Meeting of the Great Lakes Panel on Aquatic Nuisance Species
December 10-11, 2013
Ann Arbor, Michigan

Meeting Summary

Tuesday, December 10, 2013

Welcoming Remarks and Call to Order
Luke Skinner, Great Lakes Panel Chair, Minnesota Department of Natural Resources
Skinner called the meeting to order and reviewed the agenda. There was a round of introductions and quorum was confirmed.

Great Lakes Panel (GLP) Business
Luke Skinner, GLP Chair
Erika Jensen, GLP Coordinator, Great Lakes Commission

The May 2013 GLP meeting summary was presented to the GLP for approval. The summary was approved with no changes. Jensen then reviewed key action items from the May meeting, noting that more detail on committee action items would be provided during committee meetings and reports:

- Staff will work with the Executive committee to plan the fall 2013 meeting.
- John Navarro, GLP Vice Chair, and staff attended the fall 2013 Aquatic Nuisance Species Task Force (ANSTF) meeting and provided a report out on the session that was held at the spring GLP meeting on funding for invasive species programs. Discussion on next steps is ongoing.
- The Information/Education committee provided comments to the ANSTF on proposed water garden and classroom guidelines and is considering next steps related to coordination with the Great Lakes Water Quality Agreement Annex 6 Subcommittee.
- The Research Coordination Committee is continuing its work on developing priorities and recommendations related to grass carp, as well as the priorities species list.
- The Policy Coordination Committee submitted the final policy priorities document to the GLP for review and will be considering comments received during the committee breakout. The committee is also working on grass carp priorities and recommendations.

The final GLP business item for discussion was the upcoming GLP officer and at-large member elections. The nominating committee for the election was announced. The committee includes: Kevin Irons, Illinois Dept. of Natural Resources; Becky Cudmore, Department of Fisheries and Oceans Canada; and Phil Moy, Immediate GLP Past Chair, Wisconsin Sea Grant. The open positions for these elections include GLP Vice Chair, the committee chairs and six at-large members. Specifically, four of the current at-large members are up for reelection as it is the end of their four-year term and there are currently two vacant at-large membership positions. At-large member Mike Murray, National Wildlife Federation (NWF), has relocated so NWF will be putting forward a new nominee for that position. In addition, Skinner reminded the GLP that current committee chairs could be re-nominated for their current seat. Any inquiries regarding running for a position or to nominate a person should be directed to the GLP Chair. Election results will be announced at the spring GLP meeting and new officers will be seated at the beginning of the meeting.

Aquatic Nuisance Species Task Force (ANSTF) Report
Susan Mangin, ANSTF Executive Secretary, U.S. Fish and Wildlife Service

Mangin reported the highlights from the recent ANSTF meeting, held in November in Silver Spring, MD. At the meeting, the ANSTF received a briefing on the potential of wakeboard boats to transfer AIS and will be looking into this issue further in partnership with industry representatives. A subcommittee is looking in to prospects for National Aquatic Invasive Species Awareness Week (NISAW) this year and for future years, given recent budget issues. Mangin noted that due to recent budget issues and sequestration, funding for the six regional panels was reduced this year from $50,000 per panel to $40,000 per panel. She also discussed the recent formation of a congressional Invasive Species Caucus which held its first public meeting in November. The caucus is chaired by Rep. Mike Thompson (CA-5th District) and Rep. Dan Benishek (MI-1st District). Lastly, she discussed a resolution recently passed by the American Fisheries Society on federal funding for AIS programs (available at http://fisheries.org/docs/policy_statements/policy_36f.pdf)

Great Lakes and Mississippi River Interbasin Study (GLMRIS) Update
Jim Bredin, White House Council of Environmental Quality

Bredin provided an overview and background information on the, then forthcoming, GLMRIS report. The U.S. Army Corps of Engineers (USACE) was statutorily required to release the report by January 6, 2014. The report will present alternatives for preventing the transfer of AIS between the Great Lakes and Mississippi River basins that range from no action to complete hydrologic separation. The report does not rank options nor make any recommendations or evaluations based on scientific best practices or cost effectiveness. The report offers conceptual modeling and includes general mitigation requirements, i.e. what kind of mitigation activities would be needed if an alternative were to move forward. The report also includes cost estimates for each alternative and evaluation criteria. Bredin noted that the interbasin transfer of AIS is a regional issue which needs to be assessed collectively. The USACE will be holding a series of public meetings throughout January and February 2014. In response to questions about the nature of these public meetings, Bredin said that he believes the meetings are intended to be a vehicle to document public responses. The USACE is not the final decision-maker on which plan will be implemented.

