

Exotic Pets Invade United States Ecosystems: Legislative Failure and a Proposed Solution

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INTRODUCTION

Sneaky, slithery invaders have attacked southern Florida. The perpetrators are not drug lords, terrorists, or angry retirees; instead, the intruders are giant snakes. The Burmese python is one of thousands of non-native species that has invaded the United States in the last several decades.¹ These invasive creatures, which rank among the world's largest snakes, have overrun the Florida Everglades.² According to the director of the United States Fish and Wildlife Service, invasive species pose the number one environmental threat to the United States.³ While a number of different activities are potentially to blame,⁴ the pet-trade industry plays a significant role in the introduction of non-native invasive species into the United States.⁵

Exotic species find their way into U.S. native ecosystems in three different ways.⁶ First, government agencies may intentionally introduce exotic species into the environment, as the U.S. Fish Commission has introduced carp, a non-native fish species, into U.S. river systems.⁷ Second, exotic species are unintentionally and incidentally introduced through the operation and ownership of property. For instance, certain transporting activities, such as shipping crates of fruit, carry the risk that exotic

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1. Stefan Lovgren, *Huge, Freed Pet Pythons Invade Everglades*, NAT'L GEOGRAPHIC NEWS, June 3, 2004, http://news.nationalgeographic.com/news/2004/06/0603_040603_invasivespecies.html.

2. *Id.*

3. *Id.*

4. *Id.* (noting that “[s]ome invasive species may be ‘stowaway’ organisms that arrive here inside packing materials, or micro-critters that are dumped from ships’ water tanks. But many plants and animals also enter the U.S. as part of the booming trade in exotic pets or food.”); see also Charles Seabrook, *Endangered Creatures for Sale: Illegal Animal Trade Reaps Billions Yearly*, ATLANTA J.-CONST., Dec. 21, 2003, at A1 (“Tens of thousands of endangered wild creatures from Brazil, Indonesia, Ghana and other countries are being [illegally] smuggled each year to black markets in the United States, Canada, Europe and Japan. Traffickers entice native people . . . to capture coveted animals from rain forests and other wild habitats.”) (alteration in original).

5. See Lovgren, *supra* note 1.

6. Daniel P. Larson, *Combating the Exotic Species Invasion: The Role of Tort Liability*, 5 DUKE ENVTL. L. & POL'Y F. 21, 34 (1995).

7. *Id.*

insects may be inside these crates.⁸ Third, exotic species are introduced through intentional importation of captive exotics that escape into the ecosystem.⁹ This includes exotic pets that humans transport into the country and release, or pets that escape from captivity.¹⁰ Focusing only on this subset of the third category, this Note discusses existing regulations and makes proposals regarding the legal pet-trade industry.

This Note analyzes problems stemming from the exotic pet trade, and concludes with two alternative solutions. First, this Note examines examples of various types of non-native invasive species introduced as a product of the legal pet-trade industry. Second, this Note offers an overview of the pet-trade industry, including the various lobbying groups that support the industry. Third, this Note discusses existing federal regulation that the U.S. government could use to combat the effects of invasive exotic pets, specifically the Lacey Act,¹¹ the Endangered Species Act,¹² Executive Order 13,112,¹³ and the National Invasive Species Act of 1996.¹⁴ Fourth, this Note examines various state laws, including those of Florida and Indiana. Finally, this Note proposes two alternative solutions to existing federal and state legislation, and concludes that Congress should reform the Lacey Act to strictly regulate the importation of exotic species at both the national and local levels.

I. INTRUSION OF THE EXOTIC PETS

The Burmese python, a native to Southeast Asia, is “poised to overrun Everglades National Park.”¹⁵ Since the mid-1990s, park rangers have captured or killed sixty-eight pythons.¹⁶ A wildlife biologist at the Everglades National Park explained that he has “no doubt [there is] a breeding population of pythons in the Everglades,” while noting that these snakes are being found as deep as fifteen miles into the park.¹⁷ According to the biologist, “[a]ll of the Burmese pythons . . . in the park are a product of international pet trade.”¹⁸ The United States allowed the importation of more than 144,000 Burmese pythons in the past five years, with hatchlings selling for as little as twenty dollars each.¹⁹ However, many pet dealers do not warn potential buyers as to how large certain exotic pets can become,²⁰ and the “once cute little baby snakes”²¹ can grow up to twenty feet long.²²

8. *Id.* at 35.

9. *Id.* at 34–35.

10. *Id.*

11. Lacey Act Amendments of 1981, 16 U.S.C. §§ 3371–3378 (2000).

12. Endangered Species Act, 16 U.S.C. §§ 1531–1543 (2000 & Supp. 2000).

13. Exec. Order No. 13,112, 64 Fed. Reg. 6183 (Feb. 3, 1999).

14. National Invasive Species Act of 1996, Pub. L. No. 104-332, 110 Stat. 4073 (1996).

15. Charles Seabrook, *Exotic Animals Harm South Florida Habitat*, ATLANTA J.-CONST., Sept. 12, 2004, at A5.

16. Lovgren, *supra* note 1.

17. *Id.* (quoting Skip Snow, wildlife biologist at the Everglades National Park) (alteration in original).

18. *Id.* (quoting wildlife biologist Skip Snow).

19. Seabrook, *supra* note 15.

20. Abby Goodnough, *South Florida Crawling with Nonnative Critters—All Manner of*

After pet pythons become too large or aggressive to handle, their owners search for a place in the wild to dump them because few places will accept the exotic pets.²³ The owners eventually solve their problems by dumping the snakes into the Everglades National Park.²⁴ What pet owners do not realize, however, is that Burmese pythons compete with native species in the Everglades ecosystem.²⁵ In addition, the fact that the non-native pythons have few, if any, natural predators worsens their ecological impact.²⁶ The pythons “have been found eating gray squirrels, possums, black rats, and house wrens.”²⁷ More importantly, the pythons could prey on wood storks and compete with the eastern indigo snake for prey and space.²⁸ The endangered species list includes both the wood stork and the eastern indigo snake.²⁹

Burmese pythons are not the only invasive species resulting from the legal pet trade that wreak havoc in the United States. Non-native pet iguanas released into the wild in southern Florida are multiplying at an alarming rate.³⁰ In the Miami area alone, “at least 40 non-native species of foreign reptiles and amphibians can now be found.”³¹ Among the most successful intruders, iguanas (having no natural Florida predators) normally lay fifty eggs at a time and breed twice each year.³² The herbivorous iguanas tore apart native hibiscus and laid siege to the Fairfield Tropical Gardens, “wolf[ing] down rare, exotic plants like a biblical cloud of locusts.”³³

Additionally, many other non-native species are causing serious damage to Florida ecosystems. In Cape Coral, Florida, carnivorous Nile monitor lizards, native to Africa, “may already number in the thousands and could endanger the local population of burrowing owls, an endangered species.”³⁴ Additionally, sixteen non-native tropical fish have been found at thirty-two locations along the southeast coast of Florida.³⁵

Beasts Unleashed as Owners Find “Pets” Unwieldy, SEATTLE TIMES, Feb. 29, 2004, at A6.

