

AQUATIC NUISANCE SPECIES TASK FORCE: MINUTES OF THE 2010 FALL MEETING NOVEMBER 3–4, 2010

On November 3 and 4, 2010, the Aquatic Nuisance Species Task Force (ANSTF) met at the Holiday Inn Arlington at Ballston in Arlington, VA. Decisions and action items are listed below, followed by a summary of the two-day meeting.

Decisions

The ANSTF made the following decisions:

- Approved meeting agenda and minutes for the spring 2010 ANSTF meeting
- Agreed to support exploring the potential for a quagga-zebra mussel coordinator position and to provide guidance
- Agreed Stephanie Showalter will submit the genetic biocontrol regulations paper to Susan Mangin, and she will distribute it to the ANSTF
- Agreed to retain the Research; Communication, Education, and Outreach; and Prevention Committees and create ad hoc committees as needed
- Approved the Wyoming state ANS management plan
- Approved the Nebraska state ANS management plan
- Conditionally approved the Alabama state ANS management plan pending incorporation of final comments
- Agreed to establish an ad hoc committee to update the recreational guidelines and ask for participants. The committee will develop a timeline for completing the updates.
- Agreed to send letters from the co-chairs to ANSTF member agencies requesting participation on the panels if requested. Susan Mangin will send email to panels letting them know they need to request.
- Agreed that Dr. Adrianna Muir, John Darling, Kathe Glassner-Shwayder, Sharon Gross, Commander Gary Croot, Susan Mangin, and Phil Moy will review and revise the language of the Great Lakes Panel recommendation to reflect the advisory nature of the ANSTF, share the revised language with ANSTF members, and submit advice to the appropriate U.S. Environmental Protection Agency and Department of State contacts. John Darling will contact the U.S. Environmental Protection Agency representative regarding the timetable for drafting the water quality agreement.

New Action Items

The ANSTF assigned the following action items:

- (ANSTF) Have a Federal Advisory Committee Act specialist visit to discuss roles and responsibilities (i.e., Hatch Act).
- (Karen McDowell, Stephanie Carman, Gordon Brown, Susan Pasko, Anne Marie Eich, and Dr. Carolyn Junemann) Explore the development of an ANSTF database to track strategic plan accomplishments and report at next meeting with a model.

- (ANSTF) Review their performance elements and submit to Susan Mangin for consideration when revising the ANSTF strategic plan.
- (Maria Boroja, Mike Ielmini, John Darling, Peg Brady, and Susan Mangin) Research their respective agency's incident command system training capabilities and report to the ANSTF at the next meeting.
- (Executive Secretary) Consult the National Invasive Species Council about the viability of the Pathways Working Group to address pathways. If the Pathways Working Group is not viable, Susan Mangin will request volunteers to staff this working group.
- (Regional Panels) Conduct an incident command system needs assessment and report to the ANSTF if applicable.

1. Welcome and Preliminary Business

Jeff Underwood, Deputy Assistant Director for Fisheries and Habitat Conservation, sat in for U.S. Fish and Wildlife Service (FWS) Co-Chair Bryan Arroyo, Assistant Director for Fisheries and Habitat Conservation. Underwood and National Oceanic and Atmospheric Administration (NOAA) Co-Chair Peg Brady, NOAA Liaison to the National Invasive Species Council (NISC) and ANSTF, welcomed ANSTF members and observers to Arlington, VA. ANSTF Executive Secretary Susan Mangin, FWS, introduced herself, covered meeting logistics, and thanked everyone for attending. Mangin welcomed the new members and asked all members to update their contact information and provide feedback regarding the briefing books that were provided for this meeting. Following introductions, the ANSTF approved the agenda for this meeting and the meeting summary with a change noted for the spring 2010 meeting in Portland, ME.

2. Review of Spring Action Items

Mangin reviewed action items from the spring meeting.

- *Formalize ANSTF hotline*—Mangin met with the U.S. Geological Survey (USGS) and FWS who are working on an agreement to formalize the hotline.
- *Link Northeast Aquatic Nuisance Species “Online Guide to Aquatic Invasive Species in Northeastern North America” to the ANSTF Web site and consider links to additional aquatic nuisance species (ANS) guides*—This task has been completed. A call has been sent out for additional links to ANS guides for the website.
- *Post Oregon’s Management Assessment for Invasive Species report on ANSTF Web site*—This task has been completed.
- *Report on vector workshop at next ANSTF meeting*—This item is scheduled for session 16.
- *Invite Congressional Affairs Specialist to next ANSTF meeting to discuss contact with Congressional representatives*—This item is scheduled for session 10.
- *Provide roles and responsibilities of the ANSTF, panels, and committees at next ANSTF meeting*—A list of roles and responsibilities has been included in the briefing books. ANSTF roles were taken directly from the charter; roles and responsibilities for panel members and committees were taken from previously developed materials.
- *Follow up with Sophie Foster regarding Canadian Aquatic Invasive Species Network (CAISN) model and its applicability for integrating academia into ANSTF objectives*—Anne Marie Eich, Knauss Fellow with the FWS, spoke to Sophie Foster and believes CAISN represents a valuable prototype and a good model for integrating academia into the ANSTF. Eich recommended the ANSTF Research Committee explore the model further.
- *Develop options for implementing partnerships with youth groups*—The FWS Fisheries Division will develop a prototype program and return with a model for the ANSTF to consider by the next meeting.
- *Contact federal members to request committee chairs and members and identify committee tasks*—This item is scheduled for session 18.
- *Provide updated list of contacts to Regional Panels and the ANSTF*—Membership updates have been provided to Dave Britton, FWS.

- *Update Experts Database*—FWS staff have been working with NOAA staff to expand and update the current Experts Database. The FWS and NOAA will be submitting a detailed survey that asks for specific expertise and contact information for those currently in the database. The survey is ready and has been submitted to the Office of Management and Budget. Mangin encouraged everyone to complete the survey.
- *Develop an ANS responders list*—Mangin will be working with the regional panels to define the credentials necessary to be added to the ANS responders list.

