

---

## AQUATIC NUISANCE SPECIES TASK FORCE: MINUTES OF THE 2013 NOVEMBER MEETING NOVEMBER 6-7, 2013

---

On November 6-7, 2013, the Aquatic Nuisance Species Task Force (ANSTF) held a two-day meeting at NOAA headquarters in Silver Spring, Maryland. Decisions and action items are listed below, followed by a summary of the two-day meeting.

### Decisions

The ANSTF made the following decisions:

- Approve Classroom Guidelines.
- Approve Arkansas ANS Management Plan.
- ANSTF will complete a pathway risk assessment of water transportation associated with fracking and develop and issue white paper that outlines concerns.
- Develop a letter of recommendation to the USACE that conduct the Lake Champlain Canal Barrier Feasibility Study.

### New Action Items

The ANSTF assigned the following action items:

- Executive Secretary will follow-up with Brian Goodwin (American Boat and Yacht Council) about establishing a committee to address recommendations for reducing the spread of AIS through boats. She will notify the ANSTF members of any opportunities to volunteer for this committee.
- Executive Secretary will email ANSTF members to remind all of the opportunity to volunteer for the Outreach Committee and the NISAW Planning Committee.
- Executive Secretary will send ANSTF members the membership list for the Invasive Species Caucus.
- Bill Bolen will provide an eDNA tool kit.
- Executive Secretary will contact panels for funding information followed up by a conference call.
- Presentations from fracking industry will be sought for the Spring ANSTF meeting.
- FWS will work with Wildlife Forever to improve communications on Stop Aquatic Hitchhikers (SAH!).
- NOAA will follow-up with the WRP on a Pacific states tunicate workshop.
- Ballast Water Workshop Report will be disseminated to the ANSTF for review.
- The co-chairs will provide guidance to ANSTF members and panels for their input for the report to Congress.
- Provide Brian Goodwin with Colorado's inspection and decontamination manuals.

### 1. Welcome and Preliminary Business

Peg Brady welcomed participants to the meeting and then introduced the new NOAA Co-Chair Mark Schaefer, Assistant Secretary for Conservation and Management. Mark Schaefer remarked that he appreciates the opportunity to co-chair the ANSTF and has had experience working with invasive species issues at DOI under Bruce Babbitt and at NatureServe and hopes to identify partner opportunities to leverage workforces and funding for invasive species.

Jeff Underwood, Acting FWS Co-Chair, extended regrets for David Hoskins, AD for Fish and Aquatic Conservation, who could not attend. Underwood thanked both Peg Brady and Susan Pasko for hosting. Underwood also recognized the regional panels for their continued work on invasive species issues during challenging times.

Susan Mangin, ANSTF Executive Secretary, thanked all participants for attending and also commended presenters and organizers on their flexibility considering the government shut-down. Mangin reviewed meeting logistics.

### **Self Introductions**

ANSTF members and audience members introduced themselves.

Mark Schaefer (NOAA)	Sarah Whitney ( MAP	Doug Jensen (MN Sea Grant)
Jeff Underwood (FWS)	Mark Malcoff (NEANS)	Gabriel Jabbour (Tonka Bay Marina)
Peg Brady (NOAA)	James Ballard (GSMFC)	David Dickerson (National Marine Manufacturers)
Susan Mangin (FWS)	Priya Nanjappa (AFWA)	Kevin Irons (Illinois DNR)
Craig Martin (FWS)	Carolyn Junemann (DOT)	Tom McMann (Arizona Game and Fish)
Laura Norcutt (FWS)	Erika Jensen (GLC)	Jason Goldberg (FWS)
Susan Pasko (NOAA)	Al Cofrancesco (USACE)	Richard Lance (USACE)
Carrie Givens (FWS)	Allen Ellsworth (NPS)	Sam Chan (OR Sea Grant)
DonMacLean (FWS)	John Darling (EPA)	Brian Goodwin (American Boat and Yacht Council)
Ann Haas (FWS)	Stas Burgiel (NISC)	Doug Grann (Wildlife Forever)
Ron Johnson (NASAC)	Lori Williams (NISC)	Kelly Baerwaldt (USACE)
Mike Ielmini (FS)	Paul Angelone (FWS/DOI)	
Meg Motley (LCBP)	Linda Nelson (COE)	
John Moore (BLM)	Michelle Tremblay (NEANS)	
Cindy Kolar (USGS)	Bill Bolen (EPA)	
Greg Conover ( FWS/MICRA)	Hannah Martin (EPA)	
Luci Cook-Hildreth (MRBP)	David Wong (SUNY)	
Elizabeth Brown (WRP)	Ron Smith (FWS)	
John Navarro (GLP)	Curtis Tackett (MRBP)	

## **2. Adoption of Agenda/Approval of Minutes/Review of Previous Action Items**

Following introductions, Jeff Underwood called for approval of the current meeting agenda and the meeting minutes from the June 2013 ANSTF webinar in Arlington, Virginia. Mike Ielmini moved that the agenda be approved. Erika Jensen seconded the motion, and the agenda were approved. Mark Malcoff moved that the minutes be approved. Elizabeth Brown seconded the motion, and the minutes were approved.

Mangin then reviewed action items from the June webinar:

- Lori Williams will organize a call later this summer to discuss the logistical challenges of NISAW and identify opportunities for moving forward. (Session #10)
- John Darling will provide additional contact info to NISC for Brian Rapoli in EPA (who is leading the invasive species component of the Clean Boating Act). *Completed.*

- Executive secretary will send out a request for interested reviewers for the National Asian Carp Surveillance Plan soon (Craig Martin will update in Session #12).
- Erika Jensen requested time at upcoming November 2013 ANSTF meeting to present information on the results of the funding discussion from the Great Lakes Panel's Duluth meeting. *Completed.*
- Executive Secretary will convene a conference call regarding Regional Panel funding. Co-chairs (Peg Brady (Acting) and David Hoskins) did have a call to discuss funding cuts. (Session #18)
- Update will be provided on the Stop Aquatic Hitchhikers! Program at the fall 2013 ANSTF meeting. (Doug Grann and Doug Jensen will update in Session #21).
- Executive Secretary will send out a call for the HACCP training in the DC Metro Area for the Fall of 2013. Susan Pasko mentioned that HACCP training was held on November 4, 2013, and will be held again on December 2-3, 2013, in FWS HQ in Arlington. The HACCP Train the Trainer course is now available upon request. If interested, please contact Dave Britton (FWS) or Susan Pasko. Doug Jensen (MN Sea Grant) is also willing to pair with others and help with training, as needed.
- Provide feedback, suggestions on how this conference/webinar went to Executive Secretary. Mangin remarked that she did not get a whole lot of feedback. Although in-person meetings are more effective, the webinar is a viable alternative for a canceled meeting.

## 2A. Informational: FY14 Budget Overview

Jeff Underwood stated that these are challenging times moving into the upcoming fiscal year. FWS is still operating under a CR and sequestration and are planning for a 7.8% reduction across the board for all Service programs. Underwood continued that the Service is trying to balance things for FY14 and is hoping for a more constructive atmosphere progressing into FY15. Peg Brady added that NOAA does not have any direct funding to support regional panels and state plans. However, there are grant opportunities such as, Habitat Restoration funding some invasive species efforts in Great Lakes and other locations, and there are other possibilities such as funding Gulf of Mexico restoration. NOAA is continuing to look for opportunities to leverage their programs to meet ANSTF needs. Brady added that NOAA does appreciate the challenge and are also suffering from budget cuts and the history of earmarks for ballast water and other key areas is no longer possible. Brady encouraged members to go on record and express concern for budget reductions affecting national network (panels and States).

Mark Schaefer added that ANSTF should leverage funding when available in a particular area. ANSTF should ensure that those with the funding lead role, understand the opportunities for ANSTF and panels to contribute to research. Schaefer added that the "name of the game" is to look for opportunities and take advantage when they arise.

Susan Mangin asked the panels if they had anything to share.

James Ballard thanked Jeff Underwood and Susan Mangin for keeping panels in mind. Ballard added that the Commission thought that funding levels would increase to match the scope of invasive problem. There has been level funding with no increased baseline. The Commission assists with panel funding and does not want to get into diminished returns from financial staff (grants, contracts). Ballard added that the Commission will have to seriously evaluate participation and step down if there is reduced funding from ANSTF.

Elizabeth Brown commented that the Western Regional Panel has undergone significant changes and budget reductions make it difficult to continue to do work. As of 2007, FWS no longer paid for coordinator. In 2011, the priorities for funding were to maintain coordinator and annual meeting, and the \$50,000 was used for travel and expenses for meetings. In 2012, funding has paid for Invasive Species Action Network coordinator, but they have scaled back work, no longer do projects, and only send one person to the ANSTF meeting. If panel funds decrease, there will be no annual meeting, no face-face

coordination for 19 western states, and the panel may not be able to continue to pay for a coordinator. If this happens, there will be no reason for panel to exist and will be pointless for ANSTF. The panel is trying to find solutions, but have found none yet. The panel is trying to leverage funding.

Sarah Whitney added that the Mid-Atlantic Panel benefited from FWS for the coordinator position until this year. The panel is trying to figure out the next step. In the past, the vast majority of funding has gone into RFP process. Through RFP since 2007, \$284,000 panel funds have been spent to do projects for research, prevention, and monitoring. The panel has brought in \$516,000 in matched funds. A total of 31 projects (researchers, NGOs, state grants, state agencies) have been completed. Smaller funds are of less interest and less funds make logistics problematic.

Mark Malcoff remarked that in the Northeast, the network is already frayed and has an inability to fund projects. Funding has helped pay for a contractor, completed comprehensive hydrilla research, a legislative matrix of regulations across states, outreach, and the International Didymo Conference. Malcoff concluded that all of this could be “out the window” if funding decreases. The lack of coordination is a recipe for duplication and overlap. The panel is already cutting down number of meetings, interactions, and projects.

Mark Schaeffer added the need to increase communications on nature of invasive problem and talk about the impact on the economy. Determine what has the most forceful impact and deliver a powerful message with basic facts. Stress fundamentals and raise public awareness. Schaeffer remarked that it is not necessary to have a precise number, but put a range on it until it can be better quantified. It is important to continue to do what they can when talking with departments, OMB, and the Hill.

Doug Jensen said that the MN Sea Grant continues to make an investment in attending panel meetings. In 1993, there was only 1 panel. Lack of funding will result in de-evolution in growth and coordination of panels affecting program growth and project development. The Great Lakes and other panels are a valuable asset in providing opportunities.