21. Lovgren, *supra* note 1.

22. Seabrook, *supra* note 15.

23. *Id.* (noting that “[z]oos report that they already are overwhelmed by people wanting to cast off their unwanted animals”).

24. Lovgren, *supra* note 1 (according to wildlife biologist Skip Snow).

25. See Goodnough, *supra* note 20.

26. *Id.*

27. Lovgren, *supra* note 1.

28. *Id.*

29. Seabrook, *supra* note 15; see Lovgren, *supra* note 1 (noting that the eastern indigo snake is “listed as threatened by the U.S. Fish and Wildlife Service.”). See also Endangered and Threatened Wildlife and Plants, 50 C.F.R. §§ 17.11, 17.12 (1999); Endangered Species Information, U.S. Fish and Wildlife Service, <http://www.fws.gov/endangered/wildlife.html#Species>.

30. John-Thor Dahlburg, *Leapin’ Lizards: Iguanas Overrunning South Florida Suburbs*, FORT WAYNE J.-GAZETTE, Sept. 15, 2003, at 6D (stating that most iguanas “were probably released by pet owners and dealers aghast at how huge the beasts had grown”).

31. *Id.* (quoting Josiah Townsend, a herpetologist at the Florida Museum of Natural History in Gainesville, Florida).

32. *Id.* Iguanas are also believed to transmit salmonella bacteria and may infect humans who handle them. *Id.*

33. *Id.* (alteration in original). Miami’s Fairchild Tropical Gardens is the largest botanical garden in the continental United States. *Id.*

34. *Id.* Nile monitor lizards are dagger clawed and ill tempered, growing up to seven feet in size. Seabrook, *supra* note 15. More than fifty have been killed or captured during the last year. *Id.* (noting also that the Nile monitors may be preying on the eggs of the endangered burrowing

Florida is not the only part of the United States with invasive species problems. In San Francisco, the African clawed frog has invaded Lily Pond in San Francisco's Golden Gate Park, altering the ecosystem "by gobbling up insects, fish, and even birds."³⁶ While southern California hosts the largest concentration of African clawed frogs, scientists have discovered additional populations in Massachusetts, Virginia, North Carolina, and Arizona.³⁷

The monk parakeet, a native of South America, exemplifies how former exotic pets can multiply over time.³⁸ Descending from pets released in the 1960s, these birds have invaded some seventy-six localities in fifteen different states.³⁹ Although critics argue about the overall ecological harm these birds have caused, a number believe the birds pose a threat to native agricultural lands⁴⁰ in addition to their competing with native species for space. The house sparrow and starling were originally non-native imported pets, released in the late 1800s.⁴¹ These common birds now cover nearly every locality in the United States, and continue to have a "devastating effect" on native bird populations and agriculture.⁴² As American ecosystems continue to suffer from invasive species, economic costs quickly accumulate. Data showing the relative share of economic costs attributable to the pet trade is not available; however, the aggregate yearly costs of invasive species in the United States is \$137 billion.⁴³

II. THE PET-TRADE INDUSTRY

Most of the invasive species in southern Florida, such as the Burmese python and the Nile monitor lizard, are "believed to be brought in legally through federal wildlife import permits."⁴⁴ Pet dealers sell hundreds of thousands of imported exotic animals at giant exotic reptile shows around the United States.⁴⁵ The American Pet Products

owl).

35. Lovgren, *supra* note 1 (hypothesizing that the tropical non-native fish were "likely introduced when hobbyists freed aquarium fish into the ocean").

36. *Id.* The African clawed frogs "eat almost anything and breed like crazy," with cash-strapped California having no resources to stop the invasive creature. *Id.*

37. Nonindigenous Aquatic Species Database, <http://nas.er.usgs.gov/queries/collectioninfo.asp?NoCache=9%2F30%2F2005+7%3A06%3A08+PM&SpeciesID=67&State=&HUCNumber=> (last visited Sept. 30, 2005).

38. Jeffrey A. McNeely, *Strangers in Our Midst: The Problem of Invasive Alien Species*, ENVIRONMENT, July/August 2004, at 16.

39. *Id.*

40. *Id.*

41. British Columbia Society for the Prevention of Cruelty to Animals, <http://www.sPCA.bc.ca/AnimalCare/froggy.asp> (last visited Nov. 21, 2005).

42. *Id.*

43. Lovgren, *supra* note 1 (citing a 1999 Cornell University study).

44. Seabrook, *supra* note 15 (according to the U.S. Fish and Wildlife Service, "untold numbers of non-native snakes, iguanas, monitors, and other creatures are entering the United States each year for sale as pets," most imported "legally through federal wildlife import permits"). The exact number of pets imported through federal wildlife import permits is difficult to determine, as many of these animals die on the way to the United States; additionally, at the Miami International Airport, the understaffed inspectors are only able to inspect three out of ten shipments. Seabrook, *supra* note 4.

45. Seabrook, *supra* note 15. A typical expo is the Atlanta Reptile and Exotic Pet Show,

Manufacturers Association (APPMA) reported that American consumers spent \$1.6 billion on live animal purchases in 2004, while eleven million reptiles are currently owned as pets.⁴⁶ The booming trade in exotic animals as pets has opened the floodgates for invasive species coming into the United States, with the Miami International Airport receiving approximately seventy foreign shipments per day,⁴⁷ some containing thousands of animals.⁴⁸

The Humane Society of the United States and other animal welfare groups are calling for restrictions on the trade of pythons and reptiles, arguing that the government should require exotic pet owners to obtain a permit or license before owning these animals.⁴⁹ Fifteen states currently have no license or permit requirements.⁵⁰ Other states do have a partial ban on private ownership of exotic animals; however, Florida does not require an ownership permit for Burmese pythons.⁵¹ Powerful pet-trade industry groups do not want the government to force stringent requirements and controls onto the industry. With total U.S. pet industry expenditures reaching \$34.4 billion in 2004,⁵² groups such as the APPMA, the Pet Industry Distributors Association (PIDA), and the Pet Industry Joint Advisory Council (PIJAC) wield enormous lobbying power. The PIJAC is “the industry’s advocate with respect to governmental legislation and regulations that affect the survival of the pet industry,” screening more than ten thousand federal, state, and local initiatives per year.⁵³ Thus, the pet-trade industry is able to impose significant opposition to any type of regulation that would interfere with its ability to freely trade exotic pets.

held in November at the Gwinnett Civic and Cultural Center. *See* Seabrook, *supra* note 4 (noting that more than four hundred wild pet expos are held around the United States each year).

