time that Governor Foster was receiving many complaints from fishermen and recreational boaters regarding aquatic plants taking over their favorite fishing and boating spots. LDWF's Division of Inland Fisheries was given responsibility of heading up the State Management Plan development process because they permit for tilapia and triploid grass carp and are also in charge of boating access and probably come in contact a lot with exotics. LDWF, specifically Mark McElroy and Marilyn O'Leary

from Sea Grant, met with Governor's office regarding the executive order. The Governor wanted to create a task force just for aquatic plants, but Mark and Marilyn succeeded in convincing them to include all aquatic invasive species, not just plants.

An executive briefing was held to get stakeholder 'buy-in', to educate and convince people that this is a serious problem that warrants the attention of a task force.

The first phase of the development process was an information gathering exercise in which a series of questions were asked of the LA Task Force members. This information was summarized and was used to develop a rough internal draft of the LA State ANS Management Plan. In addition, a web site was established (www.cbr.tulane.edu/is/) for LA Task Force members to look up meeting dates, download important documents, etc.

A second internal draft should be ready by June 2003, and will be circulated among LAIS Task Force members to be discussed at July 16 Task Force meeting. Also in June, the status of the Louisiana management plan will be presented at two conferences: the 12th International Aquatic Invasive Species Conference (Windsor, Canada) and the Society of Wetland Scientists 24th Annual Meeting (New Orleans, Louisiana). By December 2003, a final draft of the plan should be complete. By January, 2004, they hope to be into the review and approval process.

Coordination of Rapid Response

Western Regional Panel - Bettina Proctor, USFWS

The Western Regional Panel has developed a Model Rapid Response Plan that was distributed to its members in January 2003. The development team was led by staff from the California Department of Food and Agriculture's Integrated Pest Control Branch. The report summarizes examples of responses and analyzed what worked and what didn't. It also includes species specific examples of rapid response efforts including *Caulerpa taxifolia* in Coastal Southern California, *Salvinia molesta* in the lower Colorado river, and hydrilla in California.

Elements that need to be addressed in a rapid response effort include:

- Authority, leadership, organization
- Coordination and cooperation among parties
- Funding and resources
- Quarantine establishment and endorsement
- Environmental regulatory compliance
- Public awareness and education
- Delimitation survey and mapping
- Review of biology and controls
- Implementation of eradication or other management actions
- Assessments of treatments and modification if necessary
- Environmental monitoring
- Restoration/mitigation

A model rapid response plan includes a two-tiered approach. The first tier involves development of a Statewide ANS (or Invasive Species) Council to address authority, policy, funding and other priorities. The Council would include the executive level of state departments, federal agencies, and members of affected stakeholder groups. Council responsibilities for rapid response include:

- Identifying priority species
- Outlining general response goals for each species
- Reviewing authority for actions
- Addressing the means to resolve environmental issues that may arise

The second tier of a model rapid response plan involves identifying a single state department should to be the operational leader. Alternatively, different taxa could be assigned to different agencies. For any given eradication project, only one agency should have final authority and responsibility.

Using South Carolina as an example, the first tier is an Aquatic Plant Management council whose members include State agencies with water resource management responsibilities, Clemson University, and the Governor's office. The second tier is the Water Resources Division of the South Carolina's Department of Natural Resources. An Aquatic Plant Management Trust Fund has been set up that may receive state appropriations, Federal and local government funds, and funds from private sources.

Two Federal needs for rapid response have also been identified. The first is a review of the basic biology and review of control methods of various high priority species or higher taxonomic groups. The second need is funding – rapid response funds should be available as grants or immediately available in some other way.

As an example, the draft Oregon *Spartina* rapid response plan was just made available at www.clr.pdx.edu in the publications sections.

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

The Great Lakes Panel is in the process of developing a Rapid Response Plan for Great Lakes Aquatic Invasions. The goals of the project are 1) to develop a model plan that will facilitate timely implementation of appropriate eradication/control measures upon discovery of ANS invasion; and, 2) to anticipate, detect, prevent and respond to new invasions on state/regional basis.