Jeff Underwood stated that there has been a reduction of over \$1 million in this particular activity. FWS will still address: sea lamprey administration, quagga and zebra mussels with some reductions, and Asian carp with some reductions. It is important that groups like ANSTF stay together and figure out what overlaps and how to collaborate while in challenging times. Eventually things will improve and the challenge is to not allow activities and interests reach a point where they are no longer effective. The Service will do the best they can, but first priority is to internal Service activities and current staff. ANSTF should focus on getting ready for new opportunities, and when things start improving, they can move forward.

### **3. Discussion: Addressing AIS Issues at Federally-managed Water Bodies**

Lori Williams (NISC) provided a project update on the Federally-managed Water Bodies group. The western states are concerned about AIS spreading from one water body to another. The States have taken lead. The Phoenix workshop included a number of people from Justice Department, Law Enforcement, State Attorney Generals, and others dealing periodically with this issue. There are two parallel efforts—one State and one Federal – looking at authorities and regulations for who regulates movement of AIS in federal waterbodies. Williams commented that NISC is close to having a draft. This draft is not a legal analysis, but gives a point from which to start to drill down to more specific questions. Some agencies have specific authorities, others have splintered authorizes, and others have gaps. On December 13<sup>th</sup> the group will start reviewing draft and then get to specifics on policies and what’s missing. NISC will share information with ANSTF and go back to States to see if state framework is in agreement. Williams commented that, hopefully, there will be significant process in new few months.

#### 4. Informational: Updates on Climate Change Report and Pathway Management Guidance

Stas Burgiel (NISC) mentioned that the Climate Change Report is being written by a small drafting team (Tom Hall, Co-Chair), and there is an outline for the background material. The Pathways Management Guidance draft is in revision with FWS and APHIS and pathways diagram for transportation and living industry are being evaluated. Others group (CABI, IUCN Specialist Group, etc) will look at pathways of concern, overlaps and gaps and how to share information. Groups are working on collaborating and ironing out differences in terminology.

#### 5. Discussion: Voluntary Approaches to Developing Semi-Green Boats

Elizabeth Brown (Brown) discussed collaboration with the Colorado Marine Dealers Association who have provided guidance to the Colorado Invasive Species Program since 2008. There is collaborative boat and biology training that emphasizes the importance of drain in “Clean, Drain, Dry.” The Colorado Invasive Species Program has had issues decontaminating a lot of ballast water tanks. A Colorado boat dealer wrote step by step decontamination protocols for a 2009 book for the Colorado Invasive Species Program. These protocols were based on literature for thermal tolerances of both veligers and boat material and included lower temperature requirements for interior compartments (for boats that cannot be drained). These lower temperatures will kill veligers and settlers. Brown stressed that with 800 inspectors in Colorado alone, there needs to be safe, understandable and efficient cleaning procedures. The Colorado program is working with partners on developing recreational ballast tank filters. Research with this filter at Lake Mead will completed at end of year, and Brown can, hopefully, present the results at the spring ANSTF meeting. Preliminary results suggest that this new system appears to be working. These tools increase efficacy of Clean, Drain, Dry program, provide better customer service, and ensure better resource protection. The implementation is going to be challenging because there needs to be a process for standardization, validation, and certification. The Colorado Invasive Species Program is working with industry partners on this mutually beneficial tool.

Underwood asked about the filters clogging? Brown remarked that these would be self-cleaning filters that back flush and are easy to clean and replace with minimal costs.

Peg Brady asked if there was a lot of work done on filters with ballast control and ocean vessels and whether there was information sharing from MARAD and the Coast Guard? Carolyn Junemann responded yes and Brown agreed.

Gabe Jabbour (Tonka Bay Marina Minnesota), a Minnesota resident for 42 years and marina owner, spoke next on this issue. Jabbour explained that the private sector is in favor of coming to table to limit and control AIS. This region has the highest amount of boat concentration per capita and cannot afford long lines for AIS control. During winter, boats are decontaminated and every drop of water is removed because of deep freeze. Boats differ in characteristics. Jabbour does not see a solution unless boat manufacturers come forward. There is a concern for safety with the implementation of set policies such as the use of hot water or chemicals, which could affect water hoses, heat-welded tanks, and other boat parts. Jabbour encouraged ANSTF to engage with industry to work on this issue.

Brian Goodwin (American Boat and Yacht Council (ABYC)) spoke last for ABYC, a non-profit organization that develops voluntary consensus-based safety standards for recreational boating industry. These standards set a performance basis for manufacturer to then determine how to achieve. Goodwin commented that manufacturers are much more receptive to engineering freedom to solving issues. Most of ABYC’s standards address safety issues, but others involve decontamination. There are opportunities for developing better understanding of issues through Best Practices outlined to manufacturers (marketed to improve customer experience). Goodwin also remarked that he would like to be able to get materials from Colorado to post for members.

Craig Martin asked if there were any recommendations for this group for BMPs – how do you see this group (ANSTF) helping? Goodwin responded that ABYC could help facilitate a formal meeting of manufacturers and publish a technical information report.

Goodwin asked if there were differences across states. Brown responded that there were none among Western States and that there were standard protocols, definition, and language for decontamination, but that this was not necessarily true for entire United States. Doug Jensen added that in the Great Lakes regions a couple of states advocate for chemical decontamination.

Mark Schaeffer remarked that he appreciated what they are doing to innovate in this arena and asked that those interested please speak up if you are not getting what you need especially on the Federal side.

David Dickerson commented that it is a challenge to find funding for formal procedures to increase boat safety. Dickerson stressed the need to coordinate for leveraging funding. He is fully engaged in coming up with standards.

Mark Schaeffer remarked that is hard to find cash, but opportunities may develop from a brainstorming session if the right parties (including Federal) attend. Schaeffer stressed the need to make sure that communication channels are open with boat manufacturers.

Dickerson remarked that boats are unique, and so are boat manufacturers. They tend to respond better to challenges to fix and not a set list of standards. Schaeffer responded that we can help recognize companies that are innovative in this area.

Larry Meddock represented the Water Sports Industry Association and spoke about issues with long lines for inspection stations and that Lake Tahoe members had to pay additional fee for ballast water purging. Meddock agreed that ballast water tanks are perfect incubators for veligers and asked what industry can do. Meddock suggested coming up with a system to prevent veligers from getting into tanks. Manufacturers worked on this issue and collectively shared expense for development of 30 prototypes shipped to Lake Mead that were then tested under climatic conditions perfect for veligers. This process is being evaluated, but there is positive feedback, and it looks like it might have worked. Invested manufacturers are standing by to hear word but the test study has great potential and those involved want to share the technology with industry.

Schaeffer asked if there was timeline for knowing how effective these prototypes are. Brown responded that the final report is due by end of 2013. Brown did admit that there were several other questions including the following: How do we implement this system? How can we engage further with manufacturers for developing solutions for these and other problems? How do we define the process and standard for tool development?

Schaeffer asked for confirmation of six manufacturers? Meddock confirmed that six signed on and shared cost burden.

Schaeffer responded that he would be interested in getting more information about this. Jabbour commented that there is a learning curve for all of us, and is concerned when we talk just about the ballast tank. He asked when you purchase engines, mufflers, things for AC, are all of those are outside of the scope of the filter? Meddock responded that raw water is completely separate from filter system. Jabbour asked if the filter can handle that quantity of water. Meddock admitted that he cannot give definite answer right now, but that there was no significant decrease of water flow into engine and that this is a whole another issue to discuss with engine manufacturers. Meddock concluded that they have tackled the first step and will see if people willing to listen with practical, real-time data.

Peg Brady said that Brian Goodwin (ABYC) can facilitate group discussion. ANSTF will not be directing the effort, but members may want to participate. Anyone interested in this discussion should contact Susan Mangin. This is not an ANSTF-driven action, but a member-driven discussion.

Mike Ielmini commented that for mobile-washing systems, the engineers design and test systems for industry. Ielmini added that at least some of the federal government could participate in discussion. John Darling suggested that someone from EPA be involved. Peg Brady asked ANSTF to think about appropriate people in their agency.

## **6. Discussion: Status of Recreational and Water Garden Guidelines (including outreach possibilities)**

Laura Norcutt and Ann Haas presented on the guidelines developed by committee. FWS received 10 comments on recreational guidelines and comments from one person (mainly editorial) on water gardening guidelines. Most of the concerns were from boat manufacturers on hot water guidelines and liability. Norcutt talked to FWS solicitor and since these are guidelines and non-binding recommendations that private industries and governments may choose to implement, that there is no liability. It is possible that if other agencies or entities adopted these guidelines in binding matter, they could face legal liability. Final Recreational Guidelines will be posted in Federal Register soon. Norcutt said that ANSTF is ready to put together an education and outreach committee and that Ann Haas has drafted a communications strategy (Tab 4).

Ann Haas gave a presentation on the communications strategy. Haas explained that for the 40<sup>th</sup> anniversary of the FWS Endangered Species Program, the Program requested that each State choose a representative animal and plant species to highlight. A similar outreach initiative could be implemented for AIS. Haas continued that she came up with 20 of the least favorite AIS species that are open to revision and adjustment. Her idea is to post a least-wanted aquatic species of the week with biographical sketch and link to state species. As the boating season begins, the 20 Least Wanted AIS could be rolled out. Haas also remarked that ANSTF should try to reach non-traditional publications and non-traditional and traditional magazines. There is a need for a spokesperson for the program and for identifying additional partners.

If you have ideas, please contact Ann Haas, Laura Norcutt, or Doug Jensen. Meg Modley and Sam Chan both expressed interest in serving on Outreach Committee. Any others that are interested should contact Susan Mangin. Mark Schaeffer commented that there is a need to raise visibility on issue and that it is amazing what snippets are available on YouTube.

## **7. Informational: National Invasive Lionfish Prevention Plan**

Peg Brady remarked that Mark Schaeffer is going to Coral Reef Task Force Meeting and there is interest in this plan.

James Ballard explained that the plan was drafted by Federal agencies, States, and Pet Industry Joint Advisory Committee (PIJAC), and that the initial draft was completed in August Ballard plans to get the plan back out to the committee for review, and then to the ANSTF, hopefully, by end of 2013. The plan addresses other lionfish species in trade and highlights the nine species that can be ordered on the Internet. The plan uses a Risk Assessment Mapping Program to map the possible invasive range of these other species. Ballard remarked that the other species in trade need to have a risk assessment completed. Ballard has reached out to PIJAC but there has been no response yet. There is a continued effort to control with localized removal so native species will rebound. Lionfish have been found in the Loxahatchee in water of 8 ppt and in deep water (1000 ft on mud bottom). Lionfish continue to be an issue and the plan is trying to fill in knowledge gaps. Ballard hopes to get plan approval at ANSTF Spring Meeting.

