

Collaborative Partnerships and Invasive Species Management

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Introduction

Today our society is inundated with calls to address a myriad of different environmental issues: climate change, pollution, and habitat destruction to name a few. One might consider these the principal environmental issues of our time, given the degree to which a vast portion of society sees them as problematic. Another issue increasingly being viewed as deserving of society's attention is that of invasive species. Invasive species are generally defined as non-indigenous flora and fauna whose presence in a newly introduced ecosystem poses, or is likely to pose, an ecological threat to the native habitat, the economy, or harm human health (U.S. Fish and Wildlife Service). President Clinton's 1999 executive order on invasive species, citing the above definition, formally recognized the threat of invasive species as being deserving of national attention and the resources of the federal government, and mandated the creation of the National Invasive Species Council (NISC) (Exec. Order No. 13112, 1999). The National Invasive Species Management Plan (2008), which was the culmination of nine years of work put forth by the 12 federal agencies making up the NISC, outlined five management "arms" of the plan: prevention, early detection and rapid response (ERDD), control and management, restoration, and organizational collaboration. It is the last category – organizational collaboration – that will be more closely examined in this paper, as much of our existent knowledge of multi-stakeholder collaborations does not pertain to the management of invasive species, but to watersheds and forests.

This study will involve a case study approach in order to provide a descriptive and analytical understanding of the organizational structure and the operational characteristics of two specific collaborations involved in invasive species management. Moreover, of particular interest is the degree to which internal and external factors have affected these collaborations ability to

influence policy regarding the manner in which invasive species are managed. It is the intention of this study to add to our existing theoretical understanding of collaborative processes. Invasive species are a growing priority among management agencies, and an understanding of the level of involvement on the part of partnerships may offer insight into how they may be better utilized in the future to meet management objectives.

Collaborative Partnerships: An Examination of the Literature

In the presence of newly realized environmental threats and the acknowledgement of varying interests in the effort to address these threats, natural resource management experienced a shift from the more conventional “command and control approach” of the mid-20th century (Koontz & Bodine, 2008) to one more representative of a “bottom-up” orientation accounting for a multitude of stakeholders. This approach has become referred to by many names, but “ecosystem management” has become consistently recognized across many management fields. Perhaps the assortment of nomenclature used stems from differentiated understandings and lack of agreement of what an ecosystem actually is (Grumbine, 1993; Gilmore, 1997; Rigg, 2001). Nonetheless, the inclusion of various stakeholders highlights the integrative and holistic approach of many entities working in collaboration with one another, as opposed to the individualized relationship that forest, water, mineral, and wildlife agencies operated under previously in the “administrative state” (Koontz & Thomas, 2006). Such a style was observed within individual agencies as well. The Forest Service, for example, soon found itself taking into consideration the needs of various stakeholders, not solely the forestry profession, when making decisions after the passage of Multiple-Use Sustained-Yield Act of 1960 (Leach, 2006). By 1994 other federal environmental agencies like the Bureau of Land Management, the National Park

Service, and the U.S. Fish and Wildlife Service had begun to implement management practices reflective of ecosystem management (Koontz & Bodine, 2008), most notably collaboration.

The exploration of collaborations as an effective mechanism to address ecological, social, and economic issues within an environment was not due solely to the departure from the top-down governance structure, but a recognition of the inherent complexity surrounding many environmental issues. The ability to respond to the dynamic complexity of some ecosystems is predicated on a deviation away from a centralized, organizational structure to one where responsibilities and less formalized decision-making are distributed among numerous agencies on the ground (Koontz and Bodine, 2006). Through collaborations, a group of autonomous stakeholders typically deliberate to build a consensus and an actionable plan to yield outputs (Margerum, 2011). However, a consensus in collaborative management tends to be accurately understood less as a decision that everyone agrees with, but more as a decision that everyone can live with (Margerum, 2011). Determining the common interests among stakeholders is not only challenging in and of itself, but can be more taxing when dynamic human environments and changing expectations are considered.

Grumbine (1994) has acknowledged other features of ecosystem management, and specifically how these features are manifested in collaborative relationships. The hierarchical element, or lack thereof in some cases, and cooperation among governing institutions are undoubtedly crucial aspects of collaboration and have already been alluded to. Related to these features is the scope of management as it pertains to understanding ecological boundaries. Under an ecosystem management approach, political boundaries cannot be solely relied upon to delineate the realm of a collaborative partnership's focus, as natural systems are not confined to such constructs (Schlager and Blomquist, 2008). The decision of where the appropriate

parameters of an ecosystem should be is then brought to the forefront. However, any boundary that is established, even if physical features of a natural landscape are taken heavily into consideration, will ultimately be a product of human determination (2008).