Action Item: Staff will work with the Executive Committee to coordinate any GLP activities that may be planned following the release of the GLMRIS report in January 2014.

Regional Updates

Great Lakes Water Quality Agreement (GLWQA) – Annex 6 Subcommittee
Gavin Christie, Fisheries and Oceans Canada and Todd Turner, U.S. Fish and Wildlife Service, GLWQA Annex 6 Subcommittee Co-Chairs

Christie reviewed the overarching purpose of the GLWQA Annex 6, which is to establish a binational strategy to prevent the introduction; control or reduce the spread; and eradicate, where feasible, aquatic invasive species from the Great Lakes basin ecosystem. The proposed membership of the subcommittee tasked with working on Annex 6 includes federal, state, provincial, and tribal members. The subcommittee is organized around six topic areas: (1) early detection, (2) rapid response, (3) education and outreach, (4) species risk assessment, and (5) pathway risk assessment and management. Subcommittee members will sit on task teams focused on each of these areas and will develop a work plan for the Annex 6 commitments in each area. The near-term primary focus area of the subcommittee is to develop a regional early detection and rapid response initiative. Specifically, this would include

developing species watch lists, identifying priority locations for surveillance, and developing monitoring protocols. The Annex 6 subcommittee is coordinating with other Annex subcommittees, such as Annex 5 on vessel discharges. Together, Annex 5 and 6 are working cooperatively to conduct a risk assessment of pathways for AIS and developing regulations and management strategies. The Annex 6 subcommittee has also been coordinating with the Lakewide Management Annex and Habitat and Species Annexes. Looking forward, the Annex 6 subcommittee envisions working with the Great Lakes Panel on some of the task teams and to coordinate public consultation. Christie said the Great Lakes Panel membership is a beneficial vehicle through which the subcommittee can contact stakeholders.

In the discussion that followed, the Christie and Turner clarified that they are seeking expertise from the Great Lakes Panel and involvement in the six task teams. However, they also noted that limited resources continue to be a hurdle. In order to work effectively going forward, the subcommittee will need support. Participants questioned the panelists about meeting the 2015 target date set in the subcommittee work plan. Christie and Turner responded that while it is unclear that the subcommittee will meet the deadline, the dates were only added to the work plan as a means to spur progress.

Action Item: The GLP Executive Committee and staff will continue to coordinate with the GLWQA Subcommittee co-chairs, with the GLP Chair and Vice Chair participating as subcommittee members. Other GLP members interested in assisting with the GLWQA Subcommittee should contact the GLP Chair and the Subcommittee co-chairs (Gavin Christie and Todd Turner).

Midwest Governors Association (MGA) - AIS Summit
Bob Wakeman, Wisconsin Dept. of Natural Resources

Wakeman highlighted four major outcomes from the recent MGA summit on AIS: (1) one federal agency needs to be designated as the lead agency on AIS issues, (2) the Governors need to be visibly supportive of aquatic invasive species issues, (3) the states need to be supportive of federal budget requests and, (4) the states should try to reach consensus with regard to a rapid response plan. Wakeman highlighted the fact that a rapid response plan is an area which is ripe for interstate and interagency cooperation. Since their last meeting, Minnesota Governor Mark Dayton, on behalf of MGA, penned a letter to President Obama requesting the administration strengthen the efficiency and effectiveness of federal actions to combat invasive species. Second, the MGA drafted a resolution calling for the Governors to collaborate on AIS issues. A second summit is being planned for the winter. This second Summit will act as a follow up to a Summit MGA hosted in June 2013. Discussion following the presentation highlighted the overlap between the MGA and the Council of Great Lakes Governors (CGLG) and suggested that the Great Lakes Panel may be able to help the two groups collaborate. Wakeman said the MGA were impressed with the level of interconnectivity amongst the states through the GLP but there may be room for further cooperation between the Great Lakes Panel and the Mississippi River Basin Panel.