3. Informational: Mitten Crab Management and Control Plan

As the Region 8 Aquatic Invasive Species (AIS) Coordinator, Ron Smith, FWS, reported on implementing the *National Management Plan For the Genus Eriocheir (Mitten Crabs)* (NMP). A workshop was held November 2, 2010, to develop networks and facilitate communication and collaboration between researchers, agencies, and organizations working with Chinese mitten crab (*Eriocheir sinensis*) in North America. The workshop included status and monitoring updates and a risk assessment.

The second part of the workshop focused on discussing the relevancy of the NMP and identifying future needs. A lot of information is available electronically, but the sites are not integrated; reporting and sampling methods need to be standardized; more research is needed on regional impacts and impacts in different geographical areas; options for management and control need to be explored; and the most effective outreach materials are those that have been developed regionally and target specific groups. A detailed analysis of the NMP revealed that it should be expanded to include all of North America, particularly the East Coast, and submitted to the ANSTF for approval. However, one response for invasions throughout the North American system will not work since each ecosystem is different.

R. Smith acknowledged that economic impacts are not yet being studied but will need to be studied for the risk assessment.

4. Decisional: Quagga-Zebra Mussel Action Plan for Western U.S. Waters

4.1. Steve Chilton

Steve Chilton, FWS AIS Coordinator for Lake Tahoe and Northern Nevada, highlighted efforts of the Lake Tahoe on-highway watercraft inspection program. The fiscal year 2010 (FY10) Interior Appropriations Bill allocated \$800,000 for inspection and decontamination stations on roads leading to the Lake Tahoe region. Four stations were constructed to intersect the five major highways leading to Lake Tahoe: two stations were located on public lands, two on privately owned parcels.

The stations were open from 6 AM to 8 PM, beginning May 2010; three of the stations were closed at the end of September, one will remain open through winter. These stations were supplemented by the on-ramp inspection program, which has been operating for 3 years. A local ordinance requires a boat ramp to remain locked unless an inspector is present. Each facility was equipped to inspect and decontaminate vessels and collect fees. During the 2010 season, 2,967 inspections and 600 decontaminations were conducted at the on-highway stations; 22,000 inspections were conducted at all highway and public and private launch locations. Inspections took 5–20 minutes, depending on the circumstances, and each vessel received a seal once the inspection was complete.

Because these stations can be decontaminating many large vessels, disposing of wastewater became difficult. Therefore, they have switched to propane-powered, self-contained decontamination units that recycle the water. Several other valuable lessons were learned this season: the stations must be easy to

access from the highway, staffing is important and shorter shifts prevent fatigue and complacency, and an internet connection is important for collecting fees.

During discussions, Chilton noted that public outreach, including billboards along the highway, has greatly improved public perception and acceptance, and the program has not deterred visitors. He also acknowledged that although they are nearing a 100% inspection rate, some boats are still launched from illegal ramps. Other existing inspection programs include nonmotorized vessels (e.g., kayaks, canoes) and seaplanes.

4.2. Susan Mangin

The *Quagga-Zebra Mussel Action Plan for Western U.S. Waters* (QZAP) was developed by the Western Regional Panel (WRP) and finalized by the ANSTF in February 2010. In a letter to Secretary Kempthorne, Senator Feinstein recommended developing a coordinator position to lead the federal response and work with relevant State and local entities to implement a mussel plan. In response to this letter and because implementing the QZAP requires coordination at different levels, the QZAP Coordination Team developed a draft position description for a QZAP Coordinator. Mangin presented a possible title, series, and grade; the suggestion that the position could be housed within the Council on Environmental Quality or the Western Governors Association; and an extensive list of possible responsibilities for the QZAP Coordinator.

Mangin then asked the ANSTF for feedback:

- Responsibility for implementing QZAP has largely landed on the Region 6 Coordinator, and since this position is vacant, other WRP members are being impacted. The WRP has had significant involvement in the QZAP and supports hiring a QZAP Coordinator.
- Costs for funding this position will need to be estimated.
- At the request of the ANSTF, WRP Chair Eileen Ryce, Montana Fish, Wildlife and Parks, provided four position objectives: 1) coordinate and summarize QZAP efforts across all 19 western states; 2) respond to information requests; 3) track funding to determine if money was used effectively and determine where additional funds should go; and 4) work with large, known waterbodies, such as Lake Mead, where States need to coordinate with the National Park Service (NPS) or other federal agencies.
- ANSTF members debated whether the candidate should be a biologist or someone with policy experience and whether the position should be a federal position or not.

The ANSTF agreed to support exploring the potential for a QZAP Coordinator position and to provide guidance.

5. Informational: Snakehead Management

Mangin provided an update on the *Snakehead Management and Control Plan* for Steve Minkkinen, FWS, who was unable to attend the ANSTF meeting. In 2008, northern snakehead (*Channa argus*) were known to occur in Pennsylvania, New York, and Arkansas. Eradication efforts were conducted in New York and Arkansas; the status of the Pennsylvania population is unknown. Last spring, northern snakehead were found to have colonized all tributaries of the Potomac River.

Working group representatives from State and federal agencies, industry, law enforcement, and other stakeholders developed a draft *Snakehead Management and Control Plan*. The plan identifies specific control and management strategies for established populations in the northeastern United States and identifies prevention, early detection, rapid response, control, eradication, research, and outreach measures for the entire United States.

