Harmful Animal Invaders – The Economic Realities

Cash-strapped federal, state and local agencies, as well as private landowners, are expending scarce resources to control harmful invasive species, such as the **Burmese python, red lionfish and Nile monitor**, while the species are still legally being sold to the public. The United States can save money by stopping the introduction of non-native animal species that pose a high risk to the economy, the environment, and human and wildlife health through modernizing the injurious wild animal import program.

At least 2,500 different species of non-native wildlife were imported to the U.S. in the last decade. Research indicates that more than 300 of those species are already known to be potential invaders or present disease risk.[1] A century-old law, the Lacey Act, allows the U.S. Fish and Wildlife Service to restrict harmful species in trade, but the review process is unnecessarily long and typically occurs after the harmful species have been brought into the country. Species already in trade, as well as those proposed for future sale, should be screened for excessive risk. Economic justification is building to modernize the federal law that governs live animal imports and to improve the regulations of the Fish and Wildlife Service in order to modernize the nation's wild animal import program. Our economy could reap benefits by bringing our ineffective, open-door import program into the 21st Century.

The Economic Facts of Injurious Imported Wildlife

- The total U.S. cost attributed to invasive animals and associated animal diseases is estimated to be as much as $35 billion per year. This estimate includes the ongoing impacts of animals introduced through history, such as feral hogs and Norway rats introduced centuries ago, as well as costs and damages caused by more recent invasions and disease outbreaks.[2]
- For fiscal years 2010 and 2011, the federal budget allocated approximately $120 million to control the Asian carp and we are spending tens of millions more dollars to control other invaders, such as wetland-destroying nutria and two python species established in south Florida.
- The diverse U.S. animal import and breeding industry is valued in the billions of dollars. It includes the pet and aquarium sectors as well as the aquaculture, live bait, live food, scientific products and other industry sectors.
- The largest company of this type, PetSmart, had profits of $240M in 2010.
- In contrast, under the Lacey Act, the U.S. spends less than $500,000 annually to prevent harmful invasions, employing fewer than three full-time employees in its "injurious species" listing program. This Fish and Wildlife Service program has only listed about 18 taxa as injurious in the last 45 years and is broadly criticized as too small, too reactive, too slow and inadequate to address the globalized live animal trade.[3]
- The U.S. could implement a program to prevent future animal invasions and wildlife disease outbreaks for a cost of between $2 and $3 million per year. This would expand the current Fish and Wildlife Service injurious species program by a factor of about five.
- The additional funds could primarily come from user fees paid by those sectors that import animals. Live animals must be declared and inspected at U.S. ports, for which a small federal user fee is charged already. A comparable additional user fee would be a fair way to internalize much of the risk analysis and regulatory costs now covered by taxpayers.

Updates on Harmful Invaders

Poisonous red lionfish are invading coral reefs near Louisiana and Texas and spreading throughout the Caribbean.

Asian carp continue to cause massive harm across the Mississippi basin, and threaten to invade the Great Lakes.

Dangerous Burmese python populations in the Everglades are rebounding from a cold winter, defying predictions of their die-off.

Risk Assessments Pay Off. Cost-benefit analysis provides clear financial justification for adopting a stronger risk assessment system. A recent peer-reviewed paper in *Ecological Economics,* using decades of data on amphibian and reptile imports, statistically demonstrated how risk assessments pay off.[4] The study estimated the long-term expected net benefits from risk screenings range from roughly $54,000 to $141,000 per species assessed, assuming typical import scenarios and mid-range impacts. While based on amphibian and reptile imports, the paper says similar benefits likely apply to screening birds, mammals and other animals. Taxpayers will get major financial returns for their investment in risk screening programs and natural ecosystems will be threatened by fewer harmful invasives.

Risk Assessments Can Be Inexpensive. Based on recently gathered international data, the common cost range for a basic risk assessment of a proposed non-native animal lies between $1,200 and $12,000 per species, although Israel keeps its research costs as low as $200 per species.[5] Australia, New Zealand and Israel do risk assessments and species regulation quickly and cheaply and are succeeding—they are no longer suffering new invasions. The outdated U.S. system averages four years to complete one new listing of an injurious taxon, at a high cost per listing, and our nation still suffers from new invasions of intentional imports because the system has not kept up with immense growth in international trade of live animals.

We Can Stop Putting All The Costs Onto Taxpayers. Our government does not require importers to pay for the externalized costs of the species they import. However, the taxpayers, our natural ecosystems, native wildlife and public and animal health pay a high cost when imported animals become invasive and destructive, like the Burmese python, red lionfish and Asian carp—all relatively recent invaders that could have been prevented. Instead of the live animal importers keeping the profits and socializing the costs, they need to make a modest contribution towards the government's costs of reducing the risks of imported species.

The Bottom Line: Federal budgets are decreasing, but the overall costs of invasive species to the public and the environment are increasing. This can change and here's how:

- New legislation should provide clear direction to the Fish and Wildlife Service to perform more risk assessments, cut through the bureaucratic delays and consider more species, so the taxpayers get a better return on their investment. Most of the costs should come from user fees paid by importers. Other reforms are needed like giving the agency emergency powers and the duty to address imported wildlife diseases that no other agency is tackling and to do all of this in coordination with the States. **The Invasive Wildlife Prevention Act proposed by Senator Bill Nelson of Florida would accomplish this – Congress should enact it.**

- Starting immediately, the Fish and Wildlife Service can emulate other countries' use of rapid, low-cost and effective risk screening approaches -- what is needed is the determination in the agency to modernize its program. **The Fish and Wildlife Service needs to be more proactive in using its existing authority to cost-effectively protect the taxpayers, the environment and public and wildlife health.**

National Environmental Coalition on Invasive Species

Great Lakes United, National Wildlife Federation, Natural Areas Association, Natural Resources Defense Council, The Nature Conservancy, The Wildlife Society

For more information, please contact the National Environmental Coalition on Invasive Species: Peter T. Jenkins at (301) 500-4383 or jenkinsbiopolicy@gmail.com, and visit www.necis.net

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[1] Jenkins, P.T., K. Genovese and H. Ruffler. 2007. *Broken Screens - The Regulation of Live Animal Imports in the United States,* Report by Defenders of Wildlife, Washington, DC; online at: www.defenders.org/animalimports .

[2] Pimentel, D., R. Zuniga and D. Morrison. 2005. Update on the environmental and economic costs associated with alien-invasive species in the United States. *Ecological Economics* 52(3):273-288

[3] Fowler, A.J., D.M. Lodge and J. Hsia. 2007. Failure of the Lacey Act to protect US ecosystems against animal invasions. *Frontiers in Ecology and the Environment* 5:353-359

[4] Springborn, M., C.M. Romagosa and R.P. Keller. 2011. The value of nonindigenous species risk assessment in international trade. *Ecological Economics* doi:10.1016/j.ecolecon.2011.06.016

[5] Jenkins, P.T. 2011. Unpublished data, "Information gathered internationally on costs of assessing risks for live animal imports." 8 pages. Available from the author.