Once the ANSTF approves the plan, it will be placed in the Federal Register for the 30-day comment period. Peg Brady asked whether the group discussed how critical interagency work will be with no new

funding. Ballard remarked that most work is collaborative effort and that the plan does outline potential projects.

## **8. Informational: Quagga – Zebra Mussel Action Plan for Western U.S. Waters (QZAP) Update**

Dave Britton (FWS) called in to provide an update. He stated that in FY 13, there was approximately \$900,000 devoted to partners for containment of quagga mussels. This enabled FWS to provide funding for seven projects such as: purchasing a watercraft decontamination station and increasing outreach at Lake Havasu, expanding watercraft inspection and decontamination training, and containing invasive mussels in Lake Powell. Elizabeth Brown presented the WRP QZAP Prioritization Survey Results, which showed that top priorities of QZAP were (in order of importance) prevention, containment and control, early detection and monitoring with research as the lowest priority. Voters were split with 50% State AIS Plan highest priority and 50% Federal coordination highest priority. Within prevention, the highest priority was decontamination in infested areas, second was standardized protocol, and third was development of decontamination protocols. Under rapid response, the highest priority was to create and maintain a rapid response fund and complete and maintain rapid response plans. Brown stated that QZAP is current and does not need to be revised and that funding from FWS is going to be critical.

John Darling said that prevention is a big deal but asked if there were any metrics for measuring success? Brown responded that in Colorado, there have been no new introductions of zebra and quagga mussels and that speaks volumes. Prevention is hard to gauge success and is something we need to be more concrete on.

John Wullschlinger (NPS on Phone):pointed out that one good metric is that after QZAP was implemented, many water bodies in West where mussels have had introductions have not had sustained populations.

Doug Jensen asked whether QZAP addressed anything other than mussels. Brown responded yes. Jensen followed up by asking if SAH! signage was being used? Brown remarked that SAH! is very strongly integrated into western region program and that the logo is used on signs, billboards, and brochures. Jensen commented that there is a lot of good stuff coming out of the west for decontamination but that approach does not work everywhere – MN is getting pressure for mandatory decontamination for all watercraft and this is not possible. Brown agreed that it is a multifaceted approach and less than 1% of inspections result in decontamination.

## **9. Informational: Biocontrol Programs**

Al Cofrancesco (USACE) spoke about biocontrol programs as “checks and balances” that incorporate classical biological control and inundative biocontrol approaches. Cofrancesco remarked that you want to suppress population and bring in a species to reach equilibrium. He also cautioned that biocontrol development can take years and is not an overnight solution. USDA APHIS controls the permitting and release of biocontrols for plant species (typically classical biocontrol). Inundative biocontrol may or may not be host-specific and a lot of times this is a pathogen (i.e. Zequinox). With inundative biocontrol, the agent is often not self-sustaining and has to be reintroduced into the environment. This approach is not as widely used as the classical approach. Biocontrol work started with USDA and USACE in 1959 and requires commitment of long-term funding. USACE has two facilities in Louisville, TX, and Vicksburg, MS. There are several USDA facilities and several universities funded by USACE and USDA for biocontrol research. Cofrancesco provided a number of examples of successful biocontrol programs for a number of species including water hyacinth, hydrilla, Eurasian watermilfoil, Salvinia, and other species. Currently the USDA and USACE have agents for several species under study in quarantine. Cofrancesco concluded that determining biology for these agents is a detailed process for evaluating involving understanding reproduction and interactions with target control species.

Doug Jensen asked if the flowering rush was a major issue in the Midwest. Cofrancesco said he was not familiar with that species. John Darling asked whether APHIS has to clear every agent brought in or only those for biocontrol. Cofrancesco responded that yes, APHIS has to clear all and that regulations for organisms that come in for plant biocontrol are stricter than those brought in for insect biocontrol. Every biocontrol is considered a plant pest, so it has to be shown to be exemption under Plant Pest Act. Luci Cook-Hildreth asked if anything was in the pipeline for Giant Salvenia. Cofrancesco said there is one weevil species out there and that Australia has done a tremendous amount of work on the weevil.

## **10. Informational: National Invasive Species Awareness Week (NISAW)/National Ocean Policy Implementation Plan Updates**

Lori Williams mentioned that for years, there was a National Invasive Weed Week and this became N ISAW. NISAW partners with AFWA and is a meeting where people could come in DC, attend a number of events with Federal agencies, and carry invasive species messages to the Hill (on their own). Last year, NISAW was scheduled right before the sequestration and, consequently, Federal participation was cancelled. In October, a small planning group was supposed to meet to talk about NISAW, but meeting was postponed because of the government shutdown. The planning group is looking at a few alternatives including having NISAW when there is funding, have NISAW on alternate years, or change NISAW to a different time of year. Williams concluded that there will likely not be a federal agency planned NISAW for 2014. There is still a lot of interest in making future years better. However, it is not possible for NISC to organize an event with threat of having to once again cancel at the last minute.

National Ocean Plan is a priority for administration. NISC continues to look into establishing an early detection rapid response (EDRR) mechanism to address aquatic invasive species. We have a draft mechanism and are working with National Fish and Wildlife Foundation and through the Invasive Species Advisory Committee subcommittee.

## **11. Informational: Environmental DNA (eDNA) Session**

Jeff Underwood recognized Bill Bolen (EPA) for organizing this session.

Bill Bolen stated that a lot of eDNA work is occurring and with a lot of different species. He remarked that the Midwest is epicenter for cutting edge technology that will really benefit panels, States, and partners and that there are great strides forward on eDNA. There has been over \$3 million spent on tool development and getting it out to the field. He then introduced Kelly Baerwaldt, an eDNA program manager for USACE and FWS. Baerwaldt is the lead contact for the eDNA calibration study and has worked with Asian carp for the past 10 years.

Baerwaldt presented her talk “Environmental DNA (eDNA): Use as an early detection genetic surveillance tool for invasive Bighead Carp and Silver Carp.” Baerwaldt explained that eDNA is a surveillance method that can be used to determine genetic presence of certain species that are hard to capture because of rare abundance. No animals are injured, there is a high degree of sensitivity, and all you need is a sample of water. Baerwaldt further explained that the limiting factor is what happens after you have collected the sample, currently filtering of the water for DNA extraction, and it is crucial that very strict QA/QC procedures are constantly adapted as more is learned. Asian Carp surveillance started in 2009 in Chicago and has expanded to upper Mississippi River, Great Lakes, and Ohio River. eDNA has been confirmed as a valid monitoring and surveillance tool through an EPA audit and independent external peer review. Currently, focusing eDNA surveillance above electric barrier where AC presence is considered rare.

Charlie Wooley called in and explained that FWS is learning more about this tool as we go forward and eDNA has a high degree of risk because of sensitivity. FWS continues to use eDNA as a surveillance tool to understand benefits and limitations. USACE has developed and plans to use eDNA at their electrical

barrier to determine when Asian carp are in the area around the electrical barrier. This information provides a map of where there are positive and negative samples. FWS has assumed responsibility with new eDNA lab at LaCrosse, Wisconsin. FWS is indebted to USACE for advancing this tool and helping to calibrate use of eDNA and importance of calibration in a management sense. FWS continues to expand as we work with partners. Field crews are currently out in Wisconsin and recently completed surveillance in Chicago. There is still some uncertainty as an indicator of live Asian carp because eDNA can be deposited for a number of different means. There remains a mystery of positive eDNA detections, but no field samples of live fish. However, the use of this tool in environment is still expanding. Wooley commented that FWS hopes to expand into additional invasive species, and eventually endangered species work. Wooley concluded by stressing the unique position to have access to GLRI funding and that this money has been instrumental in getting this project started.

Baerwaldt pointed out that the Asian Carp Regional Coordinating Committee provides a lot of oversight and visibility. An eDNA calibration study was designed with the three major tasks of vectors, markers, and calibration. This study aimed to make eDNA a better tool for response and improve sampling and analytical efficiency. Baerwaldt indicated that there several vectors of eDNA including storm sewers, fishing boats and gear, dredging sediments, and fish-eating birds. A Shedding/Loading Report was released in July 2013 and concluded that more DNA is evidence of more fish, -shedding rate was not affected by temperature, -algae can mask detection of eDNA (inhibitor chemical component in algae in DNA extraction– false negative), and lots of eDNA in sperm, which is detectable for 3 weeks. A Degradation Report was released September 2013 and concluded that the majority of DNA degraded rapidly but can persist in environment beyond 2 to 4 weeks and increasing temperature and pH increases DNA degradation. Baerwaldt also discussed the Environmental DNA Calibration Study (ECALS) Probabilistic Model: How to interpret eDNA results that take data and put it into a Bayesian network model to help articulate strength of conclusions about sources. An interim report was released September 2013 and includes conceptual models and how to identify and describe impacting factors. Baerwaldt concluded by stating that QA/QC is only as good as quality control procedure, all eDNA sampling should follow the Quality Assurance Project Plan (QAPP), and emphasizing the importance of communication of eDNA results (posting on State websites).

John Darling asked if there were a lot of positive detections near access points at lakes. Baerwaldt responded that a lot is a relative term, not able to articulate significance – all from same fish, one fish, bird feces? It is more important to look at persistence over time and predictability.

Jon Amberg presented next on “Improving interpretation of eDNA through marker development.” Amberg currently uses markers for conventional PCR that can only conclude presence or absence and cannot infer population. Markers are for relatively short fragments which allows for increased chance to detect degraded DNA (therein lies the problem). A positive detection currently means that you detected DNA from some vector. Amberg elaborated that there is a need to provide evidence that live fish are present. Research is currently working on developing qPCR markers that can multiplex (multiple markers in single assay; i.e. for silver and bighead carp) and provide more information than presence or absence. Purdue University tagged 297 silver carp in the Wabash River and sampled for eDNA. Researchers were able to link DNA with fish movement, spawning activities, and flow and discharge. Amberg indicated that there are several ways to compliment eDNA such as looking at gut microbes to identify unique microbes within the GI tract. This research could potentially be used for positive detection of fish pooping signature microbe. Amberg’s group is also using metagenomic approach and have identified over >700 unique species in silver carp hindgut. Amberg indicated a need to develop multiple lines of evidence to predict whether Asian carp are present. Amberg concluded that future directions could expand to understanding how DNA is degraded, incorporating qPCR technologies with degradation (bridging genes), and linking detections and copy number with behavior and populations.

