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Testimony for Joint Hearing “How to Constrict Snakes and Other Invasive Species”
Subcommittee on National Parks, Forests, and Public Lands
Subcommittee on Insular Affairs, Oceans, and Wildlife
House Natural Resources Committee

March 23, 2010

I would like to thank you, Chairman Grijalva and the members of both Subcommittees, for the opportunity to be with you today. I speak on behalf of the Union of Concerned Scientists. But know, too, that the National Coalition on Invasive Species – with its six million activists and supporters and of which UCS is a member – is intensely interested in, and supportive of, your efforts to solve invasive species problems.

1. Limping Along on the Legs of Old Law

In 1900, George Eastman introduced the first affordable camera for the public. France limited the legal workday to 11 hours, but only for women and children. Queen Victoria sat on the throne of England. And William McKinley was re-elected. This was long, long ago.

- Yet the Lacey Act of 1900 remains the nation’s most important law for protecting the United States from invasive animals and their diseases. This was never its sole purpose, nor was it designed to match the current pace, volume, and range of animal imports.
- Many of us remember the 1950s – fondly or not. Nevertheless, they were long ago. Yet the regulations for importing nursery plants (and the pests that hitchhike with them) have not been overhauled since. And few changes have been made to the regulations governing marine plants and other weedy invaders since 1974.
- While 1990 and 1996 may seem like just yesterday, they really aren’t and photographs taken of us then would prove it. Yet our laws to remove live organisms from the ballast water of ocean-going ships date back to these years.

2. Summary of What Needs to Be Done

Dramatic reforms are needed and ideas for real reform are already on the table. In some cases, they have been available for decades.

While policy has stalled, the science of invasions has advanced significantly. Methods to determine which species are likely to pose the greatest risk have progressed; some are more than 95% accurate. Also, there are new economic studies telling us how high the risks are, and which

help us decide on the most cost-effective approaches. Many of our states are experimenting with policy innovations, which merit federal attention.

What is most needed falls into three broad categories:

- A. Pass new legislation so that non-native animals are screened for invasiveness and disease risk before import – and the most risky animals are kept out;
- B. Give regulatory processes priority at the highest levels of the U.S. Fish and Wildlife Service (USFWS) and the U.S. Department of Agriculture (USDA); and
- C. Match funding, from user fees and other sources, to significant unmet needs.

I return to each of these topics in more detail later.

3. The Risks of Invasions

The impact of invasive species is the least recognized major environmental threat of our times. Invasive species may be the very last unregulated pollutant. Their worldwide movement constitutes a global change.

Scientific study of invasive species' impacts surged in the 1990s. There is now a large body of research that describes damage from the minute, such as genetic impacts, to the expansive, such as ecosystem-wide change. There are dozens of reports from state invasive species councils; state and regional aquatic nuisance species task forces; territorial and other species-specific management groups; and state and regional exotic pest plant councils. Each describes the impact of invaders in one location or region.

I have read many of these reports and, as a result, I can guarantee that harmful non-native animals, plants, and pathogens are hurting public and private lands in your district. They damaging industries in your district – whether those industries are agriculture, fishing, tourism, forestry, or others. Invasive species limit your constituents' opportunities for recreation on land and water. And they worry the territorial or state officials tasked with protecting public health and safety, as well as preventing livestock and wildlife disease.

4. The Economic Costs of Invasions

We know that the costs attributed to invasive species are alarming and will probably grow. Costs nationwide have been estimated at more than \$100 billion, but the accuracy of this figure is difficult to determine.

So instead of one total for the entire country, we have cost indicators. Usually these are expenditures of a single agency or on a single species; cost to one industry or at one time; or a rough estimate or projection. For example:

In **California**, the control of invasive plants, and related monitoring and outreach, cost \$82 million per year;

In Colorado and other western states, the Whirling Disease Foundation “directed millions of dollars” to research on protecting trout and salmon from this European disease;

In Guam, electrical outages caused by the brown tree snake were estimated in 2005 to cost \$1-4 million per year, from direct damage and lost productivity;

In Hawai’i, fences to remove and exclude feral hogs from one Nature Conservancy preserve cost approximately \$770,000 from 1999 to 2004;

Louisiana and Maryland together spent \$6 million per year on a program to eradicate nutria, a beaver-like rodent, between 2004 and 2008;

In New Jersey, gypsy moth control cost \$1.8 million in 2009.

In Oregon and Washington, the potential cost of cleaning and maintaining 13 hydropower facilities if the Columbia River is infested with zebra mussels is projected to be \$25.5 million per year;

The Great Lakes spends \$16 million per year to control sea lampreys, a parasitic fish;

The Western United States could lose an estimated \$7-16 billion worth of ecosystem functions by 2055, due to salt cedar – a small, water-hungry tree.

Because projects often do not receive full funding, even these specific figures are probably underestimated. Also, not every element is readily counted, such as the hours volunteers invest or the worth of viewing native wildlife.

