

BROKEN SCREENS



The Regulation of Live Animal Imports in the United States

Huge Burmese pythons tangle with alligators in the Everglades. Nutria, semi-aquatic rodents from South America, denude wetlands and weaken levees in Louisiana. Voracious Chinese snakehead fish infiltrate the Potomac River watershed. Giant Gambian rats—the cat-size species that carried the contagious monkeypox virus from Africa to the United States in 2003—roam the Florida Keys. Welcome to America, land of the freed: Imported animals gone wild.

RISKY BUSINESS

The United States is the world's largest importer of live, wild animals, receiving hundreds of millions each year, most destined for the pet and aquarium trade, some for zoos, research labs and specialty food markets. The declared wholesale value of these imports from 2000 to 2004 was more than a half billion dollars. But this lucrative import industry is a risky business. Inevitably, some of the animals escape or, no longer wanted, are let go. Unchecked by natural controls such as the predators and limited food supplies of their native countries, these species can quickly spread and cause serious environmental, health and economic problems. And unchecked by the federal agencies with regulatory authority over this trade, potentially risky species continually enter the United States.

Remarkably, none of these agencies does comprehensive risk screening of these creatures before they are allowed into the United States. Moreover, the very identities of the species in trade are not adequately documented in public records. Like a set of broken screens, the complex federal system for regulating live, wild animal imports is ineffective at keeping out harmful species. Absent major policy reforms, some of the potentially risky creatures imported to this country will escape or be released and form invasive wild populations and/or cause disease outbreaks.

AN UNPRECEDENTED ANALYSIS

Recognizing the failings of the regulatory system and the lack of data necessary to fix the broken screens at our borders, Defenders of Wildlife conducted an unprecedented analysis to:

- describe the full scope of the trade (what non-native species are being imported and in what quantities);
- assess the risks of the trade (the impacts these animals are having—or could have—on U.S. species, lands and waters, and on human health);
- examine the broken screens (the federal system for regulating this trade) and detail failures and inconsistencies;
- make policy recommendations based on these findings.

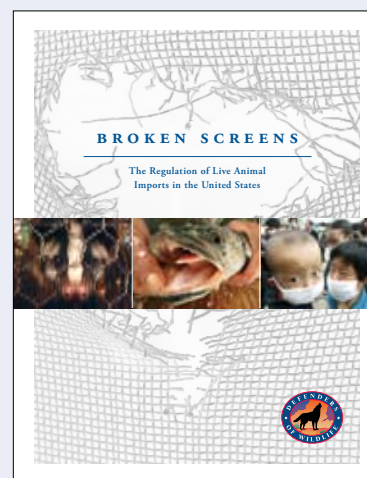
The analysis and its conclusions are summarized here and detailed in the 56-page report *Broken Screens: The Regulation of Live Animal Imports in the United States*.

SCOPE AND RISKS OF THE LIVE WILD ANIMAL TRADE

Defenders pored through the 2000-2004 records kept by U.S. Fish and Wildlife (FWS) agents at ports of entry and gathered information never before collated, including species names for the 2,241 kinds of non-native wild animals legally imported to the United States. Working with the Consortium for Conservation Medicine (CCM) and the World Conservation Union (IUCN) Invasive Species Specialist Group (ISSG), Defenders “screened” all these species for potential risks by searching the scientific literature and online databases and canvassing recognized invasive species experts. If one or more of these reliable sources indicated a species was known—or predicted—to be invasive or harmful in the United States or elsewhere, the species was labeled “potentially risky.”

According to the readily accessible scientific evidence gathered by Defenders and the ISSG and highlighted in Table 1 (page 2), 302 of the 2,241 animal species imported to the United States—13 percent—were potentially risky. Sixteen percent of vertebrates were potentially risky—mostly birds, fish and mammals. Although these

FOR MORE INFORMATION



Read the full report and supplemental information, including white papers on the economic impacts of the live, wild animal import trade and the international laws that apply to it, at:

www.defenders.org/animalimports

© REUTERS/OPRIS



A snakehead is readied for sale at an Asian fish market. These aggressive fish, imported live to the United States by the aquarium and specialty food trades, are turning up in American streams and rivers to the detriment of native fishes and aquatic ecosystems.

species were primarily invasive risks, human disease and nonlivestock animal disease risks also were prevalent. Only 3 percent of the identified invertebrates were tagged “potentially risky,” but this group of animals is relatively unstudied compared to vertebrates.

