

**CONSTRAINING COLLABORATION:
THE IMPACTS OF A PRESCRIBED PROCESS ON THE
GREAT LAKES PANEL ON AQUATIC NUISANCE SPECIES**

By

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ABSTRACT

The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 was passed in response to the growing threat posed by the introduction and spread of aquatic invasive species into U.S. waters. Through this legislation, Congress recognized that mitigation of the impacts from aquatic invasive species was dependent upon coordinated research, education, and prevention and control programs on national, regional and state levels that could only be obtained through collaboration among various levels of government and civil society. This federal act created the Great Lakes Panel on Aquatic Nuisance Species (the Panel) as a regional collaboration and prescribed its structure, management, role and objectives. Twenty years after the Panel's creation, this thesis reviews the evolution of the aquatic invasive species issue and the institutional response, and explores the impacts of legislated collaboration and a highly prescribed process.

Data was collected from review of archival documentation, personal observation, and semi-structured interviews. The data provide three primary conclusions. First, the constraint of prescribed roles and objectives limits the perceived ability of the Panel to change the dimensions of its work and accomplishments to maintain its relevancy within an evolving institutional response to the aquatic invasive species problem. Second, the primary benefit derived from Panel membership appears to be the "issue network" created by the in-person attendance at meetings that facilitates sharing, learning and networking among experts and agencies in the region. Third, the prescribed structure and management of the Panel limit its flexibility to adapt to changes as the issue and institutional response evolve and yet benefit it by providing formal legitimacy, funding and critical staff support.

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Constraining Collaboration: The Impacts of a Prescribed Process on the Great Lakes Panel on Aquatic Nuisance Species

Chapter 1: INTRODUCTION

The behavior of government can often be explained through its inherent nature to manage in response to crisis and to address a problem only when it is thrust upon its agenda (Jones 1984). In this response there is often political preoccupation for newness and an appeal in creating, or indeed mandating, new collaborative arrangements in the form of task forces, panels or commissions (Yaffee 1994). This was the situation in the Great Lakes region in 1990. The crisis involved the invasive zebra mussel, a small thumbnail-sized mussel native to southeast Russia, which was colonizing and clogging water intake pipes in Lake Erie and causing economic harm to nearshore public utilities. Congress acted quickly by passing the Nonindigenous Aquatic Nuisance Prevention and Control Act¹ (NANPCA) of 1990 and mandating the creation of a regional Great Lakes Panel on Aquatic Nuisance Species with prescriptive roles and objectives to be accomplished. This thesis explores the impacts of legislated collaboration and a highly prescribed process.

The Laurentian Great Lakes of North America are an aquatic invasive species² (AIS) dominated ecosystem. As with many large-scale ecosystems and complex environmental problems, no single governmental agency has responsibility for the entire resource or in this case, the problem of AIS. More than 10 federal agencies have limited authority for some aspect of the issue as it relates to their individual missions as do binational quasi-

¹ P.L. 101-646 passed 29 November 1990.

² When NANPCA was passed, there was no consensus on issue terminology. The term aquatic invasive species (AIS) has become the currently accepted term in the United States and is used in this thesis, except when referring to a formal organizational name that uses an alternative term.

governmental entities, such as the Great Lakes Fishery Commission. The eight state governments in the region have full jurisdiction of the lake bottomlands and all water and resources found above that land. Various tribal authorities, shoreline industry, shipping and transportation, and non-governmental organizations (NGOs) have concerns with how the problem of AIS in the lakes may affect their economic interests, cause environmental harm or threaten human health. Added to this broad group of stakeholders is the fact that within the aquatic environment, harmful invasive species can swim and float and easily move and spread without respect for political boundaries or jurisdictions. The size and complexity of the AIS problem and the fact that no single jurisdiction can solve or manage it alone requires collaboration.

The use of collaboration as a formal arrangement among government and various stakeholders for joint problem solving is particularly well suited to the problems of natural resource management because decision-making within this realm is inherently complex and uncertain. This complexity comes from working in an environment that includes issue complexity, multi-jurisdictional complexity and various forms of conflict and evolving crisis. These types of complex problems have been referred to as “wicked” or problems with no solutions, only temporary and imperfect resolutions (Harmon and Mayer 1986, 9). These so-called “wicked problems” deal with ambitious policy goals and layers of mandates from both federal and state governments that are embedded in a context of dispersed power that cuts across the boundaries and jurisdictions of government agencies. It also incorporates the political demand for the inclusion of the public sector (O'Toole 1997). These types of problems do require a management process, such as collaboration among multiple organizations, and the formation of formal collaborative management structures. However,

within this model of collaboration, law and regulations are not circumvented, nor is the authority and accountability of government agencies, but it is a process that gives civil society meaningful participation in a process with government agencies to generate innovative solutions to highly complex environmental problems. For “wicked problems,” agreement on how to address these specific problems is more often successfully forged by jointly steering courses of action and delivering policy outcomes that are consistent with the multiplicity of societal interests with involvement in the resource (O’Toole 1997).

Many natural resource policy problems at this large scale are unsolvable because the current system of organizing and decision making does not easily adjust to a highly interdependent organizational environment (Gray 1989). Many of the environmental problems that emerged during the first half of the twentieth century primarily addressed a single medium, such as land, water, or species, in a specific localized area making governance by a single organization workable and appropriate. However, because of changes in both the temporal and geographic scales for which ecosystems are evaluated, the types of wicked problems, which have been identified in more recent decades, often need a different problem-solving and management structure.

Research Methods

Most research on AIS produced from the “natural sciences” has focused, for example, on the number of species, biology of each, and vectors associated with their introduction. This work is currently dominating Great Lakes research. However, the organizations and collaborative arrangements in place to act on this knowledge is an understudied and much needed area of research. To assess how the prescriptive directive of NANPCA affects, or indeed constrains, collaboration and the work of the Great Lakes Aquatic Nuisance Species

Panel (Panel), this research examines the topic through the lens of the following questions: *What is the current perceived role of the Great Lakes Panel on Aquatic Nuisance Species in the Great Lakes region? What are the perceived accomplishments and challenges? And, specifically, what are the factors that contribute to the accomplishments and challenges observed?* To address these questions, the research focused on the Panel membership. The Panel as a collaborative arrangement is made up of and managed by people. Therefore, when examining the impacts of the prescribed collaborative process, one must look at the manner in which the Panel's objectives and work are interpreted by the membership, how they choose to interact within the framework provided, and therefore the research is predicated on understanding the perspectives of the members themselves.

This research is grounded in the positive theory of institutions concerned specifically with how institutions and political structures shape outcomes (Shepsle 1986) instead of the normative seeking to recommend an "ideal" institutional arrangement that will promote better management of AIS in the Great Lakes. The approach used for this study included review of archival documentation from 20 years of Panel history, personal observation of Panel meetings, and semi-structured interviews with the Panel membership. The triangulated data collected from documents, observations and interviews allowed for an in-depth study of the organization and its dynamics (Agranoff 2007). A review of the theoretical and empirical literature was also drawn upon to provide comparison and discussion with what was observed.

When working in a human environment, the achievement of mission and goals of a collaborative arrangement is often only as successful as the participants perceive it to be. Thus, the design was chosen because the researcher must interpret or construct an idea of

what the situation means to the membership who participate in the collaborative arrangement. It is appropriate to use qualitative methods to construct a working hypothesis that illustrates these various understandings, motivations and perceptions of participants who determine the outcome of such a collaborative endeavor. Semi-structured interviews were used to assess what Panel members are experiencing, their perceptions of the Panel, what has been accomplished and why.

The review of archival documentation took place at the offices of the Great Lakes Commission from September through December 2009. Meetings of the Panel occur semi-annually and two meetings were attended in Ann Arbor, Michigan in Fall 2008 and Fall 2009. Panel members listed by the Great Lakes Commission were contacted by email in October 2010 to introduce them to the study and schedule an interview. An outline of the interview protocol and consent form were attached to the email. Follow-up telephone calls were made in late October and early November 2010, to those not responding to the email, to verbally schedule interviews. All interviews were conducted between November 1 through 12, 2010. Of the 35 persons contacted to be interviewed, 29 participated. Two interviews were conducted with former Panel members as specifically suggested by their member organizations. It should be noted that the researcher is a current member of the Panel representing the National Oceanic and Atmospheric Administration (NOAA) until an invasive biologist can be hired to serve in this capacity. Panel membership began in April 2010 after the research had commenced. However, it is speculated that because of the established relationships and level of trust between the researcher and many of those interviewed, the response rate for interviews may have been higher than expected and some interviewees may have been more candid in their responses.

Interview Protocol

The research design included a semi-structured interview protocol in which members of the Panel were interviewed for their perceptions of their involvement, why they participate, Panel accomplishments and challenges. Interviewees were asked a series of nine questions and prompts were used to garner more information as necessary. The interview questions are found in Table 1.

Table 1: Interview Questions

Interview Questions
1. On a scale from 1 to 5, with 1 being little to no involvement to 5 being actively involved, how would you measure the level of your or your organization's/agency's involvement in the Panel? Do you attend Panel meetings? Why or why not?
2. What other programs or processes involving the issue of aquatic invasive species in the Great Lakes that are collaborative in nature, are you or your organization/agency involved in?
3. Using a simple rating of either "more involved" or "less involved," how would you rate your agency's involvement in each of these programs or processes as compared to that of the Panel?
4. What would you say have been the Panel's notable accomplishments?
5. What do you think has enabled these accomplishments to be realized?
6. Over time, what challenges have been encountered by the Panel?
7. Have these challenges been acknowledged by the membership and were attempts made to overcome them? If they have not been overcome, why?
8. What do you think would be happening on this issue in the Great Lakes, from an organizational or institutional perspective, if the Panel had not been established?
9. Now, having the benefit of hindsight, if you were able to start all over again, what would you do differently in either structuring or managing the Panel?

Questions were open-ended with one closed-ended question prompting a response using a five-point Likert-scale. In addition, the protocol allowed for spontaneous questions to further investigate relevant topics in more depth. Two questions obtained data through thought questions provoked by imaginary scenarios. The first was a counterfactual question used to ascertain perspectives on the imaginary scenario of the current institutional situation had the Panel not been created. In other words, what has the panel contributed that otherwise would not have occurred. The last question asked, using hindsight, what would the member do differently in either structuring or managing the Panel to ascertain recommended actions that could theoretically be taken on the challenges observed. This line of questioning provided collaborating data on what Panel members believed has been accomplished through a discussion of what the current regional situation would look like without the Panel and how challenges could theoretically be overcome.

Thesis Outline

The impacts of a highly prescribed collaborative arrangement that prohibits adaptive management and change is the central theme of this thesis. Chapter 1 begins by presenting an introduction to the issue and the research method used to study the phenomenon. Chapter 2 follows with detailed information about the context of the AIS issue, crisis, and institutional response ending with the creation of the Great Lakes Panel on Aquatic Nuisance Species in 1990. Chapter 3 provides background and basic information about the Panel, its membership, management, objectives, structure and activities. Background information on the Panel provides the foundation for Chapter 4 and the analysis of data collected, primarily through semi-structured interviews with Panel membership, and follows the order of interview questions as they were asked. The data collected were disaggregated and

organized into three main categories: motivation for participation, challenges to participation, accomplishments, and challenges. The conclusions and discussion from the research are presented in Chapter 5.

Chapter 2: BACKGROUND

To understand and appreciate the immediate crisis and larger problem of aquatic nuisance species (AIS) spurring the passage of NANPCA and the creation of the Great Lakes Panel on Aquatic Nuisance Species (Panel), it is necessary to understand both the ecological problem and institutional response at the time that influenced the specific prescribed content and passage of the law.

The Ecological Context

The Great Lakes basin is a unique ecosystem formed by the retreat of glaciers more than 8,000 years before present (Francis and Regier 1995). The magnitude of the Great Lakes system can be difficult to appreciate. The lakes hold approximately 5,500 cubic miles of water covering a total surface area of 94,000 square miles with more than 10,000 miles of coastline. They are the largest system of fresh surface water on Earth, containing 18 percent of the world supply of fresh surface water and 90 percent of North America's³ fresh surface water (Government of Canada and United States Environmental Protection Agency 1995). Despite their large size, the Great Lakes are sensitive to the effects of a wide range of stressors including the introduction and spread of AIS.

AIS are, in general, plants, animals and pathogens that inhabit a body of water to which they are not native. More specifically, an accepted definition,⁴ and one used by many organizations including the Great Lakes Panel on Aquatic Nuisances Species, defines them as species not native to the ecosystem under consideration, whereby introduction of the species does or is likely to cause economic or environmental harm or threaten human health.

³ Includes the United States of America, Canada and Mexico

⁴ Definition included in Executive Order 13112 signed by President Clinton on 3 February 1999.

This definition recognizes that only a small number of non-native species are what is termed “invasive” and causing economic or environmental harm. In the United Nations Convention on Biological Diversity, 168 world leaders recognized invasive species as one of the most serious threats to our ecological, social and economic sustainability (United Nations Environment Programme 2010). Once introduced and established in an ecosystem, AIS are extremely difficult to eradicate or even control. Research has found that approximately ten percent of AIS in the Great Lakes cause significant economic and ecological impacts and it is these select species, and the vectors by which they are introduced, that is the focus of research and collaboration (Great Lakes Commission 1990).

The Great Lakes have a long history of AIS introductions, both intentional and unintentional. Some species have had only benign effects, but others have multiplied in their new habitat and often to the detriment of the native ecosystem. As of 2007, and since 1840, more than 180 aquatic invasive species have become established with reproducing populations in the Great Lakes. Forty percent of these have been discovered since the opening of the St. Lawrence Seaway in 1959 (Ricciardi 2006). AIS are introduced to the Great Lakes through several mechanisms or vectors such as intentional introduction, global maritime commerce and ballast water, canals and waterways that link watersheds, live organisms in trade and aquarium releases, and recreational activities. Economic losses in the Great Lakes attributed to the discharge of untreated ballast water alone have been estimated between \$1 billion – 1.5 billion (USD) annually between 1989 and 2005 (O'Neill 2008).

