

IMPROVING THE PROTECTION OF SPECIES ENDANGERED IN THE UNITED STATES BY REVISING THE DISTINCT POPULATION SEGMENT POLICY

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While one primary goal of the Endangered Species Act is to prevent the global extinction of species, it is less clear whether the Act is intended, and can be used, to protect species that are endangered solely within the United States. Although the global preservation of species may be sufficient to achieve many of the goals of the Endangered Species Act, some goals may only be completely served by ensuring that certain populations of species occur within the United States, even if the animals are abundant elsewhere. The current Distinct Population Segment Policy being used by the Fish and Wildlife Service and the National Marine Fisheries Service to determine whether to list domestic populations of species as threatened or endangered only allows the agencies to protect these population segments if they are significant to the species' taxon as a whole. This Note argues that this policy should be changed because there are many compelling reasons to protect domestic populations of particular species, even if these species are abundant elsewhere, and suggests criteria that should be used to determine whether a particular population segment should be protected, including the species' conservation status and importance to the American people. It also demonstrates that this proposal would be consistent with the goals of the Endangered Species Act.

INTRODUCTION

At some point in the future, Americans may be distressed to discover that the last remaining domestic population of the American bald eagle, the symbol of their country, is about to become extinct and that the Fish and Wildlife Service (FWS) refuses to protect the population, despite a mandate to protect endangered species under the Endangered Species Act (ESA or “the Act”). The agency argues that

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due to existing policies and court decisions, it is not allowed to protect domestic populations of endangered species, even cherished ones, when the species is thriving in another country and when certain demanding conditions are not met. Thus, the American government would be obliged to stand idly by while the nation loses its most iconic animal.

If this scenario seems far-fetched, a somewhat parallel situation is now unfolding. When the National Marine Fisheries Service (NMFS) decided to protect an endangered population of the Cook Inlet beluga whale, the State of Alaska announced its intention to challenge the decision in court, arguing that, under the current policy,¹ the population was insufficiently “significant” to the species as a whole to warrant protection.² If the courts agree, which is possible due to ambiguities in existing policies and court decisions, citizens of Alaska could be deprived of a beautiful marine species now inhabiting the state’s coastal waters.

Whether Alaska will proceed with its lawsuit is uncertain—especially given the resignation of Governor Sarah Palin³—but the threatened lawsuit nonetheless demonstrates that it is becoming increasingly difficult for FWS and NMFS to list U.S. populations of

¹ Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (Feb. 7, 1996) [hereinafter DPS Policy].

² Letter from Talis J. Colberg, Alaska Attorney Gen., to Carlos M. Gutierrez, Sec’y of Commerce, and Dr. James W. Balsiger, Acting Assistant Admin’r for Fisheries, Nat’l Marine Fisheries Serv., Sixty Day Notice of Intent To Sue for Violations of the Endangered Species Act, at 6–7 (Jan. 12, 2009), available at http://www.fakr.noaa.gov/protected/resources/whales/beluga/ci_state_suit/60day_intenttosue011209.pdf.

³ See Adam Nagourney & Jim Rutenberg, *Palin Resigning Governor’s Job; Future Unclear*, N.Y. TIMES, July 4, 2009, at A1 (discussing Sarah Palin’s resignation). It is likely that Governor Palin was the driving force behind the effort to delist the beluga given that, throughout her tenure as governor, she had actively worked to prevent species protection measures that could interfere with economic development. For example, in addition to opposing the listing of the Cook Inlet beluga, she also opposed the reintroduction of the wood bison and wrote an op-ed opposing the listing of the polar bear. Sarah Palin, Op-Ed., *Bearing Up*, N.Y. TIMES, Jan. 5, 2008, at A15; Posting of Stefan Milkowski to Green Inc., <http://greeninc.blogs.nytimes.com/2009/04/30/the-politics-of-species-protection-in-alaska/?scp=1&sq=palin%20reintroduction%20bison&st=cse> (Apr. 30, 2009, 9:44 EST). Despite Palin’s resignation, there may still be future litigation involving the Cook Inlet beluga. For example, when an environmental group recently announced its intent to sue NMFS for failure to designate a critical habitat for the Cook Inlet beluga, Governor Sean Parnell indicated that the state of Alaska’s position in opposing the critical habitat designation has not changed. Mary Pemberton, *Environmental Group To Sue over Beluga Whales*, JUNEAU EMPIRE, Oct. 30, 2009, http://www.juneauempire.com/stories/103009/sta_510757233.shtml. Also, like Palin, Parnell wants to expand energy production in the Cook Inlet, which further suggests that he will oppose species protection measures that restrict development in that region. See Jim Carlton, *Palin Successor Focuses on Energy Agenda*, WALL ST. J., Oct. 27, 2009, at A5 (“Mr. Parnell is looking at ways to deliver more natural gas around the state, such as by increasing production in the Cook Inlet.”).

species as endangered when these species are abundant outside of the United States. For example, after a long legal battle, FWS removed the Arizona pygmy-owl from the endangered species list because, among other reasons, the species is abundant in Mexico,⁴ despite FWS's prior finding that delisting would "extirpate the western pygmy-owl from the United States."⁵ Under the current policy, species within the United States are denied protection simply because they do not represent a significant portion of the species' global population. This Note explores whether this policy should be revised to permit the listing of species that are endangered solely within the United States and whether such a change would be consistent with the Endangered Species Act.⁶

This Note will proceed in three parts. Part I explains the rationale behind the ESA, discussing the reasons to protect endangered species and why it may be desirable to protect domestic populations of species even if they are abundant elsewhere. Part II discusses the structure of the ESA, focusing on the process of listing endangered species and the 1996 revision to the policy on "distinct population segments" (DPSs), including current judicial interpretations of the 1996 policy. Part II concludes by explaining why the current framework makes it difficult to protect domestic populations of species.⁷ In Part III, I focus on a

⁴ Final Rule To Remove the Arizona Distinct Population Segment of the Cactus Ferruginous Pygmy-Owl (*Glaucidium brasilianum cactorum*) from the Federal List of Endangered and Threatened Wildlife, 71 Fed. Reg. 19,452, 19,456 (Apr. 14, 2006) [hereinafter Final Rule To Remove Pygmy-Owl].

⁵ *Id.* at 19,457 (citing Determination of Endangered Status for the Cactus Ferruginous Pygmy-Owl in Arizona, 62 Fed. Reg. 10,730, 10,734 (Mar. 10, 1997)).