6. Informational: Asian Carp Management and Control Plan

Greg Conover, FWS, provided an update on the *Asian Carp Management and Control Plan* for plan coordinator Sam Finney, FWS. Much effort to control Asian carp has been spent within the Chicago waterway system and connections between the Chicago River and Great Lakes. A Great Lakes regional committee developed a regional Asian carp plan using recommendations from the national plan that were relevant to the Great Lakes; actions taken to implement the regional plan will benefit implementation of the national plan. Finney and the co-chairs of the Asian Carp Working Group Implementation Team hosted a meeting in conjunction with the Midwest Association of Fish and Wildlife Agencies (MAFWA) meeting in Indianapolis, Indiana, to discuss implementing the *Asian Carp Management and Control Plan*. Attendees recommended changes to the Implementation Team structure and developed a charter for the Implementation Team; identified short- and long-term actions; and identified three working groups. The 131 actions identified in the *Asian Carp Management and Control Plan* will be divided between these working groups. The working groups will then prioritize the actions and identify funding needs. Products from the working groups will be combined into a draft implementation action plan, hopefully by the end of the year.

7. Informational: Asian Carp Eradication Update

Steven Shults, Illinois Department of Natural Resources (IDNR), reported on Operation Silver Screen. On December 1–7, 2009, the IDNR and other stakeholders responded to the discovery of environmental DNA (eDNA) in Lockport Pool and the need to perform maintenance on the electronic dispersal barrier in the Chicago waterway. A special permit issued by the U.S. Environmental Protection Agency (EPA) allowed rotenone application with specific restrictions. The rotenone was mixed with canal water, injected with a tracer dye, and applied at night from an initial application station and booster stations. Water quality monitoring was performed during the application process; detoxification with sodium permanganate returned all monitored chemicals to normal levels. Fish were recovered during the day using nets, placed in barrels, and transported to an off-site landfill. A total of 54,680 pounds of fish were recovered, but water temperatures were low enough that many fish did not likely surface. A single bighead carp (*Hypophthalmichthys nobilis*) was collected.

Verifying the presence of Asian carp near the Thomas J. O'Brien Lock and Dam was added to Operation Silver Screen objectives in response to eDNA detections between the electronic barriers and in Lake Michigan. Over 1,000 fish were caught using 19,500 linear feet of trammel net. No Asian carp were collected or observed.

Since the barrier system has many potential bypasses, a regional coordination committee developed a draft Asian carp control strategy framework and a workgroup developed monitoring and rapid response actions and triggers.

Operation Pelican was initiated in Lansing, Illinois, on May 19–26, 2010, to obtain a standing stock estimate of the area fish population, capture and remove any Asian carp, and gather data to correlate traditional sampling gear with total abundance. Eleven commercial netting sites and electrofishing samples collected on two different days did not recover any Asian carp. Rotenone application began at the lock and dam and went downstream. No Asian carp were detected in the 133,820 pounds of fish recovered.

Shults indicated that additional Incident Command System (ICS) training is essential at all levels of response across all agencies. In the future, IDNR will complete intensive sampling using multiple techniques to determine if a chemical response is necessary whenever eDNA is detected or if the barriers are shut down again.

8. Informational: Vessel General Permit

Ryan Albert, EPA, spoke about building a scientific foundation for establishing a numeric concentration of living organisms in ballast water. In the United States, ballast water discharges from vessels are regulated under the Clean Water Act, implemented by EPA's Vessel General Permit (VGP) and under a separate statute, the National Invasive Species Act, implemented by the U.S. Coast Guard (USCG). The VGP authorizes discharges incidental to normal vessel operations unless those discharges are statutorily excluded from National Pollution Discharge Elimination System (NPDES) permitting. Finalized in December 2008, the VGP expires in December 2013. When the VGP was issued, the EPA did not require technology-based numeric ballast water limits because treatment technologies that could form the basis for such limits were not available or their use was not economically achievable. For the next VGP, the EPA and USCG are sponsoring two evaluations that will inform ballast water discharge limits. The National Academies is evaluating various approaches to assessing the risk of establishing new invasive species from ballast water discharge, and the Science Advisory Board is evaluating the status and efficacy of available ballast water treatment technologies. These studies might provide the basis for establishing numeric discharge limits in the next VGP

9. Informational: Summary of the International Symposium on Genetic Biocontrol of Invasive Fish

Leah Sharpe, University of Minnesota, provided an overview of the International Symposium on Genetic Biocontrol of Invasive Fish held June 21–24, 2010, in Minneapolis, MN. Genetic biocontrol is the release of genetically manipulated organisms designed to disrupt the survival or reproduction of a targeted invasive species. Sharpe reviewed the goals of the symposium and reported that a special issue of *Biological Invasions* that includes individual and synthesis papers is being prepared as a roadmap for moving forward. During the first day, focus groups revealed unanticipated negative impacts dominated public concerns but favored biocontrol if certain recommendations were followed. Breakout sessions discussed effectiveness and testing. On the second day, participants discussed key issues and approaches for a comprehensive risk assessment of genetic biocontrol technology. On the third day, current regulatory information and an economic analysis of the costs associated with invasive species were presented.

Gene based (transgenic) methods of biocontrol will not be ready for field use for a long time. Trojan chromosome methods appear to be more viable for field use, and hormone manipulation technology has already been developed for Nile tilapia (*Oreochromis niloticus*).

10. Decisional: Regulation Challenges of Genetic Biocontrol

Stephanie Showalter, Director of the National Sea Grant Law Center based at the University of Mississippi School of Law, discussed the regulatory framework for chromosomal manipulation and recombinant DNA (rDNA) techniques. Three agencies have primary authority of genetically engineered organisms: Animal and Plant Health Inspection Service (APHIS), EPA, and Food and Drug Administration (FDA). Because an rDNA construct falls under the FDA's current definition of a "drug," the FDA has regulatory authority. Given the unprecedented nature of such a project and the controversy surrounding releasing genetically engineered animals into the environment, the FDA would likely require a New Animal Drug Application for genetically engineered fish developed for biocontrol, although the FDA may exercise enforcement discretion. The FDA would likely prepare an environmental assessment before proceeding, and the FWS may be required to prepare a biological opinion. Finally, several states prohibit the release of genetically engineered organisms without permit or approval from a state agency and regulating chromosomal manipulation techniques would likely fall to the States since no federal agency currently has clear authority. Showalter agreed to submit a copy of her genetic biocontrol regulations paper to Mangin who will distribute it to the ANSTF.

