



Great Lakes Fishery Commission

ESTABLISHED BY CONVENTION BETWEEN CANADA AND THE UNITED STATES TO IMPROVE AND PERPETUATE FISHERY RESOURCES

Statement in Support of *The Non-Native Wildlife Invasion Prevention Act (H.R. 6311)*: Legislation to Protect Against Invasive Species

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**House Subcommittee on Fisheries, Wildlife, and Oceans
Committee on Natural Resources
Hon. Madeleine Bordallo, Chair
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INTRODUCTION: THE INVASIVE SPECIES THREAT

Madam Chair, thank you for inviting me to appear before this subcommittee to discuss H.R. 6311, the *Non-Native Wildlife Invasion Prevention Act*. With the introduction of the *Non-native Wildlife Invasion Prevention Act*, we have a real opportunity to take a major step toward preventing the introduction and spread of harmful organisms.

My name is Marc Gaden. I am the Legislative Liaison for the Great Lakes Fishery Commission. I am also an Adjunct Assistant Professor at Michigan State University, Department of Fisheries and Wildlife.

The Great Lakes are an extremely valuable and unique resource for both the United States and Canada. The Great Lakes' commercial, sport, and tribal fisheries alone are valued at more than \$7 billion annually. The lakes provide drinking water for millions of people and are a rich tourist draw. A healthy, vibrant Great Lakes ecosystem is immeasurable in economic terms alone.

Despite the importance of the Great Lakes to the region, the lakes face tremendous threats ranging from pollution to habitat destruction to loss of species diversity. One particularly troubling problem is the influx of invasive species. The Great Lakes are constantly bombarded by new species from all over the world. Ballast water is a major vector and is the subject of legislation (the Coast Guard Reauthorization

Act) recently passed by the House. Canals and waterways are another vector and much attention has been given in recent years to the construction of an electrical dispersal barrier on the Chicago Sanitary and Ship Canal, an artificial connection between the Great Lakes and the Mississippi River system. Recreational activities, aquaculture, and the trade of live organisms (for the live seafood industry, pet trade, ornamental gardens, food, etc.) are other vectors.

Today, the lakes harbor more than 185 non-native species (Lodge 2007; Mills et al. 1993; Ricciardi 2001; Sturtevant et al. 2008), many of which entered the lakes accidentally. The rate of introduction into the Great Lakes has not slowed in recent years, even with the welcomed institution of some invasive species control measures (e.g., ballast water exchange requirements starting as early as 1989); some estimate that a new invader enters the system every 9-12 months. Many in the scientific community also believe that the Great Lakes contain many more invasive species than have been discovered, as a coordinated, basinwide program to monitor new nonindigenous species does not exist (IAGLR 2008; Sturtevant et al. 2008). While much of the focus has been on large or prominent organisms, microorganisms and pathogens are also an increasing concern (particularly with the emergence of the VHS virus). The Great Lakes, essentially, are a welcoming, open door for invaders.

According to the International Association for Great Lakes Research, fortunately, only a small portion of the exotic species that enter the lakes become established, and only a small portion of those (up to 15%) prove to be invasive and harmful (IAGLR 2008). However, lest one find's those odds reassuring, the small percentage that is harmful has cost the region dearly. Damage is difficult to quantify, but sources put the cumulative economic costs since 1900 in the hundreds of billions of dollars. The ecological costs, of course, are immeasurable. According to the Great Lakes Commission, just six of the 70 known harmful invasive species have caused more than \$1.6 billion in damages (Glassner-Shwayder 2007).

With globalization, more species have more opportunities than ever to invade the United States and the Great Lakes. Worldwide, shipping is vibrant and trade across continents is growing. The Saint Lawrence Seaway, for instance, is a direct pathway for foreign ships into the U.S. heartland. Those ships have been responsible for more than 1/3 of the Great Lakes invaders (Mills et al. 1993; Sturtevant et al. 2008). Also, the U.S. Fish and Wildlife Service reports that an average of more than 200 million fish, and tens of millions of reptiles and amphibians, birds, and mammals are imported into the United States annually. Fish for the pet trade are often collected in exotic locations throughout the world or reared in aquaculture facilities (Livengood and Chapman 2007), facilities which are prone to flooding, enabling escapement.