Council of Great Lakes Governors - AIS Task Force
Kevin Irons, Illinois Dept. of Natural Resources

Irons began his presentation by reiterating the fact that there are over 160 non-native species within the basin, some of which pose an injurious threat. In response to this threat, as part of a Great Lakes Governors summit, the Governors passed a resolution on AIS that renewed the commitment of the states to work together on this issue; established a “least wanted” species list; and committed to moving forward in developing a mutual aid agreement. To work on these commitments, the Council of Great Lakes Governors reformed an AIS Task Force. The first step for the Task Force is to work on establishing consistent regulations in the region on the “least wanted” species list, which consists of 15 species. The Task Force will also be working with the Great Lakes Fishery Commission on the mutual aid

agreement which will provide a regional framework to respond to an AIS outbreak or imminent threat of invasion. Furthermore, the group has called for increased federal support for rivers and canals within the basin. Irons also noted the importance of public outreach campaigns such as the new Illinois campaign, "be a hero, transport zero." He highlighted the need to bridge the gap between expertise and the public. During discussion following the presentation, in response to a question about species black lists, Irons replied that it is the intention of the group to continuing working toward ensuring that regulations are consistent throughout the basin. In terms of next steps, Irons noted that the CGLG will be putting forth a paper to report on the progress made in the spring.

Grass Carp Briefing
Moderator: Bob Wakeman, Wisconsin Dept. of Natural Resources

Background
Greg Conover, U.S. Fish and Wildlife Service

Conover began by noting that there is both a national and regional focus to the grass carp issue. At the national level, the focus is on how to manage the movement of triploid, or sterile, carp and improving the certification process and compliance for triploid carp. At the regional level, the focus is more on the potential establishment of grass carp in the Great Lakes basin. He spoke specifically about what to do about grass carp already in the basin and how to best prevent new introductions. Conover identified a number of potential pathways by which grass carp would potentially enter the basin, including stocking of diploid (non-sterile) and triploid carp; illegal distribution and sales; aquaculture; live transport; release by individuals; importation; and use as bait fish. He expanded on a few of these, suggesting ways that certain pathways could be mitigated. These suggestions included prohibiting the stocking of both diploid and triploid carp, properly siting aquaculture facilities, and killing all fish at the point of sale which inhibits live transport. He also highlighted the difficulties engrained in the multistate management of the species. For instance, states differ in their regulations regarding diploid and triploid carp; some states ban both, some allow both and some prohibit only diploid carp. A 2005-2008 study conducted by the Mississippi River Basin Panel discovered an additional problem. There are concerns regarding the purity of tanks carrying grass carp; a certified triploid tank was found to have been contaminated by diploid carp.

Conover next outlined the management considerations and law enforcement concerns. Noted management considerations included control of nuisance vegetation, live fish markets, polycuture, third party commercial haulers, and large fish being caught and sold. Likewise, law enforcement concerns include: inconsistent regulations throughout the basin, commercial live haulers, and field testing ploidy. When a state lacks regulations to prohibit sale, transport, and stocking of live diploid (non-sterile) grass carp then there is a greater risk that, if released, the fish will be able to establish a population in the Great Lakes Basin. Further, Conover offered management recommendations which include making recommendations on the National Management Plan and encouraging consistent state regulations. Conover also briefly discussed the review of national grass carp programs being conducted by the Mississippi Interstate Cooperative Resource Association (MICRA) with funding from the U.S. Fish and Wildlife Service (USFWS). A final report on the review, including recommendations, is due to USFWS by the end of September 2014. MICRA will then follow-up with their state members on next steps to improve grass carp management. Ultimately, the Mississippi River Basin Panel, under MICRA, hopes to submit a recommendation to the ANSTF, possibly in collaboration with the other regional panels.

Great Lakes Basin Concerns
Marion Wittmann, University of Notre Dame and Patrick Kocovsky, U.S. Geological Survey

Wittman presented an overview of grass carp captures in the Great Lakes basin. Between 2007 and 2012, there were 46 recorded wild caught diploid and triploid grass carp among seven of the Great Lakes states. Wittman then presented environmental niche models which show that most of the Great Lakes Basin would be suitable habitat for grass carp to establish populations. Using occurrence points for grass carp and climate data and then identifying lake-specific suitable habitat, Wittman projected the likely impact of grass carp on the Great lakes ecosystem. Her research found grass carp have a non-statistically significant impact on invertebrates, a negative effect on amphibians, and almost no effect on birds. The study did find a possible positive effect on dissolved oxygen and turbidity but a negative effect on Ph levels. The overall conclusion was that it is possible for grass carp to establish a population in the Great Lakes.