⁶ This Note expands upon the discussion of whether the federal government should protect domestic populations of species. L. Margaret Barry argues that domestic populations should always be protected if the loss of the population could lead to the species' extinction within the United States. L. Margaret Barry, Note, *Refusing to Relegate Happiness to Heaven? The United States' Protection of Domestic Species with Viable Foreign Populations*, 14 N.Y.U. ENVTL. L.J. 618, 648 (2006). She contends that her position is consistent with the 2001 decision in *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1145 (9th Cir. 2001) (holding that "a species can be extinct 'throughout . . . a significant portion of its range' if there are major geographical areas in which it is no longer viable but once was" (citing 16 U.S.C. § 1532(6) (2006))). Barry, *supra*, at 632–33.

⁷ Several authors have also identified problems with the DPS Policy of 1996 and have suggested solutions. Kate Geoffroy and Thomas Doyle suggest that the DPS Policy results in many unnecessary listings of species and criticize how the DPS Policy considers non-scientific factors such as "international boundaries" and "unique . . . ecological setting[s]." Kate Geoffroy & Thomas Doyle, *Listing Distinct Population Segments of Endangered Species: Has It Gone Too Far?*, 16 NAT. RESOURCES & ENV'T 82, 86–87 (2001). Other authors have taken the opposite position, contending that the DPS Policy does not result in enough protection. Benjamin Fenton argues that if a particular DPS is the "sole remaining domestic population," it should be listed "if the agency determines that the foreign population is poorly protected" and also advocates "err[ing] on the side of preservation in the face of an uncertain conservation status for the foreign population." Benjamin Fenton,

solution to this problem: In Part III.A, I describe a proposed solution and in Part III.B, I explain how this solution is consistent with the text and legislative history of the ESA.

I

RATIONALE UNDERLYING ENDANGERED SPECIES PROTECTION

In this Part, I first explain why it is important to protect endangered species in general and will then focus on why it may be important to protect endangered domestic populations of species even if they are abundant elsewhere.

A. *Reasons To Protect Endangered Species*

Responding to an unnatural rate of extinction among species in the United States due to economic development “untempered by adequate concern and conservation,”⁸ Congress passed the Endangered Species Act (“ESA” or “the Act”) in 1973.⁹ The Act enjoyed broad public support because of a growing awareness that there were compelling reasons to prevent species from becoming extinct.

The main rationale given for protecting endangered species is that species are valuable—or may turn out to be valuable—to humans in several ways.¹⁰ Indeed, many plant and animal species provide health benefits to humans. Life-saving pharmaceuticals have been derived from plants, and “the overall economic value of plant-derived

Note, *Home Builders v. Norton: The Role of International Boundaries Under the Endangered Species Act*, 32 *ECOLOGY L.Q.* 575, 599–600 (2005). Katherine M. Hausrath similarly argues that the DPS Policy fails to protect species that should be protected and leads to inconsistent listing decisions. Katherine M. Hausrath, Note, *The Designation of “Distinct Population Segments” Under the Endangered Species Act in Light of National Association of Homebuilders v. Norton*, 80 *CHI.-KENT L. REV.* 449, 452 (2005). Hausrath proposes that the policy be revised in four ways: “(1) a simplified ‘Evolutionary Unit’ rule for listing DPSs, (2) a minimum viable population requirement for DPS listings, (3) a uniform standard of proof for the Agencies to require when listing DPSs, and (4) a ‘precautionary principle’ for the courts to follow when analyzing DPS listing decisions.” *Id.* at 453. Derek O. Teaney discusses how the DPS Policy is flawed in light of NMFS’s decision not to list the Southern Resident killer whale as a DPS. See generally Derek O. Teaney, Comment, *The Insignificant Killer Whale: A Case Study of Inherent Flaws in the Wildlife Services’ Distinct Population Segment Policy and a Proposed Solution*, 34 *ENVTL. L.* 647 (2004). He proposes that a population segment’s significance should be “evaluated in relation to the taxon to which it belongs, to the ecosystem to which it is a part, and to the culture of the people of the United States.” *Id.* at 701.

⁸ 16 U.S.C. § 1531(a)(1) (2006).

⁹ Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified as amended at 16 U.S.C. §§ 1531–1544 (2006)).

¹⁰ The text of the ESA seems to endorse this human-centric rationale, stating that “species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people.” 16 U.S.C. § 1531(a)(3) (2006).

pharmaceuticals exceeds tens of billions of dollars annually.”¹¹ For example, the rosy periwinkle (a flower) and the Pacific yew tree have been used to develop successful cancer treatments, and the South African croton tree led to the development of Provir, a new drug to treat AIDS symptoms.¹² In addition to providing the ingredients for medicines, the study of non-human species can improve understanding of health problems to aid in developing treatments for human diseases. For example, researchers may be able to develop new treatments for human circulatory ailments, such as heart disease, by studying the cheetah—an animal which “can withstand sudden and severe oxygen debt.”¹³ The existence of diverse species also safeguards our food supply from pests¹⁴ and is essential for other basic human necessities, such as “clean air, abundant fresh water, fertile soil and a benign climate.”¹⁵

Additionally, particular species may have aesthetic value to humans. For example, many people enjoy viewing wildlife in nature; bird watching and whale watching are popular recreational activities. Protecting these aesthetically appealing species can also lead to boosts in tourism. Indeed, one survey indicates that Americans spent \$38.4 billion on wildlife watching in 2001.¹⁶

Another rationale is that there are moral reasons for protecting endangered species, whether or not these species directly benefit humans. That is, species have intrinsic value “as ends in themselves.”¹⁷ Even if a species’ existence fails to produce any monetary value and is not necessary to the survival of other species, it should still be protected because it has an inherent dignity.¹⁸

Having discussed some of the main rationales for protecting endangered species generally, the next Section discusses reasons to

¹¹ STANFORD ENVTL. L. SOC’Y, *THE ENDANGERED SPECIES ACT* 3 (2001).

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.* at 4 (“In 1970, about 15 percent of the U.S. corn crop was lost to a leaf blight This epidemic was halted only with the aid of blight-resistant germ plasm of unique genetic ancestry that originated in Mexico.”).

¹⁵ Peter Kareiva & Michelle Marvier, *Conserving Biodiversity Coldspots*, 91 AM. SCIENTIST 344, 347 (2003).

¹⁶ FISH & WILDLIFE SERV., U.S. DEP’T OF THE INTERIOR, U.S. DEP’T OF COMMERCE & U.S. CENSUS BUREAU, 2001 NATIONAL SURVEY OF FISHING, HUNTING, AND WILDLIFE-ASSOCIATED RECREATION 37 (2002), available at <http://www.census.gov/prod/2002pubs/FHW01.pdf>.

¹⁷ Andrew E. Wetzler, Note, *The Ethical Underpinnings of the Endangered Species Act*, 13 VA. ENVTL. L.J. 145, 171 (1993).