Invasive species are not a local or even a regional problem—they are a national and a global problem. Invasive species have a tendency to spread from region to region, so species introduced in one part of the country have enormous potential to move to other parts of the country. Eurasian *Dreissenid* mussels, for instance, entered the Great Lakes through ballast water from oceanic ships in the 1980s and have now spread throughout much of the United States. Asian carp, which are discussed below, escaped from aquaculture in the Deep South and are threatening the Great Lakes. Snakeheads were imported for the aquarium trade and for food fish and are now present in the northeast, the east, and the Mississippi River system. Specimens have also been found in Alabama, California, Florida, Kentucky, Texas, Washington, and Lake Michigan. Finally, it is estimated that more than 150 invaders nationwide are attributed to the aquarium trade (Padilla and Williams 2004) and their introduction into United States' waters anywhere raises the possibility of spread to other ecosystems. Solutions must be large in scope and based on the assumption that invaders do what they do best: invade.

LESSONS FROM THE SEA LAMPREY

The Great Lakes Fishery Commission, the organization for which I work, was established in 1955 by the Canadian and U.S. *Convention on Great Lakes Fisheries*, partially as a response to one of the most noxious invaders to enter the Great Lakes system: the sea lamprey. Sea lampreys are primitive fishes resembling large snakes and are native to the Atlantic Ocean. They invaded the Great Lakes through shipping canals in the early 1900s. Sea lampreys are fish parasites and not having predators in the Great Lakes, were able to wreak unimaginable damage on the ecosystem and cause significant economic harm to the fishers of the region. The commission's control program has been successful, reducing sea lamprey populations by 90% in most areas of the Great Lakes. Nevertheless, eradication is impossible.

The sea lamprey has taught resource managers some tough lessons:

- A single species can cause significant, permanent damage to the economic and ecological health of a region. Sea lampreys changed a way of life in the Great Lakes and even with effective control, they remain a permanent, destructive element of the Great Lakes fishery. Most—if not all—management decisions made by federal, state, tribal, and provincial agencies must take sea lampreys into account.
- Control, if it is even possible, is expensive and ongoing. The commission has spent more than \$300 million since 1956 controlling sea lampreys. This amount, while large, does not take into account the billions of dollars of revenue lost to commercial, tribal, and recreational fishers of the Great Lakes basin, nor does it take into account the billions of dollars spent by the state and federal governments over several decades to rehabilitate and propagate the fishery after the sea lamprey invasion. Moreover, this figure does not include the immeasurable damage to the ecology of the Great Lakes basin.
- Prevention is key; eradication is not possible. The Great Lakes fishery will forever contend with sea lampreys and fishery officials at the federal, state, tribal, and provincial levels will always have to factor sea lampreys into their decisions.
- Invasive species management programs are costly and borne by the taxpayers.

If sea lampreys have taught us anything it is that prevention of new invaders is absolutely critical. Once a species enters an ecosystem and becomes established, few tools, if any, exist to manage invasive species let alone eradicate them. In fact, sea lampreys are the only aquatic invasive species in the Great Lakes that can be controlled, though control is ongoing and expensive.

It is not clear whether the lessons of the sea lamprey truly have been absorbed. Even with all we know about the damage of invasive species, and even though the pathways are generally known, precious little has been done to prevent new introductions. Ballast legislation has been pending for nearly a decade; the construction of the electrical barrier on the Chicago Sanitary and Ship Canal, while progressing, has been slow and is still not fully completed after years of wrangling; myriad canals and artificial connections exist between naturally distinct watersheds, leaving the Great Lakes region vulnerable to invasions from other parts of the United States and, in turn, being a source of invaders; the sea lamprey control budget is constantly under assault; and a meaningful process does not exist to assess the risk of proposed importations of live organisms or to manage the harmful species that have become established.