Collaborations – The Literature’s Description of the Policymaking Role

As was mentioned previously, in the past few decades public institutions have moved away from individual resource management to a broader and more integrated approach of managing ecosystems, thereby introducing the use of collaborative decision making (Imperial 1999). With the involvement of a multitude of stakeholders, the potential arises for actors to form partnerships, whereby their coordination and inter-organizational relationships generate policy outcomes (Imperial, 1999; Margerum, 2011) or influence policy-making. Policy pertaining to wildlife, which includes invasive species, typically emanates from the state level. However, the federal government has also sought to address wildlife issues through statutes and administrative rulemaking, especially in the event that wildlife issues “transcend state boundaries” either through natural or human-assisted migration (Freyfogle and Goble, 2009).

Our understanding of the process by which policy is produced through collaborative mechanisms is hardly clear and solidified, but rather dynamic and subject of much debate. Moreover, the ability of technical experts, who have a propensity to make up a sizable portion of a natural resource-related partnership’s membership, is often complicated by numerous features that naturally distinguish policymakers from scientists. Pannell and Roberts (2009) state that while technical experts are fully aware of the complexity and caveats of issues, policymakers prefer information and solutions that are simple and straightforward. Related to this point is the observation that scientists tend to have a narrower scope of specialization, while the nature of a

policymaker's job requires the consideration of a broader range of factors in the interest of the populace they represent (Pannell and Roberts, 2009). This begs the question of what factors associated with the larger political environment may impede or facilitate the consideration of recommendations from technocratic actors.

Given that collaborations are characteristically inclusive and seek to account for the variety of interests that an issue may involve, citizen participation is an important aspect of the collaborative process, and also for this case - the policymaking process (Koontz, 2002). If citizen participation is something that is desired in collaborative processes, it is imperative to understand the organizational opportunities that exist for citizens to become engaged and the current capacity of that engagement. After all, opportunities that are advertised as pathways for citizens to participate in governance or processes that affect governance are not always fulfilled, but instead are illusory and relegate citizens to positions with little clout (Arnstein, 1969). Grumbine (1994) also contends that shifting more towards local decision-making, where trust is fostered and communication pathways are kept open, is pivotal to incorporating citizens into collaborative processes.

The overall objective of this study seeks to address the extent collaborations influence invasive species policymaking. This question is asked with the understanding that collaborations can fall into one or more general typologies as Margerum (2011) describes - distinct in organizational structure, membership, objectives, and processes. With this in mind, specific interest lies in a more specific question: are the partnerships in these two cases involved in activities or behaving in manners that are generally understood to influence the development of policy (i.e. legislative outreach, lobbying, awareness campaigns, etc.)? Activities such as these represent factors internal to a partnership, or ones that they have primary control over. However,

do external factors (i.e. political events, government funding, other organizational behavior, etc.) constrain or enhance these partnerships' influence, and how so? Hence, the relative presence and importance of internal and external factors will provide insight into how effective a collaboration can be in specific contexts, especially for those most similar to our selected cases. Lastly, if we understand citizens to be players in the formulation and implementation of policy – in the various ways that they can be in a democratic system– what is their role in these partnerships and do they actually leverage power to affect policy as occupiers of those partnership roles? Answering these questions will allow for a more accurate understanding of how invasive species collaborations operate in the realm of policymaking today.

Case Histories

Florida Invasive Species Collaboration

The Florida Invasive Species Partnership was formally established in 2008 from two preceding organizations with narrower focuses. In 2001, the Florida Invasive Species Working Group was created to address the issues of invasive species on public lands. Involved in this effort were federal and state agencies who sought to develop a single plan for managing invasive species in the state. Then in 2006, this working group expanded its scope to address invasives on both public land and private land, and was appropriately renamed the Private Land Incentive Group. As a part of readjusting their scope of emphasis and promoting invasive management on private property, the group endeavored to build partnerships between public land managers, resource managers, and private land owners/managers. The shift ultimately culminated in the renaming of the organization once again in 2008 to the Florida Invasive Species Partnership in order to reflect the collaborative focus of the group.

