

Testimony of Phyllis N. Windle, Ph.D.**Senior Scientist****Union of Concerned Scientists
Washington, DC****Regarding Reauthorization of the National Invasive Species Act****Subcommittee on Fisheries Conservation, Wildlife, and Oceans
Committee on Resources
U.S. House of Representatives****November 14, 2002****Where We Find Ourselves Today**

Our country is playing a huge game of ecological roulette with the Nation's resources. Until our policies get tougher, mostly luck determines whether the new species that arrive in the United States are useful, benign, or invasive – like the zebra mussel and northern snakehead fish. The two bills we are considering today – H.R. 5396 and H.R. 5395 – are important steps toward that stronger policy.

In the 1990's, scientists and policymakers developed a much greater understanding of invasive species. We discovered, for example, that the most damaging single species easily cost us more than ten million dollars per year. Also, we learned that invasive species are the main contributor to the listing of about one-half of the Nation's threatened and endangered native species. Now a clear understanding exists that the spread of invasive species is one of the most serious environmental threats before us. We face a threat that is already changing the face of the planet.

Yet changes in federal policy have not kept pace with our new understanding of the issue. An exception is the area we're discussing today. With legislation first passed in 1990, revised in 1996, and now being considered again, Congress has sought to respond and adapt to this new reality for more than a decade. Yet we all acknowledge that the previous legislation – and federal agencies' implementation of it – has provided less help than we hoped. For instance, invasive species have continued to enter the Great Lakes via the ballast water of ships despite mandatory efforts to prevent it. Just last Friday, scientists predicted that 22 additional fish species from the Caspian and Black Seas could reach the Great Lakes via the ballast water of ships – and spread quickly. ^[1] They predicted that at least five of these species would become invasive.

The two bills before us today are not Republican or Democratic bills. Instead, they are the product of a bipartisan effort. We want to acknowledge the hard work of many members of Congress and their staffs. In particular, we would like to thank Mr. Gilchrest, Mr. Ehlers, and their staffs – as well as the staff of the

Northeast Midwest Institute – for their roles in preparing these bills. Nor are these environmental bills or industry bills. Their content instead shows the continuing, good faith efforts of a broad group of stakeholders, as well as the compromises worked out among them.

H.R. 5396 and H.R. 5395 Lay Out Many Positive Steps

The Union of Concerned Scientists is pleased to endorse these bills. Early in 2002, we laid out a number of priorities that we felt would help the National Invasive Species Act protect the United States better – both environmentally and economically. The current bills are consistent with a significant portion of our priorities.

We are especially pleased that certain weaknesses in the 1996 law are being corrected. For example, it is crucial that this legislation, and its most stringent provisions, apply:

- throughout the United States; and
- to all kinds of invasive or potentially invasive aquatic organisms -- regardless of their taxonomic category.

We also strongly support those elements of the legislation that address the full range of pathways by which we introduce and spread harmful aquatic organisms. Thus, we give our strong support to a number of specific provisions in these bills:

- identifying the highest risk pathways for introductions and the rapid development and deployment of methods to limit them;
- establishment of a monitoring program to detect and track new invasive species;
- ensuring that we have the means, such as contingency plans and specially trained teams, to respond quickly to these newcomers;
- and taking a modest step toward more careful assessment of the potential invasiveness of species proposed for intentional introduction before they are imported.

Each is essential if we are to make progress on this issue. And each must be backed by targeted research – which H.R. 5395 provides.

In addition, we look forward, under H.R.5396 to much-needed annual updates of the species listed under the Lacey Act and the Plant Protection Act. It is helpful to the States that additional elements can be included in their aquatic invasive species management plans. It is appropriate that matching funds be available for implementing these plans and that higher levels of funding be authorized. Also we anticipate the time when federal agencies will more strictly limit their own introductions. The lists of potential invaders will help all jurisdictions to be alert and better prepared.