It is the last vector—the importation of live organisms—that is the subject of this testimony. The *Non-native Wildlife Invasion Prevention Act* presents us with a rare opportunity to take a major step toward prevention.

THE FAILURE OF THE CURRENT REGIME

Overall, the regime governing the trade of live organisms falls far short of what is necessary to protect the United States and the Great Lakes from invasive species. A meaningful process does not exist in the United States to assess the risk of organisms for injuriousness prior to importation, to inspect importations, and to properly enforce the law. This lack of a regime has left the United States and the Great Lakes region extremely vulnerable to biological invasions.

Importation, interstate commerce, and trade are among the most dangerous pathways for introduction of invasive species into the United States and the Great Lakes region. The transportation and sale of live organisms poses considerable risk to the biological integrity of the ecosystems they enter.

Unfortunately, the trade of live organisms poses a significant and increasing risk. While a large number of organisms are imported, serious problems and many loopholes in the trade regime exist. Programs for assessing the risk of importing live organisms are inconsistent throughout the United States, to the extent they even exist at all. Indeed, while states have considerable discretion in regulating live aquatic species, neither an overarching strategy nor a consistent, robust policy exist. Most states, in fact, have lists of fish species that are prohibited or regulated, but those lists tend to be short (Alexander 2004) and not usually based on a rigorous review of potential injuriousness. Importers are generally free to bring in live organisms so long as the organisms are not listed by the U.S. Fish and Wildlife Service as “injurious,” are not endangered, do not harm human health or livestock, or are not governed by other federal agencies or laws (Alexander 2004). Also, while some organisms are prohibited because they pose a human health risk, carry disease, or harm agriculture and forests, live organisms generally are not screened for potential injuriousness to the economy or to ecosystems. Instead, the number of prohibited species is quite small, giving importers nearly free-reign to import a large number of species.

Overall,

- existing federal, state, and local programs that address the trade of live organisms have evolved without coordination and are often reactionary;
- currently, the U.S. Fish and Wildlife Service charges only one person with the task of evaluating potentially injurious wildlife species (implementing the Lacey Act) while hundreds of species await review;
- federal and state law enforcement officers are stretched thin, making it virtually impossible for proactive enforcement to occur;
- in 2002, only 97 inspectors at the 32 United States ports designated for fish and wildlife importations were available to inspect the 223 million live fish that were imported;
- in the United States, when a shipment of live species arrives, complete inspection is nearly impossible due to the need for expediency; and
- most state requirements for licenses to sell live fish lack substance; typically, the payment of a fee and a documentation of sales are all that are required.

The story of three species of Asian carp – the silver, bighead, and black carp – present a clear example of how the trade of species can seriously threaten the ecosystem and why a risk assessment process for importation of species is needed. Asian carp were imported into the southern United States to keep

aquaculture facilities clean and to serve the food fish industry. Grass carp were imported into the United States in 1962 from Taiwan and Malaysia. Black carp, native to China, contaminated these shipments and were later intentionally introduced in the 1980s. Bighead carp were imported from China in 1972. A year later, in 1973, silver carp were brought into the United States from China and eastern Siberia. These non-native fish escaped from aquaculture facilities during flooding events throughout the late 1980s and early 1990s. The floods provided extensive spawning and rearing habitat which facilitated high survival rates for offspring. In the early 1990s, the presence of these fish in the Arkansas River was reported.

Since their escape over a decade ago, bighead and silver carp have besieged the Mississippi River basin and Illinois River system. Between 1991 and 1993, the Upper Mississippi River Long Term Resource Monitoring Program documented a 100-fold increase in Asian carp numbers in an area known as Pool 26, which is on the Illinois River upstream of St. Louis. Commercial harvest of bighead carp in the Mississippi River Basin increased from 5.5 tons to 55 tons between 1994 and 1997. In the fall of 1999, an investigation of a fish kill in the off-channel waters of a National Wildlife Refuge near St. Louis documented that Asian carp made up 97% of the biomass. During this time period, commercial fisherman began reporting that they were abandoning their traditional fishing sites because they were unable to lift nets that were “loaded” with Asian carp. Between 1999 and 2000, the Upper Mississippi River Long Term Resource Monitoring Problem documented a 600-fold increase in Asian carp numbers in the LaGrange Pool, which is downstream of Peoria, IL. Sampling during the summer of 2000 in the off-channel areas and backwaters of the Mississippi River downstream from St. Louis documented the presence of bighead carp at a ratio of 5:1 to native paddlefish. They continue to migrate northward at a steady pace.