Impacts caused by AIS and of special concern in the Great Lakes include those that affect the stability of the ecosystem, cause economic damage, and pose public health concerns, such as sharp shells washing up on shore and cutting the feet of beachgoers. AIS

cause degradation to beaches and swimming areas due to weed infestations and deposits of sharp mussel shells that present a health hazard. Many species pose a threat to both the commercial and sports fishery by causing detrimental changes to water quality and clarity or the out-right predation of key species. Non-plant AIS compete with native species for food and habit and are altering the complex food webs that support the entire aquatic ecosystem. AIS adds significant costs to shoreline industry and public utilities by clogging water intake and discharge pipes and damaging other submerged structures and equipment. The unique characteristics of many established species, and the fact that many have no natural predators in their new location, have provided them the ability to dominate native populations, displace them, and ultimately threaten the biodiversity of the native ecosystem.

The Crisis and Evolving Institutional Response

Natural resource managers and scientific researchers in the Great Lakes region have been actively addressing the introduction of AIS since the 1950s. At this time, a crisis in the fishery emerged in the form of the invasive sea lamprey. While other invasive species were present in the Great Lakes, none had such a significant negative impact on the fish population. The sea lamprey is an aggressive parasitic lamprey native to the Atlantic coasts of the U.S. and Europe. It is tolerant of a freshwater environment and entered the upper Great Lakes system after the creation of the St. Lawrence Seaway that allows uninterrupted regional and global transportation of cargo between the Atlantic Ocean to as far as Duluth, Minnesota on Lake Superior. As part of the Seaway project, the construction of the Welland Shipping Canal and its system of locks that raise vessels more than 326 feet to bypass the natural barrier of Niagara Falls, created a pathway for invasive introductions that had not previously existed.

The sea lamprey reduced the various stocks of lake trout to virtual extinction in the upper lakes of Huron, Michigan and Superior (International Joint Commission and Great Lakes Fishery Commission 1985). The enormity and regional nature of the crisis, which no U.S. state or Canadian province could address alone, caused the federal governments of the U.S. and Canada to take action by negotiating and ratifying the 1954 Convention on Great Lakes Fisheries. This treaty created the Great Lakes Fishery Commission, a quasi-governmental, binational collaborative organization created to, among other things, formulate and implement a program to control the sea lamprey in the Great Lakes. On the U.S. side, Congress in turn passed the Great Lakes Fishery Act of 1956 to promulgate rules associated with implementation of the Convention and acknowledge the Great Lakes Fishery Commission as the body formally charged with addressing the sea lamprey problem. The Department of the Interior, through the U.S. Fish and Wildlife Service, was given the responsibility to act on behalf of the United States in the exercise of powers granted by the 1954 convention and acts as a contract agency to the Fishery Commission.

In December 1989, the waterworks plant in Monroe, Michigan, which services a population of more than 45,000 residents and commercial and industrial customers, lost its main water supply from Lake Erie for three days due to a massive number of invasive zebra mussels (*Dreissena polymorpha*) completely clogging the city's raw water intake pipeline (LePage 1993). Commercial and industrial water users were asked to shut down and municipal users were asked to conserve water until the flow could be resumed. The overall economic burden to the plant for addressing the zebra mussel problem was extensive and costs were estimated at more than \$300,000 for mussel removal alone between 1989 and 1991 (LePage 1993). The costs incurred were passed on to utility customers through rate

increases.

At the same time, the Detroit Edison coal-fired power plant, also located in Monroe, Michigan, examined its cooling water intake pipes from Lake Erie and found a heavy infestation of zebra mussels at concentrations of approximately 800,000 mussels per square meter prompting action to be taken (Kovalak, Longton, and Smithee 1993).



Underwater scientific equipment deployed in Saginaw Bay, Lake Huron from April to October 2010. Example of the colonization of invasive mussels during the seven-month field season.

Credit: Nathan Hawley, NOAA

The crisis sent shock waves through the Great Lakes municipal and industrial community. Users of fresh Great Lakes surface water had to retool their water-intake systems or apply chemical treatment to prevent zebra mussel infestation related problems (United States Geological Survey 2008). The problems caused by this new invasive species affected the Great Lakes community and average citizen like no other species had previously, because of the potential for it to directly affect their lives and economy, not only in southeast Michigan, but across the entire Great Lakes region due to their rapid rate of spread.

The zebra mussel is arguably one of the most destructive species to invade the Great Lakes. Because of the heavy coverage of the crisis through the news media and growing public notoriety, the zebra mussel quickly became the “poster child” for the issue of AIS, not only in the Great Lakes, but across the country. Zebra mussels, native to the northern shores

of the freshwater Black and Caspian seas in southeast Russia, were first discovered in the Great Lakes region in June 1988 in Lake St. Clair, a connecting channel between lakes Huron and Erie (Hebert, Muncaster, and Mackie 1989). They are believed to have been introduced through the discharge of ballast water from a trans-oceanic freighter in approximately 1985 or 1986, based on the age of some specimens (Hebert, Muncaster, and Mackie 1989). Ballast water is any water and its associated sediment content that a vessel uses to manipulate its trim and stability both at port and while underway. Ballast water is taken on board at one location, along with animals, plants or pathogens found in the water, and then subsequently discharged at a new location. Even vessels fully loaded with cargo and declaring no ballast on board can still harbor invasive organisms in the sediment that accumulates in the bottom of ballast tanks.

Zebra mussels are highly reproductive, each producing between 30 and 40 thousand eggs per year. They are similar in size to the human finger nail and quickly form dense colonies on hard surfaces such as water intake pipes, all types of near-shore infrastructure, the hulls of boats, rocks and even native mussels and crustaceans. The specific issue creating the environmental crisis was the massive colonization and spread of the zebra mussel and the large economic costs associated with their control. While the specific problems caused by the zebra mussel were the crisis that caused action, the substantial issue that needed to be addressed through legislation was the continued introduction of new invasive species from the ballast water discharged from ocean-going vessels as one vector for introduction. Thus, addressing continued introduction of AIS and the discharge of untreated ballast water became the primary problems to be solved both on a national and regionally specific basis.

At the time the zebra mussel was wreaking havoc on freshwater intakes in Lake Erie, there were relatively few organizations paying attention to the overall issue of AIS beyond that of the control of specific species such as the sea lamprey by Great Lakes Fishery Commission. Another organization looking at the larger issue of AIS introductions was the binational International Joint Commission (IJC). It became involved on the issue in the 1970s through its conflict resolution function and mandate of alerting the governments of the U.S. and Canada to emerging issues of concern involving shared bodies of water. The IJC had previously worked on the AIS issue as it related to water diversions between hydrologically separate watersheds and the potential transport of fish, invertebrates and pathogens from one watershed to another and from one country to the other (International Joint Commission 1977). Again, the issue concerned the potential negative impacts to an economically valuable fishery.

By 1988, when the zebra mussel was first discovered in Lake St. Clair, the ballast water discharged from ships was already a suspected source of invasive introductions as evidenced by it being addressed in the 1987 amendments to the Great Lakes Water Quality Agreement between the United States and Canada (Governments of the United States and Canada 1978, amended in 1987). Annex 6 – Review of Pollution from Shipping Sources, also referred to as the “Coast Guard Annex,” specifically calls on both the U.S. and Canadian Coast Guards to conduct a “review of practices and procedures regarding waste water and their deleterious effect on water quality, including, as required, studies to determine if live fish or invertebrates in ballast water discharges into the Great Lakes System constitute a threat to the System; ...” [emphasis added] (Governments of the United States and Canada 1978, amended in 1987).

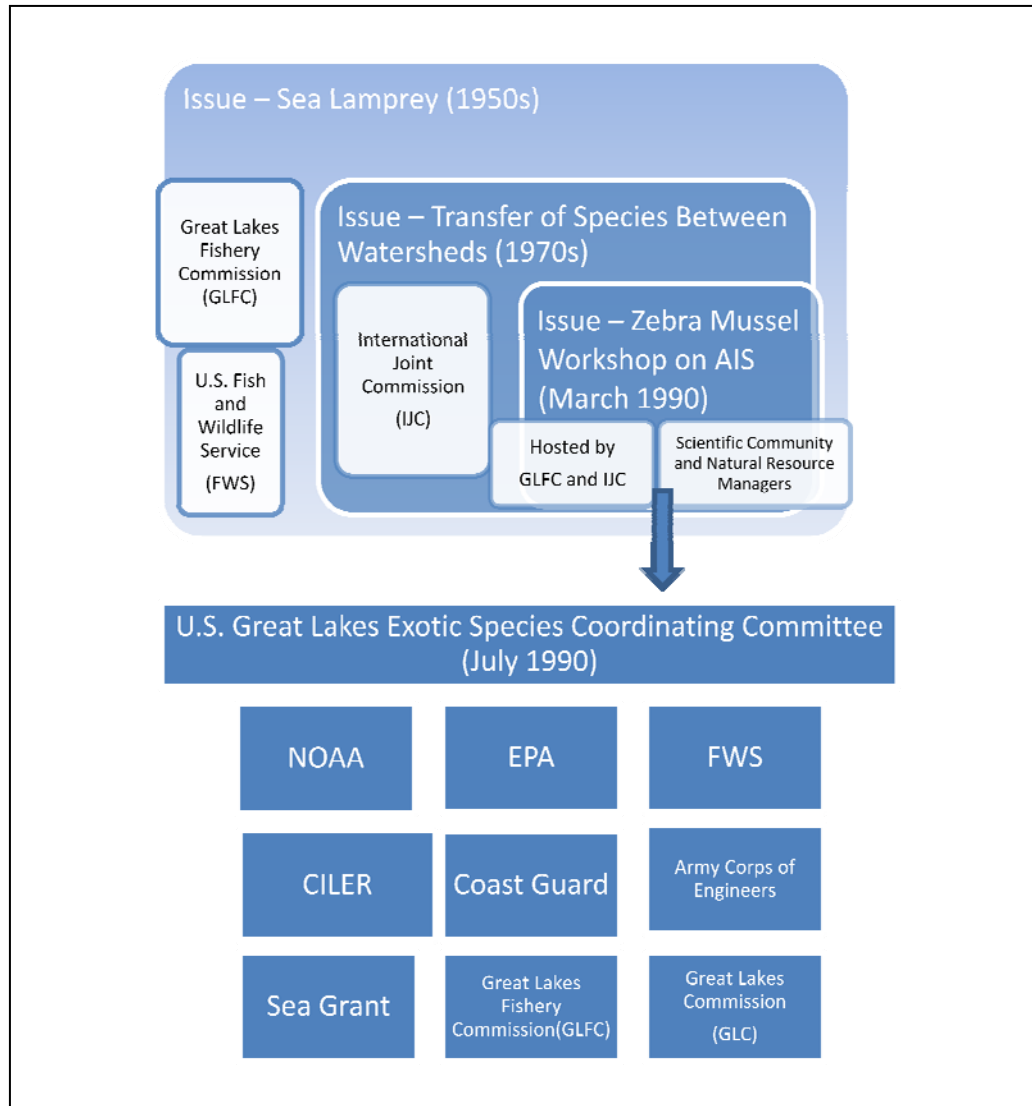
The zebra mussel crisis created a new urgency and the need for government organizations to work together collaboratively to study and address the AIS issue. In March 1990, the Great Lakes Fishery Commission and the International Joint Commission jointly sponsored a workshop on the AIS issue and invited several scientific and natural resource management experts in the field to discuss the problem. It was agreed that “exotic aquatic organisms have the potential to transform water quality, existing plant and animal communities, and human use of the aquatic ecosystem they invade” (International Joint Commission and Great Lakes Fishery Commission 1990).

The effort to collaboratively address the problem in the Great Lakes began in earnest after this workshop. It was begun voluntarily by representatives and experts from different organizations with a mission or research interest in the AIS issue including the National Oceanic and Atmospheric Administration’s Great Lakes Environment Research Lab (NOAA-GLERL), the Fish and Wildlife Service’s National Fisheries Research Center for the Great Lakes (FWS), each of six Great Lakes regional Sea Grant programs, representation from the Cooperative Institute for Limnology and Ecosystem Research (CILER), and the Environmental Protection Agency (EPA). Together they established the U.S. Great Lakes Exotic Species Coordinating Committee at a meeting on 6 June 1990 with expanded representation from the U.S. Army Corps of Engineers (the Corps), U.S. Coast Guard, Great Lakes Fishery Commission and the Great Lakes Commission with expressed need to coordinate with Canadian counterpart agencies (The United States Great Lakes Exotic Species Coordinating Committee July 1990) (see figure 1). By July 1990, a formal guidance document providing specific goals and objectives had been drafted through the leadership provided by the Great Lakes Commission.

The overall goal of the U.S. Great Lakes Exotic Species Coordinating Committee was to have a coordinated research program for the specific purpose of providing the scientific basis for sound policy. Its objective was to specifically facilitate the coordination of research, education and communication, and technology transfer, which included exchanging information on proposed research, and developing communications with state and local governments and private sector industry (The United States Great Lakes Exotic Species Coordinating Committee July 1990). Figure 1 depicts the institutional response to the AIS issue as outlined in this chapter and beginning with the crisis of the sea lamprey, and ending with the voluntary creation of the U.S. Great Lakes Exotic Species Coordinating Committee.

The Great Lakes Commission (GLC) was established in 1955 by the eight states bordering the Great Lakes to represent the region as a political entity to agencies of the federal government and Congress with the ability to advocate and actively lobby Congress on behalf of the region. The catalyst for its creation was the opening of the St. Lawrence Seaway and the economic opportunities it would provide to the region. Though the GLC was created with economic and transportation policy issues at the forefront of its purpose, it was provided a broad mandate to cover a variety of environmental issues as well. It was granted Congressional consent in 1968, which officially created the Great Lakes Basin Compact. The GLC staff serve as secretariat to the commissioners of the Great Lakes Commission.