11. Informational: Wetlands Plant Database

Bob Lichvar, Army Corps of Engineers (ACOE), provided a history of the National Wetland Plant List (NWPL) available at http://wetland_plants.usace.army.mil/. The NWPL is an interagency product that presents data at the national, state, and local level and supports 8,554 wetland species. The ACOE has funded an update that includes more than 2 million county distribution records. After the NWPL has completed its review in the Federal Register, the entire flora, including upland species, will be added to the site.

Lichvar displayed a live presentation of the website, including how to query by nomenclature, geographic area, or attribute. When the user searches for a species, a page appears that includes the plant location, location of origin, and biological attributes. Species lists, based on geographic, morphological, or ecosystem units, can also be created, and aquatic exotic species searches are available. Watershed, rare plant, and nativity plant level searches will be available pending funding. Additional interest has included military base and National Park level searches. Lichvar reported that Canada is already included in the database and Mexico has expressed interest in developing a wetland program. Anyone interested in learning more about the NWPL can contact Lichvar at robert.w.lichvar@usace.army.mil or 603-646-4657.

12. Informational: Invasive Species Risk Assessment and Planning

Dave Britton, FWS, reported on Invasive Species Risk Assessment and Planning (ISRAP), a strategy for teaching Hazard Analysis Critical Control Point (HACCP) planning that incorporates risk assessments. The HACCP program for natural resource management was originally developed by Sea Grant and later modified by the FWS. Executive Order 13112 states that federal agencies should prevent the introduction of invasive species. In response, the FWS developed a national fisheries HACCP policy and Regions 2 and 8 developed a HACCP policy that requires all field stations to have HACCP plans. HACCP is recognized as an international standard for invasive species pathway management by ASTM International Standards Worldwide.

Workshop participants are trained to identify non-targets; determine the pathway; assess the risk; and identify, implement, and evaluate controls. The workshop includes training on the five steps of HACCP and a risk assessment example. After the workshop, participants should be comfortable with HACCP planning and should be able to assemble a HACCP team.

ANSTF members reported that the Great Lakes Sea Grant staff provide ISRAP training and NOAA has a training webinar available. Britton recommended that agencies have their HACCP plans peer reviewed.

13. Informational: Congressional Update and Contact Information

Katie Umekubo, FWS Office of Congressional and Legislative Affairs, provided an update of legislation introduced during the 111th Congress that would be relevant to the ANSTF. A few comprehensive invasive species bills were introduced, as well as proposed legislation that would amend the Nonindigenous Aquatic Nuisance Prevention and Control Act and the National Invasive Species Act. The Invasive Species Emergency Response Fund Act was also introduced, which would provide loans to States to address invasive species issues. There were hearings that dealt with broader invasive species issues before committees of both the House of Representatives and the Senate, but none of the bills described above went to the floor for a vote.

The FWS Congressional and Legislative Office serves as the primary liaison between the FWS and Congress. Umekubo described the difference between appropriations and authorizations, and explained that an agency can only advocate for what is contained in the President's budget proposal.

She also touched upon some of the requirements of anti-lobbying statutes and limitations placed on federal government employees. The following issues were raised during discussion:

- The ANSTF is advisory in nature and shouldn't be consumed with making recommendations for funding. The ANSTF should provide briefings to Congress on important issues.
- Discussions with Congress are limited by Federal Advisory Committee Act (FACA) rules, and ANSTF members should seek guidance on discussions with Congress outside of their normal agency role.
- The ANSTF agreed to submit additional lobbying questions to Mangin, and those will be addressed by a FACA specialist at the next meeting.

14. Decisional: ANSTF Strategic Plan

Eich updated members on three 2010 priority objectives from the *Aquatic Nuisance Species Task Force Strategic Plan* (Strategic Plan): (1) facilitate development and science-based risk assessments to determine the risk associated with ANS and methods to mitigate the risks (Objective 1.1); (2) facilitate survey and monitoring efforts to detect and control ANS (Objective 2.1); and (3) ensure people of the United States understand the problems and issues associated with ANS (Objective 4.1). Action items were correlated with these objectives last fall. Cindy Kolar, USGS, will be providing an update on action items for Objective 1.1. For Objective 2.1, Eich has requested data pertaining to FY10 and will request additional data for FY11 to populate the survey. Habitattitude™ and *Stop Aquatic Hitchhikers!* campaigns and the ANS Hotline have been moving forward during FY10 for Objective 4.1. In FY11, the FWS will continue to work on Objectives 1.1 and 2.1 and will begin working on Objective 2.2 (facilitate the development of capacities to respond rapidly to invasions).

Susan Pasko, NOAA, and Jeff Morisette, USGS, demonstrated the database used by the USGS for tracking their NISC *National Management Plan for Invasive Species* responsibilities. The database allows member agencies to provide updates and allows NISC to track plan progress and generate reports to Congress. With this database, NISC staff members do not have to compile several different spreadsheets to update the plan and can generate real-time reports. Haylee Schweizer, USGS, demonstrated the application workflow, including how to log onto the system, enter a new status report, and view a report.

ANSTF members acknowledged that the ANSTF Strategic Plan may need to be updated to a format that would be more easily applied to a database. Several ANSTF members volunteered to explore the development of an ANSTF database to track strategic plan accomplishments and report at the next meeting with a model. All ANSTF members agreed to review their performance elements and submit them to Mangin for consideration when revising the Strategic Plan.