Asian carp are particularly troubling in that they grow to very large sizes by eating vast quantities of food. An Asian carp is capable of eating 40% of its body weight each day. Bighead and silver carp voraciously consume plankton, stripping the food web of the key source of food for small and big fish. Black carp are especially worrisome because they have the potential to wipe out native mussel populations in a relatively short period of time. According to the U.S. Geological Survey, a four-year-old black carp consumes an average of 3-4 pounds of mussels per day; older, larger black carp likely consume more mussels. At this rate of consumption, a single black carp could eat more than 10 tons of native mollusks during its life. To make matters worse, portions of the Great Lakes are perfectly suited for Asian carp, and biologists are very concerned that if Asian carp find their way into the Great Lakes, they will make the lakes home, spread, and deprive our most prized species of food. Observing the path of destruction on areas carp have already invaded, biologists are very worried indeed. Clearly, these fish have the ability to establish rapidly, reproduce in large numbers, and become the dominant species in an ecosystem. Once established, there is little chance fishery managers will be able to control Asian carp. Like the sea lamprey, they could well become a permanent element of the Great Lakes if they enter the system.

Existing federal law is inadequate to address the increasing threat posed by injurious species. The primary problem with the United States’ federal program is that the Lacey Act—the primary tool the U.S. Fish and Wildlife Service has to regulate harmful organisms—is not focused specifically toward proactively assessing the risk of importations before they occur. Implementation of the act has not been as aggressive as is needed, such that only a small number of species are listed as injurious under the Lacey Act. In fact, despite the proliferation of injurious species, only three families of fishes, one species of crustacean, one species of mollusk, and one reptile species are listed under the act. Hundreds await review and the list does not include many species that have been banned by state governments. Furthermore, the process for adding to the list is cumbersome. Although the Fish and Wildlife Service has the authority to issue emergency regulations, it has generally operated through a standard notice and comment process. The average time it takes for the service to list a species (from the time it is first proposed) is nearly five years (Fowler et al. 2007). Species continue to spread and cause harm during that lengthy review process,

perhaps making the final listing less meaningful. To make matters worse, the Lacey Act creates an almost impossible situation. To be listed under the act, a species must be proven to be injurious. To merit listing, a species must be shown to cause significant economic and environmental harm. The problem is, to prove such harm, the species must be causing damage. By the time such a determination is made, the species has likely spread to a point where management would be unfruitful. On the other hand, research has shown that of the species that were not in the country prior to a Lacey Act listing, *none* subsequently became established (Fowler et al. 2007). Clearly, proactive prevention, not an *ex post facto* review, is critical.

As the implementation of the Lacey Act and the lack of an effective risk assessment process demonstrate, most approaches to reducing and eliminating the release of aquatic invasive species from pathways involving trade and commerce are reactive rather than preventative. The existing trade regime has left the waters of the United States extremely vulnerable. Overall, a lack of sufficient resources to complete the cumbersome process to list species as injurious, and the lack of an effective risk assessment process to evaluate proposed importations, promote this vulnerability.

The current catastrophic floods in the Midwest offer another stark reminder of how exposed the United States remains to escapement. In addition to the human misery and enormous economic damage that are the result of these floods, the environmental harm is staggering and includes the spread of non-native species when aquaculture facilities are inundated. No fewer than 19 fish species are raised in aquaculture facilities in the State of Iowa alone, many in facilities near the Mississippi River flood plain. Some of the species raised (e.g., tilapia, grass carp, hybrid striped bass, blue and flathead catfish) are not present in the Great Lakes; some are not even indigenous to North America.