Figure 1: Depiction of the Institutional Response and Organizational Involvement Prior to the Creation of the Great Lakes Panel on Aquatic Nuisance Species



By July 1990, the crisis of the zebra mussel and larger issue of AIS was also ripe for Congressional action. The immediacy and magnitude of the zebra mussel problem and the structural and economic problems affecting the Monroe, Michigan water treatment plant and the Detroit Edison electric generating station had created panic among municipal and industrial users. Introduced on 27 July 1990, H.R. 5390 was proposed “to prevent and control infestations of the coastal inland waters of the United States by the zebra mussel and

other nonindigenous aquatic nuisance species.” With strong urging from the communities and businesses in his district, H.R. 5390 was introduced by Rep. Dennis Hertel from Michigan’s 14th Congressional District, covering the coastal communities of southeast Michigan from Lake St. Clair, the Detroit River to Lake Erie and adjacent to the city of Monroe. Understanding the value of and need for collaboration and research on the issue in the Great Lakes region, those involved in the newly established U.S. Great Lakes Exotic Species Coordinating Committee, through the leadership and advocacy role of the Great Lakes Commission, immediately began working with Congressional members to incorporate their mission, organization and strategy into the legislation. By incorporating the goals, objectives and structure of the U.S. Great Lakes Exotic Species Coordinating Committee into the legislation, the experts and organizations involved could ensure a formalized role in advising policy and a much needed source of funding for their work and management.

Congress moved quickly and in November 1990 passed the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA). The legislation includes two primary operational subtitles. The first, Subtitle B, specifically focuses on the prevention of unintentional introductions via ballast water exchange. While the 1987 amendments to the Great Lakes Water Quality Agreement had already charged the Coast Guard of both the United States and Canada to study the ballast water issue, this legislation legally charged the U.S. Coast Guard with developing regulations to prevent introductions of AIS by means of ballast water discharge from ocean-going freighters transiting the St. Lawrence Seaway. It also charged the federal departments of Interior and Commerce to develop a demonstration project for new technology to treat ballast water and remove or neutralize biological matter (§ 1104 (b)).

The second, Subtitle C, is the focus of this research. Subtitle C focuses on prevention and control of AIS in general through research, control, and coordination activities and the prescribed creation of collaborative arrangements. Section 1203, in particular, calls for “regional coordination” and the creation of a Great Lakes Panel on Aquatic Nuisance Species to be formed in the particularly hard hit Great Lakes region that provided the original impetus for the legislation.

Chapter 3: THE GREAT LAKES PANEL ON AQUATIC NUISANCE SPECIES

The Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) was passed in response to the growing threat posed by the introduction and spread of aquatic invasive species (AIS) into U.S. waters. A significant factor in shaping NANPCA was the invasion of the zebra mussel and its associated ecological and economic impacts. Through this legislation, Congress recognized that mitigation of the impacts from AIS was dependent upon coordinated research, education, and prevention and control programs on national, regional and state levels that could only be obtained through collaboration among various levels of government and the private sector.

Aquatic Nuisance Species Task Force

Both national and regional collaborative mechanisms were established under Section 1203 of NANPCA. On a national level, Congress first established an Aquatic Nuisance Species Task Force (ANS Task Force) as an intergovernmental organization for the purpose of ANS prevention and control through implementation of NANPCA. As shown in the organizational chart of the ANS Task Force depicted in Figure 2, the Task Force currently consists of 10 federal agency representatives and 12 Ex-officio members and is co-chaired by the Department of Interior's U.S. Fish and Wildlife Service (FWS) and the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). The ANS Task Force coordinates government efforts concerning AIS in the United States. As an advisory board, the ANS Task Force is chartered under the Federal Advisory Committee Act (FACA).

Under NANPCA, the ANS Task Force was directed to officially "request" that the Great Lakes Commission (GLC) "convene a panel of Great Lakes Region representatives

from Federal, State and local agencies and from private environmental and commercial interests...” (§ 1203 (a)). It is this request that officially convened the Great Lakes Panel on Aquatic Nuisance Species (Panel). The legislation also stipulates that the ANS Task Force request that the Great Lakes Fishery Commission (GLFC) provide information to the Panel on technical and policy matters related to the international fishery of the Great Lakes. It also encourages the Panel itself, once convened, to invite representatives from the federal and provincial governments of Canada to participate as observers.

Figure 2: Aquatic Nuisance Species Task Force Structure



(Aquatic Nuisance Species Task Force 2007)

As depicted in Figure 2, the collaborative structure created is a separate but connected two-tiered hierarchical system of the ANS Task Force and Great Lakes Panel with regional representatives from federal and state agencies and from non-governmental environmental and private commercial interests. The two-tiered structure provides a forum for both a national focus and downscaled regionally-focused work that assists the former. It should be noted that since the passage of NANPCA, and because of the success of the Great Lakes Panel, five additional regional panels have been created and are shown in the current

organizational structure of the ANS Task Force in Figure 2.

Panel Roles and Objectives

In addition to delegating management of the Panel to the Great Lakes Commission, NANPCA prescribes six specific objectives, such as the requirement to identify priorities with respect to AIS and roles, such as the function to “coordinate” program activities. Table 2 lists these specific objectives and roles prescribed in the legislation.

Table 2: Role and Objectives of the Panel as prescribed in NANPCA § 1203 (a).

1. Identify priorities for the Great Lakes region with respect to aquatic nuisance species.
2. Make recommendations to the Task Force regarding programs to carry out section 1202(i) of this Act.
3. Assist the Task Force in coordinating Federal aquatic nuisance species program activities in the Great Lakes region.
4. Coordinate, where possible, aquatic nuisance species program activities in the Great Lakes region that are not conducted pursuant this Act.
5. Provide advice to public and private individuals and entities concerning methods of controlling aquatic nuisance species.
6. Submit annually a report to the Task Force describing activities within the Great Lakes region related to aquatic nuisance species prevention, research, and control.

Management

The Great Lakes Panel was convened and is still currently managed, pursuant to the NANPCA, by the Great Lakes Commission (GLC). The GLC is the administrating body for all funding for operation of the Panel and must approve any recommended expenditures. The GLC provides staff support for logistics and organization. Base funding to support Panel

operations is provided by the U.S. Fish and Wildlife Service and pays for staff support and Panel meetings.

In 1990 as NANPCA was making its way through Congress, the GLC framed an initial *Guidance for Operations* document to describe how the Panel was to be convened, its membership structure and operational guidance. The Panel's current *Guidance for Operations* is a 26-page thorough description of the background, history and mission of the Panel and includes principles for governing operation. It includes specific instructions on membership, panel officers, committees, staff support, meetings, member conduct, decision-making procedures, processes for dealing with roll call, introduction of guests, quorum, dispute resolution, public participation, meeting documentation, decision making between in-person meetings, making recommendations to the ANS Task Force, guidelines on advocacy, funding, development of an annual work plan, annual report, processes for amending the *Guidance for Operations*, the use of audio and web conferencing, and a complete definition of terms section. It provides for strict procedure and is updated as required. Its most recent amendments were made in December 2009.

The work of the Panel, as opposed to the fiduciary management and staff support provided by the GLC, is conducted by an official Executive Committee elected by the membership. The Executive Committee was established to provide administrative and executive functions for the Panel and to operate in the same manner as the full Panel in all aspects of decision making and procedures. The Executive Committee also provides final approval for recommended actions of the Panel to be communicated to the ANS Task Force. The Executive Committee is made up of a chair, vice-chair and the chairs of the Panel's three standing committee: Information and Education, Research Coordination, and Policy

Coordination. The chair presides over all operations of the Panel for a period of two years. Among many listed responsibilities, this position is responsible for presiding over and facilitating meetings, serves as Panel liaison to the ANS Task Force, serves as spokesperson for the Panel, and oversees the Panel's decision-making process based on consensus and majority voting. The *Guidance for Operations* spells out the specific responsibilities of each office. Committee chairs are also elected from among the voting membership and serve for two years. The Executive Committee, with input from the GLC staff, develops the meeting agendas for the in-person meetings held twice per year. While the GLC staff has influence over the content, the Executive Committee holds the right of final agenda approval.⁵

In order to accomplish the panel's work, three specific standing committees were created in the areas of Information and Education, Research Coordination, and Policy Coordination. Pursuant to its current guidance document each standing committee is required to establish and abide by a mission statement, including specific goals, objectives and annual work plan that is supported by Panel staff from the GLC and consistent with funding provided. In addition to standing committees, *ad hoc* committees may be established to address specific issues that emerge. There are currently no active *ad hoc* committees.

Membership

The Panel's current membership is detailed in Table 3. The Panel's formation, objectives and management by the Great Lakes Commission (GLC) are prescribed under the law, however, when it comes to membership the law is not specific and only provides broad sectoral categories of those to be included.

⁵ Interviewee # 25

Table 3: Organizational Membership of the Great Lakes Panel on Aquatic Nuisance Species

<p>U.S. Federal Membership U.S. Fish & Wildlife Service U.S. Geological Survey U.S. Environmental Protection Agency U.S. Coast Guard National Park Service U.S. Army Corps of Engineers U.S. Department of Agriculture National Oceanic and Atmospheric Administration Department of State</p>	<p>Private Environmental Groups Great Lakes United Great Lakes Sport Fishing Council</p>
<p>State / Provincial Membership Illinois Indiana Michigan Minnesota Ohio Pennsylvania Wisconsin Ontario Quebec</p>	<p>Local Communities (vacant)</p> <p>Tribal Authorities Great Lakes Indian Fish & Wildlife Commission Chippewa Ottawa Resource Authority</p>
<p>Regional / Binational Membership International Joint Commission (non-voting, official observer) Great Lakes Fishery Commission Council of Great Lakes Governors Great Lakes Commission Canadian Federal Membership: Fisheries and Oceans Canada Transport Canada</p>	<p>Private / Commercial Interests Great Lake Industry: Council of Great Lakes Industries Transportation: Lake Carriers Association Shipping Federation of Canada Water Supply (vacant) Electric Utility (vacant)</p> <p>University / Research Great Lakes Sea Grant Research Great Lakes Sea Grant Extension Cooperative Institute for Limnology and Ecosystems Research</p>
<p><i>Date: December 2010</i></p>	<p>At-Large Membership North Central Regional Aquaculture Center The Nature Conservancy Minnesota Sea Grant Ontario Federation of Anglers and Hunters St. Lawrence Seaway Development Corporation (U.S.) National Wildlife Federation U.S. Forest Service</p>

With a goal of being as inclusive as possible, the *Guidance for Operations* details a list of federal agencies and states that should be invited and categories for additional membership invitations in the areas of Canadian participation, municipal, industry (both maritime and industrial), tribal authorities, environmental groups and others that would incorporate the diverse voices necessary to inform the issue. While many mandated collaborative processes require specific participation, membership on the Panel is voluntary, but conducted through an invitation process. Even if invited, there is no requirement for any invited group to participate. Some sectors identified do not have organizations filling the slot. These are indicated in Table 3 as vacant. For example, there is no current representative from the electric industry.

Structure

The *Guidance for Operations* and strategy developed and endorsed by the GLC in 1990 suggests the employment of a four-tiered structure of membership including regular members, alternate members, at-large members, and interested parties/observers. In the interest of maintaining a functional group size, each agency, organization or identified sector may only designate an official and single individual to represent the organization.

Panel members are those specific representatives whom are appointed by and serve on behalf of their agency or organization specifically named under a category of membership. They serve in perpetuity as determined by their appointing entity. Alternates are specifically designated to serve on the Panel on behalf of the officially designated member and only when that member is unavailable to participate. Alternates are appointed for each representative under the same terms as the Panel member. Alternates do not have voting rights unless they are serving their organization in place of an absent member.

At-large members are added by the Panel membership through a nomination and election process, they hold full voting privileges and may hold an office. The policies of the Panel specify that there will be no more than eight at-large members at one time, each serving a four-year term. The purpose of including at-large members is to ensure representation from certain constituencies or areas of expertise that were not identified in the original list of Panel membership. They contribute to the mission of the Panel by bringing and applying special expertise as needed and based on the changing nature of the issue. At-large membership also ensures balanced representation among all stakeholders involved in AIS prevention and control and to be inclusive of emerging issues as they arise.

An example of the at-large membership is the invitation to a representative from the private aquaculture (fish farm) industry located in the Great Lakes region. This addition was voted on by the membership in recognition that the Panel was moving beyond the issue of ballast water and looking at additional vectors of potential introductions. “What I am bringing to the table is my affiliation with, in particular, the private aquaculture sector. ... I believe we need to have an active voice...” said Dr. Ted Batterson, representative from this sector and member-at-large. But there are also identified concerns with this system. For example, the U.S.D.A. Forest Service sits as an identified federal member on other regional panels and has an equal interest in being a member of the Great Lakes Panel. However, the *Guidance for Operations* does not have a membership slot for this specific federal agency. “In our agency, we had to go through this side route to get on to the Panel, rather than just being offered a seat at the table like we have at several other ANS panels throughout the nation,” according to the Forest Service. The Forest Service is currently a member-at-large, which is a four-year term position.

A tier of Interested Parties/Observers was created for those who wish to participate, but either the sector they would represent is adequately represented or the organization's role in the issue is comparatively limited. The Panel's official *Guidance for Operations* document defines this tier as individuals, agencies or organizations not formally affiliated with the Great Lakes Panel, but who have expressed interest in participating in Panel meetings or other Panel functions or initiatives. While all panel meetings are publically advertised and open to the public, those particularly interested in the work of the Panel can officially request the "observer" designation and receive notices of meetings and other official communications.