15. Risk Assessment Working Group Update

Kolar provided an update on the Risk Analysis Working Group workshop to revise the *Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process* that was written in 1996. The three-day workshop was held in September 2010 and provided an overview of risk assessments used by different agencies, a discussion of examples from the document that may or may not be working, specific improvements that should be made to the document, and a discussion of risk assessment frameworks. By the end of the workshop, participants had developed a draft risk analysis framework, were given writing assignments, had obtained input on the risk assessment framework, and had discussed risk management alternatives. Kolar displayed the risk analysis framework in the current document and the five-step risk analysis approach that was developed during the workshop. The working group would like to present a draft revised document at the next ANSTF meeting.

16. Informational: Research Protocol Update

Pasko reported on the research protocol update that was spearheaded by Research Committee chair David Reid, NOAA's Great Lakes Environmental Research Laboratory, and adopted at the fall 2009 ANSTF meeting. The update was published in the Federal Register on August 31, 2010, for a 45-day comment period. Only one comment, which was not relevant to the protocol, was received. The document has been finalized and will be published in the Federal Register by the end of November 2010. Pasko asked everyone to use and promote the protocol update within their agencies.

17. Decisional: Committee Structure

Mangin reviewed the existing ANSTF committee structure, which consisted of five committees: 1) Control; 2) Research; 3) Communication, Education, and Outreach; 4) Detection and Monitoring; and 5) Prevention, which is an ANSTF/NISC combined committee. Most of the committees have become inactive due to a lack of participation and funding. At the spring 2010 meeting, the ANSTF agreed to retain the existing committee structure and find federal members to chair the committees. After speaking with ANSTF members, Mangin developed three additional options: 1) retain the most active standing committees and develop ad hoc committees as needed; 2) dissolve all standing committees and develop ad hoc committees as needed; 3) retain the current committee structure and find a chair for the Control and Detection and Monitoring Committees.

After much discussion, the ANSTF agreed to retain the Research; Communication, Education, and Outreach; and Prevention Committees and create ad hoc committees as needed.

18. Public Comment

Emily Douce, Marine Conservation Biology Institute, asked the ANSTF for advice on working with federal agencies to remove two shipwrecks from pristine coral reefs in the Hawaii area. Douce left a fact sheet and her business card for any ANSTF members who could help.

Adjourned

The meeting adjourned at 5:10 PM.

DAY 2

19. Decisional: State ANS Management Plan Approval

Don MacLean, FWS, discussed three state plans being presented to the ANSTF for approval today.

19.1. Wyoming Plan

Fisheries Chief Mike Stone, Wyoming Game and Fish Department (WGFD), cited the threat of zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena rostriformis*) as the impetus for developing a Wyoming ANS plan. AIS legislation was passed in March 2010 that named the WGFD as the lead AIS agency, expanded their authorities beyond traditional wildlife, and changed their scope to all exotic aquatic organisms. The legislation included appropriations of \$1.5 million for the first year and one new position. Beth Baer, WGFD, reported the plan follows standard ANSTF guidelines and requested edits have been incorporated.

As recommended by MacLean, the ANSTF approved the Wyoming state ANS management plan.

19.2. Nebraska Plan

Karie Decker, University of Nebraska, reported that Nebraska's waters are being severely impacted by an increasing number of ANS due to a lack of monitoring, regulatory authority, and funding. A state ANS plan was seen as a solution to recurring zebra mussel infestations. The plan follows ANSTF guidelines and focuses on ANS as a regional issue since Nebraska shares many waterbodies with neighboring states. Plan priorities include identifying funding and regulatory gaps, hiring an ANS coordinator, increasing monitoring, developing response plans, implementing a boat inspection program, and increasing collaboration. Although Nebraska has made some recent accomplishments, the State needs to focus on preventing new introductions, controlling established species, and filling in information gaps.

As recommended by MacLean, the ANSTF approved the Nebraska state ANS management plan.

19.3. Alabama Plan

MacLean reported that the Alabama state ANS management plan completed an extensive review and the authors incorporated most of the edits and comments. However, enough minor points were not addressed that MacLean recommended giving this plan conditional approval with 90 days to incorporate additional ANSTF comments.

As recommended by MacLean, the ANSTF conditionally approved the Alabama state ANS management plan pending incorporation of final comments.

20. Decisional: Update Recreational Guidelines

Because the recreational guidelines were approved in 2000 and several new threats have emerged, many ANSTF members agreed the guidelines need to be updated. Laura Norcutt, FWS, volunteered to spearhead the effort and coordinate an ad hoc committee to revise them. Several ANSTF members expressed interest in being ad hoc committee members. The ANSTF agreed the ad hoc committee would develop a timeline for updating the recreational guidelines.

Norcutt also volunteered to organize a planning group for ANSTF involvement in the 2nd Annual National Invasive Species Awareness Week (NISAW) that will be held February 28 through March 4, 2011, in Washington DC. ANSTF members who are interested in becoming involved should contact Norcutt or visit the website at <http://www.nisaw.org/>.

21. Regional Panel Updates

Mississippi River Basin Panel (MRBP)

Jason Goeckler, Kansas Department of Wildlife and Parks, reported that the MRBP completed the model rapid response plan for fish within the entire basin; worked with the Mississippi Interstate Cooperative Resource Association (MICRA) to finalize the Mississippi River Basin action plan; provided financial support for the International Symposium on Biogenetic Control; and organized a multi-stakeholder committee for the grass carp (*Ctenopharyngodon idella*) inspection program. Additional ongoing work includes working with the USCG to identify barges as vectors and sponsoring two sessions at the Midwest Fish and Wildlife Conference in December 2010. The MRBP is compiling data from seven different boater surveys into one document to better inform how outreach and education programs are working in member states. Additionally, the MRBP is pursuing opportunities for Advanced ICS training to get MRBP members "Command Qualified" to lead ICS rapid response efforts. Goeckler provided 3 recommendations from the MRBP to the ANSTF.

Several ANSTF members agreed to research their respective agency's ICS training capabilities and report to the ANSTF at the next meeting.

