

Western Regional Panel Minutes of Annual Meeting
September 9-11, 2004
La Jolla, California

Tuesday, September 9

WRP Chair, Scott Smith, welcomed the group to the 2003 Annual Meeting.

I. Plenary Session

Southern California Caulerpa Invasion - Bob Hoffman, NOAA

Caulerpa taxifolia escaped in the Mediterranean in 1984 and increased to one hectare in two years. There was very slow response by the European governments. Since then, the size of the infestation has doubled about every two years. In 2001, it has increased to 8,907 hectares. *Caulerpa* blankets the bottom and tolerates cold water. It colonizes sand, mud, or rock and can grow in low light as well as intense light. Toxins protect the plant from herbivores and so it out competes sea grass beds. In this infestation, all the plants are male and reproduction is by fragmentation. The Mediterranean strain is the likely source of an Australia infestation as well as Southern California. There have been many attempts to control the infestation, including hand picking, dredging, algaecides, shading, and freezing. Nothing has worked so far for large scale control.

In California in June 2000, *Caulerpa taxifolia* was found in Agua Hedionda lagoon near Carlsbad. This is a privately owned lagoon used by a power company, a YMCA camp and as recreation for residential community. A second population was found in Huntington Harbor in two manmade ponds. A person doing biological monitoring heard about the earlier site. Both populations were the same as the Mediterranean strain.

A rapid response task force was assembled and tried many treatment approaches. Plastic tarps were secured over the infestations. Chlorine treatments were placed under the tarps - liquid bleach for large infestations, solid bleach for small. Diver surveys were done on a quarterly basis with the divers proceeding shoulder to shoulder across the whole lagoon.

The surveys were initiated within two days of finding the infestation. Funding came from the power plant because agencies didn't have immediate funds available. Treatment commenced on June 23, 2000. *Caulerpa taxifolia* was banned in San Diego in 2001 and banned in California in 2001. The Control protocol requires surveys before any underwater work can be done in California. A surveillance program was also started along the southern coast. The task force also created an outreach program using brochures, putting on workshops, and training Scuba groups.

To date, funding has totaled \$5 million from federal state and county agencies, grants, and power company. No *Caulerpa* was found during the last three surveys! Eradication seems to be working. The key elements are immediate response and quick development of eradication plan. Hoffman emphasized that funding, funding, funding is needed. Without immediate access to funds, they might not have gotten started in time.

Despite the success and the response from the State of California, a big problem still exists: internet sales of *Caulerpa*.

International Scientific Review Panel - Susan Ellis, California Department of Fish and Game

The review panel is a group of international experts who met in San Diego chosen to represent specific disciplines. They were provided with a report from the consultant and used that to create a list of 17 recommendations. In addition, San Diego State University is doing a scientific evaluation of the eradication efforts. One recommendation to others who have to respond rapidly to a new infestation is to develop a protocol for including scientists so that data could be collected while eradication going on. Ellis said that this

protocol will be addressed by *Caulerpa taxifolia* control committee at the federal level. There is now an attempt to ban the whole genus of *Caulerpa* in California.

SCCAT Eradication Protocols - Lars Anderson, USDA -ARS

The Southern California *Caulerpa* Action Team (SCCAT) Steering Committee proposed the following key criteria for assured eradication of *Caulerpa*:

1. Remove or kill ALL living parts
2. Quantitatively assess efficacy of containment and treatments
3. Must be able to detect
4. Science based methods to provide quality assurance in monitoring.
5. Use estimates of growth rate to determine how long a “less than detectable colony or frond” will become detectable

The endpoint in this infestation is the Fall survey of 2006. If no plants are found, it will be considered eradicated. Report will be available in the next month.

II. WRP and 100th Meridian Project Updates

100th Meridian L&C Bicentennial ANS-Outreach – Bill Zook, Consultant for Pacific States Marine Fisheries Commission

The project includes seven Missouri Basin States plus federal agencies. Zook mentioned that he has worked in lots of partnerships but this is one of the best ones he has ever had the pleasure to work with. The purpose of the partnership is to increase national and regional public awareness of zebra mussel transport risk associated with Lewis and Clark Bicentennial boating.