¹⁸ See J. Baird Callicott, *Explicit and Implicit Values*, in *THE ENDANGERED SPECIES ACT AT THIRTY* 36, 43 (J. Michael Scott, Dale D. Goble & Frank W. Davis eds. 2006) (“To accord something intrinsic value . . . is to declare that it has a dignity and that it should not be subject to pricing of any kind.”).

protect domestic populations of species, even when those species are not at risk of global extinction but merely are at risk of becoming extinct within the United States.

B. Reasons To Protect Species that Are Solely Endangered Within the United States

There are two main reasons to protect species endangered only in the United States. First, protecting domestic populations of species can serve the goal of international protection, ensuring that the species exists somewhere in the world. Second, the American people may value having species located within the United States regardless of global populations.

1. Protection of Domestic Populations Serves the Goal of International Protection

Protecting domestic populations of endangered species, regardless of whether the population is significant to the taxon¹⁹ as a whole, reduces the odds of a species becoming extinct for three reasons. First, the current DPS Policy fails to draw a distinction between a domestic population found in only one other country and one that is abundant throughout the globe. However, a species is more likely to become extinct if there are only two populations of the species—one in the United States and one in another country—as opposed to several populations spread across multiple countries. Efforts to preserve the domestic population would be prudent in the first case, while perhaps unnecessary in the second case.

Second, if the United States allows domestic populations of species to become extinct, we must rely on other countries to protect those species, and those countries may not adopt measures to protect populations found within their borders. This is especially true for developing countries with more pressing concerns.²⁰ Endangered species can be thought of as luxury goods. Countries that are concerned

¹⁹ “Taxon” is a term used by biologists to refer to “[a]ny group of organisms that is treated as a unit in a [biological] classification system.” WILLIAM K. PURVES ET AL., LIFE: THE SCIENCE OF BIOLOGY 487 (5th ed. 1998) (discussing and defining biological classification units such as family, order, class, phylum, and kingdom). For the purposes of this Note, significance to the overall taxon can be thought of as significance to the overall species (at least when utilizing the scientific definition of “species”). See *infra* note 122 and accompanying text for a scientific definition of “species” and a discussion regarding the distinction between the scientific and the ESA’s definitions of the term.

²⁰ See Kevin D. Hill, *The Convention on International Trade in Endangered Species: Fifteen Years Later*, 13 LOY. L.A. INT’L & COMP. L.J. 231, 232–33 (1990) (discussing how developing countries such as Rwanda do not have economic incentive to conserve species and often exploit wildlife for economic benefit).

with developing their economies may not want to sacrifice economic development for the chance that a particular species will one day be useful. Countries that have already benefited from development, however, may be more willing to devote resources to protecting endangered species.²¹ This is not an irrational move for a developing country and is exactly the approach the United States took: Only in the 1970s, after the U.S. economy was well-developed and after countless species had already become extinct, did Americans take a strong interest in species preservation.²² It is not surprising that countries whose economies have not yet flourished would be reluctant to slow economic development to protect endangered species. So, even if the species is thriving in another country, the United States may want to protect its domestic population to ensure that the species does not become globally extinct in the future.

Even when countries value species protection, if a species exists in many countries, it may be that no single country will take the initiative to protect the species, resulting in its global extinction. As an example, suppose that the global population of an endangered species is equally divided between countries *A* and *B*. Assuming that the species is not charismatic and that its value comes primarily from its global existence and not its existence in any one country, neither *A* nor *B* has much incentive to protect the species as each country will want to “free ride” off of the other’s efforts. The result would be that each country fails to protect its domestic population, both populations become extinct, and the entire species becomes extinct.²³

Finally, even if a species is likely to be preserved by another country, the species might someday face an overwhelming threat to its survival that is beyond the ability of that country to address. Consider the case of a fish that lives only in two large inland lakes, one in the United States and the other in another, less prosperous country. Due to changes in climate, inland lakes may someday begin to dry up,

²¹ See Jason Scott Johnston, *The Tragedy of Centralization: The Political Economics of American Natural Resource Federalism*, 74 U. COLO. L. REV. 487, 600 (2003) (“[T]here is seemingly inevitable conflict between the interests of developing countries in having more development and less endangered species habitat and the interests of older, more developed nations in forestalling development and preserving habitat.”).

²² See Endangered Species Act of 1973, Pub. L. No. 93-205, § 2(a)(1), 87 Stat. 884, 884 (codified as amended at 16 U.S.C. § 1531(a)(1) (2006)) (“[V]arious species . . . in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation.”).

²³ Because of the uncertainty regarding the future value of any given endangered species, one might argue that this same problem exists even if a species is present in just one country. After all, even if a species exists only in one country, that country would not want to expend resources protecting a species that may or may not turn out to be useful. Still, it is likely that this problem is exacerbated when the species is present in multiple countries.

threatening the survival of that fish. While a nation like the United States would have the wherewithal to mount a “rescue” operation for a dying lake, perhaps by constructing a huge canal to replenish its waters, a less prosperous country, even with the best of intentions, may lack the funds and resources to take similar action. In such a case, it would be prudent for the United States to protect its own population of the fish, even if the fish is thriving in the foreign lake, because of the threat it might someday face.

We must remember that, unlike some harms, the failure to protect a species is an irreversible harm with potentially huge costs for future generations. Like the threat of global warming, the failure to protect populations of species poses an intergenerational externality problem. Just as the primary beneficiaries of efforts to stave off global warming will be future generations,²⁴ the primary beneficiaries of species protection—in the case of species that are not particularly charismatic and do not have obvious economic value—may also be future generations.²⁵ Thus, absent immediate benefits, the present generation may have an economic incentive to derail protection efforts. Given this risk, it is especially important that the United States take the lead in promoting species preservation by making an effort to preserve species within its own borders even when those species are abundant abroad.

2. *Protection of Domestic Populations Promotes Cultural, Aesthetic, and Educational Values*

The American people may value having species located within the United States, regardless of the presence of global populations. Thus, even if it were hypothetically guaranteed that a certain species would never become extinct in Country X, we may still want to ensure that the species continues to exist within our borders. First, certain species may have special cultural significance to the American people; an obvious example being the American bald eagle.²⁶ Yet the

²⁴ See RICHARD L. REVESZ & MICHAEL A. LIVERMORE, *RETAKING RATIONALITY* 108 (2008) (“[T]he benefits of mitigating climate change will occur in the future, and the costs must be expended now.”).

²⁵ See Alexandra B. Klass, *Modern Public Trust Principles: Recognizing Rights and Integrating Standards*, 82 *NOTRE DAME L. REV.* 699, 720 (2006) (discussing how ESA is “based on public trust principles in the sense that [it] set[s] out a policy of protecting and preserving the environment . . . for future generations”).