46. American Pet Products Manufacturers Association Industry Statistics & Trends, http://www.appma.org/press_industrytrends.asp (last visited Sept. 23, 2005) [hereinafter APPMA Industry Statistics & Trends].

47. Lovgren, *supra* note 1 (noting that some shipments coming into Miami have “thousands of animals, such as tarantulas, lizards, and snakes”).

48. Goodnough, *supra* note 20 (according to a federal wildlife inspector at Miami International airport, who stated that monitors arrive almost weekly, it is common to receive shipments of one thousand baby boas from Columbia or pythons from Indonesia).

49. *Pythons Gone Wild: Freed Pet Snakes Thrive in Everglades*, S. FLA. SUN-SENTINEL, May 23, 2004, available at <http://www.billinggazette.com/index.php?id=1&display=rednews/2004/05/23/build/nation/37-pythons.inc> (interviewing Richard Farinato, director of the Humane Society’s captive wildlife program, who stated, “We would like to see some type of control over what people are allowed to buy as private pets”).

50. Animal Protection Institute—Summary of State Laws Relating to Private Possession of Exotic Animals, http://www.api4animals.org/b4a2_exotic-animals-summary.php (last visited Jan 18, 2004).

51. *Id.*

52. APPMA Industry Statistics & Trends, *supra* note 46.

53. Pet Industry Joint Advisory Council—Government Affairs, <http://pijac.org/i4a/pages/index.cfm?pageid=91> (last visited Nov. 21, 2005) (stating “PIJAC’s StateWatch scans legislative and regulatory proposals in all fifty states, as well as at federal and international levels . . . enable[ing] PIJAC to alert the industry to immediate and emerging issues”). The PIJAC is the industry’s liaison with governmental agencies, formulating industry policy positions, preparing analyses and testimony, and coordinating industry responses. *Id.*

III. EXISTING FEDERAL REGULATIONS

Congress has not effectively dealt with the problem of the importation and ownership of exotic animals. While certain federal regulations may solve specific environmental issues, most fall substantially short of properly regulating the exotic pet-trade industry. This Part examines several of these current regulations aimed at environmental issues including: the Lacey Act, Endangered Species Act, Executive Order 13,112, and the National Invasive Species Act of 1996.

A. The Lacey Act Amendments of 1981

Julianne Kurdila recounted the history of the Lacey Act:

As originally enacted in 1900, the Lacey Act aided states in controlling the interstate commerce of certain wildlife by restricting the importation of mongooses, fruit bats, English sparrows, starlings, and "such other birds or animals as the Secretary of Agriculture may from time to time declare injurious to the interest of agriculture or horticulture . . ." The term "birds or animals" was initially interpreted to apply only to game birds and fur[-]bearing mammals. In response to this interpretation, Congress passed the Black Bass Act in 1926 to protect certain species of fish. Congress has since repealed the Black Bass Act and has consolidated it with the Lacey Act amendments of 1981.

These latest amendments strengthen the Lacey Act significantly. Today, all wild animals, including those bred in captivity, and certain wild plants are included in the protected class.⁵⁴

While no federal statute directly regulates the *introduction* of exotic species into the United States, the Lacey Act Amendments of 1981 ("Lacey Act" or "Act") directly regulate the *importation* of exotics.⁵⁵

[T]he Act prohibits the importation or exportation of any fish, wildlife or plant taken, possessed, transported, or sold in violation of the laws or a state, Indian tribe, foreign country or in violation of a treaty. The Secretaries of Agriculture, Treasury, Transportation, Commerce and the Interior enforce the Act's various provisions.⁵⁶

The Lacey Act provides both civil and criminal penalties. Under the Act, the government may assess a criminal penalty up to \$20,000 and/or imprisonment for up to five years on an importer or exporter who knowingly takes or possesses any prohibited species.⁵⁷ The penalties apply only if the wildlife is worth more than \$350.⁵⁸ If a person knowingly engages in prohibited conduct and "in the exercise of due care should know" that the wildlife was taken illegally, that person may be fined up to \$10,000 and

54. Julianne Kurdila, *The Introduction of Exotic Species Into the United States: There Goes the Neighborhood!*, 16 B.C. ENVTL. AFF. L. REV. 95, 103-04 (1988) (citations omitted).

55. *Id.* at 103.

56. *Id.* at 104.

57. Lacey Act Amendments of 1981, 16 U.S.C. § 3373(d)(1)(B) (2000).

58. § 3373(d)(1)(B).

imprisoned for up to one year.⁵⁹ Civil penalties range up to \$10,000, which are assessed by the Secretary of the Interior or Secretary of Commerce.⁶⁰

The Lacey Act is severely limited as applied to the exotic pet-trade industry because it prohibits “importing only the most egregious exotic species.”⁶¹ Under the Act, “any exotic species may be imported into the United States” unless the Department of the Interior designates the species as “injurious wildlife.”⁶² This approach is commonly known as the “dirty list” approach to designating harmful species that may not be imported.⁶³ The Department of the Interior only lists species as injurious (that is, on the dirty list) after it learns that the “species represents a distinct harm to fish and wildlife or other interests.”⁶⁴ Under this approach, the Department of Interior must decide whether a species is or would be injurious to the environment.⁶⁵ Even if listed as injurious, a “species does not receive complete *ferae naturae non grata* status,” but may still be imported by the use of an injurious wildlife permit issued by the Director of the U.S. Fish and Wildlife Service.⁶⁶

Some criticize the Department of the Interior’s injurious list as “notably sparse” and lacking adequate protection against invasive species introduced by the pet-trade industry.⁶⁷ The non-comprehensive list of injurious wildlife “permits the importation, transportation, and acquisition of all other wildlife . . . on the mere finding of an import declaration with the District Director of the U.S. Customs Service.”⁶⁸ Critics view this “all-or-nothing” approach as falling short of satisfactory protection.⁶⁹ Because the dirty list approach allows most species into the United States, by the time a species is listed as injurious it has most likely already been imported and subsequently released into the ecosystem.⁷⁰ Thus, the Lacey Act allows the introduction of invasive species—and the establishment of a breeding population (for example, Burmese python)—before the Department can list the species as injurious.

In 1973, the Department of the Interior formulated a plan to utilize a “clean list” approach, which “presumed that every introduction of an exotic species would injure the environment and allowed an introduction only upon a showing of ‘low risk’” to specific interests.⁷¹ Under this approach, the burden of proving that the introduction of an unlisted “dirty” species would not harm United States ecosystems would fall on the

59. § 3373(d)(2).