Zook described the different aspects of the project.

Trip Planning:

ANS education at boat shows
Public Service Announcement in LewisandClarkTrail.com
100,000 Zap the Zebra brochures distributed

In Transit Stage:

Low-power Radio TIS stations - funding for 11 sites from FWS and States. Four have been completed in Montana. Others will be in IA, MO, SD, ND and MN. Also, Zook said existing TIS stations have been contacted to include our message during summer months.

River Watch:

Zook is working with Missouri River businesses by providing ANS outreach supplies. So far, 23 of the 54 marina operators along the Missouri River are cooperators. Supplies include display cases and brochures, banners for Power Washing sites, postage subsidy for including Zap the Zebra poster with mailings, and a plaque, advertisement and cash award for three years partnership.

Last Chance:

All state and federal agencies have agreed to a uniform sign to be posted at all access areas to provide standard language and consistent message. The signs will be installed before the boating season next year. Zebra mussel monitoring will take place at every reservoir in the Missouri Basin, following the Portland State University protocol.

Zook announced that a similar effort will begin along the Columbia River this fall.

West Coast Watershed Council Needs Assessment - Paul Heimowitz, USFWS and Linda Jauron-Mills, graduate student at OSU

[Powerpoint Presentation](#)

Heimowitz explained the role of watershed councils as a growing local force in watershed planning and restoration. There are over 500 groups in CA, OR and WA. Their primary invasive species focus is control/removal of riparian weeds. The question is how to get ANS on their radar screens. The needs assessment project started while Heimowitz was with Oregon Sea Grant and included an evaluation of existing protocols and watershed group reports and a survey of watershed coordinators. Results will help steer future development of guidance and training.

What do watershed councils do? They assess the health of the watersheds and then develop an action plan. They take action and then do monitoring to see if improvement has occurred. Jauron-Mills completed a document review of protocols and methods for specific watershed councils. She also developed a search tool. No document reviewed had a specific segment regarding ANS. Some mentioned non-native animals and some had a short list of riparian weeds. Prevention and control elements were seldom found.

153 surveys were mailed to watershed groups in the three states. A cover letter with the survey and self-addressed stamped envelope were included. So far, general awareness of ANS tends to be low. Education and training regarding ANS was viewed by the coordinators as being helpful to the watershed groups.

Oregon Sea Grant received National Sea Grant (\$100K) funding to develop ANS support to watershed groups including guidance materials, training workshops and pilot programs. The \$15,000 seed money provided by the WRP will be translated into a much larger project.

Best Management Practices for Fishing Tournaments - Lynn Schlueter, ND Game and Fish

This project target Tournament anglers. Schlueter will contract with a ND university to do a survey of all 50 states to find out which states permit these tournaments, what they require, and what inspections are done. The final product will be a Best Management Practices document for fishing tournaments.

Pacific Coast Estuarine Information System - Joan Cabreza, EPA

This project was designed and coordinated by Henry Lee, EPA and Debbie Reuser, USGS

This project received \$10,000 from WRP funds. A USGS proposal will be funded for \$100K. The database includes estuarine-specific lists of the native, nonindigenous, cryptogenic, indeterminate, or unclassified species. Taxonomic literature will be reviewed to resolve the unclassified species. Soft-bottom invertebrates will be given the highest priority in data summarization. Hard-bottom invertebrates, estuarine fishes, and the estuarine plants *Spartina alterniflora* and *Zostera japonica* will be included in the database but given a secondary priority. The system will include an in-depth literature review of 173 estuaries and 481 sub-estuaries. The Beta version will be ready to review in December or January. Lee will release version 1.0 in early 2004.