²⁶ This species is often discussed in the legislative history of the ESA. For two examples, see S. COMM. ON ENV'T & PUB. WORKS, 97TH CONG., *A LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED IN 1976, 1977, 1978, 1979, AND 1980*, at 882 (Comm. Print 1982) [hereinafter *LEGISLATIVE HISTORY*]; and S. REP. NO. 96-151, at 7 (1979). In addition, there are many instances where groups and localities have taken special measures to ensure that this species is present in certain localities. See Barry,

American bald eagle is not the only species that might be deemed culturally valuable to American citizens—virtually all states have designated certain species as official state animals.²⁷ Residents of particular states often become attached to these state animals and support efforts to preserve them in their states.²⁸

Second, certain species may have aesthetic value and thus increase tourism in certain regions. Derek O. Teaney notes, “[t]he Southern Resident killer whale is the only easily accessible population of killer whales in the contiguous United States,” and “[t]his accessibility has led to a boom in whale watching in the Puget Sound.”²⁹ Similarly, the Cook Inlet beluga population attracts tourists and promotes tourism, a crucial industry for the Alaskan economy.³⁰

Third, there may be educational value to having a species within the United States. Whale watching and other activities can “instill[] an understanding of, and hopefully a love for, wildlife that will translate into conservation.”³¹ Having species located within the United States also makes it easier for scientists and universities to study these important species.³²

supra note 6, at 618–19 (describing Eagle Reintroduction Program, which transports eagles from Wisconsin to Inwood Hill Park, New York, as “a local instance of a more widespread phenomenon in which local and state governments collaborate with the federal government . . . to reintroduce a population—despite the existence of viable populations of the species elsewhere in the world”).

²⁷ See William M. Flevaris, Note, *Ecosystems, Economics, and Ethics: Protecting Biological Diversity at Home and Abroad*, 65 S. CAL. L. REV. 2039, 2045 (1992) (“[M]ost if not all states have official state animals, birds, flowers, and trees.”).

²⁸ See Gary R. Blockus, *Elusive State Bird Could Get Local Advocate*, MORNING CALL (Allentown, Pa.), July 7, 2009, at C4 (discussing local efforts to protect ruffed grouse, Pennsylvania’s official state bird); Bill McDonald, *Wail of the Panther*, S. FLA. SUN-SENTINEL, Apr. 24, 1994, at 6G (noting that in support of efforts to preserve Florida’s official state mammal, “[m]ore than 120,000 Floridians have purchased ‘Protect the Panther’ auto tags”); Press Release, Sen. Mary L. Landrieu, Landrieu Announces Brown Pelican Comeback (Feb. 8, 2008) (discussing Louisiana’s successful efforts to increase populations of brown pelican, its official state bird).

²⁹ Teaney, *supra* note 7, at 673–74.

³⁰ See Ken Freeman, *Many Questions Unanswered on Inlet Beluga Compass*, ANCHORAGE DAILY NEWS, July 19, 1999, at B6 (noting that belugas are “a great *tourist attraction* for cruise passengers and other tourism operators”) (emphasis added); SCOTT GOLDSMITH, UNIV. OF ALA. ANCHORAGE, *UA RESEARCH SUMMARY NO. 13, WHAT DRIVES THE ALASKA ECONOMY?* 3 (2008), available at http://www.iser.uaa.alaska.edu/Publications/researchsumm/UA_RS_13.pdf (“Tourism supports about 40,000 jobs for Alaskans, on an annual average basis.”).

³¹ Teaney, *supra* note 7, at 675.

³² While the factors discussed in this section—cultural significance, aesthetic value, and educational value—are somewhat intangible factors, they are nonetheless relevant factors that the ESA itself considers important. See *supra* note 10.

II
THE FLAW IN CURRENT POLICY: DOMESTIC POPULATIONS
OF SPECIES DO NOT RECEIVE
PROPER PROTECTION

This Part explains that inherent problems in the concept of “distinct population segment,” and in later policy statements and court decisions, make it difficult for federal agencies to protect domestic populations of species, even when such protection is highly desirable.

A. *Structure of the Endangered Species Act*

1. *The Listing Process*

Since its passage, the ESA has been the United States’s primary mechanism to identify and protect endangered and threatened species—both in the United States and around the world—by requiring the listing of endangered and threatened species and mandating appropriate protective actions. Two federal agencies implement most provisions of the ESA: the Fish and Wildlife Service (FWS), which is responsible for terrestrial animals and plants, and the National Marine Fisheries Service (NMFS), which is responsible for marine animals and plants.³³

The ESA defines “endangered species” to include “any species which is in danger of extinction throughout all or a significant portion of its range.”³⁴ It first defined “species” to include “any subspecies of fish or wildlife or plants and any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature.”³⁵ In 1978, however, Congress narrowed the definition to include subspecies as well as “*distinct population segment[s]* of any species of vertebrate fish or wildlife which interbreed[] when mature.”³⁶

³³ The Act itself vests authority with the Secretary of the Interior and the Secretary of Commerce. The Secretary of the Interior has delegated its responsibilities under the ESA to FWS, and the Secretary of Commerce has delegated its responsibilities to NMFS, a division of the National Oceanic and Atmospheric Administration (NOAA). RICHARD L. REVESZ, ENVIRONMENTAL LAW AND POLICY 896 (2008).

³⁴ 16 U.S.C. § 1532(6) (2006). The ESA also protects “threatened species,” which is defined as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20). The term “range,” while not defined in the Act, is a commonly used biological term which refers to “the geographic area within which members of a species typically occur.” 22 INTERNATIONAL WILDLIFE ENCYCLOPEDIA 3039 (Maurice Burton & Robert Burton eds., 3d ed. 2002).

³⁵ Endangered Species Act of 1973, Pub. L. No. 93-205, § 3(11), 87 Stat. 884, 886 (codified as amended at 16 U.S.C. § 1532(16) (2006)).

³⁶ Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, § 5, 95 Stat. 3751, 3752 (codified as amended at 16 U.S.C. § 1532(16) (2006)) (emphasis added). Somewhat

The Act establishes five factors that FWS and NMFS must consider when determining whether a species is endangered or threatened. Among other factors, the agencies must consider habitat destruction, disease, and “other natural or manmade factors affecting [the species’] continued existence.”³⁷ The agency’s determination must be “solely on the basis of the best scientific and commercial data available.”³⁸ If the agency finds that at least one of the five factors is met, the ESA authorizes the agency to list the species as endangered or threatened.³⁹ While the Act requires agencies to base determinations of threatened or endangered status solely on scientific and commercial data,⁴⁰ the Act does not impose the same requirement when determining what constitutes a “distinct population segment.” In fact, the term “distinct population segment” is not a scientific term and is not defined in the Act.⁴¹ Thus, Congress left the door open for agencies to base the determination of a “distinct population segment” on non-scientific grounds and, perhaps, to incorporate non-scientific considerations into the process of deciding whether to protect a population of a given species.