While NANPCA contains numerous timelines specific to the development of guidelines and regulations concerning ballast water and other programs, no such timelines are specified for the work of regional collaboration and the Panel. There are no deadlines considered or imposed regarding work to be done.

Decision Making

According to the *Guidance for Operations*, as a guiding principle the Panel strives for consensus in the decision-making process. Within this document, consensus for decision making is defined as "general agreement of the group with a high degree of group solidarity. Consensus does not assume absolute unanimity." This process of consensus is especially true regarding position statements and recommendations transmitted to the ANS Task Force. However, Panel procedure reflects that minority and dissenting opinions will be documented whenever there is not consensus on a decision or recommendation. All meeting summaries are made publically available on-line and are submitted to the ANS Task Force. Individual members also have the ability to recuse themselves from participating or signing on to an

official document if they believe the action is not compatible with their agency's role on the Panel.

The Panel guidance also specifies procedures for dispute resolution. When consensus is not found and a decision is not unanimous, or when concern is expressed by an individual representative over a decision reached, the chair of the Panel may extend discussion in order to try to reach consensus. The chair is directed to ascertain if all individuals, even if they do not agree, can "live with the decision" and if not, additional discussion and consensus will be sought. The chair has the option to call for a vote to either determine the level of consensus or make the final decision.

Chapter 4: CASE ANALYSIS

The purpose of this study is to understand the consequences of a legislated collaborative, highly prescribed process. This analysis disaggregates and examines the issues and themes that emerged from the data obtained through semi-structured interviews with 29 current and former members of the Panel. Interviewees were asked nine questions and the analysis of each will be covered in three overarching areas: motivation for involvement, accomplishments and challenges.

Motivation for Involvement

To explore member involvement in the Panel, interviewees were first asked three interrelated questions to assess their involvement on the Panel and to ascertain why they either attended or did not attend meetings. Second, and to gain perspective on how involved members are with the issue, the larger regional community working on the issue, and other priorities taking their time and resources, interviewees were asked what other collaborative arrangements addressing the AIS issue they were also involved in and how they rated their involvement in the other processes as compared to that of the Panel. This section analyzes the data from each question in order to discern trends in involvement with the Panel and greater AIS work.

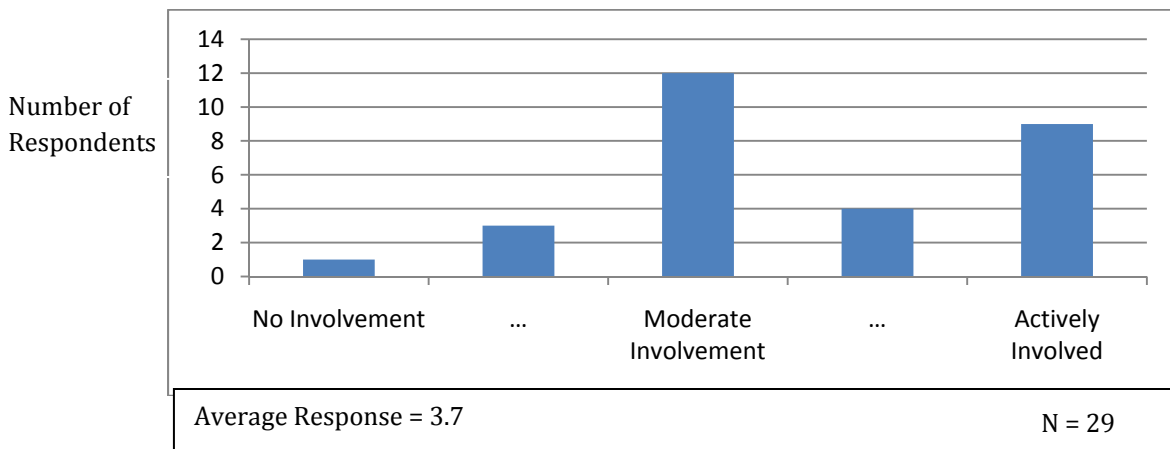
Interview Question 1:

On a scale from 1 to 5, with 1 being little to no involvement to 5 being actively involved, how would you measure the level of you or your organization's/agency's involvement in the Panel? Do you attend Panel meetings? Why or why not?

Involvement

Figure 3 shows how those interviewed self-reported their involvement in the Panel. Each was asked to provide a measure of their involvement on a scale from 1 to 5, with 1 being little to no involvement to 5 being actively involved. Overall, the average self-reported ranking was 3.7 on this 5-point scale. It was found that this self evaluation was highly subjective and determined by a number of factors that varied among individuals. One such factor was “guilt” or the self comparison of activity compared to what they thought they should be doing for the Panel. For example, one member who attends every meeting and actively participates in committee work ranked their involvement as a “4” because they felt they were not doing as much as they should be. Another member ranked their participation as a “5”, even though they do not attend meetings, but do send alternate staff to attend and actively stay abreast of Panel activities and discussion.

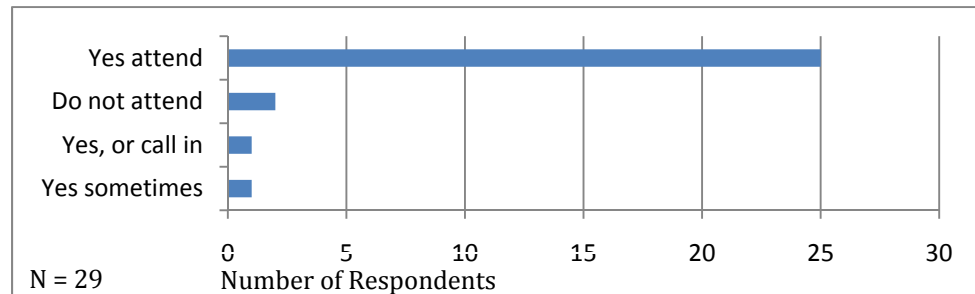
Figure 3: Level of Involvement



Another factor involved perception of involvement relative to other committees. In this case, one member who has attended every meeting in person since being named to the Panel, but is relatively new and does not have much activity outside of regular attendance

twice per year, rated their involvement at “2.” Based on this information, it was found that on an individual basis the rankings are not a reliable measure of what involvement actually entails or specifically means, but as a group average, it does provide additional data adding to the importance and value felt by members regarding Panel involvement.

Figure 4: Attendance at Panel Meetings



Meeting Attendance

Panel members were also asked if they attend Panel meetings. The importance of in-person meeting attendance emerged as a strong theme throughout the study. Overall, 93 percent of those interviewed indicated that they attend meetings or support the need for in-person attendance. Attendance was listed as a key factor in four ways: first, it was given as a reason why members; second, attendance at meetings was listed as an accomplishment of the Panel in its own right; third, it was also listed as a factor that enabled other accomplishments to be realized; and fourth, it was described as a challenge faced by the Panel due to limited funds for travel and other conflicts. Figure 4 details the self-reported in-person attendance at Panel meetings that occur twice per year. Only two interviewees indicated that they chose not to attend meetings. Reasons for non-attendance by these two interviewees include that either the topic was not a priority for their constituency or that the meetings themselves were of lower priority or less relevant than other work they were doing.

Impediments to Attendance

Of the 27 interviewees that actively support attendance at meetings, there were those that, despite their support for the work of the Panel, were unable to attend some meetings. The two most reported reasons involve limited funding for travel or conflicts with other meetings and/or work load.

Lack of funding to support travel to meetings was raised as a significant issue by 41 percent of those interviewed and that which affects active participation at meetings. This lack of funding was especially difficult among those that attend as individuals, those from non-profit organizations, and state representatives that are under constrained budgets where out of state travel is difficult to get approved. An expressed challenge discussed later in this chapter is that the Panel does not have the financial resources to support member travel unlike other regional Panels formed subsequent to the Great Lakes Panel. One active state representative may have to stop in-person participation because funding for travel is no longer available.

The second limit to participation raised is the number of other meetings and activities requiring participation in the Great Lakes region, not only on the AIS issue, but many others. This scheduling problem was cited as a reason by 48 percent of respondents. The larger organizational field of collaborative groups and supporting meetings creates conflicts which affect member participation, and is addressed more fully later under the section on challenges. Five interviewees who fully support in-person attendance indicated that they often have conflicts, but also have the organizational ability to send alternate staff to represent their organizations at meetings. These agencies have the ability to look at the meeting agendas in advance and send the staff person, based on expertise, most able to express their agency's position or current activities. An example is observed with the U.S.

Army Corps of Engineers. The issue of Asian carp has become the newest AIS crisis in the Great Lakes and is being discussed at Panel meetings. The Army Corps of Engineers office addressing the Asian carp is not the same office or person who serves as the official Corps' representative to the Panel. Having this forum to share and provide an update on their work and activity is of value and a specific incentive for the Corps' participation. Sending the most appropriate expert from their workforce to participate and share that work is the most efficient way to participate. This staffing option is not available to all participants however, as some organizations have only one person working on an issue. As one interviewee commented, "...at some point it becomes counter productive because you can't make all the meetings. Or it gives an unfair advantage to those organizations that have huge staffs and scales of economy."⁶ When these members have a conflict, they miss the meeting because they have no one else to send, and thus, they miss the sharing of information, the networking with others, and participating as a voice at the table.

Understanding these concerns, discussion took place during the December 2009 meeting on a proposed remote participation amendment to the Panel *Guidance for Operations*. There was initial concern from those in attendance and considerable debate that if members were allowed to participate by phone, they would have no incentive to participate in person.⁷ Modifications to the proposal were voted on and the option for members to participate via connection through conference call was approved.⁸ One interviewee mentioned using this phone option on occasion and found it a poor substitute for attending meetings in person; this individual makes every effort to travel and attend the meetings.

⁶ Interviewee #10

⁷ Personal observation from the December 10-11, 2009 meeting of the Panel.

⁸ Minutes from the December 10-11, 2009 meeting of the Panel.

Incentives for Participation, Why Members Attend

A challenge for the Panel is the ability to encourage voluntary attendance at meetings and to make participation meaningful even though power and authority are limited by its role as an advisory board to the ANS Task Force. As one member said, “Making the Panel activities relevant for our members is a big challenge.”⁹ The data show that both involvement and attendance are high, begging the question, why do members attend meetings?

Figure 5: Reasons Why Participants Attend Meetings

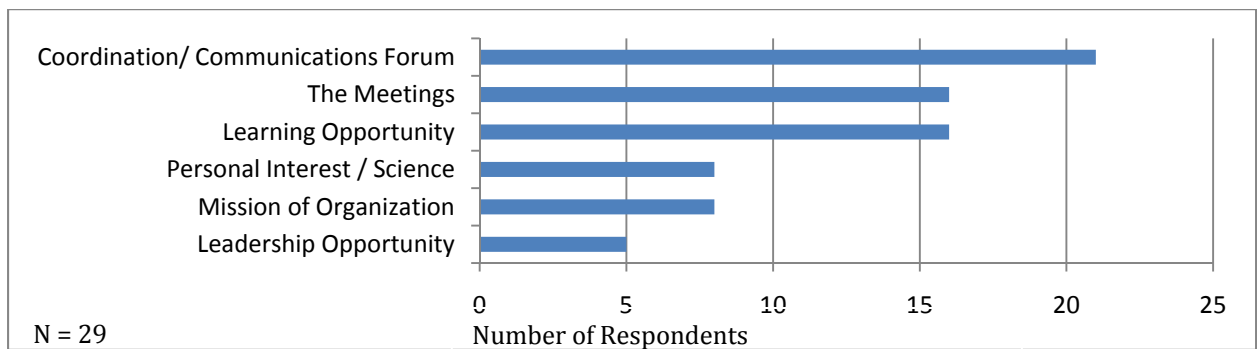


Figure 5 details the reasons given for why members attend Panel meetings. The reasons provided were varied but directly related to the role that each member feels the Panel plays and that is most beneficial to them personally or to their work organization. Twenty-one interviewees cited the Panel as an important forum for coordination and communication among members and organizations. Most felt, in general, they get something valuable from the forum created by Panel meetings that they do not get anywhere else. Those that attend find that the Panel provides the opportunity to share what their organization is involved in, learn what others are doing, learn more about different aspects of the AIS issue from the experts at the table, and the ability to engage in dialogue about the issues that affect each member. The meetings are the value and the incentive to participate. They are the expressed

⁹ Interviewee #13

“forum” for communication, discussion, education, and coordination. As one member said, “It is mostly a communications forum, so I can communicate with the other Great Lakes states and Canada, better understand the positions and issues of other states, and bring [my agency’s] position to the table.”¹⁰

The second most cited reason why members attend, given by 16 interviewees, was the meetings itself. While citing meetings as important is related to the communications and coordination forum that the Panel provides, it also related specifically to in-person meeting attendance and the networking that occurs among the diverse members. This incentive was validated by data obtained from perceptions of attendance, level of involvement and what would happen if the Panel did not exist. As one member expressed it, “You really can’t get things done unless you are face to face. ... The face-to-face meetings are very helpful to really gain trust and to understand where all the different parties are coming from.”¹¹ And another said, “... if you are going to be on the Panel than you really need to attend. That is how you stay informed and engaged.”¹² Being able to provide an update to the most engaged experts in the field was of great personal and professional benefit.

Sixteen interviewees referenced that attending meetings is the only way to really learn what all the other parties are doing and many cited that they learn what others are doing and then are able to implement these new ideas in their own jurisdiction. Because the issue is a significant concern in the Great Lakes region and involving the scientific community, eight interviewees provided personal reasons why they attend; most were researchers or those interested in keeping abreast of current science and use the Panel, and specifically its

¹⁰ Interviewee #6

¹¹ Interviewee #32

¹² Interviewee #12

subcommittee on Research Coordination, as a venue to discuss research coordination and findings. In contrast to those that attend because of personal interest in the issue, eight also cited attending because of the strong mission-related obligation of their organization. This mission-related obligation was especially true for federal agencies that have promulgated roles under Subtitle B of NANPCA and hold a seat on the ANS Task Force. But other organizations, such as non-governmental organizations that work on the AIS issue as a specific area of interest, also attend and cited their mission on the issue as a reason. Finally, five cited the professional opportunity to provide leadership on the issue as an incentive to attend meetings and be actively involved on the issue.