FISP's core group is made up of representatives from 19 signatory agencies and non-profit organizations (Appendix, Figure 1). Though FISP exists statewide, the partnership also has 17 Cooperative Invasive Species Management Areas (CISMAs) that exist on a more localized level (Appendix, Figure 2 & Figure 3). These CISMAs are largely self-governing and self-supporting, but fall under the general framework and objectives set forth by FISP. It is at the CISMA level where other local entities (i.e. citizens, businesses, water management districts, watershed groups, city governments, county commissions/councils, etc.) become involved most with the collaboration.

These CISMAs also are largely self-determining in regards to the specific invasive species they wish to concentrate their management efforts on. For instance, a CISMA located in the northern portion of Florida will not address the spread of exotic python species as much as its southern counterpart would be expected to, largely due to the current geographic range of those particular species. Also, a CISMA's resources for addressing plant invasives as opposed to animal invasives is variable as well, depending on the extent of the threat posed by a species and what technical resources (i.e. human expertise, specialized equipment, etc.) are available to the CISMA.

The Great Lakes Regional Initiative

The Great Lakes, the largest and most sophisticated network of lakes in the United States, has long been threatened by invasive species. It was the threat of invasive species to the Great Lakes specifically that compelled the passage of the National Aquatic Invasive Species Act (NAISA) in 1996 (Pub. L. No. 104-332), which was written and introduced by Ohio Congressman Steve LaTourette from what was, at the time, the 19th Congressional district – a

district that bordered Lake Erie. The law expired in 2002, however, leaving managers and lawmakers struggling to devise solutions to address the perpetual problem of invasives in the Great Lakes region.

Recognizing that the Great Lakes faced a number of threats in addition to invasive species (i.e. habitat loss, toxic pollutants, nonpoint sources, etc.), President George W. Bush issued an executive order on May 18, 2004 establishing a regional collaboration “of national significance for the Great Lakes” (Exec. Order No. 13340, 2004). The order called for the creation of the Great Lakes Interagency Task Force, a nine-member body made up of the Secretaries from the Departments of State, Interior, Agriculture, Commerce, Health and Human Services, Transportation, Homeland Security, the Chairman of the Council of Environmental Quality, and the Secretary of the Army (Sec. 3, Exec. Order No 13340). The Task Force would be the primary administrative entity and charged with establishing the Great Lakes Regional Working Group – a collection of managers and technical experts responsible for drafting a comprehensive action plan with recommendations to address targeted threats, including invasive species (Appendix, Figure 4).

In 2005, the eight individual Strategy Teams that made up the Working Group, commenced with their respective issue areas. Like its seven counterparts, the Invasive Species Strategy Team worked throughout a six-month period researching and drafting language that would ultimately be submitted to the Collaboration’s Executive Committee, and combined with draft reports from the other teams studying the other seven issue areas. The document, entitled the *Great Lakes Regional Collaboration’s Strategy to Restore and Protect the Great Lakes* was unveiled to the public at Summit I on July 7, 2005, which also marked the beginning of the 60-day period open for members of the public to comment on the proposed draft. Six different

meetings were also held in five states during this time to solicit feedback from the public. After this period ended, revisions were made to the *Strategy* before final submission and released at Summit II in December, 2005, in Chicago, IL.

Since the release of the *Strategy*, what has transpired in terms of implementing the Collaboration's recommendations has been variable. As it pertains to the specific actors within GLRC involved in invasive species, members of the Executive Committee endorsed the creation of the Aquatic Invasive Species Rapid Response Initiative in 2007. The primary objective of this mandate was to devise a federal Communication Protocol, allowing for a more uniform and effective response by the multitude of agencies to an initial invasion from an aquatic, non-native species. The Protocol was discussed at three conference calls among GLRC sub-committee members leading up to a July, 2008, mock exercise in Pennsylvania. Other advances were greatly encumbered due to limited funding for fulfilling the recommendations set forth in the *Strategy*. This may be due largely to the Interagency Task Force reporting to President Bush in October, 2005, that it did not endorse the GLRC's *Strategy* and had "serious concerns with the direction of the GLRC's draft strategy, and strongly urge the GLRC to focus on improving the efficiency and effectiveness of existing programs..." (The Great Lakes Interagency Task Force, 2005). Such a conclusion by the President's Cabinet effectively stifled any possibility of fully implementing the *Strategy's* recommendations and/or acquiring sufficient appropriations to support large-scale restoration action.