Project Tasks for the Great Lakes Rapid Response Plan include:

- Project Advisory Team/Scoping
- Literature review and analysis
- Advisory team planning meeting
- Model rapid response plan development
- Mid-project workshop: July 22-24, 2003, Ann Arbor, Michigan
- End of project workshop and case study development
- Outreach and dissemination

The literature review and analysis included reviewing literature in the following categories:

- Internet rapid response resources
- Hazardous material and emergency response
- Rapid response to invasive species infestations
- General invasive species background
- Policy/Legislation resources
- Decision support tools
- ANS management plans

Components of the Great Lakes Rapid Response Plan

- Goals and objectives
 - Control versus eradication
 - New invasions versus threatened/immanent invasions
- Communication/organizational structure
 - Authority and leadership roles
 - Coordination, cooperation and partnerships
 - Communication structure, chain of command
- Detection and monitoring of new infestations
 - Reporting system of ANS sightings
 - Baseline survey of ANS infestations
- Decision Support System
 - Protocol to determine if rapid response is possible
 - Risk assessment
 - Post response predictions
- Management Options
 - Permitting for control measures, including pre-approval
 - Quarantine establishment and enforcement
- Public Outreach
 - Public, media, and legislative relations
- Implementation
 - Communication structure – the authority to act
 - Making plans operational on federal, state, and regional levels
 - Securing adequate funding
 - Application of control/eradication options
- Adaptive management
 - Evaluate effectiveness
 - Mitigation/restoration of treatment areas
 - Post-procedure monitoring/re-introduction risks

Partnerships among stakeholders, federal and state agencies, and other groups working on similar issues and/or overlapping issues are critical to the successful development of the Great Lakes Rapid Response plan. By communicating with these groups the plan can take advantage of specialized experience and expertise. This cooperative approach also reduces redundancy and ensures efficient and effective plan development.

Rapid Response Plan Partnerships

- Midwest Natural Resources Group
 - Seeking to develop an ANS rapid response strategy for the Midwest (aquatic & terrestrial)
- Asian Carp Rapid Response Group
- Currently developing a response to Asian carp in the Chicago Ship and Sanitary Canal
- Nearshore Fisheries Researchers
 - Expertise in monitoring and identifying ecological impacts caused by nonindigenous invasive species
- Regional Response Team Reg. V
 - Experience planning and implementing rapid response contingencies for abiotic sources of pollution

A Rapid Response Workshop is planned for July 23-24, 2003 (in conjunction with the Great Lakes Panel meeting on July 22-23) in Ann Arbor, MI. The goals of the meeting are to bring together state and federal agencies and other regional stakeholders to discuss and develop the model plan components and to build consensus among participants on model plan components. The workshop will work to define the need for a rapid response plan as well as identify Federal, regional, State and local perspectives. A plenary session will use case study examples to illustrate the structure and content of model plan components. Breakout sessions will be used to further develop model plan components, build consensus for components, and lay the groundwork for implementation efforts. A closing session will facilitate discussion among state and federal agency representatives on making the plan operational.

The ecological integrity and biodiversity of the Great Lakes-St. Lawrence ecosystem are unquestionably threatened by invasions of aquatic nuisance species. Aggressive action needs to be taken immediately to protect these treasured water resources. Some state and provincial jurisdictions are taking or attempting to take unilateral action to address ANS problems. Building consensus for regional/binational solutions to these problems will be critical in battling nonindigenous aquatic invasions that plague the waters of Wisconsin, North America and around the globe.

Northeast Regional Panel Rapid Response Planning Efforts - *Jay Baker, MA DEP*

The Aquatic Nuisance Species Task Force has recently recognized the need to assist state and local natural resource managers in developing rapid response protocols. The Northeast Aquatic Nuisance Species Panel (NEANS Panel) is developing rapid response planning and guidance documents, and developing strategies for communicating rapid response needs to relevant agencies and organizations.

Tasks and Products of the Rapid Response Planning Effort

1) The NEANS Panel will sponsor a two-day Rapid Response Planning Workshop in Bar Harbor, Maine. The workshop will be the first step in developing a model rapid response plan for the region, and will assist us in making recommendations on rapid response planning needs to the Federal Aquatic Nuisance Species (ANS) Task Force. The workshop will consist of a series of speakers with experience in ANS rapid response, a panel discussion, and the presentation of an invasion scenario followed by breakout groups to begin the planning process and develop the components of a model rapid response plan.

2) The NEANS Panel will print and distribute conference proceedings to state and local entities in the region. The resulting proceedings and model response plan will be presented to the states and Canadian provinces through a series of workshops.

3) The NEANS Panel will develop a full Rapid Response Planning document for the states in the region in cooperation with the Great Lakes Regional Panel. The guidance document will be developed by NEANS Panel staff with support from contractors.

4) The NEANS Panel will sponsor a series of workshops in each state and province in the region. The workshops will provide an overview of the guidance document and assist states in developing rapid response plans.