While many positive reasons were reported for why members attend meetings, there was an undercurrent of frustration expressed by 31 percent of those interviewed that want the Panel to do more than serve as a forum for communication and coordination, but to play a more influential role, especially in state and national policy. Some of those interviewed do not believe the Panel can or should engage in overt policy related activities based on the prescribed mandate in NANPCA and the ANS Task Force charter. Others want and are actively working to find a way to play a more active policy role based on their own interpretation. This difference of opinion regarding the Panel's role is a result of how individual members interpret the role as prescribed in the legislation, and based on this, what types of activity each member is comfortable engaging. Examples of this frustration about communication and coordination versus taking more direct action on the AIS issue, was expressed by many interviewees. For example, one commented, "Right now I see it as a built-in meeting and forum to find out what is going on with other agencies and not

necessarily more than that.”¹³ Another commented, “How do you make the Panel do more than just talk and then go home and then get back together in six months ... How do you give it some effectiveness?”¹⁴ And yet, another commented, “The end point seems to be talking about it as opposed to doing something about it.”¹⁵

The Panel is seen by most as a forum for communication and networking and it is through this mechanism that trust is built among individual members. While some praised the trust that has developed between members, there are active disputes among sectors of the Great Lakes community, especially with respect to the ballast water issue, which has been an active topic of the Panel for a number of years. Trust for some appears to have decreased over time, particularly with respect to keeping the shipping industry at the table. Five interviewees expressed concern about the decreased involvement of industry. For example, one stated, “I do understand that ...Panel advocacy and industry participation may be mutually exclusive. And the fact that industry has less participation than they have in the past by an order of magnitude might be a reflection of how the industry perceives where the Panel has gone.”¹⁶ Another observed, “I think that some members had taken an unbending, unwavering environmental stance, or hard line stance, that did not recognize the multiple interests that people have in the Great Lakes for maritime commerce, recreational use, landowner rights, and all these other things that come into play.”¹⁷ Interviews with those representing industry, especially the shipping industry, confirmed these observations. While they initially saw the meetings as an opportunity to have open dialogue and discussion of scientific information on issues involving AIS, they feel that the Panel has become more

¹³ Interviewee #28

¹⁴ Interviewee #33

¹⁵ Interviewee #7

¹⁶ Interviewee #7

¹⁷ Interviewee #3

focused on affecting policy, especially on the issue of ballast water, and they no longer see value in their participation.

Challenge to Involvement

As was noted under why members sometimes cannot attend meetings was the issue of competing demands. Competing demands on time and resources was addressed through interview questions 2 and 3. In addition to questions about their participation on the Great Lakes Panel, those interviewed were asked about their participation and level of involvement on other collaborative arrangements specific to AIS in the Great Lakes. The questions were asked to get a sense of the larger collaborative field as it exists in the region, and for Panel members on an individual basis. This involvement in multiple collaborative arrangements can affect competition for resources, both time and money. Participants were also asked to assign a simple rating of “more” or “less” involved in comparing their involvement in other collaborative processes as compared to their involvement on the Panel. The level of involvement provides a basic level of comparison on where the Panel stands as a priority for involvement. During development of the interview protocol it was assumed that the question of involvement in other programs and level of involvement would be straightforward, yielding a list of groups and binary data on involvement. But, participants found the question much more difficult and the collaborative field of involvement and the reasons for participation as complex as the issue of AIS itself.

Interview Question 2:

What other programs or processes involving the issue of aquatic invasive species in the Great Lakes, that are collaborative in nature, are you or your organization/agency involved in?

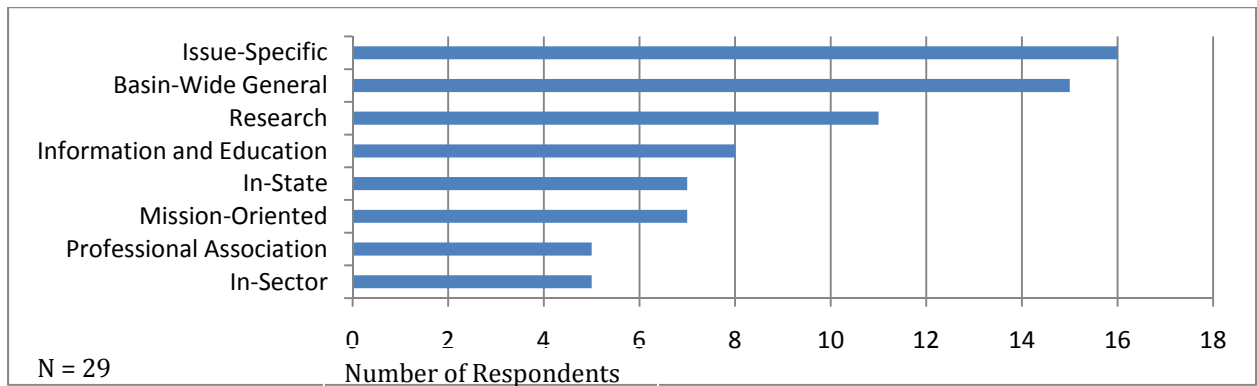
Those interviewed were asked to provide a verbal list of additional collaborative

arrangements for which they are involved and dealing with some aspect of the AIS problem. For the purposes of this research, Figure 6 provides self-reported responses grouped by type of collaboration cited.

The challenge of scheduling, conflicts due to other meetings, and the large number of obligations was noted by almost half of those interviewed as one reason that members were not able to attend meetings. The value of the Panel has been found to be based on attendance of a diversity of members at semi-annual meetings. This challenge is one that affects active participation at meetings and by extension, the future relevancy of the Panel. As more and more time is obligated to various forms of collaborative involvement, especially those that are species-specific or action-oriented, the priority given to participation on the Panel can decrease. Members are busy. Of the Panel members interviewed, the average number of AIS-related collaborations on which members participated was 4.6. And, this number does not reveal the true nature of collaborative involvement. Most could list only those that came to mind and acknowledged they might be forgetting others. Two interviewees, both of whom had spent time prior to the interview compiling a list of their current collaborative involvement, respectively named 13 and 18 multi-agency or organizational collaborations on which they were involved and addressing some aspect of AIS. For some, AIS was not the only Great Lakes issue for which they were involved, affecting the increasing number of collaborative arrangements requiring work and attention and increasing the frequency of scheduling conflicts and travel. As expressed by one participant, “I was amazed even within my own program and across the different disciplines, from environmental quality issues and education, shoreline programs to land use issues, even things getting into global climate

change and how integrated and collaborative the issues are.”¹⁸

Figure 6: Participation in Additional Collaborative Arrangements



Data on participation in other collaborative arrangements is disaggregated and grouped into specific types as shown in Figure 6. Instead of listing all the collaborative arrangements mentioned during interviews, data on collaborative arrangement participation is grouped by the nature of the collaborative process to provide perspective on the range of activity, who it is with and why it occurs. In-sector, for example, could be collaboration among various NGO groups on the issue. Many others were involved in collaborations of their professional association; the most common mentioned being the American Fisheries Society and their work on AIS. Others were specific to the development of educational campaigns. Some were driven by the mission of the agency, such as work on the Chicago waterway system by the Army Corps of Engineers. Some states have developed their own state-focused collaborative arrangements that include industry, government, NGOs, and researchers to specifically advise state government on AIS policy. Because many of the Panel members are actively involved in AIS research, their field of collaboration included the various formalized collaborative research projects among federal, state, academia and NGO researchers. Some of the collaborative groups were those addressing broad issues of

¹⁸ Interviewee #34

Great Lakes governance and within that addressing AIS. Some were species-specific such as sea lamprey or Asian carp, or vectors such as ballast water and involvement in the new Ballast Water Collaborative. The Ballast Water Collaborate was begun in 2009 as a voluntary collaborative arrangement initiated by the U.S. Saint Lawrence Seaway Development Corporation, in conjunction with the IJC, and emphasizes collaboration between state representatives, marine industry representatives, and researchers to find workable solutions to the AIS issue as it relates to the St. Lawrence Seaway.¹⁹ While many of the collaborations listed were more or less formal and may not necessarily meet the definition of formal collaboration, they were arrangements that required in-person meetings and work with specific outcomes.

Within all collaboration and scheduling conflicts, it was also noted that several agencies with larger staffs and more involved agency missions with respect to the issue had a “deep bench,” so to speak, and were able to send someone, even if not the principal member, to attend Panel meetings and every other collaboration requiring their participation. Attendance was found to be important in all cases and they were always able to send someone to represent them at the table. The situation was not the same for the non-profits or state agencies with perhaps only one staff person working on the AIS issue. Conflicts to them meant not being able to attend and the priorities involving work load or mission critical activities were of much more importance and did affect participation and attendance at Panel meetings.

¹⁹ From http://www.greatlakes-seaway.com/en/environment/ballast_collaborative.html. Official web site for the Great Lakes Ballast Water Collaborative.

Interview Question 3:

Using a simple rating of either “more involved” or “less involved,” how would you rate your agency’s involvement in each of these programs or processes listed as compared to that of the panel?

Gauging level of involvement was also a difficult question. The binary answer of either “more” or “less” involved expected during the construction of the question did not follow and the data collected revealed the complexity of what the term “involvement” means in practice. Question 3 referred to how involved each respondent was with each of the collaborative arrangements they mentioned in question 2. But, most were not able to answer the question directly. Most answers were a discussion of how the respondent operationalized the meaning of involvement within their field of activity. It provided great insight to the issue and how each respondent felt about their participation on the Panel and within the larger network of collaboration on AIS. As one interviewee commented, “There are really different types of involvement that cannot be compared on such a scale. There is need for the value that Panel brings to the effort and it is important to attend meetings. But actual involvement in action-oriented projects is another thing altogether... I am not sure you can say that there was significant difference; it depends on how you scope it out.”²⁰ Another difficulty expressed was that many collaborative arrangements listed were short-term projects that would come and go, change depending on funding or urgency, or have intense periods of work followed by breaks in action. In addition, the person’s role on the Panel would change, thus affecting their level of involvement. As one respondent commented, “I stepped down as [a committee chair], so ... my commitments to the panel have dropped way down.”²¹ The list of collaborative arrangements and the level of activity described was found to be only as

²⁰ Interviewee #33

²¹ Interviewee #35

current as the day it was provided. It was not to say that the Panel is not important. But as one interviewee expressed, “The Panel is more a check- in than direct implementation or policy development.”²²

For many, working on the AIS issue in the Great Lakes and nationally is their full-time job. They are involved in many groups and specific projects. Those in this category felt that it is such a complex field of work that they could not tease out all the work they do. It is about their career involvement and the Panel is part of that. They also could not give a comparison of involvement as it is all part of their job and working on the issue makes all projects equal. These are the experts in the field and they do everything depending on time. They do find value in attending Panel meetings and having the ability to meet up regularly with the other experts in the field face-to-face. Also, there is relatively little work involved between Panel meetings. They found the meetings much more helpful than having to build a relationship over the phone. “That is a difficult one to tease out of all this because of my long history with the Panel, I would have to say that it is equal. I don’t know how I would separate out one from the other in terms of level of involvement.”²³ Another commented, “I am highly involved in all of them. That is what I am supposed to be doing.”²⁴

Others took a very agency mission oriented position about AIS and recounted a higher level of involvement with those projects that were closer to their agency or organizational mission as compared to those having or requiring more involvement. One interviewee commented, “I spend a lot more of my time on the types of issues that are more pertinent in the state than maybe what the Great Lakes Panel is focusing on. We are more involved in those programs and processes because they are mission areas that we are funded

²² Interviewee #31

²³ Interviewee #34

²⁴ Interviewee #8

to do. The Panel is something that we find time to do on the side, but we have no direct charge to be involved. But we have an interest and find it a value.”²⁵ In addition, most if not all the states have either formal or informal state panels, committees or groups that come together to discuss the AIS issue from a state perspective among state agencies and organizations. “I am not saying that the Panel doesn’t focus on some important things, but each state has its own burning issues,”²⁶ added one member.

Involvement was also species-based and those issues that were considered the current crisis, or “hot,” with money flowing in and action demanded, receiving the most involvement. New species needing immediate action have a higher priority and thus triggering more involvement. Several participants mentioned their new work on collaborative arrangements addressing the more recent issue of Asian carp. “Our involvement is pretty much the same with all the activities we are involved in. However, the new issues and groups involved in the Asian carp, those we are much more involved in. I try to maintain an active participation in the Panel and all of the other activities. We have seen other members that show up for a while and then they have other things come up and they can’t participate anymore. I try to do it all. Level of involvement depends on the project and the day-by-day involvement that each requires.”²⁷

Time spent seemed to be a factor in the interviewee’s perception of involvement. Because the Panel only meets twice a year and has relatively little time commitment outside of meetings, it received a lower involvement score than projects involved in that demanded more time and work between meetings. But again, most noted the importance of the Panel and their continued involvement. Involvement in any one collaborative arrangement as

²⁵ Interviewee #24

²⁶ Interviewee #32

²⁷ Interviewee #13

described by those interviewed ebbed and flowed with the work and the timeline demanded by the arrangement. Involvement followed money and action and every case was different. Many of the collaborative arrangements in the basin are intense, such as the various projects involving the Asian carp found in the Chicago Sanitary and Ship Canal, but are often relatively short-term projects and usually issue- or species-specific. Involvement comes and goes with the project and funding.