60. § 3373(a)(1).

61. John L. Dentler, *Noah’s Farce: The Regulation and Control of Exotic Fish and Wildlife*, 17 U. PUGET SOUND L. REV. 191, 210 (1993).

62. *Id.* at 210–11. “Injurious wildlife” is a very specific and limited list of species that is compiled by the U.S. Fish and Wildlife Service. *See* 50 C.F.R. §§ 16.11–16.15 (2005). The list currently includes such species as the raccoon dog, fruit bats of the genus *Pteropus*, walking catfish, zebra mussel, and many types of snakehead fishes, among others. *Id.*

63. *See* Larson, *supra* note 6, at 28.

64. Dentler, *supra* note 61, at 211.

65. Kurdila, *supra* note 54, at 104.

66. Dentler, *supra* note 61, at 211 (citing 50 C.F.R. § 16.12(c) (1992)).

67. *Id.*

68. *Id.* at 211–12 (citing 50 C.F.R. § 16.22cc (1992)).

69. *Id.* at 212.

70. *Id.* at 211.

71. Kurdila, *supra* note 54, at 105.

party seeking to import the species.⁷² Groups such as the Sierra Club endorsed this plan;⁷³ the Department of the Interior dropped the proposal, however, following congressional hearings on the proposed regulations and intense lobbying pressure by the pet-trade industry and the zoological and scientific communities.⁷⁴ Hence, any plan that could potentially injure the \$32.4 billion pet-trade industry faces intense pressure from pet-trade-industry lobbyists.⁷⁵

In addition to the shortcomings of the dirty list approach, the Lacey Act falls short of properly regulating the pet-trade industry because it only regulates the trade of injurious wildlife in interstate or foreign commerce.⁷⁶ Once a species is within a state, the Lacey Act has no authority over the intrastate transportation or selling and purchasing of injurious species unless the wildlife is possessed in violation of a United States or Indian tribal law.⁷⁷ Instead, individual state laws are left to regulate the possession and trade of invasive species within intrastate commerce.⁷⁸ For example, even if the Lacey Act would adopt the clean list approach and place the Burmese python on the dirty list, people who already own a Burmese python would be free to breed and sell them within intrastate commerce. Consequently, while a clean list approach to the Lacey Act could successfully regulate the pet-trade industry's importation of exotic species, the Act substantially fails to (1) offer a remedy against pet traders who would continue to freely breed and sell exotic species within state boundaries, (2) regulate illicit trade, and (3) regulate trade under an injurious wildlife permit.

B. The Endangered Species Act

Section 9 of the Endangered Species Act (ESA)⁷⁹ may "indirectly" restrict the introduction of exotic pets into domestic ecosystems.⁸⁰

The purpose of the ESA is to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." Section 9 of the ESA prohibits the "taking" of a threatened or endangered species within the United States. The ESA's definition of "take" includes "harm," which is

72. *Id.* This "burden" imposed upon importers, however, poses the danger of being arbitrarily applied, since it is difficult to predict with any certainty how a species will affect a particular ecosystem until actually introduced into that ecosystem.

73. *Id.*

74. Dentler, *supra* note 61, at 213 ("The Department of the Interior dropped its efforts, however, following congressional hearings on the proposed regulations, intense lobbying pressure from the pet trade, which feared a complete ban on importations, and pressure from the zoological and scientific community, which feared burdensome permit procedures to import laboratory animals and zoological specimens.").

75. See *supra* text accompanying notes 52–53.

76. See Lacey Act Amendments of 1981, 16 U.S.C. § 3372(a)(2) (2000).

77. See § 3372(a)(1).

78. Bruce A. Levin & Michael Spak, *Lions & Lionesses, Tigers & Tigresses, Bears & . . . Other Animals: Sellers' Liability for Dangerous Animals*, 58 NOTRE DAME L. REV. 537, 547 (1983).

79. Endangered Species Act, 16 U.S.C. §§ 1538(a)(1)(B) (2000).

80. Larson, *supra* note 6, at 29.

defined by the Secretary of the Interior as “an act which actually kills or injures wildlife . . . [or involves] significant habitat modification or degradation where [the action] actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” Since exotics alter behavioral patterns (like feeding) of native species, their introduction could be considered harmful to threatened or endangered species within the meaning of the ESA.

The Ninth Circuit has dealt with the issue of whether injurious effects by exotic species are considered “takings” under the ESA. In *Palila v. Hawaii Dept. of Land & Natural Resources*, the court of appeals found that non-native feral goats and sheep maintained by the State in the endangered Palila’s habitat (mamane-naio forest in Hawaii) had “a destructive impact on the mamane-naio ecosystem . . . [by feeding on] mamane leaves, stems, seedlings, and sprouts.” Consequently, the Ninth Circuit affirmed the lower court’s finding of a taking and ordered the goats and sheep in the Palila’s habitat removed.

Seven years later, after the Secretary of the Interior promulgated the definition of “harm,” the Ninth Circuit was confronted again with the issue of destruction of the Palila’s habitat by an exotic species.⁸¹

This time, the Court of Appeals expanded the power of the ESA by holding that a “finding of habitat degradation that could result in extinction [also] constitutes a ‘harm.’”⁸² “The *Palila* cases suggest how the ESA can provide a cause of action for individuals to enjoin the introduction, and enforce the removal, of exotic species where the habitat of a threatened or endangered species is being significantly damaged.”⁸³

The ESA, however, has only limited power to affect the pet-trade industry. First, environmental groups must produce empirical evidence that places the responsibility on the pet-trade industry for the release of destructive species into sensitive habitats.⁸⁴ While biologists predict that the Burmese python is displacing the endangered eastern indigo snake for habitat space,⁸⁵ it could take months, if not years, for biologists to formulate empirical evidence that would be admissible in court. Second, no specific defendant may exist, as in the *Palila* cases,⁸⁶ because determining the party responsible for releasing an exotic pet into the environment is nearly impossible.⁸⁷ Even if named as a defendant, the pet-trade industry could tie up the case in the court system through

81. *Id.* at 29–30 (alterations in original) (citations omitted).

82. *Palila v. Haw. Dep’t of Land & Natural Res.*, 852 F.2d 1106, 1110 (1988) (alteration added).

83. Larson, *supra* note 6, at 30–31 (citations omitted).

84. *See Palila v. Haw. Dep’t of Land & Natural Res.*, 639 F.2d 495, 496 (9th Cir. 1981) (“Fencing experiments conducted by the defendants in the critical habitat showed that in the absence of the sheep and goats, the forest regenerated.”).