IMPACTS ON ENVIRONMENT AND HEALTH

Invasive non-natives can eat, out-compete, parasitize and transmit diseases to our native wildlife. They also can alter the physical environment, modifying or destroying habitat. Particularly on islands and in isolated lakes and springs, invaders have done extensive environmental damage. In Hawaii, for example, the egg-eating Indian mongoose has driven many rare native birds

toward extinction. Indeed, invasive species are a commonly cited contributing factor in listings under the federal Endangered Species Act. Hundreds of invasive species, including at least 26 considered by experts to be “high impact,” are already established in the United States. Several more, including Burmese pythons in the Florida Everglades, red lionfish in the western Atlantic and suckermouth catfish in the waters of the South, are gaining a foothold. Many other likely invaders lurk among the animals currently in trade.

Imported animals can also carry infectious pathogens and harmful parasites. Although the United States is the top market for live animal imports, our government does not require most imported animals (with the exception of commercially imported birds,

livestock and a few other animals) to undergo a quarantine period or to have proof of veterinary clearance from their country of origin. This lax approach leaves us open to “pathogen pollution,” the human-driven introduction of various infectious agents to new locations (see Table 2, opposite).

In today’s global marketplace, shipping and selling live animals with minimal regulation magnifies the risks to public health, animal health and the economy. Witness the recent outbreaks of SARS (severe acute respiratory syndrome) traced to the sprawling, unsanitary live animal markets of southern China, and monkeypox transmitted by prairie dogs sold as pets that contracted it from giant Gambian rats imported from Africa by a U.S. pet trader. Now, a particularly virulent strain of avian influenza (AI), which has turned up in wild-caught birds imported to Europe, waits in the wings. This strain of AI poses a global pandemic threat should the virus evolve the ability to spread more efficiently among humans. Millions of people would likely die and worldwide economic damage could be \$200 billion or more. The U.S. import trade in live animals that are potential AI carriers, if not better regulated, could be a major

Table 1. Potentially Risky Non-native Animal Species Imported to the United States, 2000-2004*

Taxonomic Group	Total Imported Non-native Species	Non-native Species with Risk Annotations	Proportion of Non-native Species with Risk Annotations
VERTEBRATES			
Amphibians	172	13	8%
Birds	559	129	23%
Fish	121	36	30%
Mammals	263	61	23%
Reptiles	710	52	7%
TOTAL VERTEBRATES	1,825	291	16%
TOTAL INVERTEBRATES	416	11	3%
GRAND TOTAL	2,241 species	302 species	13%

*The coarse screen risk analysis conducted by Defenders of Wildlife and the ISSG is preliminary; more detailed, species-by-species risk analysis is needed.

Table 2. Infectious Agents Introduced to the United States via Animal Imports, 1996-2006

Infectious Agent	Most Recent Documentation	Imported Host	Known Carrier Hosts	Infected Animals	Status in U.S.
Exotic Newcastle's Disease	1999	Various avian species	Various avian species	Poultry	Localized, recurring outbreaks
Heartwater	2000	African tortoise tick	Lizards, snakes and tortoises	Domestic livestock, white-tailed deer	Present
Malignant Catarrhal Fever	2002	Ankoli cattle	Wildebeest	Ruminant species	Eradicated
Monkeypox Virus	2003	Giant Gambian rats	Giant Gambian rats	Humans, prairie dogs	Eradicated
Viral Hemorrhagic Disease of Rabbits	2005	European rabbit	European rabbit	European rabbit	Localized, recurring outbreaks
Chytridiomycosis	2006	American bullfrog	American bullfrog, African clawed frog	Amphibians	Present
Ranavirus	2006	American bullfrog	American bullfrog	Amphibians	Present

factor in a future outbreak here.

Global warming is likely to intensify the threats from harmful species invasions and diseases. More tropical species will acclimate better and be able to survive winters that once killed them with cold. New invaders may include hot climate vectors of West Nile virus and other destructive human and animal pathogens.