Listing a species as endangered or threatened triggers various requirements to protect the species. The agency (FWS or NMFS) must designate a “critical habitat”⁴² and develop a recovery plan for the species.⁴³ Listing a species also places significant limitations on both federal agencies⁴⁴ and private actors.⁴⁵

surprisingly, there is little information in the legislative history about what prompted this change. See LEGISLATIVE HISTORY, *supra* note 26, at 643–46 (describing major changes introduced by 1978 amendments). This is probably because the major focus of the 1978 amendments was to establish a mechanism whereby certain agency actions could be exempted from the ESA’s requirements, which was a response to the Supreme Court’s ruling in *Tennessee Valley Authority v. Hill* enjoining the Tellico Dam project to protect the endangered snail darter. *Id.* at 643, 645; see also *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 172 (1978).

³⁷ 16 U.S.C. § 1533(a)(1) (2006) (listing five factors establishing endangered or threatened status: “(A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence”).

³⁸ *Id.* § 1533(b)(1)(A).

³⁹ *Id.* § 1533(a)(2)(A)(i).

⁴⁰ *Id.* § 1533(b)(1)(A).

⁴¹ DPS Policy, *supra* note 1, at 4722.

⁴² 16 U.S.C. § 1533(b)(2).

⁴³ *Id.* § 1533(f)(1).

⁴⁴ *Id.* § 1536(a)(2). Most notably, federal agencies must “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species.” *Id.*

⁴⁵ *Id.* § 1538(a)(1)(A)–(G). All “person[s]”—defined broadly to include, among others, individuals, corporations, employees of the federal government, or state or municipal gov-

While the United States has jurisdiction only over species within its borders, many ESA provisions aim to protect species found in other nations. Sections 1534(a)(4) and 1534(b) establish that the ESA is the statutory mechanism for implementing international treaties and conventions that protect endangered species,⁴⁶ including migratory bird treaties with Canada⁴⁷ and Mexico,⁴⁸ the Migratory and Endangered Bird Treaty with Japan,⁴⁹ the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere,⁵⁰ the International Convention for Northwest Atlantic Fisheries,⁵¹ the International Convention for the High Seas Fisheries of the North Pacific Ocean,⁵² and the Convention on International Trade in Endangered Species of Wild Fauna and Flora.⁵³

Sections 1537 and 1538 of the Act also seek to protect species outside the United States. Section 1537(a) establishes a “commitment . . . to the worldwide protection of endangered species” and authorizes the President to provide assistance to foreign countries for the purposes of protecting endangered species.⁵⁴ Section 1538 prohibits the import and export of endangered species,⁵⁵ even when such species are not present in the United States. Thus, under the ESA, the United States plays an important role in the protection of species that are not even present domestically.

2. *The Distinct Population Segment Policy of 1996*

The ESA’s definition of “species” includes any subspecies as well as “any distinct population segment of any species of vertebrate fish

ernments—are prohibited from “tak[ing] any [listed] species.” *Id.* §§ 1532(13), 1538(a)(1)(B).

⁴⁶ *Id.* § 1531(a)(4), (b).

⁴⁷ Convention for the Protection of Migratory Birds in the United States and Canada, U.S.-Gr. Brit., Aug. 16, 1916, 39 Stat. 1702.

⁴⁸ Convention for the Protection of Migratory Birds and Game Mammals, U.S.-Mex., Feb. 7, 1936, 50 Stat. 1311.

⁴⁹ Convention for the Protection of Migratory Birds and Birds in Danger of Extinction, and their Environment, U.S.-Japan, Mar. 4, 1972, 25 U.S.T. 3329.

⁵⁰ Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, *opened for signature* Oct. 12, 1940, 56 Stat. 1354, 161 U.N.T.S. 193.

⁵¹ International Convention for the Northwest Atlantic Fisheries, Feb. 8, 1949, 1 U.S.T. 477, 157 U.N.T.S. 157.

⁵² International Convention for the High Seas Fisheries of the North Pacific Ocean, U.S.-Can.-Japan, May 9, 1952, 4 U.S.T. 380.

⁵³ Convention on International Trade in Endangered Species of Wild Fauna and Flora, *opened for signature* Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243.

⁵⁴ 16 U.S.C. § 1537(a) (2006) (authorizing President to “provide to any foreign country . . . assistance in the development and management of programs in that country which the Secretary determines to be necessary or useful for the conservation of any endangered species”).

⁵⁵ *Id.* § 1538(a)(1)(A).

or wildlife which interbreeds when mature.”⁵⁶ Because “distinct population segment” is neither a scientific term nor defined in the ESA, considerable controversy surrounded the listing of DPSs after Congress added this language to the ESA in 1978. In 1979, the Government Accountability Office (GAO) expressed concern about DPS designations, arguing that FWS would abuse its power and list tiny populations of species that were insignificant to the species as a whole and not well-defined.⁵⁷ While the 1979 Amendments to the ESA did not do away with distinct population segments, the Senate Committee on Environment and Public Works responded to these concerns by suggesting that FWS list DPSs “sparingly.”⁵⁸

In 1996, nearly two decades after the ESA first allowed the listing of DPSs, FWS and NMFS adopted the DPS Policy to “clarify their interpretation of the phrase distinct population segment of any species of vertebrate fish or wildlife.”⁵⁹ The agencies found that the policy was necessary to ensure that the term “distinct population segment” would be “interpreted in a clear and consistent fashion,”⁶⁰ especially because “scientific information provides little . . . enlightenment in interpreting the phrase.”⁶¹

The DPS Policy establishes three requirements for a population segment to be listed as threatened or endangered:

1. Discreteness of the population segment in relation to the remainder of the species to which it belongs;
2. The significance of the population segment to the species to which it belongs; and
3. The population segment’s conservation status in relation to the Act’s standards for listing (i.e., is the population segment, when treated as if it were a species, endangered or threatened?).⁶²

According to FWS and NMFS, the “discreteness” prong ensures that the population can “be adequately defined and described.”⁶³ The “significance” prong has two purposes: “to carry out the expressed congressional intent that this authority be exercised sparingly as well

⁵⁶ *Id.* § 1532(16).

⁵⁷ See S. REP. NO. 96-151, at 6–7 (1979) (discussing GAO’s position that “distinct population segment” language should be removed to prevent excessive listing of DPSs).

⁵⁸ *Id.* at 7 (“[T]he committee is aware of the great potential for abuse of this authority and expects the FWS to use the ability to list populations sparingly and only when the biological evidence indicates that such action is warranted.”).

⁵⁹ DPS Policy, *supra* note 1, at 4722.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.* at 4725.