85. Lovgren, *supra* note 1.

86. The defendant in the *Palila* cases is the Hawaii Department of Land and Natural Resources.

87. *But see Strahan v. Coxe*, 127 F.3d 155 (1st Cir. 1997). In this case, the First Circuit stated that the ESA not only prohibits “the acts of those parties that directly exact the taking, but also bans those acts of a third party that bring about the acts exacting a taking.” *Id.* at 163. The court further stated that “a governmental third party pursuant to whose authority an actor directly exacts a taking of an endangered species may be deemed to have violated the provisions of the ESA.” *Id.*

lengthy appeals before a court could ever render a final decision. By the time a court would issue an order, the endangered species could already be extinct. Third, a species must be endangered before the ESA becomes applicable, leaving all other native wildlife vulnerable to invasive exotic species. Fourth, the *Palila* cases assume that one could successfully eradicate the invasive species. However, as displayed in the case of the Burmese python and the monitor lizard, authorities often cannot successfully remove these creatures from native habitats. Therefore, further legislation is required to successfully protect native ecosystems from the effects of the pet-trade industry.

C. Direct Administrative Response

In 1977 President Carter signed Executive Order 11,987, the first administrative attempt to regulate the introduction of exotic species.⁸⁸ The Order directed federal agencies to restrict the importation and introduction of exotic species into ecosystems of property owned or held by the federal government.⁸⁹ However, the President's Order lacked support, and the federal agencies failed to enforce it.⁹⁰ Fortunately, in 1999, President Clinton signed Executive Order 13,112, created to "prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause."⁹¹

Executive Order 13,112 directed each federal agency whose actions may affect the status of invasive species to use relevant programs and authorities to prevent the introduction of invasive species, monitor such species' populations, provide for restoration of affected native species and ecosystems, and promote public education.⁹² Specifically, the Order established the National Invasive Species Council (NISC),⁹³ whose duty is to "provide national leadership regarding invasive species," to oversee implementation of the Order, coordinate federal agency activities, and most importantly, issue a National Invasive Species Management Plan (NISMP).⁹⁴ The NISMP was subsequently created by the NISC in January of 2001.⁹⁵

Various critics, however, deem the NISMP ineffective. One critic, who accuses Executive Order 13,112 of using "many of the hottest federal management tricks in the book," states that a dominant view among U.S. biologists is that the NISMP, by emphasizing "complex biological, economic, and social dynamics," makes it difficult to recognize national invasive species as a problem and makes regulating harm from

88. Exec. Order No. 11,987, 42 Fed. Reg. 26,949 (May 24, 1977).

89. *Id.*

90. Dentler, *supra* note 61, at 216.

91. Exec. Order No. 13,112, 64 Fed. Reg. 6183 (Feb. 3, 1999) (officially revoking President Carter's Executive Order 11,987).

92. Exec. Order No. 13,112, 64 Fed. Reg. at 6184, § 2(a)(2).

93. Exec. Order No. 13,112, 64 Fed. Reg. at 6184, § 3(a) (ordering that the NISC was to be comprised of members that included the Secretaries of State, Treasury, Defense, Interior, Agriculture, Commerce, Transportation, and the Administrator of the Environmental Protection Agency).

94. Exec. Order No. 13,112, 64 Fed. Reg. at 6184, §§ 4, 5.

95. NATIONAL INVASIVE SPECIES COUNCIL, MEETING THE INVASIVE SPECIES CHALLENGE: MANAGEMENT PLAN (2001), available at <http://www.invasivespecies.gov/council/mpfinal.pdf>.

the species even more complicated.⁹⁶ Another critic finds it difficult to determine how the NISMP will advance protection since it “fails to provide specific targets or timetables for preventative actions.”⁹⁷ This critic feels that the NISMP should provide a specific device that could reduce the introduction of a new type of species by a certain percentage, with an ultimate goal of total elimination by a certain year.⁹⁸ However, the NISMP provides no such mechanism.

Besides providing inadequate guidance as a general regulator of invasive species, neither Executive Order 13,112 nor the NISMP solve the problem of invasive species released into the ecosystem resulting from the pet-trade industry. In fact, these regulations and plans do not mention the pet-trade industry as a source of invasive species.⁹⁹ While Executive Order 13,112 may serve some purpose in the prevention of invasive species, at best it only remotely helps prevent the release of invasive species imported into the United States.

D. National Invasive Species Act of 1996

The National Invasive Species Act (NISA)¹⁰⁰ reauthorized the Nonindigenous Aquatic Species Nuisance Prevention and Control Act of 1990, which Congress enacted in response to the swift invasion by the zebra mussel into the Great Lakes through ballast water discharge.¹⁰¹ The NISA establishes voluntary national guidelines for the prevention of the introduction and spread of invasive species resulting from ballast water discharge.¹⁰² Unfortunately, the NISA is limited to ballast water discharge, mandatory only in the Great Lakes, and has no voluntary guidelines for the rest of the country.¹⁰³ In other words, the NISA is inapplicable for invasive species stemming from the pet-trade industry.

IV. STATE LEGISLATION

While federal regulations such as the Lacey Act somewhat regulate the trade of exotic pets on a national level, individual states are left to fill in the gaps. The Supremacy Clause limits state law to provisions that do not conflict with federal law.¹⁰⁴

96. Marc L. Miller, *Essay: NIS, WTO, SPS, WIR: Does the WTO Substantially Limit the Ability of Countries to Regulate Harmful Nonindigenous Species?*, 17 EMORY INT'L L. REV. 1059, 1065–66 (2003).

97. David B. Fischer, *A Tale of Two Environmental Stressors on the Great Lakes*, NAT. RESOURCES & ENV'T, Fall 2003, at 51, 55.

98. *Id.*

99. The NISC's budget proposal for 2005 only includes expenditures for invasive species that include: brown treesnake, tamarisk, emerald ash borer, leafy spurge/yellow star thistle, and ballast water. NATIONAL INVASIVE SPECIES COUNCIL, FISCAL YEAR 2005 INTERAGENCY INVASIVE SPECIES PERFORMANCE-BASED BUDGET (2005), available at <http://www.invasivespecies.gov/council/FY05budget.pdf>. None of these species are related to the pet-trade industry.

100. National Invasive Species Act of 1996, Pub. L. No. 104-332, 110 Stat. 4073 (1996).

101. Dentler, *supra* note 61, at 217.

102. Viki Nadol, *Aquatic Invasive Species in the Coastal West: An Analysis of State Regulation Within a Federal Framework*, 29 ENVTL. L. 339, 358 (1999).