Among actors outside of the GLRC, much has developed on a larger scale. After President Bush left office early 2009, President Barack Obama reorganized the federal government's approach to dealing with Great Lakes restoration. After renaming the effort the "Great Lakes Restoration Initiative"(GLRI), and condensing the total number of issue areas from

eight to five, President Obama secured more than \$1 billion to fund restoration initiatives in the Great Lakes from FY's 2010-2012 (Congressional Research Office, 2012). The program has taken on a different organizational structure than its previous version under the Bush Administration, with the EPA assuming greater allocating authority for federal funds that state and local entities apply for.

Approaches and Methods

A case study approach was adopted in order to examine factors determining a partnership's level of influence on invasive species policymaking at the federal and state level. Such an approach was adopted in order to gain the most insight into the phenomenon, especially those that may occur on a more local level (Miles and Huberman, 1994), in each respective case. While quantitative methods and advanced statistical analysis may provide data supporting the presence of more succinct correlational relationships, the case study allows for the exploration of variables unique to invasive species collaborations unaccounted for in existent collaboration literature.

Data gathering for both the Florida Invasive Species Partnership (FISP) and the Great Lakes Regional Collaboration (GLRC) involved document analysis and semi-structured interviews with stakeholders from each partnership. Interviews of partnership participants took place from November, 2012 – March, 2013, and occurred via telephone. Documents for both cases primarily included partnership action plans – the 2005 *Strategy* for the GLRC and the *Framework* that had preceded it; for the FISP case, action plans from 9 of the 17 CISMAs that had completed one. As for an overall statewide action plan, FISP does not have an approved or published plan, so gathering data for the FISP's statewide activities relied more heavily on

interviews and the information concerning the partnership's statewide operations listed in the CISMA action plans.

In the FISP case, observations were taken during two conference calls among state and local (CISMA) partnership participants held on a monthly basis. The topics of discussion of 45 past conference calls were also available for study in the form of PowerPoint presentations, but observational data related to participant interaction obviously could not be gathered in these instances. Data from conference call minutes was especially valuable in observing what events and work was taking place among the 17 CISMAs pertaining to political outreach or policy advocacy.

In the case of the GLRC, meeting minutes from eight stakeholder conference calls held from November, 2007-November, 2009, as well as video footage from the first in-person meeting after the final release of the GLRC's *Strategy*, were studied. The action plan of the 2010 Great Lakes Restoration Initiative (GLRI) and related documentation was also examined, in spite of it being a descendant of the GLRC and not of direct focus of this study, to gauge the affect that the preceding body had on development of policy in the GLRI.

To determine the extent of policy influence that FISP and GLRC had in their respective situations, the action plans of each partnership were closely examined for explicit language denoting a commitment or intent to reach out to lawmakers or other federal/state agency personnel with administrative authority. Federal and state agencies or legislative bodies, rather than local governing bodies, were given precedence in this search. This is due to the former group having primary authority over wildlife policymaking, and any substantive policies regarding invasive species management are likely to precipitate from the state or federal level (Freyfogle and Goble, 2009). Information gathered during semi-structured interviews provided

the frequency under which partnership actors had testified in front of legislative bodies or participated in events in an attempt to lobby state or federal lawmakers in regards to invasive species policies.

Analyzing Collaborative Partnerships and Their Effect on Policymaking

Analysis of Florida Invasive Species Partnership

Nine of the seventeen CISMA in the FISP case had completed action plans, and of those nine, four included language indicating political outreach and advocacy. All of these mentions concerned the advocacy of local public officials, none at the state or federal level. The remaining five CISMA's with action plans and the other eight CISMAs without action plans provided no suggestions of lobbying policymakers in mission statements or other documentation. Information gathered from semi-structured interviews reinforces this observation, with all respondents reporting that minimal to no testimony had been given to state or federal legislative bodies on the issues surrounding invasive species. In addition, no individuals solely representing the partnership at either the CISMA or FISP level had lobbied lawmakers in person or through writing. Such events that did occur took place almost exclusively during the National Invasive Species Awareness Week (NISAW), but focused more on general awareness with little attention given to specific policy solutions for managing invasives.

Political outreach and relationships have been fostered extensively at the local level. Nearly all of the CISMA's have official partnerships with county or city municipalities within their geographic scope, and these interactions have been pivotal for the partnership in acquiring permission to treat invasive vegetation on public lands. In addition, interviewees contend that considerable effort has been devoted to encouraging local governing bodies to target invasives

more aggressively and to promote the propagation of native flora in local development projects. Though these relationships are valid and integral to fostering social capital (Coleman, 1988), these interactions have not had broader influences on invasive species policy, primarily because they are limited to their respective localities and have not compelled any broader federal or state action.