THE GREAT LAKES REGIONAL COLLABORATION

Addressing the invasive species threat is a top priority for the Great Lakes region, Congress, and the administration. In May, 2004, President Bush called for the development of a comprehensive Great Lakes restoration plan and identified invasive species as one of eight focal points. The “Great Lakes Regional Collaboration”—comprising representatives of government agencies at all levels, industry, the public, and non-government organizations—was formed to develop the restoration plan, which was submitted to government in December, 2005. Implementing the provisions contained in the restoration plan has been a challenge, with few major recommendations fulfilled. The *Non-native Wildlife Prevention Act*, if enacted, would address several key recommendations.

The Great Lakes Fishery Commission actively participated in this large endeavor by co-chairing the Aquatic Invasive Species (AIS) Strategy Team of the regional collaboration. The AIS team had the responsibility of developing the invasive species portion of the restoration plan. More than 1000 people participated in the Great Lakes Regional Collaboration and more than 150 people were a part of the AIS Strategy Team. The recommendations were developed by consensus.

The threat posed by the lack of a risk assessment process for the importation of live species was a major component of the AIS action plan. The complete report of the “organisms in trade” subcommittee of the AIS Strategy Team is included as an appendix to this testimony. The recommendations are summarized as follows:

“Federal and state governments must take immediate steps to prevent the introduction and spread of AIS through the trade and potential release of live organisms. Specifically governments should:

- implement . . . a federal screening process for organisms proposed for trade;
- [mandate] that the screening process . . . classify species proposed for trade into three lists—prohibited, permitted, and conditionally prohibited/permitted;
- develop a list of species of concern for the Great Lakes basin and an immediate moratorium by the States on the trade of species on that list, until the species are screened and approved for trade;
- develop and implement risk models for organisms in aquaculture.
- clearly state that the screening process established must place the burden of proof of non-injuriousness on the importer;
- allocate sufficient resources to heighten the number of species under the Lacey Act as "injurious," to prevent the interstate transportation of harmful species; the Fish and Wildlife Service (FWS) should list black, bighead, and silver carps as injurious under the Lacey Act; and
- significantly increase resources for the enforcement of laws governing the trade of live organisms.”

THE NON-NATIVE WILDLIFE INVASION PREVENTION ACT

A bill introduced by Chairwoman Madeleine Bordallo—H.R. 6311, the *Non-native Wildlife Invasion Prevention Act*—is welcomed legislation and badly needed. I commend Representatives Abercrombie, Kildee, Klein, Hastings, Kind, and McCollum for being original co-sponsors. As globalization continues to drive world trade regimes and policies, governments must redouble their efforts to eliminate the risk of dispersing harmful organisms. This legislation takes a significant step towards that goal. The legislation establishes a risk assessment process for organisms proposed for importation, closing a major vector for invasive species into the United States and the Great Lakes region. The legislation also fulfills many of the recommendations of the Great Lakes Regional Collaboration’s AIS Strategy Team. The Great Lakes Fishery Commission has reviewed this legislation and supports it.

The bill has many positive points:

1. The bill calls upon the Secretary of Interior to promulgate regulations that establish a process to assess the risk of *all* non-native wildlife proposed for importation into the United States *before* the organisms are imported. The bill clearly outlines several factors that the secretary must consider to assess the risk of organisms proposed for importation. The list of factors is solid and protective, as it calls upon the secretary to consider such factors as the potential of the species to become established, the potential injuriousness to new ecosystems in the United States, and the likelihood that pathogens could accompany the imported species.
2. The bill establishes both “clean” and “dirty” lists of species and *only those species* on the clean list can be imported. This is a major, positive element of the legislation, as experience has shown

that reliance only on “dirty” lists alone does not provide the level of protection needed. For instance, a major shortcoming of the Lacey Act is that it is basically a “dirty” list; species that do not appear on the list are approved for importation (so long as they are not on other prohibited lists such as those governing endangered species). To make matters worse, not all imported or harmful species are scrutinized, only those are that have proven to be injurious and that have been petitioned to be added to the list (though the U.S. Fish and Wildlife Service can initiate a review as well). In contrast, by relying on a “clean” and a “dirty” list approach, this legislation is proactive and complete in its review of proposed importations. Only species that have been scrutinized and included on the “clean” list will be allowed.