Sources used to develop the Northeast ANS Regional Panel's Draft Rapid Response protocol include the efforts of the Western Regional Panel, the Great Lakes Regional Panel, and the CSIRO Marine Research. Fundamental components of Rapid Response Protocol include pre-invasion activities, post-invasion activities and an operational framework.. Categories of actions in both the pre-invasion and post-invasion components include: detection, delineation, assessment, implementation, and monitoring.

Pre-invasion rapid response actions that have been identified by the Northeast Regional include:

- Detection
 - Implement risk assessment for new invaders.
 - Develop criteria for listing trigger species.
 - Develop a list of trigger species.
 - Identify protocols for positively identifying invaders.
 - Develop monitoring networks.
- Delineation
 - Identify entity responsible for conducting biological surveys.
 - Develop criteria for determining necessity of quarantine.
- Assessment
 - Identify minimum set of environmental data to be collected.
 - Identify control options for trigger species.
- Implementation
 - Identify regulatory constraints.
 - Begin generic permitting process for implementing control options.
 - Identify mechanisms for stakeholder consultation.
- Monitoring
 - Identify post treatment monitoring protocols.

- Identify responsible entities.

Post-invasion rapid response actions that have been identified by the Panel include:

- Detection
 - Document the presence of a suspected “trigger” species.
 - Report the invasion to the appropriate entities.
 - Positively identify the invader.
- Delineation
 - Determine distribution of the invader.
 - Begin stakeholder consultation.
 - Begin monitoring the infestation.
- Assessment
 - Assemble physical and biological data (species and habitat).
 - Consider range of control options.
 - Identify risks associated with control/no control.
 - Stakeholder consultation.
 - Select preferred control option.
- Implementation
 - Implement desired control option on an experimental or full scale level.
- Monitoring
 - Monitor the results of the selected control option

The organizational framework for rapid response includes:

- Establishing a Rapid Responses Oversight network/entity through legislation.
- Identifying an agency lead for each post-invasion rapid response action.
- Developing agreement between agencies clearly outlining agency roles and responsibilities.
- Identifying a standing funding source for implementation of rapid response actions.

National Efforts for Rapid Response - *Chris Dionigi, National Invasive Species Council*

Early Detection and Rapid Response (ED&RR) actions were assigned a high priority by the Council & the Invasive Species Advisory Committee. Action items #23 and #24 in the National Invasive Species Management Plan call for the development of guidelines and systems for the coordinated detection and response to incipient invasions. To address these actions, the ED&RR Subcommittee of the ISAC, chaired by Barbara Cooksley of ISAC & Dr. Thomas Bewick of CSREES was established in June 2002.

To develop the Early Detection and Rapid Response Guidelines, the ED&RR Subcommittee summarized extensive work by Jim Worrall of the Forest Service, the Western Regional Panel of the ANSTF, the Federal Interagency Committee for the Management of Noxious Exotic Weeds, and other experts & stakeholders. A total of over 400 pages of reports were reviewed and summarized to produce the report. The draft report was prepared by a writing task team within the ED&RR Subcommittee. It was submitted for full review to and reflects the input of the

ED&RR Subcommittee, ISAC, Policy Liaisons to the Council and the Co-Chair Department Invasive Species Principals. On March 26, 2003, the Council gave an “intercessional” approval by the Principals & Liaisons. The Co-chair Principals and Council Policy Liaisons will take up the ED&RR guidelines at their next meeting tentatively scheduled for May 22, 2003.

The ED&RR Guidelines are intended to assist in establishment or evaluation of ED&RR systems by providing a list “attributes” of those systems. The report is general in nature and is applicable to a range of taxa, regions, geographic scales, & environment types. The document will also be updated as understanding & experience increases.

Looking at the draft report, the following items are important attributes for Early Detection:

- Active Detection Networks – a specific responsibility to detect invasive species (ex. port inspectors).
- Passive Detection Networks – individuals who may fortuitously detect invasions as they conduct other activities (ex. vets finding disease, fisherman finding something they can’t identify – a lot of detections have come from this source).
- Research – essential to targeting detection programs.
- Training – an on-going need.
- Stakeholder Approval – support for ED&RR efforts.
- Voucher Specimens – essential for international standards (also important for enforcement, legal action dependent on vouchers, also authoritative verification.).
- Authoritative Verification – to determine the presence or absence of a species in an area
- Data Accessibility – accessible, easy to use, and exchanged among interested parties routinely.
- Integration of Various Detection Technologies – provide coherent input into the decision making process.
- Syndromic Surveillance – detecting the damage associated with invasive species may be the first indication of a new invasion (noticing environmental change before we diagnosed its origin).
- Communication – cooperatively work together to correct deficiencies in programs.
- Biological Shifts – biotypes that are resistant to control measures may develop; systems should be developed to detect such biological shifts

Attributes that are important for Rapid Assessment include:

- Preliminary Risk Assessments – for high priority species to facilitate rapid responses to invasions.
- Rapid Risk Assessments of newly detected species – so that decision-making (e.g., the decision to contain, treat, and monitor a population, monitor only, or ignore a population) can be done while populations are still localized.
- Consistent Data Definitions and Inter-Operable Formats – essential so that summary statistics and analyses are readily available.