An attendee asked for the metagenomic approach, you have 700 bacteria species – bacteria communities may differ with fish how are you interpreting results? Amberg answered that those 700 unique microbes were found across samples and seem to exist with silver carp only and that gut microbes don't change by location, but do change during year. Amberg has identified seven microbes that are concentrated enough to give a good signal that we see across the US over time in silver carp.

John Darling remarked that it sounds like a lot of great work and tons of money—how transferrable to other species? Amberg answered that this is not just solely Asian carp --thinking longer term.

Kevin Irons presented next on “Illinois DNR: Perspective on eDNA.” From 2010-2012, Illinois DNR has done conventional eDNA sampling with 9600 person hours spent sampling above electric barrier, response sampling, and 533 hours spent electrofishing over 166 miles of trammel. There were 3 responses in 2010, 5 responses in 2011, and 3 responses in 2012 – none of these responses caught live fish. In July 2012, Illinois DNR contracted with 4 commercial fishing crews for Lake Calumet survey. Over 4000 fish were collected, which included 30 species, none of which was bighead or silver carp. The Illinois DNR tries to be very transparent and post data on web. Irons indicated that in 2013, they are increasing knowledge and understanding and evaluation of eDNA occurrences for the development of an early warning system. Illinois DNR is not chasing eDNA, but is using eDNA as part of integrated pest management.

Richard Lance presented next on “Aquatic eDNA and Invasive Dreissenids” examining eDNA use on zebra and quagga mussels. The common practice is to take plankton tows to capture dreissenids and veligers. A pilot study started in 2010 for Dreissenid Detection via Aquatic eDNA in Lake Pepin, Wisconsin. This study applied current eDNA protocol to the detection of zebra mussel veligers, examined the potential use of DNA-binding dyes to discriminate between live and dead organisms (PMA), and developed new sampling approach. Lance's group looked at PMA ability to discriminate DNA from live bacteria from DNA from dead bacteria and whether this will work for veligers and gametes. DNA-binding dyes look promising, but were inconclusive and more work is needed. Report is online.

Carrie Givens presented last on “Tracking the Invasion: From African Jewelfish to Burmese Pythons.” Givens provided an overview of eDNA projects funded through the FWS Region 4 AIS program (AIS Coordinator: Jeff Herod). Most of this eDNA work is being done by geneticists at the Warm Springs Fish Technology Center (Dr. Greg Moyer and Dr. Edgardo Diaz-Ferguson) and at the USGS Southeast Ecological Center (Dr. Margaret Hunter). Givens explained that since 2011, Region 4 AIS has been funding eDNA projects to increase eDNA capacity in the region. The aim is to develop an effective, reliable tool that reduces boots on the ground. Region 4 is working toward building a Community of Practice and continues to coordinate within FWS and other agencies to leverage workforce and funding. To date, projects include two surveys at NWRs which involve electrofishing and eDNA sampling. Warm springs FTC has developed primers, probes, and methodology for five invasive species and have completed aquarium and pond trials. The trials look at correlations between eDNA and fish density and eDNA and temperature. The USGS projects include eDNA studies looking at armored catfish and range expansion, large constrictor snakes and range expansion, and connections between snakes and potential prey. Givens concluded that Region 4 AIS continues to build and develop an eDNA program with tool development, field testing, and incorporating eDNA into risk assessment and management.

After all talks there was a brief of panel discussion:

Ron Johnson asked about false positive and negatives. Is there any progress on validating labs so results are quantified between labs? Baerwaldt responded that ECALS can test and reciprocate in all five labs, and she would like a seal of approval but there is currently no policy in place. Lance also remarked that QAPP is available with defined protocol and other guidelines are being developed.

Craig Martin commented that the Asian Carp Surveillance Plan proposes a lab accreditation and verification process following the QAPP. Lori Williams asked if this can be broadened to other species. Craig Martin responded yes. Bill Bolen concluded that he is optimistic about progress and that a technology tool kit needs to be made available.

## **12. Informational: Asian Carp – Status of the Asian Carp Surveillance Plan Outside of the Great Lakes**

Jeff Underwood remarked that there is a lot of interest in the *Asian Carp Surveillance Plan for Areas Outside of the Great Lakes*.

Craig Martin explained that this plan has been developed with partners with Joanne Grady (AIS Coordinator Region 6 serving as Co-Chair with Craig). The Plan was driven by FWS, Council on Environmental Quality, and State partners and includes all four species of Asian carp. The -FY14 budget had a significant increase for Asian carp work outside of Great Lakes with \$2M early detection/rapid assessment, \$2M containment – states and USACE, 500K will support State-led actions, and \$1M control – up to 500K to States for control actions.

Underwood stated that is very unlikely that President's budget will go forward, but that leadership wanted to get ahead of this and set the direction.

Martin said that there are a number of tasks including species geographic pathways risk assessments and scientifically-vetted sampling design using molecular-based approaches and traditional methods. This Plan is a cross pollination with Great Lakes effort and work that GLRI is funding, but does not include the Great Lakes. Location and site selection was done through nationally prioritized climate-connectivity maps and show risk of establishment and connection between water basins where they currently occur. This process will help direct resources and define sampling priorities. Plan includes a dual sampling design with eDNA and traditional sampling gears. Martin explained that in areas of lower risk there is a tiered sampling design and if there are positive eDNA hits then proceed with traditional sampling. For data management and analysis, the plan takes a clear adaptive management approach of learning with sampling and revising as needed. The Plan indicates how FWS would communicate results and highlights key roles for Nonindigenous Aquatic Species (NAS) database (which is mission critical).

The Plan is currently in final review within the Fisheries and Aquatic Conservation program and nearing completion. There were some questions – do we want to duplicate QAPP or reference QAPP? The Plan references QAPP and does suggest lab validation protocols. The plan will be sent out to partners under Assistant Directors for 30-day comment period. There are some detailed basin specific plans (upper Mississippi, Ohio, and Missouri). The budget is TBD. The plan will be sent out to review for ANSTF, AIS coordinators, AFWA, NISC, and fish chiefs soon. The plan does include upper Mississippi River, Ohio River, Columbia River (high risk, no connectivity), and southern Mississippi River.

## **13. Informational: National Snakehead Management and Control Plan**

Peg Brady stated that in November 2011, the ANSTF recommended that the snakehead plan be revised and this action was taken up by an adhoc committee.

Laura Norcutt explained that update includes all snakehead species. This summer the Plan went back to ANSTF for review, and she is currently working through comments, and plans address and incorporate comments. Hopefully, the Plan will be ready for approval at the spring 2014 meeting. Some issues include that the Plan did not have any type of risk assessment of species, budget, climate change and estimating range expansion, addition of emergency response organization structure (ICE), and issues with research section. After it is finalized and approval, it will go into Federal Register for public comment.

Doug Jensen remarked that IL/IN State Sea Grant is also doing compilation of state regulations. Jensen asked if there is an outreach component. Norcutt respond yes.

#### **14. Decisional: The ANSTF approves the Classroom Guidelines**

Sam Chan discussed how for teachers, live animals are important in classroom. There is a need to provide better alternatives for what teachers do after pets are in classrooms. Chan first started this after learning about “Spring Release Party” for fourth graders. The issue: schools get organisms and then there is a dilemma on what to do with them. For example an invasive crayfish is part of national curricula developed by Smithsonian, University of California. This is a \$5 billion per year business and teachers do not know they are getting invasive species. Approximately, 27% of classroom pets are released and thus the need for guidelines. Chan discussed some solutions including trying to get supply companies to ship local species, but there are issues with States, permits, and harvest requirements. Supply companies could send information about potentially invasive information and guidelines with shipments. Teachers need lists for regions, good to bad invasives, list of biological companies that only sell native, guidelines on catch and release, and guidelines on care and disposal. Chan explained that part of guidelines is a pledge form “Don’t Let it Loose” that is non-binding and provides care instructions. These revised guidelines (after comments) now include information about Habitatitude and have been reviewed by panel, States, and Canadian provinces. A website is under development to support this work. Spanish translation of guidelines is also under development.

Erika Jensen extended thanks and appreciation to Sam Chan for diligently going through revisions and accepting comments from Great Lakes Panel. Chan thanked Laura Norcutt for her patience through 10 versions. John Moore made a motion to approve Classroom Guidelines, Mike Ielmini seconded motion, and the motion was approved. Guidelines will go to Federal Register for 30 day review period. Susan Mangin recognized Chan for his passion and diligent work.

#### **15. Decisional: The Arkansas ANS Management Plan**

Don MacLean provided a brief update of Plan. If approved there would be 43 ANSTF-approved State/ Interstate ANS Management Plans. The Arkansas ANS Plan went through a preliminary review and received extensive comments from panel. Arkansas did a great job incorporating comments and MacLean recommend approval pending of one comment that needs to be incorporated.

Mike Ielmini made a motion to approve plan, Allen Ellsworth/Erika Jensen seconded motion, and the motion passed.

Don MacLean provided a brief update that the 43 plans illustrates a good partnership with the States, Service, and ANSTF. However with increasing plans and decreasing funding, each state gets less and less for plan implementation.

#### **16. Public Comment – no one signed up for public comments.**

**Adjourn for day.**

#### **17. Informational: Technical Center for Aquatic Nuisance Species**

David Wong presented information on many of the PIs, species lists, classes and workshops, facilities available with the center. The Center’s website ([www.oneonta.edu/TCANS](http://www.oneonta.edu/TCANS)) lists species of interest and researcher’s projects. The Center’s mission is to provide best technology possible for “EPCR” or early detection, prevention, control, and restoration. The PIs focus on a variety of invasive species and their issues.

Wong further elaborated on one project that the Center is doing with dogs detecting mussels on boats. This has been implemented for boat inspections, and dogs have proven very good at detecting adult

invasive mussels. Researchers are looking at dogs detecting veligers in ballast water. Every dog had same result and was able to detect veligers (dogs have to be trained for mussels—100% accuracy) – lowest detection was 31 veligers in bucket; very efficient and effective but only tested live veligers. There are a number of other projects at the Center, many of which were highlighted in Wong’s presentation (see website).

Doug Jensen asked if dogs can detect veligers in live wells and has this been done in the field. Wong responded that pilot program needs to be done.

## 18. Discussion: Funding Issues

Jeff Underwood began the discussion saying that these are challenging times, but ANSTF needs to keep moving and focus on directions on where to head in future. From OPS plan, the Service will try to best maintain funding for panels. There may be a minimal decrease, but not significant. Underwood stressed the need to focus on opportunities out there that can be built on and to carry forward.