In regards to citizen involvement, participation by lay people – non-technical, non-agency individuals - is principally concentrated at the local CISMA level. Involvement from citizens is most prevalent from the interactions with FISP-CISMA representatives as it pertains to accessing funds through land incentive programs. It is at the local level that citizens may become involved in CISMA-sponsored workdays where volunteers help clear away invasive vegetation like Brazilian pepper (*Schinus terebinthifolius*), coral ardisia (*Ardisia crenata*), and climbing fern (*Lygodium microphyllum*) in targeted areas. CISMAs regularly hold informational workshops on invasive flora and fauna for citizens as well, and schedule local Pet Amnesty Days – days where citizens can responsibly give up unwanted exotic pets. In spite of activity at the local level on the part of citizens related to awareness and education, analysis of documentation and interview responses reveal little to no citizen involvement in any of FISP’s activities that may have a substantial effect on invasive species policymaking.

Analysis of Great Lakes Regional Collaboration

Evaluation of GLRC documentation, including the 2004 *Framework* and 2005 *Strategy*, indicated upfront a clear intention to inform policy makers. The GLRC *Framework* (2004) states that “it [GLRC] will develop a Great Lakes Restoration and Protection Strategy to inform future implementation of programs and funding throughout the region”. Moreover the *Strategy* (2005)

describes how “actions identified by the Strategy Teams highlight the highest priorities recommended by the Teams for early implementation”. Responses from interviewees confirm this aim, with one individual explaining that “[future] expenditures would be hard to justify without a document], referring to the Strategy’s relevance in guiding budgetary decisions at the federal level (Interview 6, January 7, 2013). Given that President Bush’s Executive Order established the GLRC in order to “coordinate and make recommendations on how to implement the policies, strategies, projects, and priorities of the Task Force” (Exec. Order No. 13340, 2004), it’s apparent that the Collaboration was instilled with substantial political power in the early stages of this effort, an element absent from the FISP case.

In terms of actual policy influence, the results are variable. On the Federal level, little influence was projected in the short-term with the Bush Administration’s unwillingness to provide more than \$586 million in new federal funding for programs (Invasive Species Strategy Team, 2004) as outlined in the recommendations. As was mentioned previously, it was the Interagency Task Force’s explicit expectation for state and federal agencies to use current resources more efficiently - not new sources - which supported their non-endorsement of the plan (The Great Lakes Interagency Task Force, 2005). However, in the longer term, not only did the GLRC’s *Strategy* “provide a framework for the Action Plan” of President Obama’s Great Lakes Restoration Initiative (GRLI), but the “extensive planning and collaboration that was done by the Task Force...in development of the GLRC Strategy” allowed for a funding plan to be put forth for FY 2010 (*Great Lakes Restoration Initiative Action Plan*, 2010) in which \$475 million was secured for that year. Approximately 16% of this total allotment for FY 2010 was appropriated exclusively for invasive species prevention and control (Hedman, 2012).

Interviewees reported the federal funding under the GLRI has allowed for many of the recommendations put forth initially by the GLRC to be implemented. One Michigan agency official who worked with the GLRC said that a recent informal assessment conducted by a cohort of original *Strategy* writers “showed that half of the recommendations had been implemented, half had not, and a very small percentage were no longer relevant anymore” (Interview, January 29, 2013). No published documentation related to this analysis is available though. Considering all of the above information, GLRC had extensive influence on the development of federal invasive species policymaking in the Great Lakes region in that it laid the foundation for the fully funded GLRI in 2010. It also had profound effects for interstate collaborative efforts among state agencies who had not previously operated in a coordinated fashion in their early detection and rapid response operations.

Table 1. Summary of Case Results and Conclusion

	Florida Invasive Species Partnership	Great Lakes Regional Collaboration
Membership Type	Agency – State and Federal Non-profit Local municipalities	Agency – State and Federal
Partnership Activities	EDRR Education/Awareness Information Sharing (BMP’s)	Drafting of Recommendations Interagency Communication
Outreach to Policymakers	High – local level	High – State and Federal
Committee/Panel Testimony	None	Federal level intermittently
Citizen Involvement	High - local level	Low
Overall Public Policy Influence	Low	High
Dominant Determining Factors	Internal to Partnership Organizational priorities Availability of Resources	External to Partnership Delegated authority Support of established political coalitions