103. *Id.*

104. U.S. CONST. art. VI, cl. 2.

But because the Lacey Act bans exotic species by use of the dirty list approach, individual states are left with much freedom to regulate the importation, possession, and release of non-native exotic species.¹⁰⁵ Individual states have fragmented and incomplete laws that do not properly protect native ecosystems from harms caused by exotic pets.¹⁰⁶ While twenty-one states do have some type of ownership ban on certain wildlife (each state is left to decide what species are banned), fifteen states have no permit or license requirements.¹⁰⁷ Additionally, fourteen other states require owners of specific exotic animals to obtain a permit, but do not ban private ownership of exotic animals.¹⁰⁸ Specific examples of state laws are next examined to demonstrate the shortcomings of the current fragmented state regulations.

Florida state law prohibits the possession of certain types of wildlife without a permit from the Florida Fish and Wildlife Conservation Commission.¹⁰⁹ The law provides for three classifications of wildlife ownership permits.¹¹⁰ The first class is a list of twenty-two species that may not be privately possessed,¹¹¹ such as gorillas, leopards, tigers, and rhinoceros.¹¹² The second-class permit, at a rate of \$140 per year,¹¹³ includes bobcats, cheetahs, and various monkeys.¹¹⁴ Class three permits are free¹¹⁵ and cover all animals not within Class I or II.¹¹⁶ No permits are required for all other wildlife, including toucans, prairie dogs, chinchillas, non-venomous reptiles, and amphibians. The same permit classifications apply to pet dealers who sell wildlife, with the price of permits being slightly higher.¹¹⁷ Accordingly, no permits are required for Burmese pythons, monitor lizards, and iguanas.

Under Indiana state law, a "person may not possess a wild animal taken, killed, and possessed in another state or country if the taking, killing, or possession of the wild animal is illegal in the state or country issuing the nonresident license."¹¹⁸ All persons possessing a dangerous exotic animal must obtain a permit for these animals, which include lions, bears, venomous reptiles, gorillas, and Burmese pythons.¹¹⁹ Unlike Florida, there are no state requirements for the private possession of monkeys.¹²⁰ Indiana has a less-detailed permit system than Florida, while other states such as Iowa

105. Nadol, *supra* note 102, at 362.

106. *Id.* at 363.

107. Animal Protection Institute, Summary of State Laws Relating to Private Possession of Exotic Animals, http://www.api4animals.org/b4a2_exotic-animals-summary.php (last visited Nov. 30, 2005).

108. *Id.*

109. FLA. STAT. ANN. § 372.922(1) (West Supp. 2004).

110. § 372.922(2).

111. § 372.922(2)(a).

112. FLA. ADMIN. CODE ANN. r. 68A-6.002 (2003).

113. § 372.922(2)(b).

114. r. 68A-6.002.

115. § 372.922(2)(c).

116. r. 68A-6.002.

117. § 372.921(2) (stating that permits range between \$50 and \$250).

118. IND. CODE § 14-22-10-4 (2004).

119. Animal Protection Institute website, http://www.api4animals.org/b4a2_exotic-animals-summary.php (last visited Oct. 20, 2004); *see also* IND. CODE §§ 14-22-26-1 to -6 (2004).

120. *Id.*

and Wisconsin do not regulate the possession of exotic animals at all.¹²¹ Hence, states are far from uniformly regulating the possession of wild and exotic animals.

The fragmented, inconsistent state laws that govern the possession of wildlife give the pet-trade industry considerable freedom in distributing potentially harmful exotic animals to the general public. In Florida, a person can walk into a pet store and purchase a python, lizard, or iguana without having any knowledge about how to properly handle the dangerous creature. Additionally, if a resident of a state with relatively stringent regulations on exotic animal ownership wants an outlawed pet, he or she could legally purchase the animal in a less-restrictive state (such as Iowa) and illegally transport it back to his or her home state.¹²² To access all pet markets, a pet dealer needs only to set up an exotic pet business in a state with lenient regulations and advertise his or her merchandise over the Internet, readily providing out-of-state purchasers access to obtain illegal species.

Another problem with inconsistent state laws is that escaped exotic pets do not confine their movement to state boundaries. If a legally owned exotic pet escapes in Iowa and sets up a breeding population, that species could easily traverse into a restricted state, especially if the species has the capability to swim or fly. Moreover, state-by-state regulation is economically inefficient;¹²³ interstate standardization and cooperation would save on aggregate administrative costs. Accordingly, the current regimes of state laws, combined with insufficient federal laws, are inadequate to successfully regulate the importation and ownership of exotic pets.

V. PROPOSED SOLUTION

This Part constructs a solution by proposing a new regulatory scheme. This proposal considers three factors in determining its viability. First, Congress must formulate the plan to gain political support. Considering the pet-trade industry's political power, this will likely pose the largest obstacle to changing the existing legal structure.¹²⁴ Second, the proposal must be economically feasible, bearing in mind the budget constraints resulting from America's deficit spending. Third, Congress must take administrative feasibility into account. As an alternative to the existing legal regime, this Note considers two choices of reform: a dual approach that coordinates reform at both the federal and state level, and, alternatively, a broad-sweeping federal law. While both approaches are better than the current legal regime, a broad-sweeping federal law is ideal.

A. The Dual Approach

This dual reform proposal requires modification of both federal and state law. First, the proposal seeks to keep potentially dangerous exotic species out of the United States by reforming the Lacey Act. Second, it utilizes a uniform state regulatory scheme to

121. *Id.*

122. While this may be a question of law enforcement, it is hard to imagine how law enforcement could consistently stop this behavior. Thus, a better approach is to cut off the supply of the exotic animal.

123. Dentler, *supra* note 61, at 225.

124. See *supra* text accompanying notes 52–53.

monitor the possession and intrastate commerce of existing exotic species within state boundaries.

1. Reforming the Lacey Act

The existing federal laws are severely inadequate in regulating the importation of exotic species into the United States through foreign and interstate commerce. Although the United States needs a drastic change on the federal level, there is no need to “reinvent the wheel.” The existing framework of the Lacey Act provides the basic layout for a successful federal regulatory scheme; nonetheless, Congress must modify the Act for it to be effective. To do so, the Lacey Act must replace the current “dirty list” approach with the “clean list” approach.¹²⁵

Currently, the Lacey Act uses the dirty list approach to prohibit the importation, possession, and transportation in interstate or foreign commerce of certain species within the United States.¹²⁶ Instead, Congress should implement the clean list method, “whereby the Secretary lists only acceptable species which can be imported.”¹²⁷ Instead of forcing the Secretary to place a species on the dirty list after it has already harmed the environment, the clean list method places the burden on the possessor or transporter of the exotic species to prove that the unlisted species will not injure American ecosystems if released into the environment.¹²⁸ Because the importation of some exotic species may have a positive value in certain situations, for example, in zoos and scientific research institutions, Congress could use a balancing test to determine whether the possessor/transporter can lawfully bring the species into the United States.¹²⁹