⁶³ *Id.* at 4724.

as to concentrate conservation efforts . . . on avoiding important losses of genetic diversity.”⁶⁴

The DPS Policy then discusses several factors that the agencies should consider to determine whether a population segment is “discrete.”⁶⁵ These factors include whether the population is “markedly separate[] from other populations of the same taxon” and whether “international governmental boundaries” separate the population segment at issue from other populations.⁶⁶

If the agency finds that discreteness is satisfied, it must then decide whether the population segment is “significant” by considering the following four non-exclusive⁶⁷ factors:

1. Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon,
2. Evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon,
3. Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range, or
4. Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.⁶⁸

While the 1996 DPS Policy represented a sincere effort to resolve the ambiguity of the term “distinct population segment,” it was doomed to provoke litigation due to this paradox: Despite congressional desire to designate “distinct population segments” solely based on “biological evidence,”⁶⁹ the fact that “distinct population segment” is not a scientific term means that whether or not one exists cannot be established with scientific evidence.

B. Current Judicial Interpretations of the DPS Policy

In this Section, I discuss two recent court decisions that undermine efforts to protect domestic populations of species, even when there are compelling reasons for protection. I begin by discussing *National Association of Home Builders v. Norton* (“*Home Builders*”)

⁶⁴ *Id.*

⁶⁵ *Id.* at 4725.

⁶⁶ *Id.*

⁶⁷ *Id.* (“Because precise circumstances are likely to vary considerably from case to case, it is not possible to describe prospectively all the classes of information that might bear on the biological and ecological importance of a discrete population segment.”).

⁶⁸ *Id.*

⁶⁹ See S. REP. NO. 96-151, at 7 (1979) (noting that committee “expects” FWS to list DPSs “sparingly and only when the biological evidence indicates that such action is warranted”).

and then address *Northwest Ecosystem Alliance v. United States Fish & Wildlife Service* (“*Northwest Ecosystem Alliance*”), which were both decided by the Court of Appeals for the Ninth Circuit.⁷⁰

Home Builders directly addressed the issue of whether domestic populations of species should be protected if the species is abundant in another country, and the court’s conclusion made such protection more difficult. This case arose after FWS listed the western pygmy-owl population in Arizona as an endangered DPS.⁷¹ The National Association of Home Builders challenged FWS’s listing, arguing that the listing violated the DPS Policy.⁷²

While the Association did not challenge the DPS Policy itself, it challenged the application of the policy to the population of the western pygmy-owl for two reasons.⁷³ The Association first argued that the western population of pygmy-owls was not discrete under the factors set forth in the DPS Policy.⁷⁴ The FWS had based its discreteness finding on two factors: the presence of an international border separating the Arizona population from the northwestern Mexico population⁷⁵ and “significant differences in conservation status” of the two populations.⁷⁶ While the Association challenged the factual basis for the agency’s conservation status finding, the court held that FWS had properly exercised its expertise and thus deferred to its determination.⁷⁷

Second, the Association argued that the population of pygmy-owls was not significant.⁷⁸ In response, FWS argued that the population was significant because (1) “the loss of the Arizona pygmy-owls ‘would result in a significant gap in the range of their taxon,’” and (2) the Arizona population “differs markedly from other populations of the species in its genetic characteristics.”⁷⁹ In rejecting FWS’s argu-

⁷⁰ *Nw. Ecosystem Alliance v. U.S. Fish & Wildlife Serv.*, 475 F.3d 1136 (9th Cir. 2007); *Nat’l Ass’n of Home Builders v. Norton*, 340 F.3d 835 (9th Cir. 2003). These Ninth Circuit opinions represent the current authoritative view on DPS listings and are being followed by federal agencies such as FWS. *See infra* note 82 and accompanying text (describing *Home Builders*’s influence on FWS policy). The issue in *Northwest Ecosystem Alliance* came up in a district court case in Maine, in which the court reached the same result. *See infra* note 91.

⁷¹ *Home Builders*, 340 F.3d at 839.

⁷² *Id.* at 838.

⁷³ *Id.* at 841.

⁷⁴ *Id.* at 838, 842–43.

⁷⁵ *Id.* at 842.

⁷⁶ *Id.*

⁷⁷ *Id.* at 843–44.

⁷⁸ *Id.* at 838, 844–51.

⁷⁹ *Id.* at 845, 850 (quoting DPS Policy, *supra* note 1, at 4725). As discussed above, the DPS Policy of 1996 identifies four non-exclusive factors that establish the “significance of the population segment to the species to which it belongs.” *See supra* notes 67–68 and

ments, the court reasoned that whether the loss of the Arizona population could lead to the “[e]xtirpation of the western pygmy-owl from the United States”⁸⁰ could not be used to establish the population’s significance because the DPS Policy requires that the population be “significant ‘to the taxon to which it belongs.’”⁸¹ The court also ruled that FWS had not proven that the American population was genetically distinct from other populations.

After *Home Builders*, FWS acknowledged in its notice removing the pygmy-owl from the endangered species list that, clearly, significance to the United States population could not satisfy the significance factor in the DPS Policy.⁸² While *Home Builders* prevents FWS and NMFS from establishing significance solely based on domestic populations of species, it does not preclude these agencies from amending the DPS Policy to permit the protection of DPSs that are endangered solely within the United States.

While the plaintiff in *Home Builders* did not challenge the DPS Policy itself, there have been a few cases that address the legality of the policy, including, most recently, *Northwest Ecosystem Alliance*.⁸³ In 2003, the Northwest Ecosystem Alliance, an environmental group, challenged FWS’s denial of a petition to list a population segment of western gray squirrels in Washington state as endangered.⁸⁴ The Alliance also challenged the DPS Policy itself, arguing that the “requirement that a population be significant to its taxon [was] unlawfully restrictive.”⁸⁵ Both challenges, however, were unsuccessful.⁸⁶

Addressing the Alliance’s challenge to the DPS Policy, the court found that the policy merited *Chevron* deference⁸⁷ because Congress “expressly delegated authority to the [FWS] to develop criteria for evaluating petitions to list endangered species.”⁸⁸ While the DPS Policy is technically a policy statement, not a rule, the court believed that *Chevron* deference was appropriate because FWS adopted the policy in accordance with public notice and comment requirements

accompanying text. In *Home Builders*, FWS based its arguments on the second and fourth factors. 340 F.3d at 845, 850.

⁸⁰ 340 F.3d at 849.

⁸¹ *Id.* at 850 (quoting DPS Policy, *supra* note 1, at 4725).

⁸² Final Rule To Remove Pygmy-Owl, *supra* note 4, at 19,455.

⁸³ *Nw. Ecosystem Alliance v. U.S. Fish & Wildlife Serv.*, 475 F.3d 1136 (9th Cir. 2007).