Discussion: Examining the Collaborative Impact on Policy

The differences in policy influences among the two partnerships reveal both expected and unexpected results. It is not surprising that the GLRC had a greater degree of influence given the circumstances under which it was created. By issuing the 2004 Executive Order, President Bush explicitly delegated authority to study and produce a series of recommendations for further restoration of the Great Lakes, including the prevention and control of invasive species. It was also the expectation that this inter-organizational effort among federal and state agencies would be collaborative in nature while devising these recommendations, and would foster a more perpetual culture of collaboration among participating actors in managing invasive species beyond drafting the actual *Strategy*. Given the obvious policy-making authority that was extended for this effort, and considering the extent to which federal and state environmental agencies were involved in drafting prescriptive documentation, the GLRC is clearly representative of a “policy collaborative” (Margerum, 2011). In spite of the GLRC’s recommendations not initially being adopted, a changing political environment at the federal level ultimately ushered in funding for some of the recommendations, and thus their implementation. Also, GLRC’s association with preexisting political coalitions like the Council of Great Lakes Governors and the Great Lakes Congressional Task-Force – both founded in the mid-1980’s – may have assisted in the transformation of recommendations to actual funded programs.

On the other hand, FISP - seeing that they had virtually no policy influence at the state or federal level and focused on building relationships with local governing bodies to advance their EDRR operations – was much more of an “action collaborative”. Margerum’s (2011) description of an action collaborative emphasizes the extent to which the organization is focused on

implementing strategies that may have been devised at an earlier point in time, and also the degree to which technical experts are relied upon to facilitate this implementation. Moreover, interviewees substantiate this operational focus by promoting the group's dedication EDRR, and education and outreach, and improved information management. Some participants also stated FISP was not an "advocacy organization" (Interview, November 13, 2012), that policymaking wasn't "the purpose (of FISP) right now", and a reluctance to engage in a policy-related process may be due to how young the organization is (Interview, January 14, 2013). Still another member cited that the abundance of agency personnel in FISP might create a conflict in their home agencies if FISP were to advocate for specific policy approaches (Interview, March 6, 2013). Clearly there are conscious determinations within FISP that are precluding it from making a broader policy impact. Finally, the landowner incentive programs that FISP pushes to encourage local private and public landowners to take proactive action against invasives associates it with "organizational collaboratives", in that respect (Margerum, 2011).

Citizen participation was of great interest in this study primarily because government decision-making can hinge on the degree to which potential policy solutions will be considered legitimate and accepted by the people, especially in the area of environmental management (Irvine & Sansbury, 2004). However, the nature of citizen involvement is undoubtedly as critical as its intensity. Countless cases depict how citizens have "participated" or "been involved" in a process, when in reality this involvement is largely un-influential - as with some advisory boards (Arnstein, 1969) or when citizens are simply subjects to government "education" (Irvine & Sansbury, 2004).

While FISP had a great deal of local participation in its Cisma sponsored events (Interview, January 14, 2013), citizens were more of recipients of education/awareness of the

partnership's initiatives than engaged drivers. However, citizens who were landowners and utilizing the landowner incentive programs through FISP's assistance certainly took on a greater level of responsibility and effectiveness in FISP's efforts. In these regards, citizens in the case of FISP could reside on Arnstein's "Latter of Citizen Participation" (1969) at a lower tiered "informing" level (when being educated about invasive species), or a higher tiered "partnership" level (when involved in the landowner incentive program) where engagement is more complex and the citizen retains more authority.

In regards to the GLRC, citizen participation was extremely limited, based on the highly technical work that the working groups were engaged in throughout the formulation of the recommendations. Given that there were open meetings and an opportunity for public comment after the release of the first draft of the *Strategy*, citizens resided more on the "informing" and "consultation" run of Arnstein's (1969) Latter. This classification stems from the fact that the opportunity to be heard was made available to the public, however no system was in place beyond that to ensure that input was fully integrated into decision-making.

Conclusion and Future Considerations

The analysis of both the FISP and GLRC collaborations shows variable influences on invasive species policymaking at the state and federal levels, and which factors were largely determinants of the that influence. Overall, FISP had low policy influence, but the causes of this were largely internal to the organization in that priorities and resources were deliberately steered away from policy advocacy. Contrast to that, GLRC had high policy influence, with external determinants (i.e. delegated authority, political environment, etc.) playing a more dominant role

relative to factors within the scope of the partnership. In both partnerships, citizens were more recipients of information and observers of the technical actors driving the partnership, rather bearers of authority and decision-making.