Mid-Atlantic Regional Panel (MARP)

Jonathan McKnight, Maryland Department of Natural Resources, reported that the USCG trained and certified members of MARP for ICS management and trained them to incorporate their rapid response program with ICS. McKnight acknowledged Lisa Moss, MARP Coordinator, for her contributions. McKnight listed MARP's work that has been accomplished through the small grants program in 2010: a water gardening invasive species prevention program; Asian shrimp surveys; a social marketing study; a statewide field guide for invasive species; water chestnut (*Trapa natans*) control and eradication; rotenone treatment for bighead carp; and *Phragmites* outreach. MARP recommended the ANSTF create an ad hoc committee to develop concrete recommendations leading to a vector intercept and management strategy that will work at state and watershed scales.

Western Regional Panel (WRP)

Eileen Ryce, Montana Fish, Wildlife and Parks, introduced Karen McDowell, San Francisco Bay Estuary, as the new WRP chair. Zebra and quagga mussels have dominated WRP activities. Threats from these mussels have helped many States pass legislation and receive additional funding. As reported today, two new states have written ANS management plans, which will impact the funding of other states. Ryce encouraged the ANSTF to attend the spring meeting with clear guidelines about what the ANSTF and regional panels can do to secure additional funding. Ryce also asked the ANSTF to consider hiring a QZAP Coordinator and FWS Region 6 Coordinator and to create an ad hoc committee to develop a white paper about creating commercial markets around nonnative species. Brady noted that other agencies are researching the commercial use of nonnatives and the issue is on the agenda for the Invasive Species Advisory Committee (ISAC) December meeting.

Northeast Aquatic Nuisance Species Regional Panel (NEANS)

Jan Smith, Massachusetts Coastal Zone Management, reported that NEANS continues to work on the online guide and conducted a workshop to discuss rapid response. The Coastal Zone Management (CZM) and Massachusetts Institute of Technology (MIT) Sea Grant Programs conducted another rapid response survey for ANS on docks, which included photographing species under docks, surveying tunicate invasions on adjacent rocky habitats, and studying species in the water column that are associated with docks and piers. The surveys identified a new invading shrimp species—rock shrimp (*Palaemon elegans*). The survey lasted 9 days and cost \$25,000. J. Smith also reported that the Gulf of Maine region is creating a large-scale restoration plan similar to the one prepared by the Great Lakes region. The next panel meeting will be held November 17–18, but panel attendance has decreased because of funding limits. The ANSTF agreed to send letters from the co-chairs to member agencies requesting participation on the panels if requested.

Gulf and South Atlantic Regional Panel (GSARP)

Pam Fuller, USGS, reported the panel is closely monitoring lionfish (*Pterois volitans*) and working on a new rapid response program that incorporates the ICS. The panel formed a workgroup to draft an informational document on a new invasive orange cup coral (*Balanophyllia elegans*) and has forwarded information about this invasive to the South Atlantic Fisheries Council. The panel funded three programs: AIS travelling trunk, the Trojan chromosome program for invasive fish, and reproductive sterility as a tool to control invasive aquatics.

Great Lakes Panel (GLP)

Kathe Glassner-Shwayder, Great Lakes Commission, reported the GLP held a meeting in April that focused on innovative technologies to prevent and control AIS and announced the GLP officer and at-large member election results. Committee activities include updating the recreational guidelines, distributing the *Great Lakes Aquatic Invasions* booklet to newly elected State and federal legislators, submitting progress reports on the GLP Wiki, developing a position statement on federal screening regulations, developing a Policy Coordination Committee priorities document, completing a position statement on AIS reporting, and continuing work on the next phase of the priority species list. A GLP meeting is scheduled for December 8–9, 2010, and will feature Great Lakes Restoration Initiative and Asian carp discussions.

Glassner-Shwayder also presented the GLP position statement on the renegotiations of the *Great Lakes Water Quality Agreement (GLWQA)*. The GLWQA has provided a vital framework for binational cooperation, consultation, and action to restore and maintain the water quality of the Great Lakes. Although the purpose of the GLWQA remains valid, new provisions need to be incorporated to address pressing issues and emerging threats. The United States and Canada have entered negotiations to update the GLWQA. In response to these negotiations, the GLP has submitted recommendations to the ANSTF that the GLWQA include a new AIS annex that explicitly addresses the problems of AIS and integrates existing prevention, control, and management goals and objectives; that the process of developing an AIS annex include meaningful opportunities to collaborate, consult, and engage with the stakeholders; and that the framework for implementing a new AIS annex consider and build on existing institutional arrangements for AIS management.

After a lengthy discussion, ANSTF members agreed that several ANSTF members would review and revise the language of the GLP recommendation to reflect the advisory nature of the ANSTF, share the revised language with ANSTF members, and submit advice to the appropriate EPA and Department of State contacts. John Darling, EPA, will contact the EPA representative regarding the timetable for drafting the water quality agreement.

22. Informational: Report on the Aquatic Invasive Species Vector Management Workshop

McKnight reported on the 2009 Aquatic Invasive Species Vector Management Workshop sponsored by MARP and Maryland Sea Grant. The workshop explored aquatic species introduction through ballast water discharge and live trade vectors such as live bait, aquarium species, aquaculture, live seafood, and aquatic plants. While much is known about ballast water and its role in introducing and dispersing invasive species, much less is known about live trade vectors. Challenges to AIS vector management include the lack of scientific predictability in determining conditions that present a threat from non-native organisms, lack of regulatory controls and enforcement, and lack of citizen awareness. Participants at the workshop organized action items into four categories: research, management, education and public engagement, and regulation and enforcement.

Tremendous opportunities to study live bait vectors in the mid-Atlantic exist. The Maryland Sea Grant program has issued a request for proposals soliciting research of all aspects of live bait, including biological and ecological research that explores live bait organisms, management opportunities for reducing introduction, and social science research to understand human behavior and awareness surrounding bait handling.