⁸⁴ *Id.* at 1137, 1140.

⁸⁵ *Id.* at 1140.

⁸⁶ *Id.* at 1142–45, 1150.

⁸⁷ See *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984) (“[I]f the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.”).

⁸⁸ *Nw. Ecosystem Alliance*, 475 F.3d at 1141–43.

and the policy represented “a definitive statement of how the Service would conduct all future ‘evaluation[s] of distinct vertebrate population segments for the purposes of listing, delisting, and reclassifying under the Act.’”⁸⁹ Then, applying *Chevron*, the court upheld the denial of the petition to list the squirrel population as a reasonable construction of the phrase “distinct population segment” under the ESA.⁹⁰ By upholding the DPS Policy, the court suggested that FWS’s consideration of a population’s significance to the overall species is not contrary to the ESA.⁹¹ However, as discussed in Part III, while the ESA does not mandate the protection of species endangered solely within the United States, it does not forbid such protection. Thus, under the ESA, FWS and NMFS have the authority to change the policy to enhance the protection of domestic populations.

C. Why the Current Framework Makes It Difficult To Protect Domestic Populations

Prior to the Ninth Circuit’s decision in *Home Builders*, the DPS Policy of 1996 could have been interpreted to protect domestic populations of species endangered solely in the United States. *Home Builders*, however, effectively eliminated two arguments in support of such interpretation. This Section discusses these arguments and why they are no longer viable post-*Home Builders*.

One argument in support of protection of domestic populations relies on the Ninth Circuit’s holding in *Defenders of Wildlife v. Norton*.⁹² There, the court found that a species can be considered extinct throughout a significant portion of its range “if there are major geographical areas in which it is no longer viable but once was.”⁹³ Although this case involved listing a species, not a subspecies or DPS,⁹⁴ the same reasoning could be used to justify the protection of a domestic population under the DPS Policy. Thus, the elimination of one viable DPS would in itself represent “a significant gap in the

⁸⁹ *Id.* at 1142–43 (quoting DPS Policy, *supra* note 1, at 4725).

⁹⁰ *Id.* at 1145.

⁹¹ This conclusion reached by the *Northwest Ecosystem Alliance* court—that the DPS Policy was entitled to *Chevron* deference and represented a reasonable interpretation of the phrase “distinct population segment”—was consistent with that of other courts. *See* *Ctr. for Biological Diversity v. Lohn*, 296 F. Supp. 2d 1223, 1235–36 (W.D. Wash. 2003) (holding that “consider[ing] the significance of a distinct population segment” is “not contrary to clear congressional intent” and thus should be upheld under *Chevron*); *Maine v. Norton*, 257 F. Supp. 2d 357, 385, 388 (D. Me. 2003) (finding that term “distinct population segment” is ambiguous and that DPS Policy is reasonable and should be upheld under *Chevron*).

⁹² 258 F.3d 1136 (9th Cir. 2001).

⁹³ *Id.* at 1145.

⁹⁴ *See id.* at 1138 (discussing natural history of flat-tailed horned lizard).

range of a taxon,”⁹⁵ thereby fulfilling the significance prong of the policy. However, *Home Builders* explicitly rejected this argument because “the FWS did not articulate a reasoned basis” as to why Arizona was a “major geographical area.”⁹⁶ After all, the pygmy-owls found in nearby Mexico are in the same “major geographical area” as Arizona.⁹⁷ Thus, at least when a DPS is threatened only on one side of an international border, this argument will not be successful.

Second, prior to *Home Builders*, one might have justified a listing decision by noting that the four significance factors in the DPS Policy are non-exclusive.⁹⁸ Thus, FWS might defend a listing by arguing that “significance to the United States” is a non-listed factor that could be used to establish significance. However, the *Home Builders* decision now precludes FWS from using this strategy.⁹⁹ Responding to a public comment suggesting that “significance of the Arizona DPS to the population of pygmy-owls in the United States” could be considered because factors in the policy are non-exclusive, FWS said *Home Builders* “clearly stated that considering the significance of the Arizona DPS of the pygmy-owl to just the United States was not appropriate.”¹⁰⁰

It is possible to argue that *Home Builders*’s failure to recognize the potential importance of the factors’ non-exclusive nature could be used to challenge its decision. While FWS focused on the second and fourth factors of the policy to argue that the population is significant,¹⁰¹ it mentioned that the factors were non-exclusive, and the court acknowledged that the factors were non-exclusive.¹⁰² Thus, the court should have remanded the case for a determination by FWS on whether “significance to the U.S. population” is sufficient to establish significance. Still, while the court may have erred in not considering this issue, overturning the decision is not the best mechanism to protect domestic populations of species. After all, a “catch-all” provision may provide too much discretion to FWS and NMFS, especially given the Congressional desire that agencies designate DPSs “sparingly.”¹⁰³

⁹⁵ DPS Policy, *supra* note 1, at 4725.

⁹⁶ Nat’l Ass’n of Home Builders v. Norton, 340 F.3d 835, 848–49 (9th Cir. 2003).

⁹⁷ *Id.* at 849. *Home Builders* does suggest that FWS could have succeeded on this argument had it articulated a reasoned basis for why “the Arizona range might possibly be significant to its taxon’s historic range despite its existence as a stable population at the periphery of that range.” *Id.* at 849.

⁹⁸ DPS Policy, *supra* note 1, at 4725.

⁹⁹ Final Rule To Remove Pygmy-Owl, *supra* note 4, at 19,455.

¹⁰⁰ *Id.*

¹⁰¹ *Home Builders*, 340 F.3d at 845, 850.

¹⁰² *Id.* at 844.

¹⁰³ DPS Policy, *supra* note 1, at 4722 (citing S. REP. NO. 96-151, at 7 (1979)).

Also, if FWS and NMFS really wish to establish uniformity in DPS designations,¹⁰⁴ as they have stated, the policy should clearly state all factors. A better solution—discussed in the next Part—would be to amend the DPS Policy to expressly permit FWS and NMFS to protect domestic populations of species.

III

A PROPOSED SOLUTION: REVISING THE CURRENT DPS POLICY

In this Part, I describe my proposed solution—a revision of the current DPS policy—and address potential counterarguments to my proposal. I then discuss why this proposal is consistent with the text and legislative history of the ESA.

A. Proposed Solution

There are two problems with current DPS Policy. First, it does not adequately meet the goal of international protection because it fails to protect domestic populations of species that may become extinct in other nations.¹⁰⁵ Second, it does not meet the goal of domestic protection because it fails to protect species that we value having within U.S. borders.¹⁰⁶ To solve these problems, I argue that FWS and NMFS should revise the significance prong¹⁰⁷ of the DPS Policy to allow for the listing of DPSs endangered solely within the United States in certain circumstances.