Attributes that are important for Rapid Response:

- Support For Planning – requires a significant commitment of resources.

- Standing Teams – to meet the specific needs and circumstances of an invasion in a timely manner
- Specific Training – Previous training often is not sufficient, and time may be necessary to train a response team following the detection of an invasion.
- Rapid Response Manuals – they need to have adequate manuals and other materials.
- Appropriate Schedules for Action – plans should contain schedules that are appropriate for the specific conditions of the invasion.
- Incident Command System/Center – for certain rapidly advancing or particularly serious infestations it is important that an incident command system be maintained.
- Dynamic Rapid Response Plans – scaled-up if needed.
- Stakeholder Input – collaboration in the development of response plans.
- Funding – adequate flexible and available funding – funds may be needed for several fiscal years and may need to be shared across jurisdictional boundaries to avoid disrupted or incomplete response efforts.
- Cooperation with “Non-Affected Areas” – to lessen the chance of subsequent infestations.
- Understand and Follow All Relevant Laws – appropriate de minimis exceptions and categorical exclusions should be considered.
- Public Outreach – public understanding of response efforts.

Once approved by the Council, it is anticipated that a professional print version of the guidelines will be produced containing photos, graphics, and introductory information describing how the guidelines were developed and by whom.

In the discussion that followed, one Task Force member pointed out that funding needed for rapid response may eat into other budgets and that DOD may have some models with the private sector to look at for ideas. Another member brought up the importance of the role of the Federal government, specifically out west where more than 60% of the land is owned by the Federal government. Another member brought up the issue of regulatory constraints, reminding the Task Force that we need to look at laws such as FIFHRA and the CWA because EPA could cause delays in the rapid response process via these laws. Finally, we must continue to develop taxonomic expertise to quickly be able to identify newly discovered organisms.

Reauthorization of NANPCA (NISA) - *Dean Wilkinson, NOAA*

Dean Wilkinson gave a quick overview of the current status of the reauthorization of NAISA. He went over numerous concerns in the latest version of NAISA and reviewed the information in both bills. A few of the concerns include the interim standard for ballast water, the screening mechanism being applied only to new introductions and not for species already in trade, the issue of who will administer the ED&RR protocols (different in the two bills), and the dispersal barrier in both bills.

HR 1080 has a total authorization of 123.84 million and HR 1081 has an authorization of 43 million. However, there is overlap in at least two areas, so you can't add the two bills together and there are things that still need to be ironed out. HR 1080 was referred to the Transportation

Committee with sequential referrals to Resources. HR 1081 was referred to the Science Committee, it may be out of mark up, but may also have a sequential referral. The Senate has indicated that they want to hold a hearing but have not set a date yet.

At the hearing, two witnesses testified about property rights saying that the Federal government should have no rights to come on “our lands” to get rid of weeds.

An audience member asked if the Federal agencies have been asked to provide a position. The answer is yes, both NOAA and FWS have been asked to provide a position on NAISA. The Coast Guard has not provided any formal comments – they are concerned with the prescriptive nature of the ballast water provisions.

Review of Action Items

- Start the Task Force meeting with a review of the action items from last meeting;
- The Task Force approved the proposal to combine the prevention committees of the Task Force and the Invasive Species Council as proposed by Richard Orr. Sharon Gross will send the roles and responsibilities electronically. The Task Force should get comments to Sharon by June 6.
- Preliminary approval was given to the Chinese mitten crab plan. Erin Williams will incorporate comments and send them to Sharon Gross by the end of June. Sharon will send out to the Task Force for review and comment. Plan should be wrapped up by the end of July.
- Approval for an annual meeting of regional panel heads. Sharon will try to have a meeting of the regional panel heads before or at the next Task Force meeting. The purpose of the meeting is to encourage integration, coordination, and participation among regional panels.

A question was asked about the current status of the nutria working group. Someone from Maryland DNR was going to lead. That person left and they need to find a new person to lead the group.

The next Task Force meeting will be held in Washington, D.C., after the beginning of the Fiscal year in October or November.

Public Comment Period

No public comments were received during the public comment period.

Adjourned

The meeting adjourned at 3:00 PM