Kocovsky began by saying that grass carp have been in the Great Lakes since the 1980s and that it is legal to stock sterile (triploid) fish. His presentation focused on an analysis of several grass carp collected from the Sandusky River in 2012. Otolith microchemistry analysis of the fish and water chemistry analysis of the river indicated that the fish were diploid, came from different parents, and likely lived most of their life in the river (as opposed to being pond fish). The research also looked at the most likely times spawning could have occurred in the Sandusky River and shows that the recruitment requirements for grass carp are similar to those of bighead and silver carp. Although the research points to successful reproduction and recruitment in the river, he indicated that the research is not conclusive enough to definitively determine that there is an established population.

Discussion, next steps and guidance to committees
Lindsay Chadderton, The Nature Conservancy

Chadderton led the discussion following the presentations which focused on best management practices for grass carp. One participant commented that it is not desirable to prohibit all diploid carp in any water because that would cut down on trade. Thus, the focus needs to be on how to effectively manage the diploid carp that are getting into the basin. Chadderton answered using the Ohio Asian Carp Response plan as an example. There are two main concerns. First, limiting grass carp that are already in the basin. Chadderton suggested broadening the scope beyond the Great Lakes to assess other areas dealing with grass carp. Second, he claimed states need to look at actions they can take and how they can best push back against the threat of grass carp. Another participant asked to what extent the Great Lakes region needs to quantify the basin; should the states seek more involvement from their state Governors? Chadderton answered by saying that the states can look at the location and distribution of grass carp. Specifically, this mean looking at how many grass carp are establishing populations in what areas. Chadderton suggested using Wittman's model to advise the states on abundance and location. Wittman followed by stating that her model is applicable to both diploid and triploid carp.

The following questions were posed to the group for further discussion in committee sessions:
From a national perspective:

- How do we manage movement and trade of diploid carp? (importation into states or transit through states)
- How do we improve the triploid certification process and compliance?

From a regional perspective:

- Should we be concerned about establishment of grass carp in the Great Lakes basin?

Action Item: The GLP Executive Committee will continue discussions with the Mississippi River Basin Panel (MRBP) about possible joint recommendations based on work being done within both panels.

- GLP members will be invited to call in to the MRBP meeting in July 2014 to get an update on the triploid certification program review.
- Staff will distribute the grass and black carp collection protocols.

Update on Great Lakes eDNA surveillance efforts
Tim Strakosh, USFWS and *Andrew Tucker, The Nature Conservancy*

Strakosh opened the presentation noting that as of 2013, the USFWS took over for the U.S. Army Corps of Engineers as the lead federal agency in implementing eDNA surveillance activities. USFWS is also responsible for maintaining and updating, in real time, the Quality Assurance Project Plan (QAPP) for these efforts. Strakosh presented results of the 2013 eDNA surveillance efforts by the USFWS focused on bighead and silver carp. A total of 1481 samples were collected from coastal areas and tributaries to lakes Superior, Erie and Michigan, and in the Huron-Erie corridor. Sites tested within the Huron-Erie Corridor, and Lakes Superior and Michigan found no positive results for bighead or silver carp. Whereas in western Lake Erie, one positive hit for silver carp was found in the Maumee River, or one out of 391 total samples collected in the Lake Erie watershed. He noted all the results are available online at http://www.fws.gov/midwest/fisheries/eDNA.html.

Next, Tucker expanded the discussion by providing details of a 2013 sampling study funded by the Great Lakes Restoration Initiative (GLRI). In 2012 and 2013, The Nature Conservancy in collaboration with Central Michigan University and the University of Notre Dame, collected more than 1200 water samples as part of a USFWS GLRI eDNA applied early detection grant to conduct surveillance for aquatic invasive species in the Great Lakes Basin. These samples were screened for Asian carp (bighead and silver carp) and Eurasian ruffe with species specific PCR and qPCR (respectively) molecular markers. One sample, collected on 31 May 2013, from Sturgeon Bay, WI, tested positive for silver carp DNA. Twenty three samples, from four different locations, collected in summer 2013, tested positive for ruffe DNA. Locations of positive ruffe detections were Tahquamenon and Waiska Rivers (Michigan, Lake Superior), Cheboygan River (Michigan, Lake Huron), and Calumet Harbor (Illinois, Lake Michigan). Although alternative sources of DNA cannot be dismissed, the positive detections of ruffe in the Waiska River and Calumet Harbor represent the first evidence for ruffe in these systems.