John Navarro commented that the Great Lakes panel has had discussions about funding with an in-depth look about funding across the basin. The Great Lakes panel is looking at how to manage after GLRI funding goes away. When GLP compared AIS program funding by state, it was evident that Ohio is highly dependent (99%) on Federal funding whereas other states such as Minnesota get 88% of funding from State. When GLRI funding goes away, these programs will be reliant on State plan funding. State funding comes from agencies, boater registrations, fishing licenses, and sales tax on gas (this varies by state). GLRI funds have been key to several Great Lakes projects (such as Asian carp). Navarro stressed that there is a real need for federal funding. At state level, there is a need to make case for state support, engage NGOs and private organizations, and use other state’s funding mechanisms as models.

Value of Panels: States have qualified staff, but there is power in numbers and this move the needle on issues. The Panels and ANSTF bring people together to allow for coordination and information sharing. Face-to-face meetings are really important.

Michelle Trembley commented that there is now only \$240,000 for panels and it wasn’t great at \$300,000 (pre-sequestration). John Navarro agreed that Panel funding is a good use of funds. Underwood requested that each panel submit bullet points on what the impacts are of funding decreases and what ramifications would be to the panels. Please send information to Susan Mangin.

Sarah Whitney added that Pennsylvania’s funding is 100% Federal and almost all GLRI and Panel.

Meg Motley remarked that Panels should be first priority for funding and restoring back to \$50,000 per panel should be top priority. If panels are not able to communicate to regions, reduce efficacy. She asked “what do you need for leveraging funds for ANSTF”? Discussion about what can give – maybe look at state plans? Underwood remarked that would be a good discussion. There is not a lot about flexibility about what can be moved around. He questioned whether the minimal amount of dollars for State plans is helpful or whether they should be diverted for Panels. Nothing is definite, but there is limited flexibility. It is helpful to know people’s opinions.

Trembley commented that there was discussion at NEANs about whether States wanted to make contribution to Panel. The Panel could easily take money as membership dues before sending money on to States.

Underwood asked so \$3-5,000 taken from States to move towards Panels – is that something people have been thinking about?

Mark Malcoff said that a poll of states may be needed, all States might not agree.

Trembley asked if each Panel would be responsible for State contributions because some States sit on multiple panels.

Don inserted that each State gets \$23,000.

Underwood said so if 43 state plans pull \$3,000 from each plan to go to panels and that this could be done before allocations and money would just be sent to panels.

Don added that would get panels to \$47,000 each and remarked that Service would need to ask States and discuss with AFWA.

Sarah Whitney commented that in Pennsylvania the State funds go to Sea Grant outreach and panel meeting travel. Whitney asked if there were other areas to look at?

Underwood responded that getting to the point that there is no flexibility in what can be done for immediate future. What are priorities and not priorities?

Elizabeth Brown said she was not familiar with ANSTF funding – are the only pots State plans and Panel funding?

Susan Mangin said those are the biggest pots. There is some 100<sup>th</sup> Meridian funding.

Don MacLean mentioned that all money is part of BAIS budget and a lot of the funding walks a grey line between Service and ANSTF funding. Service has money for meetings and travel, Regional Panels, control plan money (very little). There is no separate ANSTF budget.

Luci Cook-Hildreth added that the comment about diverting state management plans is problematic. The \$23,000 is all Texas has to do anything with animals such as zebra mussels. Texas is trying to leverage funding because you cannot really do much with \$23,000. She would be interested in what other states think.

Trembley added that the panels I work with are pretty passionate about trying to help and fight for state management funding. I think it is a good idea to ask all the states. Panels will have diminished services and I don't want to see this. For the record, staff is doing things pro bono. Organizations spending own money to keep panels going and this requires juggling to justify.

Al Cofransceco said we are looking at two problems – immediate and long-term. Immediate requires shuffling money between State and panels and really both need increases. We also need to look at long-term, 43 state plans and 44 governors that have signed off on this work. This is a bad political environment. Federal agencies cannot ask for support, but members of Panels and States can go to governors. We need an effort to start a political impetus – authorization of up to \$4 million and if it was just increased up to \$1 million this would solve problem. Juggling funds may only solve problem for this year.

Mike Ielmini added that he has a different perspective. This issue seemed to be complicated by the design and structure of ANSTF, including the way Regional Panels were operating, as well as the way the enabling legislation limits the ability for program growth when FWS cannot provide adequate support within its own budget in near future or long term. There are other Federal entities on the panel that could be more formally connected to the ANSTF enabling legislation. Panels talk about federal funding concerns (unfortunately blaming FWS for the problem) but are missing huge component of Federal family within ANSTF. The problem is that we are all relying heavily on FWS. The broader ANSTF membership has power of governors, NGOs, and AFWA, and constituency of other Federal agencies. We need to explore options to improve the legislation and expand the opportunities for other agency support. FWS currently has the sole authorization to fund, but this can be updated. MacLean asked whether the Service can get a few thousand from each agency to contribute to panels.

Ielmini inserted that it would make it much easier to support ANSTF if tied to the enabling legislation and structure. Providing funding without the legislative tie is very difficult, especially when trying to directly fund Regional Panel operations or State-plan development. There are already millions of dollars being

provided by the Forest Service in support of local and regional ANSTF-related efforts, including funding for personnel, equipment, supplies, inspections, decontaminations, inventories, surveys, etc. So, it is not that the Forest Service does not already contribute, but being included in the updated legislation would help streamline and expand the options for us in the future.

James Ballard added that our State plan money justified State AIS coordinator position. Ballard encourages asking states about how they feel about reducing State plans. He is worried that if some of the states see lack of interest in regards to funding issue, they will say it is no longer worth the process.

Underwood remarked that he has heard from states at North American and AFWA. Just because funding goes down, does not mean that interest is going down. I would like to figure out if there is a strategy for moving forward?

John Moore added that BLM is in similar boat with a declining budget. Moore compared it to NFHAP with more and more kids, how soon before they start hungry? What are we prioritizing? Strategically fund top priorities, but there will be some losers in this game.

Brown stated that not all states are equal; some states may not need money as much as other. If 3 states decline money, that is \$60,000 that can go to panels. Panels are critical – allocations maybe should not be equal to all states. If some decline, maybe that money should not be divided to go to something else.

John Darling remarked that if you look at the total amount of Federal support going to states this would probably be a lot smaller if some were not getting GLRI money. Darling encouraged strategically looking at States getting money and if they need the \$23,000 from State plans.

Motley remarked with I agree at some point. Our greater success, our greatest demise. Our greatest success needs to be our success. State Interstate plans see a source of funding and need justification that they are writing plan and eligible for Federal funding. We need to move forward with governors and see if can get more support.

Peg Brady inserted that some states maybe can survive without funding, but that is not going to work when it goes up to leadership. Every state is not going to say no, that is not going to happen. Back to what Cofrancesco said, we need greater emphasis on how we take state plans and species management plans and look at Federal family and fund those aspects that we can fund. I don't think we do that enough. We as agencies do not look at plans, and see what other agencies outside the Service can contribute. I think there is more opportunity to see how other Federal agencies can fund other aspects of those plans.

Underwood asked if there is a workgroup or committee that focuses on finances. There may be a need to have conference call and discuss strategy? If we are going to do something we will have to work through States and work through AFWA. The States are very aware of situation dealing with Fisheries FWS. Is there interest in putting together a conference call to continue discussion? Further redefine decision document and figure out how to implement? Are there any thoughts?

Mangin said that a conference call can be set up and any members that want to join that would be really good

Trembley asked if it is possible to figure out what is legally feasible.

Mangin said that is a good point

Underwood commented that the Service will try to do that within the next two weeks since sooner is better than later for the upcoming fiscal year. Underwood added that the discussion was very helpful and very enlightening.

## 19. Informational: Regional Panel Updates

### Mid-Atlantic Panel

- Held spring/summer meeting in June in Pennsylvania.
- Fall meeting is scheduled for December 17-18 in Annapolis, Maryland.
- Funded 3 projects for \$37,000
  - A graduate level course for teachers
  - An eDNA monitoring program for *Didymo* in Maryland
  - A mapping program with information on control measures for municipalities

### Mississippi River Basin Panel

- Coordination meeting with MICRA in July included a workshop on commercial harvest of Asian carp,
- Next Panel meeting schedule for July 2014
  - MICRA invited MRBP to joint session to hear a sub-contractor report on findings and recommendations of national grass carp review.
- For the grass carp review, MRBP continues to chair steering committee for this project. The project will be completed mid-summer and final report to FWS due end of this FY.
- FY12 Accomplishments include:
  - Mississippi River Museum Display
    - Riverworks Discovery Traveling Exhibit has been to a couple of cities and is schedule for science centers and museums in four more cities through June 15<sup>th</sup>.
    - This display has had lots of exposure and has been very beneficial for financial and technical support.
  - Started cost-sharing crayfish control project
  - Hosted 2-day symposium on biology and AIS control at American Fisheries Society (AFS) meeting.
    - 45 presentations and 12 posters
    - Several international speakers
    - Hosted and provided travel support for a few speakers
- FY13 Funding:
  - Working with Susan Pasko, we have scheduled HACCP training and Train-the-Trainer training for February 2014. Fifteen participants confirmed.
  - Working with Sea Grant Law Center to plan an Assistant Attorneys General Workshop in 2014.
    - Planning committee formed to identify topic, venue, and other logistics.

### Western Regional Panel

- Revision of Panel by-laws by the membership committee (membership review, update membership categories in bylaws, tribal engagement) with goal to improve member communication (emails and all member calls)
- Higher priority on ANSTF request for reviews and comments
- Building consensus (AG workshop in Phoenix in August 2012 partnership to look at legal side of implementing AIS programs in the West)
  - August – A vision for multi-state watercraft inspection and decontamination reciprocal programs –this is a step-by-step process on implementing QZAP consistently among 19 western states
  - February 14 -- second workshop on same topic
  - Piloting reciprocal programs among four States in 2014

- Third workshop at WRP meeting in Texas in September 2014
- March 2015 conference of entire legal group – publishing model state law and regulations for AIS
- Ongoing coastal work includes:
  - In-water cleaning of ship’s hulls and niche areas
  - Japan tsunami marine debris—risk assessment, monitoring, and funding
  - European green crab—cross-border to address invasion
  - Spartina—regional eradication by West Coast Governor’s Alliance
  - Coastal committee looking in California to implement plans
- Inland work includes:
  - Watercraft inspection and decontamination
  - Molecular standards for dresenids
  - Ballast tank research
  - Building consensus in the west
- Future focus: improve communication with members, increase input to ANSTF, coordination with regional groups
- All 19 States use SAH!, and this is a very important program to continue.