Experts agree that preventing entry and establishment of new invasive species is the least expensive and most effective way to avoid invasive species problems. Without a doubt, federal policy is far too weak to do this now. The saddest part is that so much of the damage and costs due to invasive species are preventable. Taxpayers are footing the bill for our policy shortcomings. And with April 15th just around the corner, I deeply resent paying for the actions of irresponsible importers, retailers, and land owners.

5. Needed: A New Law to Screen Non-Native Animals before Import

As individual members of the House of Representatives, you can affect every critical issue on invasive species policy. You can ask how well USDA is regulating marine weeds. You can back higher appropriations funding for the USFWS. You can channel funding to grassroots groups that are working on invaders where you live. Your most important role in invasive species policy, however, is as members of this subcommittee and committee. Only you can begin the process of passing landmark legislation to screen animal imports before import. Without that, we remain stuck in the time of William McKinley and Queen Victoria.

A. The Failure of Lacey Act “Lists”

The USFWS is reviewing its statutory authority on invasive species now. If precedent stands, the Service will conclude that it does not have statutory authority to begin pre-import animal screening to prevent the introduction and spread of invasive species. USFWS does have authority, under the 1900 Lacey Act, to “list” groups of animals by regulation. These are then banned from most types of import and interstate movement. A respected 2007 study analyzed the history of this listing process and declared the Lacey Act a failure. The USFWS averages four years to respond to a petition to list a new group. By the time they were listed, over half of the groups were already present in the country and they continued to spread in the wild. Table 2 on the black carp, at the end of my testimony, shows just how wrong this process can go.

In 2007, the National Environmental Coalition on Invasive Species proposed a list of 27 animals that warranted immediate listing under the Lacey Act, including some of which were not yet in the United States. For example, a 2002 study identified five new species of fish, just from the Black and Caspian Seas and surrounding watersheds, that are likely to have highly negative impacts if they reach the Great Lakes. However, we have concluded that major new approach is needed, rather than go forward with additional listings at the current pace.

Table 1. The Number of Groups of Organisms Listed under the Lacey Act and Plant Protection Act

Law	Designation	Number of Taxonomic Groups Listed		
		After passage [year]	1993	2010
Lacey Act	“injurious wildlife”	4 [1900]	21	24
Plant Protection Act	“noxious weed”	93 [1974]	93	~96

B. New Legislation

Legislation should include a formal screening/risk evaluation so that all potentially or already invasive animals, along with their capacity to carry diseases are assessed before import. Those which pose high risks should be excluded. Screening methods have advanced considerably and new methods exist for rapid screening as well as more thorough risk assessment/analysis.

This is not a new idea. A formal screening program for animal imports was first proposed in the 1970s, when the USFWS considered that it had the authority for such an approach. A less stringent variation was included in House and Senate bills on aquatic invasive species in the early 2000’s. One of the pet industry’s stakeholder groups participated in drafting, reviewing, and advocating for that legislation. So the need for stronger legislation to prevent animal invasions has long been clear. It is no surprise.

C. An Alternative: Unlike for Noah, Species Go One-by-One

Some invasive species and some geographic areas are so unique that problems – and solutions – are confined. In these cases, Congress has been more willing and able to pass legislation. In the

past 20 years, these have included bills not just on animals but also on invasive plants and pathogens:

- the brown tree snake, in Guam;
- nutria, in Maryland and Louisiana;
- several species of Asian carp, most worrisome to Great Lakes states;
- salt cedar and Russian olive (woody invaders in the West and Southwest);
- Asian long-horned beetle eradication for New York, New Jersey, Illinois; and
- Sudden Oak Death (a forest disease), in California and Oregon.

Often the scope of the legislation is narrow, like the species involved. For example, some bills provided money for control or eradication; another funded research; and in a broader bill, Congress singled out brown tree snakes, bypassing the USFWS to add it to the Lacey Act. The recent bills to list several species of Asian carp and the current ones to list large snakes, follow in this tradition.

We appreciate this willingness to act on some of the country's most damaging invaders and most vulnerable places. We also appreciate the frustration with the pace of change at USFWS. However, we are slower than Noah when putting species on this boat. And there is a risk that local, regional, or species-specific reactions disguise longer-lasting solutions, which are national ones.

6. Needed: Making Regulation a Higher Priority

There are policy changes underway in several areas that could help reform federal invasive species policy. Because the relevant agencies have statutory authority to proceed, they are not dependent on new legislation. However, making the solution of invasive species problems a higher administration priority would work wonders. Serious and ongoing congressional oversight in each area could play a key role.

It is not clear – but it is unlikely – that changes will be strong enough to make the United States a world leader on invasive species policy. Nor is it clear whether policy changes will be enough to prepare the nation for the stresses that climate change will bring. Most agencies are not integrating how they deal with invasive species and climate change. For instance, there is no assurance that plants used as crops for biomass or biofuel stocks are not invasive.