Wednesday, December 11, 2013

Pathway Prevention Activities: Recreational Boats

An AIS Risk Assessment for Wake Boats: Potential for Transport & Potential Solutions
Tim Campbell, Wisconsin Sea Grant

Campbell's presentation discussed the AIS threat posed by ballast water carried in wake board boats and potential solutions to mitigate this threat. This work was started by a partnership between East Central Wisconsin Region Planning Commission (ECWRP) and Ft. Fremont Marine. ECWRP contacted Campbell for decontamination guidance. Campbell began his study with four research questions regarding the quantity of water transported by wake boats, what organisms remain in residual ballast, and, what can be done to reduce the amount of water transported and treat any remaining ballast. In order to answer these questions, he first reviewed the design of boats for wake sports and specifically the differences between using a ballast bag versus a hard ballast tank. The bag is often preferred by boat owners but ballast bags can pose a challenge for draining efficiency because there is often residual ballast. The leftover water allows a number of organisms to survive. A key question to be answered is

how to get the bags so they have almost no water left in them. Campbell offered some potential solutions to prevent the movement of organisms through this pathway. He suggested public outreach encouraging people to fully and efficiently drain their ballast bags, as well as some design enhancements like better drain hose placement and compartment design within the boats. He also suggested better decontamination abilities. Campbell highlighted the fact that there might be an issue with a boat owner not knowing how much ballast is left in the tank despite that fact that they are cognizant of using safe practices to reduce the transport of invasive species. Following Campbell's presentation, questions were raised about the cleaning process of the bags and whether the bags can withstand the high water temperature necessary for effective decontamination.

Retrofitting and Design of Public Accesses in Minnesota
Luke Skinner, Minnesota Department of Natural Resources

Skinner began his presentation by highlighting the fact that there are over 3,000 public access points in Minnesota. He reviewed the activities, including a series of stakeholder meetings, which led to ideas for a clean and drain area at public boat launches. These ideas supported a positive messaging system as opposed to telling boaters what they should not be doing. They also focused on creating best management practices (BMPs) that would be shareable, repeatable, affordable and flexible, and would improve safety at the launches. He described the primary features of a boat clean and drain area that accommodate the AIS prevention activities required by Minnesota state law. These features, such as compost bins for bait and pavement stenciling, have been implemented at various sites and have yielded some lessons learned for future implementation. There has been mixed success with the compost bins in particular, and DNR staff are experimenting with different approaches to improve this feature. Skinner noted that the pavement stencils used to mark the clean and drain area, including a safety zone, are reusable and shareable. Skinner also briefly discussed the management of water that is being drained from the boats and the need to make sure the water is collected separately and does not enter the stormwater system which drains back into the nearby waterbody. He shared some design plans and costs as part of his presentation. Much of the information about the BMPs is available online at www.mndnr.gov/invasives/water_access.html.

Lessons Learned in Developing Boat Wash Stations and Mobile Units
John Rothlisberger, U.S. Forest Service

Rothlisberger presented the lessons learned by the U.S. Forest Service in developing boat wash stations and mobile units. This effort began with a recreational boat cleaning and inspection pilot project in the Ottawa National Forest. The original project plan included implementing two permanent, self-service boat washing stations and a number of portable units. As of today, the result has been one self-service station at the Ottawa National Forest and 12 portable units in several national forests within the region. He reviewed the design of the self-service station, which includes an underground tank to capture the spent wash water. He then went into a discussion about why the second self-service station originally planned was not completed. The section station was planned for a harbor on the shores of Lake Superior and would have had the wash wastewater flow back into the lake. This created a water quality concern at the state level and issues with permit requirements, specifically requirements under the National Pollutant Discharge Elimination System (NPDES). NPDES is intended to control effluent discharges into surface waters of the state. Currently, the state of Michigan does not have a general permit for boat washing activities and there is a concern about the level of silver, copper and zinc contained in boat wash water. The proposed solution to this is to connect the boat washing station to the wastewater system for the nearby campground, but that has not yet happened. Rothlisberger highlighted the primary lesson learned from this; boat washing stations should avoid any discharges to surface water. He also noted that there is a lot of room within the NPDES permitting process to create a general permit

for boat washing which could facilitate the installation of permanent boat washing stations in the future. He concluded reviewing some of the advantages of portable wash units as an alternative.