Accomplishments

Another important factor that relates to the role of the Panel is what the membership perceives to be its accomplishments. Accomplishments are related to the objectives of the organization and what work they have done toward the objectives under which they were specifically established. Two questions were asked regarding the perceived accomplishments of the Panel and the factors the interviewee felt enabled those accomplishments to be realized.

Interview Question 4:
What would you say have been the Panel's notable accomplishments?

These questions were the most difficult to answer for those interviewed. This difficulty came from two sources. The first was the difficulty those interviewed felt in trying to reconcile on the one hand, the positive personal involvement they have with the Panel, and on the other hand, the trouble they had ascertaining or recognizing any accomplishments. The second is related to how interviewees defined “accomplishments” and if they thought any of the work of the Panel met that definition. Twelve members, or 41 percent of those interviewed, could not initially list any accomplishments. Several interviewees specifically discussed their definition of accomplishments. Accomplishments were defined as something

tangible, having a measurable or specific desired outcome, or showing a causal effect between Panel action and a specific outcome. The work of the Panel did not fit their definition of accomplishment. While all those interviewed eventually came up with at least one item, some interviewees explicitly made the distinction between products produced, such as the publication of an educational brochure or consensus recommendation, and services provided such as attributes, benefits or effects the Panel has had on individual members.

Figure 7: Panel Accomplishments

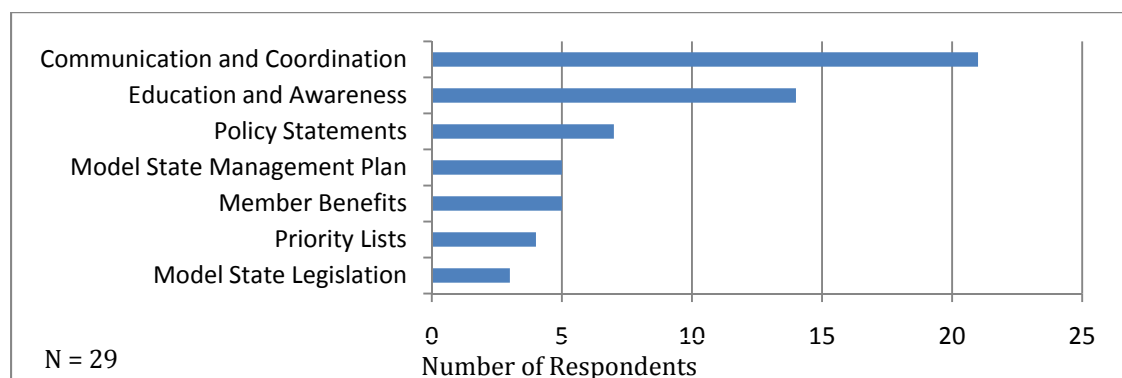


Figure 7 lists the accomplishments cited by those interviewed. Some interviewees cited more than one accomplishment. Twenty-one interviewees listed the Panel’s role as an excellent forum for communication and coordination among parties and jurisdictions as a primary accomplishment of the Panel. One interviewee commented, “I think that Panel has had a legitimate role in enabling communication and to some extent collaboration where people met and discovered they are dealing with the same topic or problem and are going in the same direction. ... But in terms of actual influence on the problem of invasive species, I don’t think that the Panel has been tremendously effective.”²⁸ In addition to being a forum for communication, some interviewed mentioned the forum provided by the meetings and the communication it provided between parties as instrumental for coordination of activities

²⁸ Interviewee #33

among members on activities engaged in outside of the Panel. For example, a few members commented that the Great Lakes Regional Collaboration AIS work in 2005 went as smoothly as it did, despite the fact that it was all done by phone, because of the Panel and the relationships built through that forum and that all the experts on the phone from across the basin knew each other and had good respectful working relationships. They understood other positions on the issue. Members credit the forum of the Panel and the relationships created for encouraging this type of hot-bed of activity, which otherwise would be difficult, if not impossible, to develop.²⁹ An additional accomplishment provided during the interviews was ballast water research being conducted as a joint effort between the National Park Service and a member of the Lake Carriers Association.³⁰

Fourteen listed the development of information and outreach products as a key to success in building awareness of the issue not only in the region, but in Congress. Species such as the zebra mussel and sea lamprey received media headlines for short periods of time, but many interviewed gave credit to the ongoing efforts and the publications provided by the Panel's subcommittee on Information and Education as important to keeping awareness focused on the issue and keeping active the dialogue within the larger community. As one interviewee commented, "The Great Lakes Panel can be looked to in terms of its leadership role and helping to promote awareness on aquatic invasive species. A couple of key publications have been the Biological Invasions as well as the Great Lakes Invaders booklet. It has had its impacts on management as well as policy."³¹

²⁹ Personal observation of discussion at the 10 December 2009 meeting of the Panel.

³⁰ Interviewee #33 and #10

³¹ Interviewee #34

One prescribed objective of the Panel is to identify priorities for the Great Lakes region with respect to AIS. Five interviewees specifically mentioned the development of priority lists for research, educational materials and for policy needs as important products of the Panel that help decision making in their home organizations. An example provided by one interviewee reiterated a story involving the NOAA Sea Grant programs. The Information and Education Subcommittee had developed a priority list of needs for AIS information and education. NOAA Sea Grant values this type of work and as such tends to fund those types of projects listed as opposed to others.³² Other cited products of the Panel were the statements on AIS policy and the model state management plan. State AIS management plans are required to be developed by all states under NANPCA. The final product listed as an accomplishment was model state legislation on ballast water developed to promote consistency among the states pursuing their own legislation to control the discharge of ballast water in their own jurisdictions.

The concept of accomplishments expressed as benefits to members was listed by five interviewees. “The effects are on a personal level with the interaction between individuals on the Panel,”³³ said one interviewee. And, a specific example provided by one state representative was, “There is a view that when Doug Keller [from Indiana] finishes his project on risk assessment, that others will be able to just pick it up and apply it in their state. I think that these meetings have facilitated informal communication that is critical and would not necessarily happen if we were not meeting twice a year.”³⁴

³² Interviewee #34

³³ Interviewee #3

³⁴ Interviewee #19

Table 4: Prescribed Panel Objectives and Corresponding Accomplishments

Panel Objective	Interviewee Cited Panel Accomplishment	Source
<i>Objective A:</i> Identify priorities for the Great Lakes region with respect to aquatic nuisance species	Development of priority lists for research, educational materials and policy needs	Interviews
<i>Objective B:</i> Make recommendations to the Task Force regarding programs to carry out section 1202(i) of this Act	Publication of position statements and recommendations to the ANS Task Force	Interviews
<i>Objective C:</i> Assist the Task Force in coordinating Federal aquatic nuisance species program activities in the Great Lakes region	Development of a model and workshops to inform the development of State Management Plans by each state pursuant to federal law	Interviews
<i>Objective D:</i> Coordinate, where possible, aquatic nuisance species program activities in the Great Lakes region that are not conducted pursuant this Act	Provision of a forum for communication and coordination among organizations and jurisdictions in the Great Lakes region	Interviews
<i>Objective E:</i> Provide advice to public and private individuals and entities concerning methods of controlling aquatic nuisance species	Development of model state legislation addressing ballast water discharge in state waters. Development of model rapid response plan	Interviews
<i>Objective F:</i> Submit annually a report to the Task Force describing activities within the Great Lakes region related to aquatic nuisance species prevention, research, control	Annual reports completed and submitted. (<i>Not cited by interviewees, but accomplished and documented.</i>)	Documentation

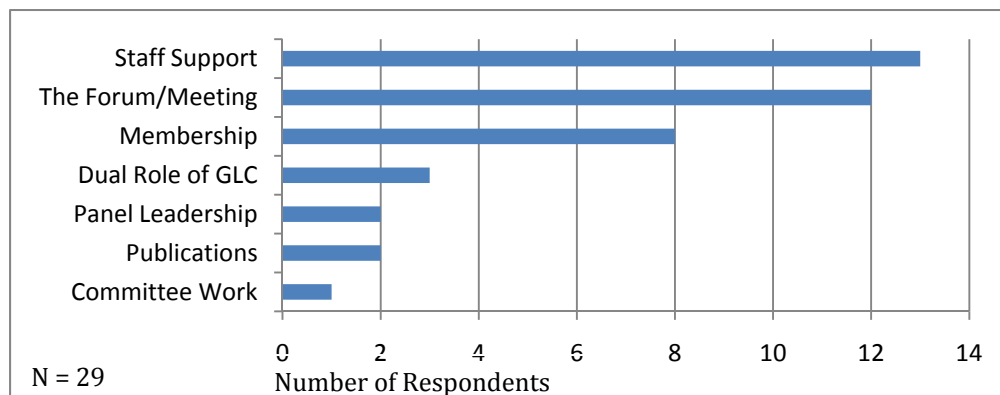
While no interviewee related the discussion or listing of accomplishments of the Panel to the specific and prescribed objectives of the Panel under NANPCA as described in Chapter 3, upon further analysis, the accomplishments cited by those interviewed match the stated NANPCA objectives. Table 4 lists each of the six objectives of the Panel prescribed under NANPCA and the cited accomplishments by interviewees or reviewed documentation, such as the submission of annual reports.

In addition to asking interviewees about Panel accomplishments, a follow-up question was posed asking what each interviewee thought were the factors that enabled the accomplishments they listed to be realized.

Interview Question 5:
What do you think has enabled these accomplishments to be realized?

Figure 8 lists the seven primary factors cited by interviewees as enabling accomplishments of the Panel. The staff support provided by the GLC was recognized by almost half of interview participants, and the primary factor listed as enabling accomplishments of the panel. It was suggested that that the meetings themselves would not happen, or be as productive, if it were not directly for the staff support in terms of planning meetings, distributing information and agendas, and keeping the work of the Panel moving forward between meetings. As one interviewee expressed it, “The staff has been key. Without a secretariat, nothing would get done. The members are busy people and without staff there prodding the process and work along, nothing would get done. Secretariats can do work, the Panel really can’t. The Commission has the staff and means available to do the follow through. That is important.”³⁵

Figure 8: Factors Enabling Accomplishments



The theme of the Panel providing a forum for communication and coordination provided by robust and well attended face-to-face meetings, was also cited as contributing to the success of the Panel. More than 40 percent of participants listed the meetings, quality of the people and diversity of the membership as the related major factors that enable

³⁵ Interviewee #37

accomplishments of the Panel to be realized. As one interviewee commented, "...the networking and the capacity, sort of as the sum of our parts, has enabled the Panel to realize a lot of these accomplishments," And, "I think it is having good people and good Panel members from different sectors that know the issue well and can work well together on these different issues and make some time and the commitment, ..."³⁶

In addition to the meeting support provided by the staff of the GLC, the dual role played by GLC, first in Panel management, and second in their institutional mission to advocate and lobby on behalf of the Great Lakes was specifically listed by three members as an important factor enabling accomplishments of the Panel. Because the Panel can only make recommendations to the ANS Task Force, it is thought by some that this ability of the GLC to move the AIS issue in the Great Lakes forward through education and awareness, even if is not directly on behalf of the Great Lakes Panel, was very important.

This positive aspect of the dual role of the GLC was not commonly held and was not without controversy. It was in this area and in others, that answers began to blur between what enabled accomplishments to be realized and the challenges faced by the Panel. Often the same dynamic that enabled an accomplishment was also listed as a significant challenge. A challenge that caused frustration to many interviewed. This frustration ultimately stems from the perceived role of the Panel. The highly prescribed process constrains those who actively seek to push the boundary of advocating policy, while others are opposed to this perceived role of the Panel. This dynamic is discussed later in the analysis of challenges faced by the Panel.

On the other hand, awareness of the issue both regionally and on Capital Hill through development of informational products was cited as an accomplishment of the Panel and two

³⁶ Interviewee #21

members interviewed specifically gave credit to the work of the Information and Education subcommittee members for the publications produced and distributed by many different groups around the basin as key to enabling this important accomplishment. Another person interviewed gave credit to the committee structure in general for generating the work listed as accomplishments. The plenary of the Panel is the forum for communication, but committee-specific work in the areas of research coordination, information and education and policy coordination is where priorities are discussed, products developed and policy statements are drafted.

Finally, the diversity of the membership itself was listed as an accomplishment by eight interviewees. Comments received about the membership include: “The panel membership itself is a cross section of the folks who are communicating the issue to their stakeholders.”³⁷ And, “The networking and the capacity, sort of as the sum of our parts, has enabled the panel to realize a lot of these accomplishments.”³⁸

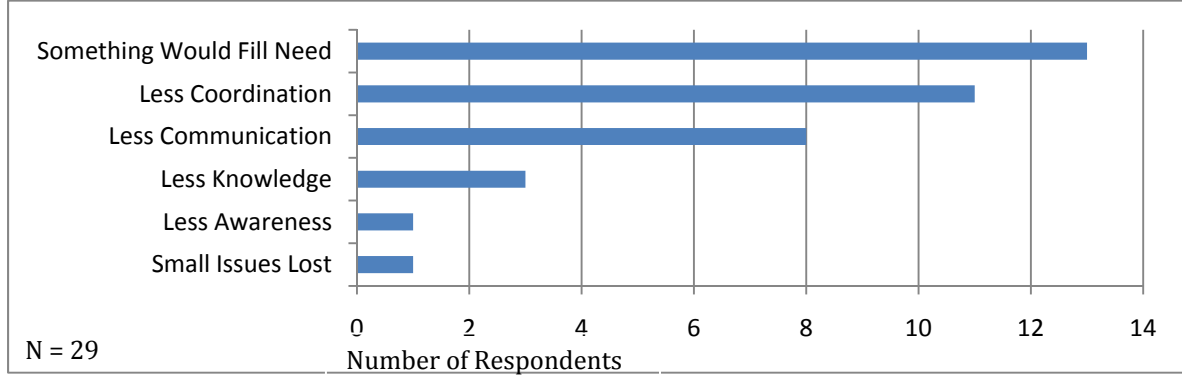
The last question asked of interviewees to ascertain accomplishments, was asked in the form of a counterfactual question; that is, a thought question provoked by the imaginary scenario of the current institutional situation in the Great Lakes on AIS had the Panel not been created. In other words, what has the panel contributed, or what value has it provided, that otherwise would not have occurred. Figure 9 lists the scenarios imagined by interviewees and how many mentioned each.