The ANSTF agreed to organize an ad hoc committee to explore development of concrete recommendations leading to a vector intercept and management strategy that will work on state and watershed scales. Mangin will consult with NISC about the viability of the Pathways Working Group

to address pathways. If the Pathways Working Group is not viable, Mangin will request volunteers to staff this working group.

23. Informational: Mexican Invasive Species Legislation and Policies

Roberto Mendoza, Universidad Autonoma de Nuevo Leon, spoke about Mexican invasive species legislation. Because Mexico signed the Convention on Biological Diversity in 1993, the Consultative Committee developed a national invasive species strategy based on strategic actions that rely on preventing and controlling invasive species and educating the public. Future work includes adopting the strategy, avoiding duplication of efforts, detecting gaps, and developing indicators to evaluate progress. Existing laws related to invasive species were inadequate so an invasive species bill was passed in February 2010 that defined an invasive exotic species, identified these species as harmful to the protection and conservation of wildlife flora and fauna, prohibited importing exotic invasive species, gave the Minister of Economy the regulatory authority over the exportation or importation of exotic species, prohibited the release or introduction of exotic invasive species, and gave the Ministry of Environment the regulatory authority of determining the official list of exotic invasive species. Many enforcement gaps and key mistakes have been identified, including promoting exotic species for aquaculture and pending ballast water management.

Mexico and the United States have been working together and recently held a panel to raise awareness of AIS in Mexico. This panel led to HACCP training by the United States, including a Spanish version of the HACCP training wizard. Mexico is also a member of the Commission for Environmental Cooperation of North America, contributed to the *Trinational Risk Assessment Guidelines for Aquatic Invasive Species*, is a member of the North American Invasive Species Network, and participated in the Inter-American Biodiversity information Network. AIS are a key component of the bilateral project, *Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem*, coordinated by Global Environment Facility, United Nations Industrial Development Organization, and Secretaría del Medio Ambiente y Recursos Naturales.

24. Informational: Chesapeake Bay Executive Order

Brady introduced the Chesapeake Bay Executive Order signed by President Obama in May 2009 that called for federal agencies to restore the Chesapeake Bay. In the past 6 months, the federal team has been developing a federal action plan that includes addressing invasive species. NOAA has been actively providing input, including Sea Grant funding for work in the mid-Atlantic. An informational inventory for invasive species does not have funding but has a placeholder in the action plan.

Jennifer Greiner, EPA Liaison to the Chesapeake Bay Program, reviewed the goals of action plan that address invasive species: develop a snakehead management plan, work with the MARP to develop a rapid response strike team, address the live bait pathway of invasion in the Mid-Atlantic area, and actively manage invasive species in the flood region of the Chesapeake Bay.

25. Informational: ANSTF Member Updates

ANSTF members were asked to provide brief updates from their organizations.

Animal and Plant Health Inspection Service (APHIS)—Maria Boroja reported that APHIS has new information on pathways and is developing an education and outreach program. APHIS will be releasing an environmental assessment on salt cedar (*Tamarix* spp.) biocontrol agents that are permitted through the plant protection quarantine program; APHIS has pulled its permits for *Diorhabda*.

Aquatic Nuisance Species Task Force (ANSTF)—Mangin reported that since fall 2009, the ANSTF has furthered implementation of strategic plan priority objectives, represented the ANSTF during NISAW, approved QZAP and established the QZAP Coordination and Implementation Team, distributed quagga and zebra mussel funding, funded 36 state and interstate ANS management plants, published the research protocol in the *Federal Register*, developed a prototype for implementing partnerships between the ANSTF and the Boy Scouts of America and Girl Scouts, and conducted HACCP and ISRAP training.

Army Corps of Engineers (ACOE)—Dr. Linda Nelson reported the invasive species team has developed an invasive species policy for the ACOE and is now providing guidance for policy implementation. The team also developed an online cost template for reporting agency invasive species expenditures; values have been submitted to NISC for 2009 and 2010 and budgeted for 2011. Asian carp continues to be an important issue for the ACOE, and AIS have been identified as one of the most costly items in restoration projects. The ACOE has been active in QZAP implementation, and all divisions continue to address mussel prevention. Nelson closed by offering to help identify ACOE representatives for any of the regional panels.

Association of Fish and Wildlife Agencies (AFWA)—Kim Bogenschutz reported that, because of the Genetic Biocontrol of Invasive Fish Symposium, the invasive species committee decided to poll states to see if they are ready to regulate genetically modified organisms (GMOs) in the environment. The committee has also considered submitting a multistate grant proposal regarding using GMOs as biocontrol or invasive species used for biofuels. Other tasks include working on the National Governor's Association invasive species policy position, working with the Department of Interior's Tiger Team to analyze the Lacey Act, writing a white paper that outlines the roles and responsibilities of State and federal agencies in ANS management, and working on biofuel issues in the Farm Bill.

Bureau of Land Management (BLM)—Stephanie Carman reported that the Washington DC office has been asked to develop standardized decontamination procedures for BLM equipment. The BLM is working with NISC to input their efforts into the strategic plan database. The BLM is now participating in the Department of Interior Strategic Plan measure for invasive animal species; before now, the BLM has not had a target or measure for AIS, so they are getting up to speed on tracking efforts.

Bureau of Reclamation (BOR)—Michael Gabaldon reported that the BOR continues to participate on the QZAP Coordination and Implementation Team, has developed and implemented an equipment cleaning policy that is being written into their contracts, and hosted the 17th International Conference on Aquatic Invasive Species in San Diego. Much effort has been spent researching zebra/quagga mussel control in dams, including applying protective coatings, using UV light to prevent the settlement of larvae in cooling systems, evaluating filters, and exploring pulse pressure technology.

Environmental Protection Agency (EPA)—Darling reported that he will be assuming the position of the EPA's representative on the ANSTF.