III. Member Reports – See Attachment to the Minutes for the Member Reports compiled by Erin Williams, USFWS, Stockton, CA

**IV. Conserving Biodiversity in a Changing World: the Invasive Species Challenge
Rebecca Shaw, The Nature Conservancy of California**

The Nature Conservancy (TNC) has strong expertise in terrestrial species. Conserving biodiversity is an important mission of TNC. The focus in the 60's was preserving land through acquisition; in the 70's and 80's more energy was put into protection of threatened and endangered species - still through land acquisition.

Now TNC is working on eco-regional scales.

Invasive species are a significant threat to achieving biodiversity at 75% of TNC sites. TNC is expanding from weeds to full suite of invasive species. Global Invasive Species Initiatives are developed in the Washington office. The State Species Initiative is erratic, not active in all states. There are also Local Stewardship programs.

Shaw described the objectives of the TNC invasive species program: 1) elevate the political profile of the issue; 2) partner with key entities; 3) enhance the capacity of TNC field programs to manage invasive species; and 4) educate the public. TNC is particularly interested in putting resources into prevention activities. They are working on developing and testing tools to detect invaders and developing Best Management Practices on landscape level projects. They are also working on the establishment of invasive species councils, helping with State ANS Management Plans, and the National Aquatic Invasive Species Act (NAISA).

Shaw discussed the difficulty of measuring "prevention." The State of California has cut back drastically on border inspection stations because they could not effectively prove that they prevented the establishment of invasive species. The group also discussed the delicate role of the Endangered Species Act which can prevent management and eradication of invasive species which may be threatening some T&E species.

V. Reports from Mexico

Strategies to Prevent the Spread of Invasive Aquatic Species in Mexico - Roberto Mendoza, Universidad Autonoma de Nuevo Leon

[Powerpoint Presentation](#)

There are 11 *Machrobrachium* species in Mexico, however, in 1970 the non-native freshwater shrimp *Machrobrachium rosenbergii*, carrier of several diseases, was introduced to Mexico and since then it has spread all over south of the country. Likewise despite the 49 crayfish species that exist in Mexico, three non-native and potentially invasive species were introduced. *Procambarus clarkia*, characterized by a very aggressive behavior and carrier of a deathly fungus disease, was introduced in 1985 and by 1992, it has displaced the local *Procambarus regiomontanus* in the Northeast of Mexico, nowadays it has spread in all the states of North of Mexico. In the 1990's, the red-claw crawfish (*Cherax quadricarinatus*) was introduced to alleviate problems in the shrimp culture industry. The juveniles are active predators. This species was promoted as disease-free yet it has many diseases. It is now cultured in six states and has recently been found in the wild. *Orconectes virilis* has also been found in some states and nowadays it competes with *P. clarkia*. Alternatives to prevent the spread of these non-native species include the constitution of monosexual populations, the use of sexual pheromones to lure the crayfish and use of parasitic isopods (*Bopyrus* sp.) as biological control.

The parthenogenic screw snail (*Melanoides tuberculata*) was introduced from the aquarium trade. The snail has a life span of five years. They have contributed to a decline of several native species. Since the 1960's, the snails are found in Mexican waters and are carriers of parasites for birds, fish and humans. In Mexico, as well as in the U.S. (Comal River, TX), scientists have seen an impact on endangered species and in birds, such as yellow crowned night heron. Chemical control takes high concentrations. There is a parasite that can castrate the snails but also uses tilapia and rats as intermediate hosts. Physical control also is not necessarily specific to snails. There is a bacterium that might work. The Mexican scientists consider the physiological approach as the best choice, through spawning interrupters.

Mendoza spoke of the problem of controls on aquarium trade and stressed a need to adopt international guidelines.

Gaps in Mexican Legislation for Alien Aquatic Species - Profirio Alvarez Torres, Centro Interdisciplinario de Biodiversidad Y Ambiente (CeIBA)

Mexico has laws which apply to “exotic” species. However, due to government and administration changes that deal with this issue (every 6 years), there is a change in policies and the agencies that deal with exotics.

The Law of Wildlife defines “Harmful” as those wild or domesticated species being out of their natural distribution which have a negative effect on native species. Over the last 40 years, the government itself has released certain species for specific reasons. There is also a law which requires preservation of endemic T & E species.