Though FISP had no impact on state or federal policy, it has formed a sufficient network of mutually beneficial relationships at the CISMA level with local municipalities, which has facilitated the effectiveness of its targeted EDRR initiatives and the landowner incentive programs. Though not as pertinent to policy formulation, such relationships are key to the action-oriented identity that FISP has sought to perpetuate among its members and to securing the attention of concerned citizens throughout Florida.

On the other hand, the GTRC was instrumental in affecting policy at the both the state and federal level, mostly due to the political authority that was initially delegated to it at the GLRC's creation. Likewise, the association between technical actors within the GLRC working group and state and federal public officials was stronger, thus enabling the eventual funding that would be necessary for implementation. The GLRC also demonstrates how broader political environments external to the partnership can be a key determinant of policy influence, as the *Strategy's* recommendations were not as earnestly considered until the change of Presidential administrations in 2009.

While the FISP and GLRC cases have provided valuable insight into the collaborative nature of these groups and their tendency to influence policy related to invasive species, there are certainly still questions that remain. One area of future exploration lies in the individual motivations, on the part of an organization or citizen, to become involved in a partnership. Partnerships can be diverse in stakeholder interest, so the initial motivations behind participation and what members perceive the conflict to be could be insightful in really understanding *how*

collaborations will choose to become involved in the management of invasives. In addition, with invasive ecology being a dynamic phenomenon, especially when human behavior is accounted for, how will collaborations adapt their organizational structure and priorities to manage invasive species effectively? More research is needed in the area of invasive species collaborations to fully understand how our society will utilize new and diverse management regimes to confront the threat that many non-native species pose.

Appendix

Figure 1.

Signatory Members of the Florida Invasive Species Partnership

U.S. Fish and Wildlife Service
USDA Natural Resources Conservation Service
U.S. Army Corps of Engineers
National Park Service
Association of Florida Native Nurseries
Florida Department of Transportation
Florida Department of Agriculture and Consumer Services
Florida Department of Environmental Protection
Florida Fish and Wildlife Conservation Commission
Florida Federation of Garden Clubs
Florida Wildflower Foundation
University of Florida
The Nature Conservancy
Florida Exotic Pest Plant Council
Florida Native Plant Society
Audubon of Florida
Southwest Florida Water Management District
Suwannee River Water Management District
Center for Invasive Species and Ecosystem Health at the University of Georgia

Figure 2.

Organizational Structure of the Florida Invasive Species Partnership

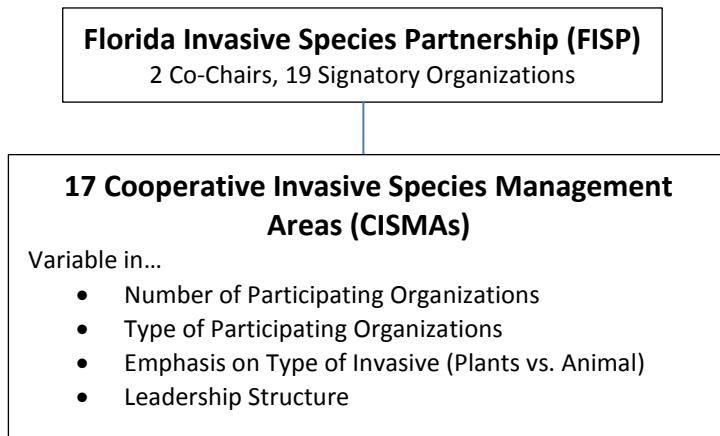
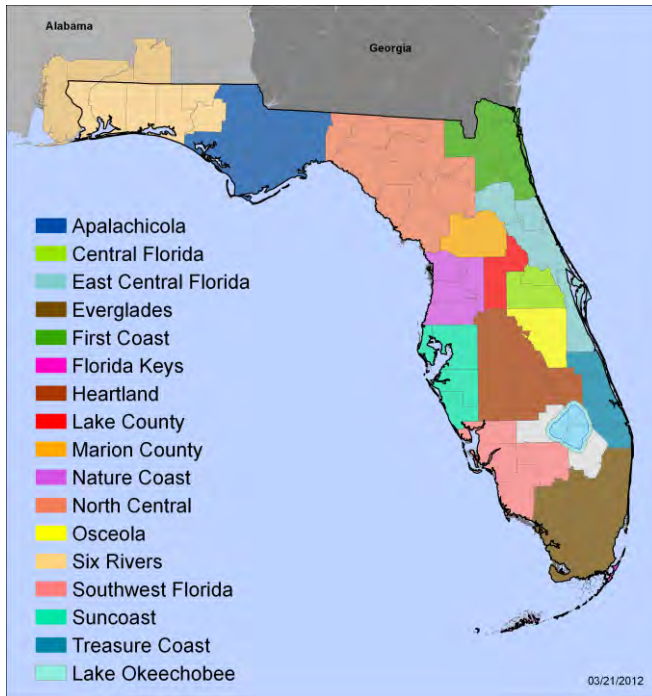


Figure 3.