Pathway Prevention Activities: Fish Passage Policies

Issue Overview and Developing Policy Guidance
Bob Wakeman, Wisconsin Department of Natural Resources and Mike Hoff, USFWS

Wakeman began by outlining a guidance document on fish passage recently developed in Wisconsin. He noted that such a guidance document should consider the legal authority under which to regulate activities, should be AIS sensitive, and should aid resource managers in decision-making. In Wisconsin, the DNR regulates fish passage. He noted that there are two types of guidance: guidance for complete barriers (i.e., a structure that will prevent passage of aquatic organisms up to a 100 year storm event) and incomplete barriers. For complete barriers, there is guidance for both active and passive proposed fish passage based on the presence of AIS and VHS above and below the barrier. Wakeman then spoke in more detail on how to generate a list of AIS of concern on which to base decisions regarding fish passage. He used the work done by the Army Corps of Engineers on GLMRIS as a starting point and identified four factors that should be looked at in determining how high a risk a species poses. The first factor is the ability of the species to be able to make and survive transit to the barrier. If a species can make that transit under all conditions that it poses a risk. Next is the ability of the species to establish a population at the barrier; if the species is present year-round at the base of a barrier, then they pose a bigger risk than a seasonal species. Third is the ability of the species to cross the barrier and lastly is the ability of the species to become established upstream of the barrier. Once you assess the species of concern and their respective risk, the guidance outlines a process for looking at the potential impact – positive, negative or neutral – of the species on ecology, economy, recreation and aesthetics. Once you have all of this information, then you can make a regulatory decision. In response, to a participant question, Wakeman stated that Wisconsin's guidance document has not yet been approved but it has been through the public comment process.

Hoff presented next and began by discussing why a risk analysis for AIS is needed with regard to proposed fish passage decision making. He stated that in the past, agencies have developed contradictory plans of action regarding fish passage issues. His presentation described recent activities pathway risk analysis activities within the agency, specifically eliciting experts to support structured decision making on this issue, using the Ballville Dam in Sandusky, Ohio as an example. He said that utilizing experts can provide an independent evaluation of risk which can then help guide a preferred alternative for the project to meet environmental compliance issues and decide whether/how to proceed with project. Hoff described his preferred approach for expert elicitation as a method of risk analysis. The approach includes developing a questionnaire which is then completed, independently, by about ten experts and then a scoring and synthesizing of the results. This process will take about 45-60 days. He then described in more detail how this process worked for the Ballville Dam. A summary and synthesis of this analysis will be included in the draft environmental impact statement that is due out soon. Hoff was asked whether there is a weighting among the different categories. He responded that, the Wisconsin guidance is not a numerical ranking and that the decision comes down to best professional judgment based on the information gathered.

Committee Reports

Information/Education Committee

Doug Jensen, Information/Education Committee Chair, Minnesota Sea Grant

At the May meeting, the committee had identified outreach to the maritime community as an area for future work. Jensen reported out to the committee on a proposed project by Minnesota Sea Grant to address this issue. He noted that the final voluntary guidelines for recreational activities should be published in the Federal Register soon. Once they are published, they will be posted on the Great Lakes Panel website and distributed to the membership. The committee provided comments on the water garden and classroom guidelines, which were addressed by the ANSTF. Great Lakes Panel members will be encouraged to use the recreational, water garden and classroom guidelines when they are finalized. Jensen emphasized the importance of consistency in messaging. The committee received an update from Wildlife Forever on the Stop Aquatic Hitchhikers! campaign. Jensen noted that the website is being updated. The committee also discussed working with GLWQA Annex 6 subcommittee on gathering information on education and outreach activities in the region. The committee discussed outreach efforts and needs related to grass carp. A subgroup of the committee will be convened to look at this issue further. Finally, the Ontario Federation of Anglers and Hunters presented to the committee a draft Lake Superior AIS Guide for review and input by committee members.