BROKEN SCREENS: THE SYSTEM FOR REGULATING WILD ANIMAL IMPORTS

The U.S. legal system for live animal imports generally gives authority to:

- FWS, under the Lacey Act (a law enacted in 1900 that is in desperate need of an overhaul), to prohibit specified “injurious” animals;
- the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service (APHIS), under the Animal Health Protection Act and Plant Protection Act, allowing, but not requiring, APHIS to regulate any animal that is a pest or disease carrier threatening to farmed livestock or any plant;
- the Department of Health and Human Service’s Centers for Disease Control and Prevention (CDC), under the

Public Health Service Act, allowing, but not requiring, CDC to regulate any animal posing a human disease risk.

The Lacey Act listing approach is excruciatingly slow, offers minimal coverage and is repeatedly criticized as outdated and ineffective by experts. The interagency National Invasive Species Council proposed a plan in 2001 to fill some of the import screening gaps, but has failed to follow through on it. APHIS’s approach to protecting plants and domesticated livestock pests is stronger and more expedient than FWS’s Lacey Act authority, but it focuses on just a narrow segment of risks posed by the animal import trade. CDC’s statutory authority is broad but is wielded reactively and minimally. For example, after the 2003 monkeypox outbreak CDC claimed it would be more aggressive in protecting public health, but it has not been. FWS and CDC regulatory laws currently provide the nation a low level of protection from potentially invasive or “injurious” species and from species that pose infectious disease risks to humans, nonlivestock animals or both.

MENDING THE SCREENS: POLICY RECOMMENDATIONS*

Defenders of Wildlife urges immediate implementation of 11 policy changes

outlined below to mend the broken screens at our borders and vastly reduce the risks of the live animal import trade.

1. Pass new national legislation that clearly directs FWS, CDC and all other federal agencies to follow a more risk-averse national standard for wild animal imports. Defenders recommends the following language for this standard:

Federal agencies shall only allow imports and interstate commerce in non-native animals that have been assessed by a responsible federal official and determined to pose a low likelihood of causing harm to the environment, the economy, public health or animal or plant health in the United States.

2. Amend the Lacey Act to direct FWS to conduct detailed pre-import screening of live, wild animals and give FWS authority to provisionally prohibit any species for which adequate scientific information is not available.

3. Promptly and fully analyze the risks of continuing to import the 302 species identified by Defenders and the ISSG as potentially risky. (See complete list at www.defenders.org/animalimports.)

*Health-related policy recommendations (Nos. 4-8) contributed by the Consortium for Conservation Medicine.

© GREG BAKER/ASSOCIATED PRESS



A woman and her children wear masks to protect against SARS during the 2003 outbreak in China that grew into a worldwide menace. After the deadly virus was linked to civets sold in the live animal markets of China, the CDC banned the import of all civets to the United States.

- 4. Aggressively enforce the existing federal regulation (50 CFR 14.53) that full species identification must accompany every animal shipment and make that information available to the public.
- 5. Immediately address the threat of avian influenza by rigidly enforcing the 30-day quarantine required for all bird imports and testing every bird.

- 6. Coordinate and strengthen the federal government's role in overseeing and regulating health risks associated with live animal imports.
- 7. Appropriate more funds for research on diseases transmitted by imported animals.
- 8. Implement the post-import recommendations adopted by the National Association

of State Public Health Veterinarians and the Council of State and Territorial Epidemiologists (www.cste.org/ps/2003pdfs/03-ID-13%20%20final.pdf).

9. Increase funding and staffing for FWS port inspectors, the country's first line of protection from illegal and diseased animal imports.

10. Implement an application fee system to pay for the bulk of the cost of pre-import screening of live, wild animals.

11. Include the animal import industry and other stakeholders in the development of policy solutions.

Harmful new invasions and threatening new diseases must be stopped. The federal government could readily impose stricter controls because there are only a few dozen shipping ports, airports and border crossings in the United States where legal animal imports enter. The 11 recommendations presented here—backed by the new information on the animal import trade assembled by Defenders, CCM and the ISSG—show the way. The health of America's wildlife and habitats—and our own well-being—demand that we act accordingly.



Defenders of Wildlife is a national nonprofit membership organization dedicated to the protection of all native wild animals and plants in their natural communities.

DEFENDERS OF WILDLIFE
1130 17th Street N.W.
Washington, D.C. 20036-4604
202.682.9400
www.defenders.org

The Consortium for Conservation Medicine, www.conservationmedicine.org; the IUCN Invasive Species Specialist Group, www.issg.org; and Christina Romagosa, a Ph.D. candidate at Auburn University, contributed research and analysis to this project.