### **Gulf and South Atlantic Regional Panel**

- Panel has not met since last update to the ANSTF.
- There are several members interacting with lionfish plan. Monitoring effort ongoing in lionfish in northern Gulf States.
- Several members are looking at Asian tiger prawn. In 2011, 20X increase in reported sightings, 2012 less reports perhaps because of reporting fatigue. We understand more about population and have tissue depository and reporting genetic results. Preliminary results indicate little variation between Atlantic and Gulf populations. We are looking at coastal larvae, trying to determine impacts, and are now seeing more coastal collections in estuaries and bayous with the prawns getting into native shrimp nursery grounds.
- Invasive Species Traveling Trunk still being used heavily. Several States and NGOs have used this trunk.
- Ongoing Trojan Y chromosome project looking at tilapia, African jewelfish, and silver carp. The goal is to release Trojan Y into population causing reproductive sterility. Potential tool for apple snails – sterile apple snail release and interrupt reproductive cycle. Currently looking at chemical doses to produce sterility and chromosome translocation – genetic recombination to produce sterility.

### **Northeast Aquatic Nuisance Species Panel**

In the past year, the NEANS Panel has conducted a number of activities including

- Competitive request for qualifications and contract for a comprehensive Hydrilla literature search with a completed white paper (monoecious vs. dieous)
- Mitten crab management plan, which leveraged funds (more than 1:1 match) from the State of Rhode Island for regional plan\*
- Legislative matrix , which, leveraged funds (more than 1:1 match) from the State of Rhode Island (state by state list of what state has what regulations, included provinces)
- Hydrilla watch card re-vision and reprint\*\*
- Floating key chain\*\*
- Rapid Assessment (marine) Survey activities and subsequent white paper
- Didymo International Conference co-hosting and partnering with Invasive Species Action Network and supported by several other regional Panels
- Additional information available at the Northeast Panel forum web page

## Great Lakes Panel

- Planning the fall GLP meeting for December 10-11 in Ann Arbor, Michigan. Agenda topics include grass carp, recreational boating pathway prevention activities, and fish passage policies.
- Participating with the Great Lakes Water Quality Agreement AIS Subcommittee. The Subcommittee will be holding their first in person meeting following the GLP meeting in December.
- Information/Education Committee developed comments on the water gardener and classroom guidelines that were submitted as part of the Federal Register process for the water gardener guidelines and to Laura and Sam when they were revising the classroom guidelines.
- Research Coordination Committee has been looking into the grass carp issue and is helping to plan a session at the fall GLP meeting. Also working on identify research needs for priority invasive species.
- Policy Coordination Committee completed work on a policy priorities document for AIS in the Great Lakes region. We will share the document with the ANSTF once the full GLP approves it this fall. The committee will be using that priorities document to guide future work for the committee.

Erika – The Midwest Governors Association sent the president a letter requesting that the (Service) lead AIS issues – highlight that there two governors association say that AIS is priority –

## 20. Discussion: Regional Panel Recommendations

### MRBP recommendations:

1) The ANSTF should establish an ad-hoc committee to address Objective 1.2 (parts a and b) in the ANSTF's 2013-2017 Strategic Plan and develop recommendations, particularly related to reauthorization of NANPCA/NISA, to be included in the ANSTF's annual report to congress.

### ANSTF Strategic Plan:

**Objective 1.2:** Evaluate the ability of statutory authorities, regulations, and programs necessary to implement ANSTF goals and objectives

- a) Identify gaps in statutory authorities, regulations, and programs necessary to meet ANSTF goals and objectives
- b) Recommend revisions to statutory authorities, regulations, and programs when needed to meet ANSTF goals and objectives

Luci Cook-Hildreth and Greg Conover presented these points and explained that the MRBP's main impetus was funding for State management plans and regional panels, and stressed the need for legislation to be reauthorized.

Susan Mangin commented that through federally-managed water bodies group, we have people pulling together authorities.

Paul Angelone added an update on authorities and federally- managed water bodies group. The group is looking at various state and federal authorities. Work is preliminary but going forward and collecting info other bureaus and programs particularly those that deal with invasive species. Some agencies have more authorities than others and some use more general authorities to deal with invasive species. Angelone said that next week we are having a meeting to discuss work. By the next ANSTF meeting, we will have a more complete report of what current authorities exist and regulations are out there that have

been legally reviewed by solicitors. One of the main areas we are pulling from is the 2001 NISC Management Plan, which does a pretty extensive look at regulations. This is the first big effort since the 2001 plan. We are focusing on federally-managed AIS but are getting information on other species as well. This will be a pretty broad document, and then NISC will analysis on gaps with AIS.

Conover asked if the ANSTF has resumed reporting to Congress annually as requested by the MRBP at the November 2012 meeting.

Mangin responded that we are working on a report for FY13.

2) The ANSTF should complete a pathway risk assessment of water transportation associated with fracking and develop an issue white paper that outlines concerns.

Cook-Hildreth mentioned that there is a lot of confusion with golden algae and whether it is native. The strain in the US is more genetically aligned to those found in parts of Europe. This strain is more of a freshwater species but is found in brackish environments. The argument that it is native to US is complicated --- the algae can go into cyst form, dry up, and then be transported by wind or birds. Golden algae is a big poster child for fracking issues although there are other species of concern.

Darling asking how does definition of invasive species constrain what we are talking about? Just because it is native somewhere (Texas) does not mean that you don't care if it shows up elsewhere such as New England.

Don MacLean said we are not talking about native to US borders, but talking native to US ecosystems and showing invasive qualities.

Susan Mangin added that it is a possibility to bring some folks into next meeting to talk about how they are approaching issue or develop ad-hoc committee.

Stas Burgiel added that this is a broader discussion of pathways and the need to look at pathways that require a pathways management plan. This also requires a risk assessment. At one point there was a risk analysis subgroup that worked with Prevention Committee and they might tackle issue.

Sarah Whitney added that fracking will also have terrestrial implications. She would be interested in hearing more about it and helping on a committee if established.

John Darling commented that a risk assessment of pathways is a technical task – what mechanisms? Do we have expertise to do technical analysis?

Conover stated that MRBP tried to find someone from the fracking industry to attend the panel's coordination meeting over the summer but had no success finding anyone. . Fracking is a bigger issue than Mississippi River Basin Panel – panel needs assistance with this national issue.

Conover remarked that the panel is requesting anfor an initial screening, or rapid assessment, to outline concerns in a white paper, and determine if a full risk analysis is warranted.

Mangin asked do we have recommendation to do a risk assessment – is that what is forwarded?

Conover answered that the recommendation still stands for ANSTF to complete a pathway risk assessment of water transportation associated with fracking. Bringing speakers to the next ANSTF meeting to talk about how they are approaching the issue would be a way to start getting information.

Susan Pasko added that she did have a gentleman from West Virginia associated with fracking attend HAACP, and it would be good to follow up.

Mike Ielmini added that might consider talking to Canada because they have done BMP work with oil and gas and that might be a starting point for risk analysis.

John Moore remarked that BLM did not consider this with fracking rules. BLM only dealt with chemicals used and proprietary information and this might be worth a closer look.

Burgiel said that NISC ISAC had a parallel example with e-commerce and that led to development of white paper.

Underwood asked if there is solid direction. What is the recommendation?

Mangin asked is there a motion to approve it?

Conover replied do we want to give to NISC and see if it is something they can handle?

Mangin asked is the ultimate goal is to develop white paper, is that correct?

Conover replied affirmative.

Mangin replied we can vote on that and determine NISC involvement.

Meg Motley made the motion, Mark Malchoff seconded motion, and motion was approved by voice vote.

Are there any volunteers that would like to help? – Sarah Whitney, Staas Burgiel, John Moore, Greg Conover, Cindy Kolar will find someone from USGS. Erika Jensen would be happy to reach out to Canadian contacts and Elizabeth Brown can help with someone from British Columbia.

3) ANSTF member agencies should reinstate (or strengthen) biological control development programs for AIS.

Conover stated that MRBP members were uncertain whether programs still existed or not. If not, the MRBP members recommend that programs to develop biological controls for AIS should be reinstated. Conover acknowledged the update given at this ANSTF meeting was something that the panel members had requested and provides current information that can be shared with them.

Cofrancesco added USDA affiliate from APHIS did not attend so there is no one present to express concerns to APHIS ARS. There does seem to be some concern because the two Texas labs closed were working on AIS.

Doug Jensen added that USGS also supports research on biological control.

#### **NEANS Panel recommendations:**

The Northeast Aquatic Nuisance Species Panel recommends that an extended, carefully focused, and facilitated discussion be added to the ANSTF's next agenda to explore the resources that regional Panels offer, how member agencies may partner with them, and how those agencies may support the Panels in their continued implementation of their and the Task Force's work.

The Northeast Aquatic Nuisance Species Panel requests that the ANSTF support with a letter of recommendation to the US Army Corps of Engineers that they conduct the Champlain Canal Barrier Feasibility Study.

Susan Mangin reminded panel that ANSTF is technically advisory to DOI and DOC so not sure if ANSTF can make a recommendation to write letter to USACE. We need to check into this. Meg Motley responded that the request is for a letter for support and not money.

Cofrancesco added that he understands the concern and that there is language in the proposed 2014 WRDA legislation.

Jeff Underwood called for a vote and advised that letter may have come from Departments (DOI and DOC) and not ANSTF).

Mark Malchoff made the motion, John Darling seconded the motion, and the motion was approved by voice vote.

NEANS recommends random surveys to test the visibility of the SAH brand art and viability of its message vis-à-vis other logos and brand art (state and federal agencies, NGOs) which abound in signage, literature and other outreach vehicles associated with water recreation. Surveys should seek out participants' interpretation of SAH brand art's story in stand-alone and competing-logo contexts.

#### **Western Regional Panel recommendations:**

- 1) Provide increased support to the panel(s)
- 2) Provide funding to support highest priority implementation components of QZAP
- 3) Ensure Stop Aquatic Hitchhikers! continues to receive funding and engage in evaluation of brand consistency (See detailed letter)
- 4) Support a Pacific states tunicate workshop to identify management and research needs across the region
- 5) Reinstate funding to support USDA and USACE biocontrol research on aquatic weeds

Peg Brady asked if there need to be follow up discussion for #1 and #2.

Elizabeth Brown said that panel will be on fiscal follow-up phone call

For #3, Brown commented that it is evident to her that there has been a severe lack of communication with SAH!, and there is concern over brand and sustainability of brand. Brown stressed the need to improve communication with FWS and panels about SAH! and that this would help.