Information/Education Committee Action Items

- Recreational, water garden and classroom guidelines: When available from the ANSTF, distribute final guidelines to GLP members for their use and distribution and post to the GLP website.
- Assessment of outreach activities: Working with the GLWQA Annex 6 Subcommittee co-chairs, craft a request to GLP members and interested parties to provide information about existing outreach products and evaluations to inform GLWQA subcommittee efforts.
- Grass carp: A subgroup of interested committee members will be convened via conference call to consider grass carp related outreach needs and priorities.
- Lake Superior AIS Guide: Committee members will review and provide input to OFAH on the draft Lakes Superior AIS Guide; comments will be accepted through January 2014.

Research Coordination Committee

Lindsay Chadderton, Research Coordination Committee Chair, The Nature Conservancy

Chadderton reported on committee discussions related to grass carp research priorities, GLMRIS and the priority species list. On grass carp, the committee would like to see efforts focused on quantifying the rates of diploid introduction, managing the fish in the basin and looking at possible control methods. He noted that the committee agreed that we must work to maximize the amount of information we can get from any grass carp that are collected. There are collection protocols that were distributed to the meeting participants in the meeting packets. The committee is also considering reviewing the final GLMRIS report to identify research priorities associated with most promising alternatives and discussed the potential of collating comments on the report from Great Lakes Panel member agencies. The committee will be continuing work on the species priority list to develop clear, objective, criteria for putting a species on the list, as well as better defining the tiers and harmonizing with other lists.

Research Coordination Committee Action Items

- Grass carp priorities and recommendations: Finalize research recommendations and priorities for grass carp and incorporate them into the research priorities document.
- Priority species list: Work on the priority species list will focus on
    - Developing clear, objective criteria for why a species makes the priority list
    - Define what is an imminent invader (Tier 1)
    - Harmonize with existing lists and identify the subset of species with high priority regional research needs
- GLMRIS: Review GLMRIS report to identify research priorities and convene a conference call of interested committee members to discuss those priorities. Research needs for the most promising identified options will be discussed and incorporated into the research priorities document.

Policy Coordination Committee

Bob Wakeman, Policy Coordination Committee Chair, Wisconsin Department of Natural Resources

The committee finalized the policy priorities document for submission to the ANSTF. With regard to grass carp management recommendations, the committee discussed encouraging more states to utilize a toolkit for testing fish much like a kit used in Ohio. There is an associated hurdle with how to fund the toolkits and facilitating a uniform reporting and processing procedure to be used during sampling. The committee also discussed the difficulty of patchwork regulations as well as whether current regulations are sufficient to stop the movement and sale of AIS. The committee outlined one priority as stopping the live transfer of diploid carp. While discussing GLMRIS, the committee decided that a GLP response would not be feasible, but it would be interested in hearing reactions to the report from the states and from regional entities such as Council of Great Lakes Governors and Great Lakes Commission. Furthermore, the committee was supportive of collecting the comments submitted by GLP member agencies on GLMRIS and organizing them topically. This document would be used as an informational resource for the Great Lakes Panel.

Policy Coordination Committee Action Items

- Policy priorities document: Submit the final document to the ANS Task Force.
- Grass carp priorities and recommendations: Revise management recommendations as discussed at the December meeting; review results of triploid certification program review being conducted by the MRBP before finalizing recommendations.
    - Consider opportunities for improving risk screening processes using species-specific risk assessment models for aquaculture and incorporate those into the recommendations and/or the policy priorities document.

Public Comment

The floor was opened for public comment. None were offered.

Emerging Issues and Announcements

Erika Jensen noted that a summary of the GLP meeting and presentations will be available on the GLP website: http://glc.org/projects/invasive/panel/. Doug Jensen noted that the Communication and Outreach Committee of the ANSTF was being reconstituted and that he was asked to be the co-chair. He also noted that Jay Rendell, previous invasive species specialist with the Minnesota DNR and past GLP Chair, has retired.

Spring 2014 Great Lakes Panel Meeting

A proposal for dates and location were made for the spring 2014 meeting of the Great Lakes Panel as the week of April 28, 2014 in South Bend, Indiana.