The Law of Fisheries was amended in 1992. It requires the government regulate the introduction of exotic species. It includes penalties for bringing in species which have not been approved. In order to transport fisheries products, the transporter must hold official documentation to prove the legal origin. There will be a national registry of approved species. To introduce a species, the proponent must have information on pathogens and parasites, a technical study on the species biology, and a description of the possible effect that the introduction might have on the native flora and fauna. If the authority fails to issue a response in 21 days, the authorization shall be considered denied.

Alvarez showed the National Fisheries Chart 2000 which is an inventory of fish with natural distribution range. It is used as a reference about whether to allow fisheries to be brought in or transported to another area.

Introduction on exotics in Mexico are closely related to several gaps including the lack of competent authority and the fact that the authority is not yet exercised in this regard, failure to make commitments and to implement/enforce commitments, and lastly a failure to develop long term environmental planning for the country that considers the impacts of aquatic exotic species in national waters.

Alvarez feels the main vector is aquaculture. Key mistakes are promotion of exotic species for aquaculture at different government levels. There is a lack infrastructure in the country to deal with ballast water. As a result, there has not been much research on ballast water in Mexico.

Mexico has a National Commission on Biodiversity. One objective is to implement an information system on invasive species in Mexico. They discuss strategies for prevention and control of invasive species. An information system has been developed and they are working on getting more ecological information, including maps. Invasive species are catalogued by state and hydrological basins. There is definitely a need for better coordination between agencies.

Mexico has a National Commission on Biodiversity (CONABIO) whose main objectives are:

- Implement an Information System on Invasive Species in Mexico
- Define national priorities to address this problem with a wide participation of stakeholders.
- Discuss strategies to prevent, control and eradicate invasive species with the participation of (Semarnat & Sagarpa).
- Create a National link for the international initiatives coordinated by the Invasive Species Global Program (GISP)

Alvarez described the actions needed:

- Update/Enhance National Fisheries Chart
- Ballast Water Analysis
- Use of voluntary codes by the ornamental fish culture industry
- Enhance private sector partners
- Update legal framework
- Enforcement!

VI. Organizational Updates

ANS Task Force - Sharon Gross, ANS Task Force Executive Secretary

The next Task Force meeting will be November 4-6 in Washington, DC.

Gross mentioned that the WRP is functioning very well, given the broad range of issues that we have to work on.

As the regional panels have taken on more issues, this is allowing the Task Force to concentrate on the national level. The Task Force has restructured to focus on larger committees which are then broken into working groups. An example is the New Zealand Mudsail working group which communicates with the Control Committee. They will develop a draft management plan which goes to the Task Force for review, then public comment and final approval by the Task Force.

One recent change is that the Prevention Committee is now combined with National Invasive Species Council (NISC) Prevention Committee since they are doing essentially the same things. The Research Committee and Monitoring Committee will coordinate priorities on a national level. The Communication Committee has been working on the Stop Aquatic Hitchhikers Campaign for two years. They will work on a similar public awareness campaign for the aquarium industry. Also, the Task Force is encouraging states to develop ANS Management Plans. In 2004, FWS will get increased funds that can go to help fund state management plans.

There is a new Mississippi River Basin Regional Panel which covers half the US. This causes significant overlap for states. States can choose to participate where the state has most watershed exposures.

The Task Force is also working with the NISC to implement National Management Plan Actions. Gross reported that the crosscut budget highlighted every federal agency and what they do on invasive species.

National Invasive Species Council Update - Diane Cooper, Invasive Species Advisory Committee Member

Check out www.invasivespecies.gov

As a reminder, the National Invasive Species Council (NISC) is composed of Secretaries of Federal Agencies. The Invasive Species Advisory Committee (ISAC) members are appointed by NISC to represent States, local governments, non-profits and industry.

NISC met in Washington DC and Chicago since WRP meeting in 2002.