For #4, Brady asked whether there was a particular group of individuals to work with tunicates?

Brown responded that point of contacts would be the Hawaii and Alaska AIS coordinators.

Brady stated that she would volunteer NOAA as a responsible agent since they were previously involved with past northeast workshop.

Susan Mangin requested that any additional follow up on SAH! be held until the SAH! update.

#### **21. Informational: Stop Aquatic Hitchhikers! Update**

This update was provided by Doug Grann (Wildlife Forever) and Doug Jensen. Grann began by saying that Wildlife Forever was at the meeting to ask for more money. A year ago, Dan Ashe signed MOU with Wildlife Forever and set operational lead timeline. Wildlife Forever invested \$5,000 of own money to bring SAH! website platform up-to-date. Wildlife Forever has been working on modernizing brand and stated that not all partners use the new modernized brand logo.

Grann mentioned that there was now a SAH! Facebook page which currently has 124 likes. Wildlife Forever tries to post on Facebook 3X per week. Wildlife Forever has re-introduced SAH! e-newsletter with Partners in Action feature. Wildlife Forever has also been developing web banners and digital ads since the future of media is electronic. Wildlife Forever can do target marketing with outdoor media and customize background of logo for specific regions. One new aspect is that the SAH! campaign is targeting waterfowl hunters. Wildlife Forever tries to keep consistency with using the stop sign, but sometimes the stop sign is not incorporated. In spring 2013, incorporated 3-minute segments of *Silent*

*Invaders* into North American Fisherman and NBC Sports. They also have the *Silent Invaders* DVD for free distribution to interested parties.

Grann stated that much of the material is geared toward the Great Lakes because this region helps fund the work. For instance 25,000 pocket guides were produced with Sea Grant for *Invaders of the Great Lakes*. Wildlife Forever has created a catalog of products available, and this information will be online soon. Grann sees that part of Wildlife Forever's role is to provide low cost tools for outreach and that they group would like to partner with everyone.

Grann explained that in the future money is limiting factor. If everyone put in \$5,000, there would not be a funding problem. Without funding, the website will be sterile with no website and there will be no social media. Grann's vision is to have a SAH! Task Force committee, spend \$20,000 to develop new website, expand digital assets, create a state portal for products and ideas, and promote a coordinated resource pooling. Annual costs are a minimum of \$50,000 and \$1 million takes SAH! viral. He added that NFS and Great Lakes region both contribute a lot of money to the effort.

Doug Jensen stated that the SAH! campaign needs creative new ideas. Jensen presented on the effectiveness of SAH! measured in the 2013 Great Lakes Regional AIS Angler Survey, 2012 Kawishiwi Watershed Protection Project AIS Survey, 2012 Michigan ANS and Boating Survey (Mail Survey – GLRI funding), and MN Sea Grant survey. From surveys, 9 out of 10 respondents knew what logo meant without exposure to campaign. There have been over 1 billion impressions since 2006, and there are 1200 partners nationwide. There is a very low level of apathy and complacency regarding spread of AIS with boaters. Boaters understand the importance of reducing spread of invasive species.

Jensen added that SAH! is working. There needs to be better communication, coordination and funding, and collaborations to leverage resources and expertise.

Meg Motley asked how much of this work is published or will be published?

Jensen responded that some of data up on the website, technical report has been developed, and 2013 survey data will be available in January.

A narrative version of this presentation is available for those interested.

## **22. Informational: Report from the Ballast Water Workshop**

John Darling (EPA) reported on the 2012 Ballast Water Workshop held in DC. Darling commented that the general consensus is that we do have expertise to design experimental and descriptive studies. Studies would have to be implemented rapidly because regulations are changing. These studies would inform future decisions on setting standards and would require \$10 million at least overall long term (10+ year) effort.

Darling said the goal is to establish surveillance programs that would remain in perpetuity, but not sure about funding sources. There would need to be an analysis of existing data, design of experimental studies, design of ship surveillance, and design of port surveillance. There is a lot data available on what people have been doing this, but no studies were done in a concerted effort and there is a limited value in overall analysis of these studies. Darling said that a meta-analysis would give us a starting point on what kind of sampling has been done in identifying factors that need to be taken into account when designing future efforts. There needs to be unified database for diversity on what is coming in with ballast water.

Darling suggested looking at organisms that are most likely to establish, ones where you can link establishment to ballast water, are amenable to lab manipulation, have molecular tools for detection known or be rapidly developed. Ship surveys are going to be important in quantifying propagule pressure

coming into system. Darling recommended in-line sampling because it allows the best opportunity to standardize sampling opportunity across research program.

For port surveillance, there is a need to determine what is being established and how frequently. This could be designed based on accepted guidelines for coastal AIS surveillance (AUS and NZ has been doing this) and look at a subset of target taxa plus a broader overall community profiling. Darling admitted that it is challenging to get picture of overall community but genetic approaches will help with facilitation. Everyone recognized that we are asking for a lot of money, not just to figure out discharge standard but to establish port surveillance and effective model for reproduction elsewhere.

Darling said that there was proposed timeline starting in 2013 and extending into 2033. There are recommendations for coordination since past research has not been coordinated sufficiently. The experimental aspect can be loosely coordinated with the rest. This experimental aspect could be separately funded which may be appealing to NSF funding for biology or conservation biology. Real coordination is needed between ship and port surveillance. This should occur at same place with same standardized protocol for statistical analysis desired. This requires a dedicated funding source and not little pots of money, no coordination with separate funding sources. Darling added that it is very important to stress ancillary benefits. From public relations perspective, the return of investment is high. We can reduce uncertainty and provide confidence and that is the best can do to shield regulatory decisions from challenge. There are various roles for academic and government institutions. Although this is an enormous effort, this is not entirely unprecedented. New Zealand has been doing this for over 10 years in ports every 6 months (~15 million).

Carolyn Junemann (DOT) remarked that it would be interesting to tease out haul fouling part. Darling responded that species are polybenthic and not just coming in with ballast water, which is a challenge.

Junemann commented that we are working on surveying of hulls with MD and Smithsonian. Darling asked if they had \$10 million. Junemann responded no, but there may be opportunity for synergy.

Darling stated that this is a joint EPA-ANSTF report. Mangin responded that it would need to then be approved by ANSTF. Darling said he was open to discussion and seeing it posted on the ANSTF website.

Darling said he will follow-up with Greg Ruiz (Smithsonian) and some other folks about condensing parts of this into something for a peer-review paper. He hopes to get message out and continue some momentum, but he is not sure of next steps.

Cofrancesco remarked that there were two parts. 1) Freshwater aspect – ports in Great Lakes having different flora and fauna?

Darling responded that coastal includes Great Lakes and that part was supported by GLRI.

Cofrancesco continued 2) Navigation industry using ports – isn't there a mechanism to charge polluters to provide for some type of funding to cover these particular aspects? Federal government funding is tight. Consider a surcharge or port fee. How do Australia and New fund their continuous monitoring program – is this federally funded or through taxes?

Darling said he was not sure how AU and NZ funding works. Authorities in those countries are very different there and much more integrated.

Cofrancesco pointed out that Australia proves that it is not a problem before bringing in.

Darling said we have a black list, they have a white list. Both countries have federal level biosecurity programs which allows for coordinated funding.

Cofrancesco thinks that doing study for 10 years is a great approach, but it has to be a sustained program and that would be difficult with the current budget climate. Maybe taxing the navigation industry could be considered.

Darling recognizes that this is large pots of money and efforts can prioritize and examine how to minimize projects. However, this needs be done right once to develop statistical relationship.

Erica Jensen added that GLC has a small amount of money and is into looking at ballast water standards for Great Lakes and consistency. She would like to bring this to her member states.

Darling concluded that exchange and numerical standards will be big deal, but the problems have not been solved yet.

### **23. Discussion: FY13 Report to Congress and ANSTF Strategic Plan Reporting**

Susan Pasko presented on this topic and said there we need to establish timeline today to show ANSTF progress. The FY13 Plan aims to streamline and concisely tell story of the ANSTF and what has occurred since 2004. The outline includes basics members, regional coordination, and state management plans; provides an overview of 2007-2012 strategic plan; and details major accomplishments from the members, panels, and or state plans for each of the 2007 plan goals (prevention, EDRR, and control). Pasko will send out another request of projects to highlight. The plan's five major goals are prevention, EDRR/control, research, outreach, and coordination. The 2013-2017 strategic plan should emphasize progress made as well as challenges and work needed (gap analysis) with examples of FY13 and ongoing activities that will support the new plan.

Pasko said that we will need input from all members and all regional panels. Today, there needs to be an agreement to report and what information to include. Mangin added that this is not comprehensive, just a highlight for Congress.

Darling asked what level of detail do you want. What number of projects are funded by GLRI, and what have the projects accomplished?

Peg Brady stressed the importance of provide guidance and examples to panel members on what to include.

Mike Ielmini asked who specifically we will be targeting Congress?

Mangin responded that she will look into this answer. Brady added that she thinks we might want to do more homework to determine this – so we can provide good guidance. Jeff Underwood added that ANSTF can set up a briefing on report and have those interested come. Allen Ellsworth asked if this was supposed to be an annual report.

Ielmini answered that reduced funding reduced annual reports and said to get this done properly, you are going to have to do data call to field and district levels. Brady reminded the group that this is just highlights not comprehensive. Pasko added that they are looking for “Big Picture” information. Brady suggested the Co-Chairs determine guidance and develop a timeline.

John Darling encouraged member to explain in terms of dollars or monetary benefits. Erika Jensen added that it should include dollars leveraged. Brady acknowledged that there is an economic component. Ron Johnson cautioned that there is a problem of showing too much success with limited budget.

Underwood told members to send things done already. He acknowledged that there are various aspects in presenting and a challenge in saying what is unaddressed and still needs to be done in an appropriate manner.

Cofrancesco suggested stating since 2005, there have been X number of invasives come in.

Underwood admitted that the big thing is what this is costing the economy and need to stress return on investment. Spend a little to prevent importation and influx and then show them how much it costs for maintenance when we let things in. We need to figure out strategy sooner than later

Mangin asked if there was good economic data.

Erika remarked that The Nature Conservancy in the Great Lakes commissioned Anderson Economics to look at costs to Great Lakes states. For Great Lakes region, the cost is \$100 million/annually aggregated existing data and she can provide that report.

Brady added that she does not think report should say Congress should do X, Y, Z. That is not intent, but ANSTF should identify needs and observations.