The clean list “balancing test” would impose a duty upon the possessor/transporter to show by a reasonable standard that the value in importing the species (e.g., social benefits, education, or pecuniary gain) outweighs the possible adverse impacts (which is a function of the probability of escape or release and the amount of potential harm) on native ecosystems within the United States.¹³⁰ Empirically, these values may be difficult to create. However, as U.S. courts have frequently employed balancing tests in determining whether individual rights outweigh a public benefit without specific empirical evidence, the government could apply a similar type of analysis.¹³¹

For example, a circus or zoo that wishes to import an exotic animal, such as a tiger or anaconda, could likely prove that the value of importation outweighs possible adverse impacts. In these controlled environments, the exotic animals could provide education and entertainment value to a substantial number of people, with a much lower likelihood of escape or release in comparison to private pet ownership (this is of particular significance since harm is unlikely to result until the animal is freed from captivity). On the other hand, if a pet trader seeks to import a shipment of Burmese

125. Larson, *supra* note 6, at 28.

126. 16 U.S.C. § 3372(a) (2000).

127. Larson, *supra* note 6, at 28.

128. *Id.*

129. *See id.*

130. *Id.*

131. *See, e.g.,* Penn Cent. Transp. Co. v. New York City, 438 U.S. 104 (1978) (balancing the private property rights of the plaintiff against the promotion of the general welfare).

pythons, the balancing test would likely weigh against importing the snake. The enjoyment the snake or other exotic animal might provide its owner and the pecuniary gain that the sale of such animals could provide pet traders pale in comparison to the potential damaging effects of the animals' release or escape into the wild.

2. Uniform State Regulation

The most difficult part of this dual proposal is persuading states to adopt uniform regulations. Such regulation is essential to prevent pet dealers from circumventing individual state laws by encouraging potential owners to travel to another state to buy a particular exotic pet that is illegal in their home state. Uniform regulations would also be more economically and administratively efficient than individual state laws by allowing states to better coordinate their efforts. Moreover, this approach would better protect national interests than the current inconsistent state-by-state approach.

Congress may use the broad scope of its spending power¹³² to entice the States to adopt uniform laws regarding the pet-trade industry and individual ownership. The Supreme Court has held that the congressional spending power is not limited to achieve only the specific powers granted by Article I of the Constitution,¹³³ rather, "[Congress] does have the power to fix the terms upon which its money allotments to states shall be dispersed."¹³⁴ In *South Dakota v. Dole*, the Court upheld a federal law withholding five percent of federal highway funds from any state government that failed to impose a twenty-one-year-old drinking age.¹³⁵ The condition imposed was directly related to one of the main purposes behind federal highway money, which is to create safe interstate travel.¹³⁶ The Court stated the condition of funds was "relatively mild encouragement," and was constitutional "[e]ven if Congress might lack the power to [directly] impose a national minimum drinking age," as "the encouragement of state action . . . is a valid use of the spending power."¹³⁷

Applying the same theory used in *South Dakota v. Dole*, Congress could condition the distribution of monies from the Land and Water Conservation Fund to states that adopt a uniform regulation of the possession and intrastate commerce of exotic pets. Congress created the Land and Water Conservation Fund Act of 1964¹³⁸ to "assist in preserving, developing and assuring accessibility to all citizens . . . quality and quantity of outdoor recreation opportunities" by "providing funds for and authorizing Federal assistance to the States in planning, acquisition, and development of needed land and water areas" through the Land and Water Conservation Fund (LWCF).¹³⁹ Special taxes and earmarked revenues, including "user fees, the federal motorboat fuels tax, and receipts from oil and gas lease payments made under the Outer Continental Shelf

132. U.S. CONST. art. 1, § 8 ("Congress shall have the Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States.").

133. *United States v. Butler*, 297 U.S. 1 (1936).

134. *Oklahoma v. Civil Serv. Comm'n*, 330 U.S. 127, 143 (1947).

135. 483 U.S. 203 (1987).

136. *Id.* at 211.

137. *Id.* at 212.

138. 16 U.S.C. §§ 4601-4-4601-11 (2000).

139. § 4601-4.

Lands Act,” fund the LWCF.¹⁴⁰ The amount of payments authorized by the LWCF has grown to over \$900 million;¹⁴¹ further, the unappropriated accumulation of monies in the LWCF totals around \$13 billion.¹⁴² Escaped or released exotic pets may damage land and water areas that LWCF funds are allocated to preserve; thus, according to *South Dakota v. Dole*, Congress’s broad spending powers include the right to allocate LWCF funds to a state contingent upon that state adopting a uniform regulation of individual possession and intrastate commerce of exotic pets.

One advantage of this system of conditioned federal funds is that it pits the deep pockets of the pet-trade industry against the even deeper pockets of the federal government. For the pet-trade industry to persuade a state government to reject the uniform proposal of exotic pet possession, it would have to pay a sum larger than the amount of federal funds allocated to that particular state. Additionally, the pet-trade industry would have to lobby to each individual state, which significantly multiplies its lobbying costs. Much like alcohol producers could not compete with the federal government in conditioning of federal funds to the state adoption of a twenty-one-year-old drinking age, the pet-trade industry would likely be unable to “outbid” the federal government for the dispersal of LWCF monies.

The federal government’s uniform state regulation should follow the proposed clean list approach for the Lacey Act, restricting the possession of all “dirty” pets. The uniform state regulation should adopt a conservative clean list which only allows possession of species that experts believe would not harm U.S. ecosystems if escaped or released. This clean list could include such animals as badgers, rabbits, canaries, ostriches, and buffalos,¹⁴³ but exclude all other animals such as pythons, monkeys, tigers, and lizards. For all other “dirty” animals, a stringent uniform permit system should be utilized. In implementing this system, a state could enact regulations more stringent than the uniform regulation, thus giving each state the sovereignty and flexibility to react to changes in their environments that require immediate action.

A uniform state regulatory system should cost less overall than the aggregate of inconsistent state-by-state regulatory approaches. Each state legislature would have to spend less time balancing the competing interests of environmentalists and pet trade lobbyists. As conditional receipt of LWCF monies make a state’s legislature likely to adopt the uniform regulation, legislative resources could be better allocated to other pressing issues. Individual states would also realize a surplus of money from this system of regulation. Because the regulations would minimize the damage from escaped or released exotic pets, states would save a substantial amount of money that is currently spent fighting the damage that exotics cause. Thus, a uniform state regulation utilizing a permit system would result in overall savings for states.

140. Richard J. Fink, *The National Wildlife Refuges: Theory, Practice, and Prospect*, 18 HARV. ENVTL. L. REV. 1, 17–18 (1994).