Interview Question 8:
What do you think would be happening on this issue in the Great Lakes, from an organizational or institutional perspective, if the Panel had not been established?

³⁷ Interviewee #31

³⁸ Interviewee #34

Figure 9: Scenarios of What would be Missing if the Panel Had Not Been Created



When posed with this hypothetical situation thirteen respondents specifically commented that if the Panel had not been created by law, and there was a need for such a regional coordinating body, then some type of collaboration would have been created voluntarily. This is not to say that all thirteen commenting in this area saw a need for the Panel, but just like water seeking its own level, if there is a need or gap observed, a solution would be found and it would be filled. One interviewee commented, “I believe that when you have a void something will rise to fill it. So, if Congress had never said you must have a panel...I tend to suspect that there would have been coordination going on in some form anyway.”³⁹ Another interviewee speculated on what would have filled the gap. “Some group would have filled in to do the work... I don’t think that the IJC or Great Lakes Fishery Commission could have or would have done it. Sea Grant probably would not have had the coordinating capacity to do it. The Great Lakes Commission may have stepped up anyway like they have with the wind collaborative.”⁴⁰

Many interviewees did follow their comments on accomplishments of the Panel with thoughts on what would have been lost had the Panel not been created. Twenty-one

³⁹ Interviewee #35

⁴⁰ Interviewee #37

interviewees felt that the communication and coordination function served by the Panel was an accomplishment and the same number specifically perceived that if the Panel had not been created that the organizations and programs in the basin addressing AIS would be less coordinated and there would be less communication occurring between jurisdictions. As one member commented, “There would have been a lot less coordination and communication among jurisdictions, even if someone else had picked up the slack... there is potential that [Canada] could have been left out. It could have just been the states...”⁴¹ Others commented that there would be less knowledge shared about the issue (3 respondents), less awareness in the public and among jurisdictions (1 respondent) and that the small issues would be more likely to get lost (1 respondent).

Within this discussion of accomplishments and the value that the Panel contributes to the region, many contrasted their comments with the question of Panel relevancy. The issue of relevancy was framed by the fact that currently there are many different collaborative forums where discussion takes place, creating redundancy in the region. As one interviewee stated, “I don’t know if the Great Lakes would suffer as a whole... [there are] other forums that discuss a lot of the same issues. The fact that the Panel itself does not really have any authority or... the ability to implement things... I don’t think that we would be losing all that much... but there might be more going on with the science that I am not aware of.”⁴²

Challenges

Interview Question 6:
Over time, what challenges have been encountered by the Panel?

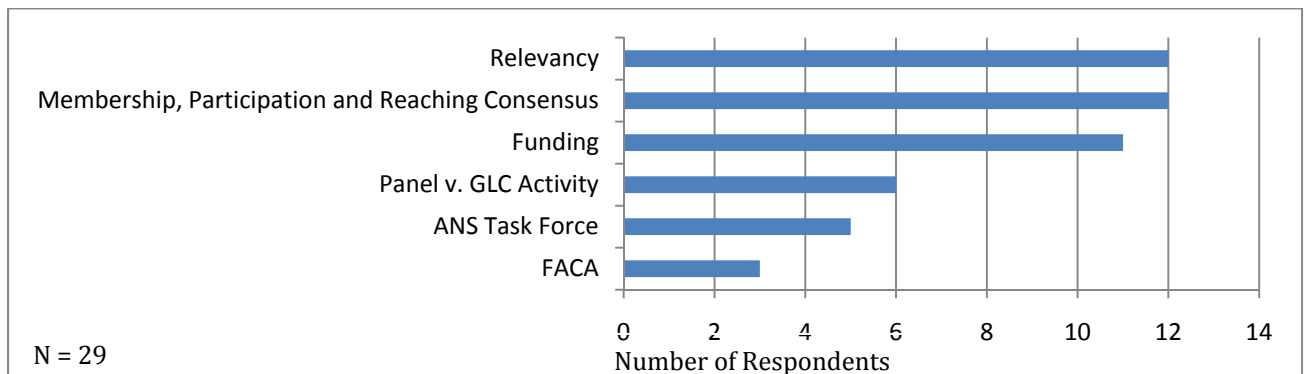
“I don’t want you to think that I think that the Panel is worthless, but there have been

⁴¹ Interviewee #17

⁴² Interviewee #1

very definite issues. Some which are systemic and some which are organizational.”⁴³ This quote well summarizes how the Panel’s challenges were perceived and expressed. Six primary themes emerged addressing Panel challenges from more than 100 recorded references during the course of the interviews. While critical, those interviewed often tempered the challenges listed to reiterate the need for and positive benefits of the Panel. The challenges that emerged are interrelated and all directly relate to the constraints felt by members from their prescribed role and the management and structure of the Panel. Figure 10 lists the perceived challenges interviewees identified as affecting the Panel.

Figure 10: Perceived Challenges



ANS Task Force

The first challenge to be discussed, the Panel’s relationship with the ANS Task Force, was not the most frequently listed, but is directly related to several other challenges that follow. Only five people interviewed directly cited the relationship of the Panel to the ANS Task Force as a challenge. However the Panel’s relationship to the ANS Task Force as prescribed in the NANPCA legislation is related to additional areas of challenge for the Panel, including funding, the Federal Advisory Committee Act (FACA), challenges associated with the perceived relevancy of the Panel, and how the Panel comes to consensus

⁴³ Interviewee #33

on recommendations.

One Panel activity is the prescribed role to provide recommendations and advice to the ANS Task Force. This challenge is linked to the role and relevancy of the Panel. “They have to take all their recommendations to the ANS Task Force and then they [Task Force] have to approve the recommendations and then move things forward. The Panel could have all the greatest intentions and ideas in the world but if the ANS Task Force does not decide to act on them, the Panel has gone nowhere. That is hugely frustrating.”⁴⁴ “They [Task Force] just don’t seem to be able to take a lot of action. ... The challenge is seeing the impact of the letters we sent. What is the actual role of the Panel in advising them, we give them advice but do we ever receive enough feedback from them? Is there follow-on action taken from our suggestions? It just seems like they go into a black hole.”⁴⁵ “Several years ago we were slapped on the wrist for doing things on our own. That wasn’t a mandate that we have from the AIS Task Force. Not being able to do things independently has been a challenge -- to have relevancy. All we can do is make suggestions.”⁴⁶ And finally, “the state or federal panel members are not empowered and they can’t make a decision at the Panel level... I think this is reflected in the fact that the Panel is very hung up on the fact that its role is just to advise the National Task Force and I think that they are most of the impediment to making decisions because many of the federal agencies are adamant that that is all the panel can do.”⁴⁷

Reaching consensus on specific recommendations to the ANS Task Force has been difficult, primarily because there is no incentive to reach consensus. Parties at the table have

⁴⁴ Interviewee #32

⁴⁵ Interviewee #1

⁴⁶ Interviewee #4

⁴⁷ Interviewee #19

no incentive to bend from their positions as the recommendations are not binding, no feedback is provided, and outcome from the work is not specifically recognized. Some members of the Panel who favor a more activist role for the Panel have been pushing the Panel to make advice to the ANS Task Force that is in effect strong policy statements involving proposed federal legislation. The federal agency partners on the Panel have begun to recuse themselves from this type of work, and others, especially industry representatives, feel that they are being pushed away from the table. “Part of the Panel representation also includes federal representative that often would say that ‘we can’t do that’ or ‘we have to abstain from that communication.’ ... sometimes they have to leave the room because they can’t advocate for issues that they are directly responsible for. So it gets goofy at times when the whole Panel can’t speak as one voice because some of the groups are not able to voice their opinions on certain issues. So that can be kind of frustrating.”⁴⁸

Funding

The challenge of working with the Task Force bears a direct relationship on the issue of funding. Funding was mentioned 11 times as a significant challenge facing the Panel and its ability to fund member travel and work. The concern and challenge of continued participation by members, based on the inability to fund travel, is one that the Panel is anxious to overcome. Funding for the Panel comes directly from the Task Force through the U.S. Fish and Wildlife Service. Currently, each of the current six regional panels receives \$50,000 per year. In the Great Lakes, the money is distributed directly to the Great Lakes Commission, which uses it to fund staffing, meetings and general support services. Generally, there are no funds left, on an annual basis, to provide funding for member travel, which directly affects meeting attendance, and the ability to provide small grants for work,

⁴⁸ Interviewee #8

which many feel would increase relevancy. The membership has recognized this challenge and communicated directly with the ANS Task Force about funding, but the situation has not changed. The law states that the Great Lakes Commission is to convene the Panel and, as an independent organization, it must be able to reimburse its expenses for Panel management. However, other panels, which were formed outside of the founding legislation, are managed by U.S. Fish and Wildlife staff. The FWS covers staffing costs independent of the \$50,000 allocation, leaving other regional panels with the ability to fund member travel and provide small grants for activity within their regions. Some interviewees expressed envy, and indeed frustration, with this situation. While the members acknowledge the important services provided to the Panel by the GLC support staff, the need for funding presents a challenge and dilemma. As was noted, the lack of ability to fund small grants or Panel projects is also closely tied to the issue of relevancy and the perception of the Panel as a good forum for sharing, learning and discussion, but without follow-up action.

Federal Advisory Committee Act

The challenge of working with the Task Force is tied to the constraints and frustrations with the Federal Advisory Committee Act (FACA) of 1972. While the ANS Task Force is chaired by the U.S. FWS and NOAA and contains the leadership of several federal agencies as voting members and several other regional organizations as ex-officio members without voting privileges, it plays a role as an advisory body to the federal government and is officially chartered under FACA. FACA governs the administration and operation of most advisory councils in the federal government and has been found in many cases to have onerous procedural and administrative requirements and interpretations that are thought to inhibit the function of advisory councils and frustrate their collaborative efforts

(Daniels and Walker 2001; Wondolleck and Yaffee 2000). These complaints are shared by members of the Panel. While the Panel itself is a separate entity and does not require a FACA charter, the activities of the Panel are covered under the FACA charter of the ANS Task Force as a committee that reports its recommendations to the ANS Task Force only.

There are pros and cons associated with the Panel falling under FACA and this was expressed by one interviewee.

“I really don’t like the FACA provisions. In this new technical policy work group under the regional coordinating committee for the Asian carp, I asked EPA to help us avoid engaging the FACA guidelines for the operation of our group ... It worked fine and it allowed all the people who attended those meetings to go to Washington and lobby for money and all sorts of things. But now [federal agencies] have decided that they don’t need to listen to us or talk to us because we are not official in any way. So I am now thinking for some of these new groups, having some official recognition of our activities and membership etc. might be beneficial because then we can’t be ignored. Even if it does limit to some extent what we can do on the Hill.”⁴⁹

The role of FACA and the restriction to provide advice to only the ANS Task Force is tied to the issue of Panel relevancy. The issue of relevancy creates frustration and the want of some members to move actively into policy. As two interviewees commented, “Policy is one issue that they [the Panel] get very uncomfortable about. Are we supposed to make comments on policy or just make comments to the national ANS Task Force? How useful are you if you can never make a statement on a policy?”⁵⁰ “I have had the tendency to want to push harder as far as the types of communications and positions we take on, but there are some very significant requirements we need to meet regarding who we can communicate with. We are only to communicate with the ANS Task Force, so you have to wonder what we are supposed to be doing. So that is an ongoing identity crisis that the Panel is having.”⁵¹

⁴⁹ Interviewee #13

⁵⁰ Interviewee #32

⁵¹ Interviewee #8

Diversity of Membership, Participation and Reaching Consensus

This issue of membership diversity was listed as an accomplishment, but also suggested as a challenge. Diversity was expressed as a significant benefit to the Panel in terms of providing a communications forum for sharing activities and positions on various issues under discussion. However, this benefit was transformed into a challenge when it came to the work of developing consensus statements and recommendations to the ANS Task Force. Because the Panel can only make recommendations, there is no incentive for members to compromise on positions. Those at the table, including NGOs, Sea Grant members and occasionally the states, encounter push back from the federal government representatives who find it necessary to recuse themselves from signing on to statements or recommendations that they perceive to cross the line into policy. Of the more than 15 references made to the challenge of consensus and participation, one member stated, “I think that sometimes there are lots of challenges with having representatives from different groups, there is industry, state, federal agencies represented and they have very different concerns and motives for participating in the group. I think that it slows down the collaborative process. Especially on the hot button issues which are the most important.”⁵² Another member agreed with that observation, “... some of it might just be restrictions on members and what they can say and whether something is official policy of an agency or not. So I think there is an institution restriction that may impede our work as well.”⁵³

The division between members that are content with the Panel being a forum for communication and coordination and those that want more action through policy statements affects opinion on whether the right people are at the table. Those that want to share

⁵² Interviewee #28

⁵³ Interviewee #21

information with the experts and organizational leads believe the right people are at the table and that is why they attend meetings. Those that want the Panel to take a more active role in public policy do not believe that many Panel members at the table are at the appropriate level in their agency. While the Panel members are the experts in their field and lead their programs, they are not positioned at an organization's decision-making level and cannot agree to strong policy statements on behalf of their organization. This is a constant source of conflict and frustration.