#### **24. Informational: Evaluating Harvest as a Tool**

Susan Pasko and Jason Goldberg presented their paper which was recently submitted to the *Management of Biological Invasions* publication. There are a number of examples of invasive species harvested for products such as clothing, biofuel, and food sources.

Examples of incentives include bounty programs (nutria, pythons), contacts operation (fee for service), commercial markets (Asian carp fishery, lionfish), and recreational harvest (fishing derbies, USAID). These opportunities support control and management operations and generate public awareness and engagement. Both Pasko and Goldberg stress that the paper does not debate whether incentives should or should not be used. The paper focuses on the biological, ecological, and socioeconomic aspect to consider during the development of implementation of a program that utilizes incentives. For instance, removal rates, area of infestation, and locating cryptic organisms. Harvest may have unintended consequences for native species, therefore restoring native communities is not as simple as removing invaders such that potential ecological outcomes should be considered. There are also socioeconomic considerations including legal issues, perverse incentives could unintentionally cause the further spread, public safety (envenomation and contamination), and animal welfare. Programs that encourage incentivized harvest may be an effective management tool in targeting small, distinct populations or they may play a supplementary role within larger control or eradication programs. Their use, however, requires careful review, planning, and monitoring to ensure success.

John Moore commented that invasive species are in the eye of beholder. BLM spends a lot of money on wild horses and brown trout is an invasive species but has big fan base.

Jason Goldberg added that we have seen this with feral pigs—should we eradicate or controlled harvest?

Mike Ielmini commented that we need to be clear about eradicate to control or create incentive to harvest? This is in direct conflict with North American model by bringing public to think that animals should be part of a market and harvest. Ielmini did add that he is not disagreeing that harvest is way to control.

John Darling asked don't we have lots of markets for wildlife?

Ielmini said that markets can be capturing and selling or killing and selling. AFWA and FWS are leaders of North American model against marketing wildlife. We need to be cautious talking about marketing wildlife (mammals).

Goldberg responded that he would disagree and that there are some cases where they have been successful.

Ielmini asked is there a difference in bounty system and market? A bounty does not create market. A market is whole network, whole process according to the North American model.

Goldberg commented that we may be using different definitions of Market.

Pasko said avoid debate of good idea or not – harvest programs are currently ongoing with Asian carp and other invasives. We are pointing out things to consider.

Ielmini remarked it was a good analysis and that just because something is happening doesn't mean that it is good.

Malchoff added nice work and that inter-jurisdictional cooperation is needed for this to work – need to consider what other jurisdictions would be affected (Quebec and Lake Champlain).

Pasko responded that we do address importance of partnerships and legal issues.

Don MacLean added that this is a concept that people once cringed over and people are beginning to change opinion. The Service has bought into this Asian Carp management plan as a control tool and this may be the only option for dealing with issue.

## 25. Plans for the Spring ANSTF Meeting

Susan Mangin thanked the GLP for trying to plan last year's Spring meeting and said that FWS would like to plan spring meeting for FWS Arlington. This would save on travel and meeting space for Federal employees. Are there any thoughts?

Meg Motley said there are benefits of meeting in regions.

Mangin said that ANSTF could incorporate field trip.

Erika Jensen said that GLP are considering jointly meeting with MBRP for spring meeting. She also followed-up on Motley's comments saying that field trips are one aspect, but the other thing is to provide a session of importance to the region.

Mangin acknowledged that ANSTF meeting does typically get lots of panel members from region.

Tremley asked whether dates could be set soon so panels know?

Mangin responded that the meeting is typically first full week in May.

John Darling asked if this is a precedent for no more spring meeting in the regions?

Mangin acknowledged that the change stemmed from budget issues.

Jeff Underwood remarked that this change stems from uncertainty with future budgets. FWS just does not know enough about how the FY14 budget will look.

Al Cofrancesco said that we may know more after January.

Mangin commented that we do have to get rooms ahead of time – 3 to 4 months out.

John Moore asked how far out do you have to plan? How many of us here travelled to DC?

Answer – about 50% travelled.

Mangin said that in DC over 50% of members show up and there is free space.

Underwood commented that FWS has more people that part of the structure of organization that can attend DC meetings but would not be able to travel.

Peg Brady acknowledged that she values panel meetings we have in field. For now, plan for Arlington in Spring, or if not, we do a webinar. The webinar was not perfect last June, but it kept the group talking.

## 26. Member Updates

Meg Modley gave an update for Lake Champlain. There is now a map of invasion hubs to help inform where to place boat inspection and decontamination places, finding juvenile Asian clams continue to be

challenge, spiny water flea not yet present, and water chestnut program continues to great success thanks to partners. Transport laws are in development. Lake George is implementing mandatory inspection and decontamination in 2014. There is a species listing bill (Mark Malchoff) in NY. The top priority is moving forward on barrier to Lake Champlain.

Greg Conover gave an update for MICRA. MICRA held meeting past July and discussed Asian carp commercial harvest. There was also a lengthy discussion to share issues and concerns among States, some of things States wanted MICRA to do as States move forward with issues. MICRA continues to work on National Evaluation of Grass Carp, which was funded through FWS in June 2012. This project will be finished by June 2014 with final report at end of fiscal year.

James Ballard gave an update on Gulf States Marine Fisheries Commission. The Commission is still coordinating drafting of lionfish plan. There is a cooperative effort with partners. . There have been over 50 dives surveying richness and density of native species for baseline. They are on the leading edge on invasion only at 75 feet or deeper with density increasing east of range. The Commission hopes to continue funding so it can track whether native species abundances change.

Cindy Kolar gave an update for USGS. The USGS Asian carp integrated pest management control was demonstration with water guns in August. USGS with CEQ is sponsoring symposium at Midwest Fish and Wildlife conference. Two papers came out recently on sea lamprey pheromone. USGS documented the first evidence of grass carp reproduction in Great Lakes Basin.

Carolyn Junemann gave an update on DOT. There are three ballast water test facilities in the US, and the top priority is to maintain funding and infrastructure. Golden Bear is busy with R&D projects (UV filtration, are things wired properly to work on ship) and the other two facilities are ballast water testing facilities and looking indirect methods of measuring compliance (fluorometers) in tanks. Ship owners are concerned about treatment of ballast water and what this is doing to interior of tanks. DOT will be getting together with industry and other agencies to discuss this issue. DOT also looking at what is coming off in water with hull cleaning and approval of a specified method.

Al Cofrancesco provided an update for USACE. The Great Lakes and Mississippi River Basin study will be out in January 2014. This analysis looks at transfer of AIS through pathways in GLMR study. It might be good to have David Weddington to give a briefing on this for the ANSTF. USACE is leveraging herbicidal work on floating hydrilla found in Erie Canal with partners. There is an increase in invasive species work with USACE restoration efforts. There is better communication increasing invasive species awareness. USACE is faced with decreased operation costs and research funding.

Allen Ellsworth provided an update for NPS. NPS is dealing with decreased budgets. NPS is partnering with lionfish plans and collecting eDNA samples in upper Mississippi River with Asian carp. NPS is interested in preventing invasives from coming through fish passageways that have been installed for native species. NPS is dealing with seagrass issues in Virgin Islands, and removal and identification in tsunami debris. NPS continues to spend a lot of time on quagga and zebra mussels and ways to come up with funding, identify ways to come up with management and treatment, and strategic planning with what we can do with limited funding. There is a new Chief of water science program.

John Darling provided an update for EPA. EPA is working on the Clean Boating Act timeframe implementation for 2015-2016 and is crafting language on various discharges that would be regulated. EPA continues to be involved in ballast water research associated with treatment verification. Some questions have been raised about standard test of efficacy. EPA is drafting language for next version of GLRI.

Jeff Underwood provided an update for FWS. The Branch of Aquatic Invasive Species is completing its strategic plan part of the overall strategic plan for the Fish and Aquatic Conservation division. Peer review has been completed, and staff are currently incorporating comments. The plan should be finalized

and out for review by stakeholders and ANSTF by end of 2013. FWS interested in streamlining injurious wildlife listings and stopping the next invasive species before it comes into the country. A categorical exclusion for NEPA Environmental Assessments was released this summer. A revision of 50 CFR 16 will be out for public review early next year. An injurious wildlife rule for 11 aquatic species not in trade but are highly invasive with climate match will be out for review early next year.

Peg Brady provided an update for NOAA. NOAA continues to be involved in response effort for tsunami debris issue by monitoring situation and providing technical support. The Lionfish Web Portal is under construction with National Ocean Service line office. NOAA is working currently with Lionfish Gulf Conference -- James Morris is participating. NOAA is reaching out to neighbors in Caribbean (Mexico, and other partners) to promote the released lionfish management guide. Staff are working on Asian tiger shrimp research. The Great Lakes Environmental Research Lab received funding for a multi-year project looking at other potential invaders into the Great Lakes. The Southwest Fisheries Science Center is closely examining the impacts on native salmon and habitat as a result of invaders becoming a larger issue. Susan Pasko and Brady have been working on connecting with internal players that are working on invasives. They hosted a June 2012 meeting bringing staff together for a 2-day session. They have set up an internal web portal to share information and remain connected. Susan Pasko has been working on incentives for invasives work.

Mike Ielmini provided an update for FS. FS continues to support Wildlife Forever threat campaign. It managed to get good coverage on regional panels and is still funding and supporting ISAC and NISC work on policies. They gave \$40,000 to help develop protocols and parameters with ISAC FACA group and working with Lori Williams and Paul Angelone on AIS issues in federally-managed water bodies. FS is involved with tsunami debris work, Oriental mystery snail issue in George Washington Forest, and integrated watershed funding management approach. NFS is a primary funder for NISC policy liaison for USDA. They are getting word out on HAACP with new sets of waders and boots (new invasive free gear). FS is helping with Crown of the Continent education and outreach and continuing to fund western states for decontamination and inspection stations. NFS has spent \$300,000 on AIS inspections with UT, ID, WY, NV to help with more outreach education surveys and boat washing. FS is working with National Wildlife Coordination protocols to prevent AIS spread with fire operations and meeting with EEI about how to prevent spread of invasive species on entire electrical grid (including right-of-ways). John Moore provided an update for BLM. Moore pointed out that Page 6 of Wildlife Forever book highlights work done with BLM to put together PSAs in hunting regulations books. The book reached 4 million impressions through outreach and BLM has gotten good feedback from State fish and wildlife agencies. The BLM Fish and Wildlife Division have actings in leadership roles and hopefully will get everyone on board in the new year and help move invasive species message forward.

There were no public comments and the meeting was adjourned at 4:30.