A. Invasive Plants and Their Diseases

USDA uses a listing process, under the Plant Protection Act, that is much like the Lacey Act. However, the agency's process to designate federal "noxious weeds" is no faster. From the passage of the Plant Protection Act until 1993, almost no new plants were listed (Table 1). However, the agency has promised for years that a number of new plant listings are imminent. In addition, a 2003 stakeholder petition to list relatives of the invasive marine seaweed *Caulerpa taxifolia* still awaits a formal decision, nine years later.

In 2003, the USDA began a multiyear project to consolidate, revise, and strengthen its rules governing the import of nursery plants – which are the largest source of plant invaders in natural areas and can carry invasive, destructive forest pests.

B. Ballast Water of Ocean-going Ships

The U.S. Environmental Protection Agency, in response to a court order, is working with the U.S. Coast Guard to ensure that ballast water rules comply with the Clean Water Act.

7. Needed: Money for Many Unmet Needs

When new animal screening legislation passes, the USFWS will require additional staff and other resources. Also, funding is not sufficient to detect new invasions early and to respond rapidly when costs are lower.

No one expects that federal appropriations will provide all that is needed. California, for example, has a higher effective ballast water program that pays for itself with user fees. Louisiana established its own special fund for researching and controlling aquatic plants. Florida requires financial bonds for biofuel crops, in case they cause damage.

Data collected by the state of Florida shows that unstable and intermittent funding for invasive species control results in higher total costs – as efforts lose ground and have to play biological catch-up later. Beach vitex is a new weed of coastal Virginia and the Carolinas. According to Betsy Babson, coordinator of the South Carolina chapter of the Beach Vitex Task Force, the task force has nearly eliminated the plant. However, a funding shortfall threatens previous gains and total eradication.

8. Who Are “the Least of These”?

I am trained as a botanist and I love plants. I have nothing personal against plants from anywhere in the world – even those that reach our shores and become invasive. Yes, some of these are beautiful. Many are cheap and easy to grow. However, I love our native wildflowers more. A nation without them is impoverished. This is why I have devoted nearly 20 years to this topic.

The longest portion of my career has been working for you, at a congressional research agency. I also loved working for Congress. So I am deeply disappointed when you fail to act on an issue of such importance.

Hubert Humphrey said,

“The moral test of a government is how it treats those who are at the dawn of life, the children; those who are in the twilight of life, the aged; and those who are in the shadow of life, the sick and the needy, and the handicapped.”

Lately I have been wondering who is in this “shadow of life.”

- Are they the people who don't own property and must rely on public recreation areas degraded by invasive species?
- Are they very young and the very old who, without strong immune systems, are usually most vulnerable to emerging diseases and the pathogens carried by pets and wildlife?
- Are they the workers without “value-added” – the farmers, foresters, and fishers who rely on the health of raw natural resources? They have the most to lose from pests like potato blight, Chestnut blight, and Asian carp.

Or maybe Vice President Humphrey would have expanded his vision in 40 years. Perhaps he would he now see that the native species and ecosystems so much at risk are “the least of these” – and in a shadow only we can brighten? Whether we do so is not just a matter of public policy, it is also a measure of our character.

Table 2. Prevention Fails: The Invasion of the Black Carp

Date	Event	Congress Responds	Administration Acts
1970s	black carp imported as to fish farm, as contaminates in stocks of grass carp		
1980s	black carp imported for biocontrol of parasites in aquaculture		
1990s	commercial fishers working in Atchafalaya River Basin catch 8-15 black carp per year		
1993		Congress asks about potential harm of black carp, Windle testifies to significance	
1994	holding ponds flood in private aquaculture facility; 30 black carp escape		
1995			
1996			Dept. Interior releases “Final Draft Risk Assessment on Black Carp,” advising no new imports and no use in open waters
1997			
1998			
1999			
2000	Mississippi Interstate Cooperative Research Association petitions FWS to list		FWS issues notice to list black carp as injurious under the Lacey Act, then takes no action after opposition from aquaculture industry
2001			
2002	black carp now cultured in 7 states	25 (later, 32) members of Congress petition FWS to list 3 carp species	
2003	first published account of black carp found the wild in an Illinois Lake,		
2004	black carp reported in the lower Red River in LA, in the Mississippi River in MO & LA, and in the Atchafalaya River, LA		
2005	black carp reported in the White River in AR leading scientists note ongoing captures of carp, leading to suspicions they may be reproducing	2 bills introduced in Congress to list 3 carp species, attempting to bypass USFWS	USGS publishes <i>Black Carp: Biological Synthesis and Risk Assessment of an Introduced Species</i> FWS proposes to list black carp as injurious
2006	black carp reported in the Atchafalaya/Red River		
2007	black carp reported in the Atchafalaya River		FWS adds three carp species, including black, to Lacey Act list of injurious species