Highlights:

- Economic impacts research
- NISC approved additional staffing
- Homeland Security is part of NISC and did a presentation at last meeting
- ISAC is looking for “success stories” and “Invasive Species of the Month” to share with the media
- Policy and management issues
- Control and Management Issues
 - Tamarisk and Giant Salvinia
 - Asian carp-Chicago Ship and Sanitary Canal
 - Nutria
- Education and Outreach
 - Focused on web-based information, integrated databases and compiling regional and state information

for distribution

- State and federal partnership building
Non-regulatory incentive driven process
Flexible and responsive
Increase public support for the Plan

Wednesday, September 10

I. Business Meeting – Jim Athearn, WRP Vice Chair

Athearn thanked the meeting planning committee: Paul Olin, Scott Smith, John Chapman, Erin Williams, Mike Stone, Susan Ellis, Ted Grosholz and Mark Sytsma.

Athearn introduced the Executive Committee: Scott Smith, Mark Sytsma, John Chapman, Susan Ellis, Blaine Parker Dwight Williamson and Al Van Vooren.

Mark Sytsma is now the Representative for Oregon. That leaves a position open as “Inland - At Large.” It was moved and seconded and passed that the Executive Committee appoints someone with input from panel members. Jim asked that members give suggestions to EC members. Athearn reminded people to check out the EC minutes on the website monthly.

Athearn announced that the mail-in vote to change the Guide to Procedures passed unanimously (except for one no vote on one item).

Athearn went over the budget status report. \$1,500 will be available for US/Mexico cooperation because one of the scientists was unable to attend the annual meeting. \$9,000 is available for state ANS Management Plans because Utah will not be able to use the funds this year.

Proctor suggested that we officially add a Canadian Federal member. Motion made, seconded and passed. Motion and second to add a Mexican Federal member. Discussion about whether this should be a federal member. Motion passed.

Motion and second to accept the Minutes from Sept. 10-11, 2002. Motion passed.

II. NAISA Update - Sharon Gross, FWS and Allegra Cangelosi, Northeast-Midwest Institute

Sharon Gross in person and Allegra Cangelosi by telephone reported on the National Aquatic Invasive Species Act plus the National Aquatic Invasives Species Research Act. On July 17 – there was a hearing by the Senate Environment and Public Works committee. Primary testimony was by federal agencies. There was support for the bill and the ANS activities but there was concern with the number of deliverables by federal agencies -- 30 reports due within 18 months. Unfortunately, the press focus was that feds don't like the bill, that it was too much work. On the House side, there was a general hearing on June 17 with the Resources Committee. Private property people are criticizing this bill by saying that it will be just like the Endangered Species Act with negative effect on private landowners. The primary House committee is Transportation. The Office of Management and Budget is inclined to say no to increased funding right now. Now is the time for states to extend their influence to support this bill.

III. Ballast Water Current Issues

LCDR Kathy Moore – US Coast Guard

[Powerpoint Presentation](#)

The Coast Guard is currently finalizing the final rule for penalties for non-reporting of Ballast Water

Management (BWM) as well as the final rule for mandatory BWM for the rest of the nation. (The mandatory program for the Great Lakes remains in place.) In addition, the Coast Guard is developing a policy for evaluating experimental ballast water treatment technologies on ships. They have also started work on the Environmental Impact Statement for the regulatory project for a Ballast Water Discharge Standard. (Note: The public scoping comment period closed on 12/26/03). There will be a Diplomatic Conference at IMO February 9-13, 2004 to finalize and adopt the International Convention for the Management of Ships' Ballast Water and Sediments.

In addition to the regulatory projects, Moore reported on development work on a tool to verify a mid-ocean exchange has taken place. The Coast Guard is working on protocols and methods for evaluating BW treatment systems with EPA as part of the ETV program, and they are continuing to look for solutions to the No Ballast on Board problem as well.

Maurya Faulkner, CA State Lands Commission

[Powerpoint Presentation](#)

Faulkner gave a California Ballast Water Management and Control Act Update. This mandatory program is focused on data gathering and analysis. There are four agencies involved.