3. The “grandfather clause,” under the heading “animals imported prior to prohibition,” is reasonable, as it allows individuals to continue to possess (but not rear) organisms that have been imported legally. In theory, organisms that were imported legally, but later prove to be injurious, should be addressed by the Lacey Act. However, problems with implementing the Lacey Act have precluded effective management of injurious species. The process to list a species under the Lacey Act as injurious is cumbersome, slow, and often ineffective in preventing the spread of an organism. The process proposed in the *Non-native Wildlife Invasion Prevention Act* is far superior to what we’ve experienced under the Lacey Act.
4. The legislation clearly states that in assessing the proposed species, the secretary must determine that the species is *not harmful* to the economy, the environment, or human or animal health. By demonstrating a lack of harm—as opposed to demonstrating harm—the burden of proof is stronger and more appropriately placed. History has demonstrated that simply expecting a species to not escape or invade an ecosystem is foolhardy. One must assume the worst unless proven otherwise.
5. The legislation creates an open, transparent process whereby the organisms are assessed. By mandating the publication of proposals in the *Federal Register* and by requiring input from interested parties, this legislation gives those with pertinent information, or those affected by the proposed listing, an opportunity to be heard. The Secretary of Interior will have some discretion about how, exactly, the risk assessment process will be established, and, once this legislation is enacted, the commission urges the establishment of a robust process that involves peer reviews, application of the best science available, consultation with other government agencies and university experts, and periodic improvement. The commission also urges that any process that is established be capable of undertaking the assessments in a quick and efficient manner.
6. The bill provides the secretary with emergency authority to act if a species poses a serious and imminent threat. Such authority, also granted under the Lacey Act, is essential and, in fact, was important in the response a few years ago to the escapement of snakehead.
7. The legislation allows the states to be more protective of their ecosystems than the federal government. For most states, a strong federal policy is appropriate, as the federal government can oversee a national process to protect all of the United States. In other cases, however, states may wish to put in place special, unique protections for their ecosystems. This legislation allows states the flexibility to go beyond what the federal government requires, while still maintaining a national foundation of protection.

I respectfully offer the following comments for improvement or clarification:

1. The legislation should clarify what should happen if a species is assessed but not enough information is available to state conclusively whether the species should be on the “clean” or the “dirty” list. While the legislation is clear that only species on the “clean” list can be imported, the legislation does not provide direction to the secretary about how to decide on which list to place a species when that choice does not present itself unambiguously during the risk assessment process. It appears the intent of the legislation is that such a species not be allowed for importation, but that intent should be explicit. An option would be to state that the secretary shall place the species on the “dirty” list until more information is presented. Another option would be to create an interim list (often called a “grey” list), where such species would be prohibited, but placed on the list until further scrutiny can be applied. The “grey” list approach has worked in many states and in other countries and would dissuade the reviewer from simply placing a species on an approved list for expediency or lack of information.
2. The penalties and enforcement provisions of this act rely on the penalty and enforcement provisions of the Lacey Act. While the Lacey Act is one of the strongest laws on the books with respect to wildlife enforcement, the stronger penalties are rarely imposed and are often too low to dissuade behavior. Moreover, Lacey Act penalties are tied to the market value of the species that were imported, not the potential harm to an ecosystem. For instance, a violator could be fined based on the value of his shipment of fish (which might be small, but still large enough to establish a population) rather than the impact the fish would have on the environment. The committee is urged to consider improving the law enforcement provisions to ensure that this act serves as an effective deterrent and that penalties are truly commensurate with the threat to the ecosystem.
3. The section establishing fees to recover the costs of the risk assessment process is important, as it requires the recovery of the costs of assessing the risk of species for the “clean” list. However, the legislation does not specify that the fee should be collected from those who propose an importation; the bill should be specific as such. Moreover, the bill should be more explicit about not requiring fees from citizens who petition for a species to be included on the “dirty” list. Such citizens are petitioning for the public good and, therefore, should not be dissuaded from asking for a species to be evaluated.
4. The legislation does not include enforcement as a recoverable cost under the fee collection system and, therefore, the commission assumes that the service would have to find enforcement funds from within its regular budget, or request funds from Congress. We have learned from the implementation of the Lacey Act that even a strong, well-intentioned law is not implemented optimally if enforcement is not funded adequately. While it would be overly optimistic to expect every shipment of live organisms to be inspected, additional training and enforcement will be necessary to implement this legislation. More law enforcement officials will be required to be present at points of entry, law enforcement officials will require training to identify different types of species, and fines will have to be sufficient to deter lawbreakers. The committee should consider adding a specific “authorization of appropriations” for implementation or to specify that the fees should be sufficient to cover enforcement, as well as the risk assessment process.