It was noted that the more the Panel pushes to be involved in policy, the more the federal representatives feel the need to recuse themselves from the conversation. They adhere to the mandate and do not feel that to do otherwise is the role of the Panel. One specific reason for this opinion comes from the U.S. Army Corps of Engineers: "The Panel has difficulty in terms of finding a role where it can be or have any power. I know they have asked us to sign on to some letters and things that are going up to the national Task Force asking for or expressing a position on the issues. The Corps is very conservative in nature and we don't sign on to those things largely because we don't feel like it is an appropriate role for our agency to be doing that. It seems a very limited perspective, but it seems to me that the Panel is looking for how it can be effective and have its voice heard. It feels a little constrained about what they can do."

Great Lakes Commission

The second most referenced challenge for the Panel was also listed as one of the significant factors enabling accomplishments of the Panel – the complicated relationship the Panel has with the Great Lakes Commission. Eleven different references were made to different aspects of this relationship. One interviewee related the confusion that some have

over what are accomplishments of the Panel and what are actually work products of GLC staff paid for by GLC obtained grants: “I continue to struggle with what is the work of the Panel and what is the work of the GLC, ... A lot of these things that I have offered as Panel accomplishments, in a way, are really GLC accomplishments and in ways were specially funded initiatives, like the development of the model [state management] plan. ...a lot of it was individual Commission staff work. I still struggle with how to explain or clarify the differences.”⁵⁴ Another interviewee made a similar comment, “I have trouble separating the Commission from the Panel.”⁵⁵

Another area where differentiation has been difficult lies within the ability of the GLC to lobby and its explicit advocacy role in the region on behalf of the states. The Panel does not have this ability to advocate; it can only communicate and provide recommendations through the ANS Task Force. The advocacy work of the GLC is perceived to sometimes cross the line when it comes to Panel business. As one interviewee noted, “Because the Commission is an advocacy group in the Great Lakes and the Panel can’t, that oftentimes creates a conflict. ... There were statements and publications that were being developed under the leadership of the GLC that were construed to be that of the Great Lakes Panel.”⁵⁶

As convener and provider of staff for the Panel, it is perceived by some that the GLC drives Panel business and steers it according to their mandate and concerns. As one interviewee explained, “...the GLC agenda often is driving Panel business. What project is important to the Commission, what project has the Commission been funded to undertake, that has become the defacto priority of the Great Lakes Panel. There are pros to that

⁵⁴ Interviewee #25

⁵⁵ Interviewee #33

⁵⁶ Interviewee #33

approach certainly and there are cons to that approach. ...So it is the Commission consuming the resources and providing the direction of the Panel in a way that was probably not intended under NANPCA.”⁵⁷

In addition, as an independent organization, there is a perceived competition between Panel members and their organizations and the GLC for grants funding AIS projects. The GLC relies heavily on grants for funding. The following summarizes the problem encountered, but similar stories were shared by interviewees from five different federal, state and non-profit organizations. The GLC would win a competitive grant award. But because they have only project management expertise and not topic expertise they would put out a call for expert volunteers from the region making it an expert driven, collaborative exercise. However, the experts called on were often members of the Panel who had also applied for the grant but did not get it. The GLC would offer them less money for the same work and then put the GLC name on the output. As one member put it:

“There was in fact a considerable undercurrent from the membership that the Panel was operating vis-à-vis the Great Lakes Commission, but as an independent entity competing for funds that should have been legitimately, in terms of resources and expertise, something that membership should have gotten. ... Some of which were reflected under activities that were done under the aegis of the Panel. ... That type of problem did carry over, fair or not, to the Commission running the Panel, so there was much more sensitivity to that. So for example, the Commission putting in a proposal in the name of the Panel, but the Panel had not voted or otherwise determined to do that. It was just the Commission deciding, and that had to eventually come to a stop.”⁵⁸

Interview Question 7:

Have these challenges been acknowledged by the membership and were attempts made to overcome them? If they have not been overcome, why?

⁵⁷ Interviewee #25

⁵⁸ Interviewee #33

Interviewees were also asked if the challenges had been acknowledged by the members and if attempts were made to overcome them. The challenges as outlined in this research have been acknowledged by the membership. Those that were organizational in nature, such as issues with who can serve as Panel chair or on the executive committee and who can vote have been overcome through the continued updating of the *Guidance for Operations* detailing the operations of the Panel. This guidance is updated as organizational issues arise and are addressed and decided upon by the membership. However, those challenges, which are systemic in nature and created by its legally prescribed mandate, while acknowledged by the membership, have not been overcome because they are either written into the law or they do not have the decision-making power to address it. There was explicit acknowledgment, both positive and negative, by some interviewed, that the Panel does try to work around these barriers.

A summary of the challenges faced by the Panel and in most cases, the inability to overcome them, was expressed by those interviewed and in response to the final interview question posed. Similar to interview question 8, interviewees were asked a thought question provoked by the imaginary scenario of hindsight and what each interviewee would do differently in either structuring or managing the Panel to ascertain recommended actions that could theoretically be taken on the observed challenges.

Interview Question 9:
Now, having the benefit of hindsight, if you were able to start all over again, what would you do differently in either structuring or managing the Panel?

The constraints posed by a highly prescriptive process that dictates their role as a “subcommittee” under the ANS Task Force, management by the GLC, and their roles and

objectives have limited Panel flexibility to adapt structure and management over time as the issue and collaborative community have evolved. The inability to solve or make changes to most of the challenges faced by the Panel has been frustrating to those members that are actively pushing for the Panel to adapt and play a more active role, through policy, or even through the ability to sponsor work through the use of grants. It is these constraints Panel members would change if they had the power to do so.

Chapter 5: DISCUSSION AND CONCLUSIONS

While control of the sea lamprey has been on-going for more than 60 years, the science and collaboration on the larger AIS issue and the vectors for introduction are relatively young. In 1990, when the zebra mussel began wreaking havoc on the coastal utilities on Lake Erie and the Great Lakes Panel on Aquatic Nuisance Species (Panel) was created under NANPCA, very few organizations were involved on the issue. Collaboration for the purpose of science and research to inform emerging public policy on AIS was in its infancy. The prescribed advisory role the Panel played at the time it was created was needed as the issue and problem of aquatic invasive species in the Great Lakes ecosystem is complex as is the institutional response.

Over the past 20 years, the scope of the AIS issue, what is known about it, how communication with the public occurs, and the number of organizations and jurisdictions involved in some aspect of the issue, either through mission or geography, has greatly increased. The AIS issue went from one with little science or public understanding and awareness to one that over time has become one of the most significant environmental challenges for the entire Great Lakes region and indeed the Globe. The Panel, which began as an innovative arrangement in a dearth of collaboration, has become a long-standing and consistent forum among experts and jurisdictions for communication and coordination in a sea of shorter-term, action-oriented and focused collaborative arrangements working on aspects of the issue.

The history of the Great Lakes Panel, its current role, and the challenges it faces as it continues into the future can be summarized by the following three observations made by

interviewees: “I think that the Panel has had some growing pains. Early on it served a very usual purpose, to help and focus the region on this issue. The Great Lakes Panel acted as a focal point in the early stages of this issue. ... If the issue was well understood how would the Panel have any impact? ... But now [the issue] is established and there are many different groups and activities working on specific parts of the issue and [Panel] relevancy now becomes an issue.”⁵⁹ Another said, “The Invasive Species programs and policies are very young. I liken them to what environmental pollution programs were like 20 or 30 years ago. There is an incredible amount of work that needs to be done in absence of very detailed and specific and enforceable policies and preventive policies. So we are up against quite a challenge. We are learning that the Panel itself can help represent consensus opinions in the Great Lakes and communicate that within the basin and on up to the National Task Force and for keeping Great Lakes issues on the agenda. We have found that the ability to supersede or supplement things like existing state laws or policies or programs is very difficult for the Panel to do. I think that the Panel is continually trying to figure out ways to implement activities and what the Panel’s role in that is.”⁶⁰ And last, one interviewee said, “I think the biggest challenge is that they struggle with their limits as an advisory role because the Panel exists and is federally funded for the purpose of advising the ANS Task Force. A lot of Panel members don’t like that because they like to make policy and make demands.”⁶¹

Conclusion 1: *The constraint of prescribed roles and objectives limits the perceived ability of the Panel to change the dimensions of its work and accomplishments to maintain its relevancy within an evolving institutional response to the aquatic invasive species problem.*

The concept of “governmentality” has been described as the social political processes

⁵⁹ Interviewee #33

⁶⁰ Interviewee #31

⁶¹ Interviewee #10

whereby new situations, issues or problems are identified as needing governance and the means by which this is to be accomplished (Francis 2005). The combination of governmentality, issue identity, and an unclear governance structure to address a situation can co-evolve and lead to several challenges in the development of policy and its implementation. These challenges affect the number and increased types of stakeholders, the mix of service and regulatory agencies, different levels of government, and the necessary and long-term participation and constant negotiation required for problem solving, program management and adjustment in an ever evolving environment. They also affect organizational behavior, collaboration, coordination, and the evolution toward a growing network of collaborative arrangements and multiplicity of governance processes over time. The prescriptive nature of the mandate under NANPCA prevents the Panel from being able to fully evolve with the issue and growing network of collaborative arrangements and creation of government processes over time.

Conclusion 2: *The primary benefit derived from Panel membership appears to be the “issue network” created by the in-person attendance at meetings that facilitates sharing, learning and networking among experts and agencies in the region.*

The Great Lakes Panel on Aquatic Nuisance Species is described in its *Guidance for Operations* as a formal regional body of knowledge-based AIS experts that come from both scientific and resource management backgrounds. An epistemic community is defined as a network of knowledge-based experts with an authoritative claim to policy-relevant knowledge within the domain of their expertise (Haas 1992). These communities are often seen as having a key role in shaping public policy at international levels, and members of the Panel have and do contribute to this community. The term “issue network” emerged to

explain a similar phenomenon operating at more national or regional level of governance and in which information and ideas are shared directly among interested parties (Carlsson 2000; Heclo 1978; Rhodes 1990). This was the goal and function of the original and voluntarily convened U.S. Great Lakes Exotic Species Coordinating Committee whose initial membership and mission provided the foundation for the Panel. However the mandate of the Panel through NANPCA, which in one way gave it formalized legitimacy, funding, staff and management, also constrained its activities and its full potential as an issue network made up of regional AIS experts who are in the position to inform policy.

Currently, the objective that has taken on the most important role or that which holds the most salient value to the majority of members is the role or objective of regional coordination. The in-person forum for communication provided by the Panel allows the sharing of information and the face-to-face interaction and networking that promotes communication and facilitates coordination among organizations and jurisdictions. However, without regular attendance at semi-annual meetings, the value of the Panel would be lost to those who participate in it. Addressing the challenge of continued attendance is the most significant challenge that needs to be addressed. The challenge to attendance has two major aspects. The first is funding for member travel. The second, the issue of scheduling conflicts and priorities, is more complex. It involves creating incentives, through member benefits, that keep the meeting a priority for membership to attend despite the multitude of other collaborative obligations required by each member.

Conclusion 3: *The prescribed structure and management of the Panel limit its flexibility to adapt to changes as the issue and institutional response evolve and yet benefit it by providing formal legitimacy, funding and critical staff support.*

Collaboration can be encouraged through crisis or a shared interconnected vision of a problem (Gray 1989). The definition of collaboration as defined in the natural resource collaboration literature specifically implies a voluntary process that is nonhierarchical in structure and that which brings together either government parties or is inclusive of both public and private stakeholders to engage in joint problem solving. It is seen as an effective way to link not only the substance of science to decision making, but that which includes the human dimension of the issue (Bacow 1980). In prescribing collaboration, the authors of NANPCA understood the benefits of inclusive stakeholder involvement and the voluntary nature of participation that makes it valuable to participants. But the hierarchical nature of the Panel's structure and the constraints posed by its prescribed charge is a challenge that continues to impact its work and incentives provided to members to participate. Many formally mandated collaborative arrangements utilize this type of formal hierarchical structure that usually reflects strong federal control and self facilitation (Hall and O'Toole 2000; Mandell 1984). This type of structure has been referred to as a "collaborarchy" because its structure resembles that of more open bureaucratic hierarchies, but equally depend on collaboration between both government agencies and members of civil society (Agranoff 2007).

Conflict is likely to occur in collaborative structures because they comprise organizations with different perspectives, missions, goals and priorities (Alter and Hage 1993). Even if a common goal is established, such as the prevention of the introduction of aquatic invasive species into the Great Lakes basin, these organizational differences can create conflict and a myriad of disputes that affect the collaborative process, coordination among the member organizations, and decision making by consensus. Collaboration is

challenged because natural resource managers from each jurisdiction and agency are accountable first to their own individual agency or organization and they will inherently act parochially, working in the interest or exclusivity of their particular jurisdiction and within the boundaries placed on the participation. Therefore collaboration creates institutional pressures on an organization, both public and private, that generally demand a level of differentiation from other organizations, not integration (Bardach 1998; Mandell 1984).

Need for Additional Research

An important theme that has emerged from this research is the challenge to continued Panel attendance due in part from the growth, over time, of numerous collaborative arrangements that obligate the time and resources of Panel members creating conflicts in scheduling and priorities. This study demonstrates that in some situations, particularly in response to increasingly complex environmental issues, multiple and overlapping collaborative arrangements can be created from the sequential overlay of independent policy initiatives and continued crisis within the ecosystem. Often, these policy initiatives mandate collaboration or collaboration forms voluntarily, and what emerges over time is a state of multiple, simultaneous but independent collaborative arrangements addressing the same environmental problem, in the same geographic area, and often with overlapping membership. One study of collaborative management found that about 20 percent of public managers' time is spent in collaborative activity outside of the home government organization (Agranoff and McGuire 2003).

This research concludes that the challenge posed by the growing number of collaborative arrangements looking at the AIS issue is a significant issue going beyond the Great Lakes Panel on Aquatic Nuisance Species and requires future research. In particular,

little is known about the characteristics and dynamics of overlapping, multiple collaborative arrangements and the consequence of this phenomenon to the achievement of both ecological and institutional outcomes.

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