Results of program for each agency:

Board of Equalization (BSE): collection of per voyage fee. They implemented a self-reporting program and 95% of the vessels are paying the fee.

State Water Resources Control Board: report not yet released to public. No treatment options currently approved. Many technologies are in the conceptual phase. Recommendations: continue BWE, identify alternative technologies, consider shore side treatment, support demonstration projects.

California Department of Fish and Game: identified 747 non-native organisms, primarily from NW Atlantic, NW Pacific and NE Atlantic. Report is on-line:

<http://www.dfg.ca.gov/ospr/organizational/scientific/exotic/exotic%20report.htm>. Recommendations: ongoing surveys for NAS, identify introduction pathways, refine taxonomy.

California State Lands Commission: Ballast Water Reporting form. 92% submitted required form. 96% complied with mandatory management requirements. Delinquent forms and late forms are a problem. Biggest problem is inaccurate or incomplete forms (35%). Also there are violations of management requirements. Demonstration Project: grant from FWS and Port of Oakland using two vessels (one container and one passenger). Report will be available in January.

Faulkner reported that during the 2003 California legislative session the Marine Invasive species Act passed both houses and is currently on Gov. Davis desk for signature. The sunset date is January 1, 2010. New issues under this bill include expansion to include coastal traffic (January 2005), the removal of most exemptions, requiring reports from all ships entering port, and the requirement of a report recommending potential discharge standards (January 2006).

Pat Lim – Fisheries and Oceans, Canada

Lim reported on the West Coast Ballast Water Management Working Group. In 1998, the Vancouver Port Authority took the lead and developed national guidelines which will become law under the Canada Shipping Act. Terms of reference of the group: ship safety is paramount; cost effectiveness is a factor; and consultation is through CMAC (Canadian Maritime Advisory Council). Problems include competitiveness of ports, national guidelines for different regions, coastal shipping with regional rules. The group is now working on coordination of databases along west coast and a regional plan for coastal shipping. The Canadian national perspective is based on the IMO regulations. They are looking at new technologies. Reporting is mandatory and every ship must report what is done with the ballast water.

Stephen Phillips – PSMFC

Phillips reported on the Columbia River ANS Initiative (CRANSI) formed by The Ports of Portland and Astoria and Portland State University with Guidance from U.S. Senator Widen. Ballast water is a common interest and focus of CRANSI. One of the difficulties in developing a uniform coastwide ballast water management program is that each state with ballast water reporting requirements maintains a separate database on ship management activities. The databases are not compatible, which complicates developing a coastwide program. CRANSI, in collaboration with the California Division of State Lands, has proposed a pilot project that merges ballast water data from California and Oregon into a common database that will facilitate data communication with the national ballast water clearinghouse database. If successful, the pilot project could be expanded to include WA, BC, and AK. The project is still in a proposal stage and has not been funded yet.

Mark Sytsma – Oregon

The ballast water program in Oregon was initiated by the legislature in 2001. However, the program remains unfunded. The Department of Environmental Quality is charged with administration but there is no staff support. Portland State University provides support for the Task Force. New legislation in 2003 adds provisions:

1. Removes sediment from the definition of ballast water
2. Permits discharge of ballast water from coastal ships if an exchange was conducted in accordance with federal or regionally approved
3. Permits discharge of water that has been treated to move organisms in a manner that is approved by the US Coast Guard
4. Extends the Oregon Ballast Water Task Force through 2004

Portland State University, in collaboration with the Smithsonian Environmental Research Center and as part of the Columbia River Aquatic Nuisance Species Initiative by the Ports of Portland Astoria, is developing protocols for verification of mid-ocean exchange. The protocol includes analyses of a suite of water chemistry parameters that differ in coastal and mid-ocean water.

Sytsma also reported on a survey of the Columbia River for ANS that PSU is doing with the University of Washington and Oregon State University. Based on historical data, the number of introduced species is increasing; however, the change over time is that more invertebrates are showing up now and less fish. On the West Coast, the same species are showing up at different places.