141. *Id.* at 18.

142. Robert L. Fischman, *Predictions and Prescriptions for the Endangered Species Act*, 34 ENVTL. L. 451, 473 (2004) (“William J. Rodgers, Jr. is on firm ground in nominating the [LWCF] Act for the most significant U.S. environmental law.”).

143. Determining what animals are “clean” would eventually result in some type of arbitrary standard. However, the line drawn could be permitting ownership of animals that have been native to a particular region’s environment for a certain period of time, such as fifty years.

B. The Federal Approach

Granting the federal government full regulatory authority over the trade and ownership of exotic pets is preferable to the proposed dual approach. Replacing the current state-by-state regulation of intrastate commerce and individual possession with a federal regulatory regime would better protect native ecosystems. Congress's amendment of the Lacey Act to not only use a clean list approach as discussed above, but to also federally regulate intrastate commerce and individual ownership of exotic pets, would accomplish this goal. Furthermore, a strictly federal regulatory approach is better than a dual approach because it would result in more consistent implementation of the law and greater economies of scale.

First, a federal law that seeks to regulate at a state and local level must pass a constitutional threshold. Because this proposed approach seeks to regulate the pet-trade industry, which involves the transportation and selling of animals, Congress must analyze the approach under the Commerce Clause to ensure that it does not overstep its constitutional limits.¹⁴⁴

Congress may only "regulate those activities having a substantial relation to interstate commerce";¹⁴⁵ the Tenth Amendment further states that the "powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States."¹⁴⁶ However, the Supreme Court has held that under the Commerce Clause, Congress may regulate local intrastate activities if the activity taken in aggregate would have a substantial effect on interstate commerce.¹⁴⁷ Since the pet-trade industry and individual ownership taken in the aggregate has a substantial effect on interstate commerce, a federal law that would exert control at a state level passes constitutional scrutiny. Furthermore, other federal laws, such as the Endangered Species Act,¹⁴⁸ have successfully regulated at a state level without constitutional trepidation.

The Lacey Act, as stated previously, provides an existing framework that Congress should build upon to effectively regulate the pet-trade industry. Under an exclusively federal regulatory approach, a modified Lacey Act should include the adoption of a clean list method that applies a balancing test to determine whether importers can bring specific species into the United States. However, instead of stopping at this point and attempting to persuade individual states to adopt uniform regulations, Congress should further modify the Lacey Act to regulate the intrastate trade and individual possession of exotic animals.

A federal approach would offer greater protection against invasive exotic pets than a uniform state approach. First, no guarantee exists that Congress could entice all fifty states to adopt uniform state regulations, especially in states where the pet-trade industry has strong political influence. Second, instead of requiring state and federal enforcement agencies to coordinate their efforts, strict federal enforcement at both a national and state level would be more likely to have a widespread impact by eliminating policy discrepancies between state and federal agencies. Third, using one

144. U.S. CONST. art. I, § 8.

145. *United States v. Lopez*, 514 U.S. 549, 558 (1995).

146. U.S. CONST. amend. X.

147. *Wickard v. Filburn*, 317 U.S. 111 (1942).

148. 16 U.S.C. §§ 1531-1544 (2000 & Supp. 2000).

federal agency, instead of fifty separate state agencies, would result in economies of scale. Besides lower operational costs, a federal agency would have greater potential to collectively develop expertise to combat problems that individual states may not have the resources to resolve.

This federal regulatory approach also poses the opportunity to implement a national permit-issuing agency. When an individual or institution applies for a permit to possess an animal excluded from the clean list, the permit-issuing agency would apply a balancing test similar to the one proposed for the Lacey Act in Part V.A.1 for a determination of whether a person can lawfully possess the animal. The permit-issuing agency should balance the benefit of individual possession of the animal against the likelihood of the animal's escape or release and the amount of harm the animal would likely cause to native ecosystems. As stated above, a zoo, circus, or scientific institution would have a greater likelihood than an individual in obtaining a permit. However, the balancing test will give all parties an opportunity to obtain a permit, as well as assuring the protection of native ecosystems.

A comprehensive national permit system, while providing standardization across the United States and offering the potential to raise revenue through permit purchases, should also include an educational component. Several authors have proposed the idea that Congress or the regulating agency could use educational programs to alert individuals to the dangers of owning and releasing an exotic pet into the environment.¹⁴⁹ Combining this idea with a national permit-issuing system would require anyone wishing to obtain a permit to complete an educational program that would instruct that potential owner on how to handle the particular animal, the best way to prevent it from escaping, and the potential harms of releasing the particular species into the environment. Thus, anyone who legally possesses a potentially harmful exotic species would understand their individual ownership responsibilities.

CONCLUSION

Exotic invasive species introduced as a product of the pet-trade industry are increasingly impacting native U.S. ecosystems. While awareness of this issue has increased in the past few years, the problem continues to grow on a national level as importers continuously bring large quantities of exotic pets into the United States. Because powerful pet-trade industry interest groups have tremendous lobbying power, current laws remain insufficient; federal laws do not regulate ownership and intrastate commerce, and make only a feeble attempt to regulate the importation of such animals. Furthermore, largely inconsistent state laws fail to fill in the gaping holes left by federal law.

This Note proposes that Congress implement a broad federal regulatory scheme to combat the invasive exotic species problem. Such a scheme would better protect native ecosystems than a dual federal and state approach. Congress should modify the Lacey Act to utilize a clean list approach and to regulate the intrastate commerce and individual possession of exotic animals. This proposal ensures the proper regulation of exotic pet ownership in all fifty states, eliminates potential differences in policies

149. Dentler, *supra* note 61, at 240 (citing Walter R. Courtenay, Jr. & C. Richard Robins, *Exotic Organisms: An Unsolved, Complex Problem*, BIOSCIENCE, May 1975, at 306, 312).

between state and federal agencies, and creates economies of scale. Furthermore, this proposal creates the opportunity for a national permit-issuing agency to regulate exotic pet ownership, raise revenue, and educate individual owners.

Some may argue that media and environmental groups exaggerate the problem; however, the increased trade in exotic pets and the present inability to control existing invasive escaped or released exotic pets is observable. This proposal ensures the proper regulation of exotic pet ownership. Keeping in mind the relatively low level of societal interest in the individual ownership of exotic pets, the United States must adopt legal reform before these invasive species destroy more endangered species and habitats. Because the issue of invasive exotic pets has only recently come to the forefront of public and political debate, no empirical evidence has precisely quantified the damage these exotic animals have caused. Hopefully, when scientific data empirically prove the tremendous ecological harm these animals have caused, Congress will modify existing laws to adequately protect against exotic invasive pets released or escaped in the United States.