It is true that these many of these elements are included in the National Invasive Species Council's National Management Plan.^[2] And it is true that a number of federal agencies are already at work on similar tasks. Some may argue that, because these efforts are underway, they need not be put in law. But it is also true that the U.S. General Accounting Office just recently raised serious questions about the Council's implementation of the Management Plan.^[3] Enacting key provisions into law will help ensure that federal agencies address each topic in a timely way – and provide the public with recourse if they do not.

For that matter, it is also true that a number of these same provisions were part of the 1990 Nonindigenous

Aquatic Nuisance Prevention and Control Act. But without firm deadlines, requirements to report back to Congress, additional appropriations, and other means to encourage implementation, these general provisions were neglected. Thus is it our belief that many of the details in H.R. 5396 put flesh on the bones of the 1990 law. None of these provisions should come as a surprise to the relevant federal agencies. Indeed, if they had complied with the letter of the 1990 law, they would have a 12-year track record to show. This, in particular, makes us relatively unsympathetic to requests for delay.

Of course, since 1990, this legislation has been intended to be our best defense against further unintentional introductions of invasive species in the ballast water of ships. Unfortunately, experience has shown us that ballast water exchange is not effective. The time has come to move away from a primary reliance on ballast water exchange. Ballast water treatment should be our goal. We should be moving in that direction boldly, with immediate interim standards paving the way for more ambitious and stronger permanent ones.

We are deeply disappointed that the U.S. Coast Guard continues to delay development of such standards. In 1993, the congressional Office of Technology Assessment determined how quickly the Coast Guard, as well as the new federal Aquatic Nuisance Species Task Force, was completing the tasks Congress assigned to them in the 1990 law. The Coast Guard's record was stellar. It issued guidelines, technical assistance, and regulations early or, at most, just a few months past the law's deadlines. ^[4] It is our hope that the Coast Guard can be stirred to replicate the urgency and responsiveness the agency showed then.

We appreciate many of the elements of H.R. 5395, The Aquatic Invasive Species Research Act, too. It aims to make the collection of information and its analysis more comprehensive. The research laid out in this bill also advances the state of scientific knowledge, e.g., on different ecosystems' vulnerability to invasion. The availability of scholarships for taxonomists will be helpful, too. As people become more aware of the harm caused by invasive species, especially to human health, the need will increase for environmentally sound tools for detecting, preventing, controlling, and eradicating aquatic invasive species will increase. It is helpful that both of these acts encourage their development.

It is also helpful that H.R. 5395 stipulates that certain research protocols, contracts for ecological and pathway research, and recommendations for restricting planned imports nonnative aquatic organisms will be subject to peer review. In the past, the technical merits of some federal efforts have been weak. ^[5] Peer review, by independent experts with no financial interest in the outcome of a decision should be a standard supplement to agencies' requests for federal comments in highly technical areas. We believe the requirement for peer review should apply to many of the elements in H.R. 5395 as well. In particular, attempts to develop screening methods need to have the input and review of academic experts and others outside the federal government. To help you consider the research we will need over a longer term, I have attached the recommendations of three expert groups of scientists. ^[6]

A Larger Vision: Where We Need to Keep Working

In all of the areas above, UCS sees many positive sides to these bills and we will work hard to ensure they are passed. At the same time, we fear that they miss some key opportunities. Not everyone agrees with us and we welcome even incremental steps. Over the longer term, though, we believe the Nation's resources deserve stricter protection.

From discussions of voluntary measures in the nursery and aquarium industries to the willingness of shippers to change their ballasting practices – all trends point in one direction. Governments, industries, and individuals are taking greater care to limit their movements of damaging species around the world. We are certain that, eventually, all intentionally introduced organisms will be effectively screened for invasiveness before import – with the most invasive or potentially invasive kept out. We would like to see that time come as soon as possible. And we would like it to be with the least possible number of exemptions for organisms now in trade. This last includes aquatic species in the live food trade – which brought the northern snakehead to Maryland this summer.

Also, we hope that federal standards for screening or for treating ballast water do not represent “a race to the bottom.” We need federal standards that are at least consistent with the most comprehensive approaches taken at the state level.