Scott Smith – Washington Dept. of Fish and Wildlife

Ballast Water Work Group was set up by the Washington Legislature. A report to the Legislature is due Dec. 15, 2003. Smith is producing two documents: Guiding Principles and a Summary of Recommendations on how to amend the ballast water law.

Under the Guiding Principles, ANS are a real problem and they need real solutions. Washington does not want a general fee (fees should be for specific services).

Recommendations that are under discussion:

- Amend section of law that verifies exchange. Two levels are proposed: 1) a person will board vessel and look at records to determine compliance, and 2) sampling of water to look at coastal and oceanic organisms.
- Encourage vessel to install ballast water treatment systems. This is research in action. Beginning in July 2004, penalties will be \$2 per metric ton. Exemption will be for vessels that are in a ballast water approval process. Extend requirements to 2006.
- Require in statute that vessels have to go 50 miles to exchange. Give Fish and Wildlife Commission the authority to adapt to a change in this amount depending on what happens on west coast exchange

program.

Karen McDowell - CA Sea Grant Extension Program

McDowell reported on the ballast water outreach and education project. Biannual Newsletters are available. Sea Grant does specialized workshops focused on specific topics. For example, there was an oceanography workshop in March 2002.

California Sea Grant also has a Coastal Traffic project. Open Ocean exchange is the only approved method but there is a problem with 200 nautical mile limit. West coast states have a uniform program for transoceanic, but not for coastal traffic. States/Provinces are trying to protect their own waters. This project is designed to determine a solution for the entire region. Many partners are working together help craft a solution.

McDowell reported that the future plans include drafting a regional plan, review and revision, and implementing the final plan. Two meetings are coming up: IMO Diplomatic Conference is Feb. 9-13, 2004 and the USCG Mandatory program is Oct. 29, 2003.

IV. National ANS Initiatives and Invasive Species Plan - Dennis Wright, Department of Fisheries and Oceans, Canada (reporting by phone)

Four thematic working groups were developed to support the development of the Invasive Species Plan. The Aquatic Invasive Species Task Group will develop a National Plan to address the threat of ANS. This is a joint federal/provincial initiative. Ontario and DFO are the co-chairs.

The National Plan development is being led by Environment Canada. ANS is the farthest along in the development of subplans. The focus is on unintentional movements and the control of spread of existing species. Current challenges are to identify national priorities and opportunities for early action, to involve experts and stakeholders, and to identify resources. They have been advised to take necessary action through existing legislation rather than new legislation. They will contribute to the national initiative by Transport Canada on ballast water.

The AIS Task Group is identifying pathways with 3-5 page summaries, identifying risks and recommending actions, both immediate and long-term. Prevention will be emphasized and they will do science based risk management.

One major element is leadership, coordination and cooperation. They are looking at the existing mandates of the organizations and wanting to develop centers of expertise. They are also working on regulation and enforcement – hoping to harmonize different levels. The Task Group will be doing more work on early detection and rapid response planning. They will also be developing a national inventory (at beginning stages). Stewardship, education and awareness are also an important part of the Plan.

The Task Group hopes to implement the Plan by 2004.

V. Eradication of Hydrilla from Lake Murray and Continuing Success in the rest of the State - Robert Leavitt, CA Dept. of Food and Agriculture

[Powerpoint Presentation](#)

Lake Murray is a park in San Diego. The eradication of hydrilla from the lake was a long term project from 1977 to 1994. The entire shoreline of lake less than 20 feet deep was infested. Hydrilla probably was introduced from an aquarium. Adjacent water bodies do not have hydrilla so it isn't felt that it came from birds. Importantly, hydrilla cannot now be bought in pet stores. Water level drawdown occurred every year, and then herbicides were used extensively. Komeen was used in water, Vapam after the drawdown. These two efforts reduced the infestation by 90%. Divers inspected lake for isolated hydrilla plants. Used a dredge and

vacuumed the plants and fragments to remove the remaining 10%. Last plant found in 1991; hydrilla was declared eradication after the third year of no plants.