ADDITIONAL IMPLEMENTATION ISSUE

The U.S. Fish and Wildlife certainly does not have to start from square-one when it comes to considering processes for assessing the risk of live organisms. Several models for risk assessment and management are in various stages of development. Such screening tools, though primarily developed for state use, would certainly support and complement the provisions of this legislation.

That said, implementation will be a significant undertaking, and the Great Lakes Fishery Commission remains concerned that the service will not have adequate resources to do the job. The legislation calls upon the service to assess the risk of all organisms proposed for importation. It is expected that the initial list for review could be in the hundreds, if not thousands, of species. The legislation establishes a process to collect fees, which the commission supports, and urges the service, when this legislation is passed, to not let the potential cost of the undertaking deter the establishment of a robust, transparent risk assessment process.

The commission believes it is worth considering a recommendation by the Ecological Society of America that risk assessment processes could be undertaken by “independent organizations that are authorized to certify that species for sale are not likely to be invasive” (Lodge et al. 2006, p. 2042). While the intent of this recommendation might have been to encourage industry organizations (e.g., importers) to proactively and voluntarily assess the risk of organisms, this recommendation could also be used to add additional expertise and capacity in implementing the large task of screening organisms.

COORDINATION WITH CANADA

Although this legislation is limited to importations into the United States, other countries—primarily Canada and Mexico—will play a critical role in protecting connected ecosystems. Indeed, just as a national policy is needed because organisms spread from state to state, an international approach is needed to keep harmful organisms from migrating among contiguous countries.

Like the current situation in the United States, federal statutory authority does not exist in Canada which targets invasive species directly or explicitly. However, also like the United States, the importation of certain species is prohibited into Canada for health or disease reasons. Legislation, Bill C-32, is pending before the Canadian House of Commons that would grant the Minister of Fisheries and Oceans additional authority to manage invasive species. The bill also authorizes the Governor in Council “to make regulations for the conservation or protection of fish or fish habitat, including regulations for controlling aquatic invasive species, which in turn include regulations respecting the export of members of such species, their import, and their transport.” While this legislation does not explicitly establish a risk assessment process, it does call for imports to be managed. The pending legislation in Canada, thus, is in the same spirit as the *Non-native Wildlife Invasion Prevention Act* and it is the commission’s expectation that the legislation in both countries, together, will inspire a coordinated approach.

Moreover, the Mississippi Panel on Invasive Species has developed a risk assessment/risk management process that includes a risk assessment tool for use by U.S. states. This tool could be useful nationally and, as was discussed during a recent meeting of the Trilateral Committee for Wildlife and Ecosystem Conservation and Management (comprising officials from Canada, Mexico, and the United States), North America-wide. The hope is to develop one day a standardized protocol for risk assessment that could be used by all North American jurisdictions.

CONCLUSION

The *Non-native Wildlife Invasion Prevention Act* is sound legislation and, when implemented, will do much to protect the ecosystems of the United States. The legislation is well-conceived, is designed to close a major gap in invasive species control policy, and is generally consistent with the recommendations of the Great Lakes Regional Collaboration. The commission appreciates its introduction and urges its enactment. Madam Chair, thank you for the opportunity to offer my thoughts about your bill.

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