While we are not generally sympathetic to calls for delay, neither are we advocates for unfunded congressional mandates. Eventually we must have formal provisions for generating sufficient revenue to ensure adequate funding not just for the new work we are discussing today, but also to undertake more ambitious efforts, e.g., to screen organisms prior to import.

These Bills’ Passage: in the First One Hundred Days

What were once piecemeal efforts to alleviate local weed or pest problems have coalesced into a national strategy. This is largely because we have come to understand that nearby weeds and pests are just the local face of a global problem. As this problem grows, so must our efforts to halt it. From that standpoint, we know we will need to update these bills in another five years, incorporating the newest scientific information and most recent evaluations of our efforts. But today we can make the long overdue changes and urgently needed improvements contained in H.R. 5396 and H.R. 5395.

The Union of Concerned Scientists is committed to taking these and other steps as soon as possible. More than 2,500 UCS members and activists – representing every state in the Union – have already faxed, emailed, or written their congressional delegations about this reauthorization. They asked that reauthorization happen quickly and that what was the National Invasive Species Act be broadened and strengthened at the same time. To us, this seems like remarkable and substantial interest in a highly specialized topic with limited public engagement.

Zebra mussels, nutria, and the seaweed caulerpa have not halted their spread for our elections. Therefore we hope that either this Congress passes these bills now or that the new Congress will pass them in its first 100 days. We look forward to helping you make that happen.

A Final Parable

I first testified regarding invasive species in 1993 for what was then the House Merchant Marine and Fisheries Committee. I represented a congressional research agency at the time and the Subcommittee specifically asked me to address the risks posed by the proposed import of the Asian black carp. [\[7\]](#) It was clear from my quick reading of the scientific literature that this species posed a substantial risk to the nation’s aquatic resources. Addition to the Lacey Act’s list of prohibited species would have been a logical step. That was 1993. This fish is still not listed on the Lacey Act. On September 30, 2002, almost exactly nine years later, the official public comment period ended for

the Fish and Wildlife Service's proposal to make this fish subject to the Lacey Act. Is there anyone here who believes that ten years is a timely or adequate response to the dangers posed by a particular invasive species? I ask you to remember this example as we consider how quickly H.R. 5396 and H.R. 5365 should turn the wheels of government.

[1] Kolar, C.S. and D.M. Lodge. 2002. Ecological predictions and risk assessment for alien fishes in North America. *Science* vol. 298, pp. 1233-1236. See also: Recer, P. 2002. Alien fish may invade Great Lakes, Associated Press, Nov. 11, 2002.

[2] National Invasive Species Council. 2001. Meeting the Invasive Species Challenge: National Invasive Species Management Plan. Washington, D.C.

[3] U.S. General Accounting Office. 2002. Invasive Species: Clearer Focus and Greater Commitment Needed to Effectively Manage the Problem. Washington, D.C. GAO-03-1.

[4] U.S. Congress, Office of Technology Assessment. 1993. Harmful Non-Indigenous Species in the United States. (Washington, D.C.: U.S. Government Printing Office) Table 6-1, p. 169, available online at <http://www.wws.Princeton.edu/~ota/>

[5] See, for example, National Research Council. 2002. Predicting Invasions of Nonindigenous Plants and Plant Pests (Washington, D.C.: National Academies Press)

[6] "Specific Recommendations on Research." Source: National Council for Science and the Environment. 2001. *Recommendations for Improving the Scientific Basis for Decisionmaking. A Report from the first National Conference on Science, Policy, and the Environment.* Washington, D.C., p. 15; "Research Questions About [Intentional] Introductions." Source: Ewel, J.J. et al. 1999. *Deliberate introductions of species: research needs.* *BioScience*, vol 49, no. 8, pp. 619-630;. "Research Priorities for Invasive, Non-Native Species and Their Potential Impacts on Natural Populations and Communities of Ecosystems. Source: Source: D'Antonio, Carla, Laura A. Myerson, and Julie Denslow, 2001. Exotic Species and Conservation, in *Conservation Biology: Research Priorities for the Next Decade.* M.E. Soule and G.H. Orians, eds. Washington, D.C.: Island Press, pp. 59-80.

[7] *Mylopharyngodon piceus*