Great Lakes Commission (GLC)—Glassner-Shwayder reported the GLC has been developing and evaluating options for the ecological separation of the Mississippi and Great Lakes Basins. The GLC is also concerned with improving transportation and flood management for Chicago. The GLC believes collaboration and coordination with the ACOE will be critical to successfully controlling Asian carp.

Gulf States Marine Fisheries Commission (GSMFC)—James Ballard reported the GSMFC will be developing "Wanted" signs that explain where to report lionfish sightings so they will be entered into the USGS database. The GSMFC is establishing a gulf-wide artificial reef monitoring program to collect baseline data to assess future impacts to the reefs of natural or man-made disasters. This program would also track invasive species, such as lionfish, as they move into the gulf.

Lake Champlain Basin Program (LCBP)—Meg Modley reported that a new ban in Vermont will prohibit the use or sale of felt soled waders beginning in April 2011. The Lake Champlain Basin 2010 interstate management grant was modified to redirect funds from water chestnut management in southern Lake Champlain to new Asian clam (*Corbicula fluminea*) infestation control efforts in Lake George, NY. These funds will be used to test the effectiveness of four different benthic barrier mats. Coordination with the Lake Tahoe Regional Planning Agency, a relationship built through the ANSTF, has resulted in invaluable sharing of resources and expertise. Asian clam control research and pilot studies will occur this winter when water temperatures prohibit the species' reproduction. Senator Leahy of Vermont secured \$6.5 million for Lake Champlain projects; the LCBP and FWS will be distributing the funds.

National Association of State Aquaculture Coordinators (NASAC)—Ron Johnson reported that the aquaculture industry has been developing HACCP and security plans and NASAC has been conducting workshops to help farmers understand how to keep AIS off of their farms and to prevent pathways for invasive species. Johnson would like to have aquaculture industry representation on the regional panels.

National Oceanic and Atmospheric Administration (NOAA)—Brady reported that NOAA has secured \$2 million for the grant program to tackle AIS issues. Background information on the proposals submitted is available. The grant budget for 2011 has not been released. Some of the Great Lakes Restoration Initiative funds have also been administered. Other activities include raising awareness and conducting ISRAP training and attending workshops and conferences devoted to ANS.

National Park Service (NPS)—Sharon Kliwinski reported on quagga and zebra mussel prevention, containment, and early detection activities throughout the NPS. Kliwinski also reported the Fisheries Program received \$45,000 to use existing information to create a database of ANS currently found within NPS units and identify those that may become established in the future.

San Francisco Estuary Project—Karen McDowell reported on the California Invasive Species Advisory Committee, which is working to approve a strategic plan. The committee will be working on pathways and screening. The California State Lands Commission is the lead agency for the ballast water program, which is moving forward. Japanese seaweed (*Undaria* spp.) removal programs continue in three marinas. A Bay Area early detection network exists, but they focus primarily on plants.

U.S. Coast Guard—Commander Gary Croot updated ANSTF members on the ballast water discharge standard rulemaking. The Notice of Proposed Rulemaking changed significantly during the interagency review process prior to its release for public comment. As a result, additional economic and environmental analysis is required to comply with the Administrative Procedures Act and National Environmental Policy Act. These analyses are ongoing. In addition, several areas were identified as requiring additional research during the public comment period, including the challenges and unique operating/ballasting procedures for offshore supply vessels, towing vessels, and carriers that are restricted to the Great Lakes. Other activities include encouraging vessels to enroll in the Shipboard Technology Evaluation Program (STEP) program, remaining active in the Great Lakes Ballast Water Collaborative and Great Lakes Initiative, and being involved with the International Maritime Organization in the development and implementation of the Ballast Water Management Convention.

U.S. Department of State—Adrianna Muir reported on lionfish activities that she hopes will lead to regional consensus in the Caribbean and a regional plan. State Department representatives will also be attending an international coral reef meeting to gain more international support for lionfish management. Muir asked other Task Members to be aware that the State Department ANSTF representative occupies the position for 2 years.

U.S. Fish and Wildlife Service (FWS)—Mangin reported that in FY10, the FWS received \$2 million that targeted quagga/zebra mussel efforts. Of these funds, \$800,000 was dedicated to Lake Tahoe prevention efforts; \$600,000 was divided equally between the States that requested support for quagga/zebra mussel projects identified in State and interstate plans; and \$600,000 was dedicated to supporting three priorities identified in QZAP.

U.S. Forest Service (USFS)—Mike Ielmini reported that the USFS will publish a new directive for using native plant materials in the revegetation, restoration, and rehabilitation of National Forest System lands. The policy helps achieve the goals of providing for the diversity of plant and animal communities and restoring native species and habitat conditions in ecosystems that have been invaded by non-native species. QZAP implementation remains important, and the USFS has been asked to complete a comprehensive, all-taxa inventory of all National Forest System lands. Finally, a national meeting, which will have a large section devoted to AIS, will be held in Portland, OR.

U.S. Geological Survey (USGS)—Sharon Gross reported that the USGS has reorganized into seven regions; has been focusing on Asian carp and *Phragmites* control; and is working on detecting and controlling lionfish, nutria (*Myocastor coypus*), and brown tree snake (*Boiga irregularis*). The Nonindigenous Aquatic Species (NAS) database has been converted from hydrologic unit code to point location data, and these points have been categorized according to the population status in that location. In closing, Gross offered to find USGS points of contact for the regional panels.

26. Public Comment

No public comments were submitted.

27. Meeting Summary

The next ANSTF meeting is scheduled the first week of May in Little Rock, Arkansas.

McKnight thanked everyone and announced that this would be his last ANSTF meeting. Mangin thanked McKnight for his service and for freely sharing his knowledge.

Mangin thanked participants for attending and thanked Eich, MacLean, Pasko, and Nikole Pearson for their help. Underwood thanked everyone for their patience and graciousness, and Brady extended a special thank you to Mangin for organizing the meeting.

Adjourn

The meeting adjourned at 4:08 P.M.