The cost of the eradication effort was \$5.7 million, the biggest expense being for the scuba divers. Indirect costs not quantified, but they include reduced use of Lake Murray as a water supply reservoir and the loss of revenue from recreation. Indirect costs were probably much larger than direct costs.

According to Leavitt, two important lessons were learned; that quarantine can be effective method to prevent spread and that eradication is long and costly.

Many lakes have been eradicated in California due to early detection and rapid response. This requires long-term dedication of funds and manpower plus technology appropriate to the situation and phase of eradication.

VI. HACCP Update - For Bob Pitman by David Britton, U. of Texas at Arlington

[Powerpoint Presentation](#)

At the last WRP annual meeting, Bob Pitman (USFWS, Albuquerque) described the Hazard Analysis and Critical Control Process (HACCP) that is being used to prevent the spread of ANS by state and federal hatcheries and private aquaculture facilities, as well as biologists working in the field. David Britton presented a short update on HACCP. The database of completed HACCP plans is growing and can be found at www.HACCP-NRM.org. Also available are forms, guidance and background information and a list of training and workshops. Britton is developing a HACCP wizard that will step people through the process of creating a plan.

VII. 100th Meridian database - David Britton, U Texas at Arlington

[Powerpoint Presentation](#)

The 100th Meridian database includes surveys from recreational boaters in western States from 1998 through 2002 regarding where people are moving their boats. Britton showed maps of where zebra mussels are found in the U.S., where surveys were conducted and the zip codes where the boats originated. He also showed a map of destinations. He overlaid that map with major roads. He connected origins and destinations and then could rank which highway segments were being used the most. This information is valuable in targeting outreach and information efforts.

Britton then showed a map with high risk destinations. One of these high risk destinations is El Dorado Reservoir in Kansas where an infestation of zebra mussels was found in August. There is also a map of zebra mussel infestations overlaid with thermal map, which allows us to begin to target high risk areas by looking at water temperature.

VIII. Status of Species Management and Control Plans

Mitten Crab – Erin Williams, USFWS, Stockton, CA

The final “National Management Plan for Eriiocheir” was completed and approved by the ANSTF. Implementation of the plan continues. FY03 projects included 1) potential salmonid egg predation, 2) prevention and early detection in Columbia River, 3) environmental parameters influencing recruitment in San Francisco estuary, 4) monitoring of adult population in Sacramento Delta.

Caulerpa – Erin Williams, USFWS, Stockton, CA

The Prevention Plan was originally written by the committee that was more east coast based. When a population was found in California, ANSTF decided to incorporate the Prevention Plan into a National

Management Plan. The management plan is being drafted by the revised committee, now called the Caulerpa Working Group (CWG). Under agreement with FWS, the San Francisco Estuary Project will set up the first CWG meeting to develop priorities for the revised plan.

New Zealand Mud Snail – Tina Proctor, USFWS, Denver, CO

The NZMS Management and Control Plan Team met in August 2003 in Bozeman, Montana and developed an outline and working groups to write portions of the Plan. The first draft is expected to be completed by January 2004.

Green Crab – Ted Grosholz

The Green Crab Management Plan is now in final draft and includes all the changes suggested during the public comment period. The chair of the committee, Fred Kern (NOAA), will submit the plan at the next ANSTF meeting for final approval.

IX. State Updates – Recommended State Actions – Scott Smith/Tina Proctor

[Powerpoint Presentation](#)

Scott Smith reviewed the Recommended State Actions that were approved by the WRP in June, 2003. Tina Proctor showed a slide of each recommended action revealing which states had accomplished or were in the process of working on that action. Please refer to the linked slides.

Next Meeting: Anchorage, Alaska in September 2004

The meeting was adjourned at 4:00 p.m. Thursday, September 11

John Chapman led participants on a field trip to Mission Bay and to the Tijuana River National Estuarine Research Reserve.