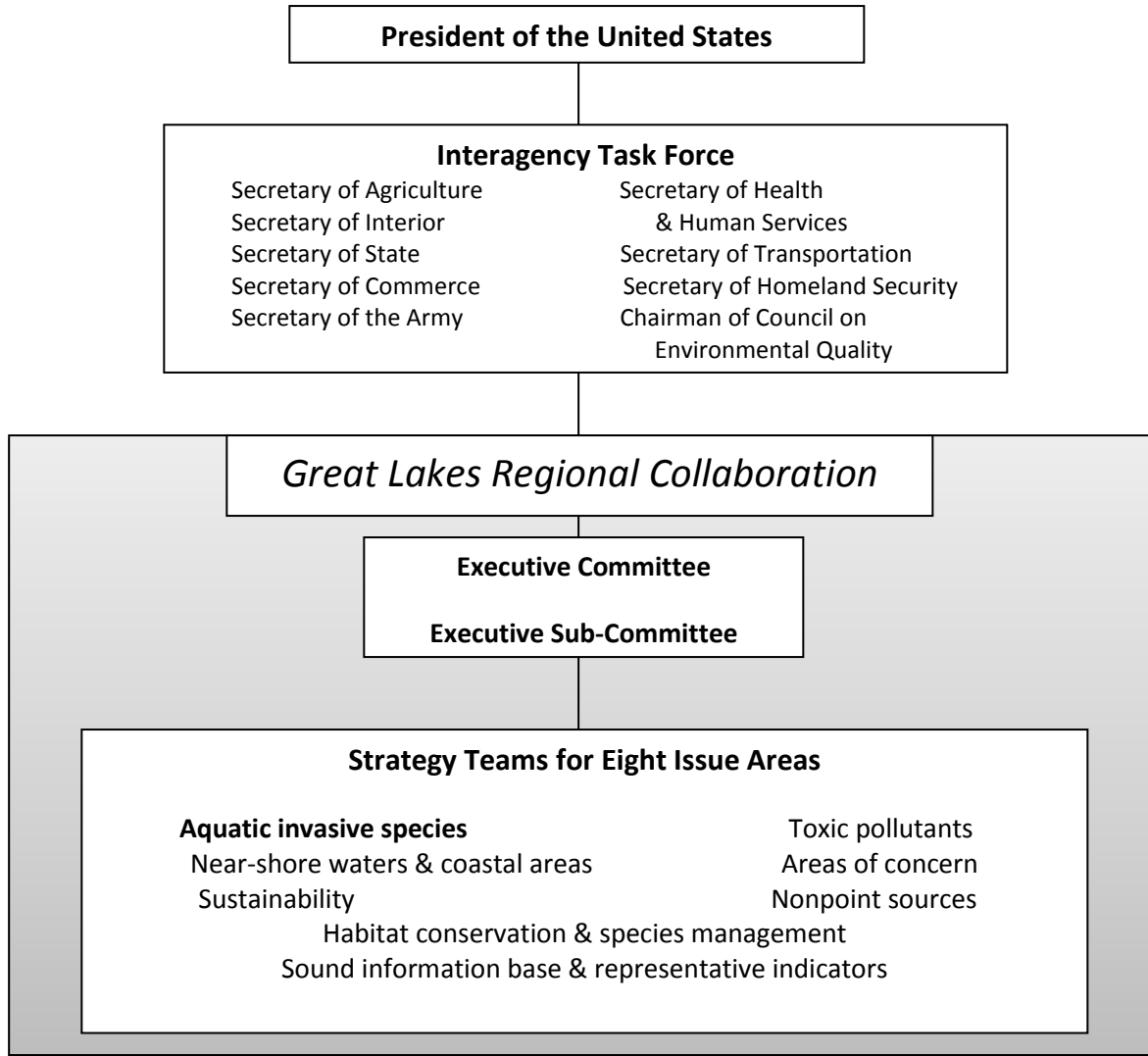
Cooperative Invasive Species Management Areas within the State of Florida



(Image from Florida Invasive Species Partnership, www.floridainvasives.org)

Figure 4.

Structural Organization of the Great Lakes Regional Collaboration



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