Specifically, I propose that when a population segment is significant to the U.S. population but not to the overall range of the taxon, FWS and NMFS should consider (1) whether the DPS should be pro-

¹⁰⁴ See *id.* (“[I]t is important that the term ‘distinct population segment’ be interpreted in a clear and consistent fashion.”).

¹⁰⁵ Fenton recognized this problem and argued that domestic populations should be protected if the species is poorly protected in foreign countries. Fenton, *supra* note 7, at 599. My solution improves upon Fenton’s analysis by suggesting specific factors to weigh when determining whether a species is at risk of future extinction in foreign countries. See *infra* Part III.A.1. Fenton’s solution is also incomplete because it fails to recognize the importance of protecting species that are significant to the American people even if the species is not at risk of global extinction.

¹⁰⁶ To address this problem, Derek Teaney has advocated that agencies consider the species’ “esthetic and historic values” to humans when making listing decisions. Teaney, *supra* note 7, at 676. Specifically, he proposes adding the following factor to the significance prong of the DPS Policy: “Evidence that the population is significant to the national culture, as demonstrated by its recurrence in literature (including folklore and mythology), the national media, or as an ecotourism attraction.” *Id.* at 695.

¹⁰⁷ Note that I am only advocating changing the significance prong. Thus, for a population segment to be protected, it would still have to meet the discreteness prong of the DPS Policy and the conditions for endangered or threatened status set forth in the ESA.

tected because of potential risks to foreign populations of the species, especially in situations where the United States appears to have a comparative advantage in providing such protection, and (2) whether the DPS should be protected because Americans value having the species within U.S. borders. To determine if the first prong is satisfied, agencies should weigh and balance three factors: (1) the relative abundance of the species in other nations; (2) the conservation efforts of those nations; and (3) the extent of known environmental risks to global populations that could lead to the species' future extinction. In other words, the agencies should consider all factors that would indicate whether the United States has a comparative advantage in protecting the species. For the second prong of my proposal, to determine whether a species is significant to the American people, FWS and NMFS should look for tangible evidence of the species' importance, including the species' appearance in governmental iconography, the tourism revenue generated by the presence of the species, and the extent to which there have been local movements to preserve the species. If either the first or second prong is met, FWS or NMFS should list the population segment, provided that it meets the other two requirements of the DPS Policy—discreteness and endangered or threatened status. After briefly addressing why I propose this solution as opposed to a bright-line rule that would protect all domestic populations of species, I will discuss the rationale behind this approach.

Some might argue for a bright-line rule to protect all endangered populations of species within the United States regardless of global populations, instead of protecting domestic populations only when certain criteria are met.¹⁰⁸ Certainly, a bright-line rule is appealingly straightforward, and if the United States had an abundance of money and resources to protect species, it would be the best solution. Realistically, however, a bright-line rule is not ideal because some domestic populations may be very small and protecting all of them could prove costly—for both government agencies and private actors.¹⁰⁹ In addition to the absolute costs of protecting all endangered domestic populations, it is also possible that, in devoting equal attention to all domestic populations, agencies might devote insufficient attention to a species whose foreign populations are relatively small while devoting

¹⁰⁸ For an endorsement of this approach, see Barry, *supra* note 6, at 639–48.

¹⁰⁹ Government agencies already devote significant resources to species protection. The most recent expenditures report produced by FWS states that combined federal and state species preservation expenditures were \$1.46 billion in 2005 and \$1.70 billion in 2006. FISH & WILDLIFE SERV., FEDERAL AND STATE ENDANGERED AND THREATENED SPECIES EXPENDITURES: FISCAL YEARS 2005-2006 ii (2007), available at http://www.fws.gov/Endangered/pdfs/expenditures/Expenditures_Report_FY05-06.pdf.

excessive attention to a species whose foreign populations are relatively large. This consequence of a bright-line rule could result in FWS overlooking a looming threat to a domestic population that, from a global perspective, is perilously close to extinction. In the interest of global efficiency, the United States should focus its limited ESA funds on species that it has a comparative advantage in protecting—either because it has more resources than other nations in which the species is found, or because foreign populations are more threatened and are at greater risk of extinction. Thus, especially when Americans do not value having a given species within their borders, species protection may be better left to countries where the species is more abundant.

1. *Potential Future Risks to Foreign Populations of the Species*

a. *The Relative Abundance of the Species in Other Countries*

Even if the U.S. population of a species is not significant to the species' overall range, we may want to preserve the U.S. population due to the risk that international populations of the species will become extinct in the future. While FWS or NMFS cannot predict all future events that could lead to a species' demise, the more abundant the species is in other countries, the less likely that its future extinction is a cause for concern.

If the size of a species' global population is uncertain or unknown, FWS and NMFS should list the species.¹¹⁰ In such cases, protecting the species in the United States may be necessary to ensuring its survival. Since the extinction of a species is an irreversible harm, any uncertainty should be resolved on the side of protection, especially because, if in the future FWS or NMFS learns that the species is abundant elsewhere, the agency can always delist the species. In addition to representing sound public policy, this cautionary approach aligns with congressional intent to err on the side of listing if the evidence is unclear: “[The] listing of populations may be necessary when the preponderance of evidence indicates that a species faces a widespread threat, but conclusive data is available with regard to only certain populations.”¹¹¹ Thus, the DPS Policy should allow listing a

¹¹⁰ The use of a precautionary approach in the context of endangered species conservation has been endorsed by numerous authors. *See, e.g.*, Hausrath, *supra* note 7, at 480 (“[F]ailing to designate an endangered or threatened population . . . can lead to an irreparable consequence: the extinction of a biologically and genetically diverse population. This extinction could then have irreversible impacts on biodiversity and the species as a whole.”); Catherine J. Tinker, *Introduction to Biological Diversity: Law, Institutions, and Science*, 1 *BUFF. J. INT’L L.* 1, 8 (1994) (noting that “preventive approach” is “the best course” to preserve species and ecosystems).

¹¹¹ S. REP. NO. 96-151, at 7 (1979).

domestic population if there is uncertainty about its abundance in other nations.

b. International Conservation Efforts

Along with the relative abundance of foreign populations of the species, one must examine other countries' conservation efforts. If a species is inadequately protected elsewhere, the case for protecting the U.S. population is more compelling. For example, there is no compelling reason to preserve an American population of a coastal fish species when the same species also inhabits Canadian waters, because Canada has strong protections for endangered species.¹¹² However, if the only other population of that species were in coastal waters near a country without strong species protection programs, the United States might feel compelled to protect its own population.¹¹³

c. Known Environmental Risks to the Foreign Populations

If an international population of a species faces identifiable and substantive risks that may decrease its chances of future survival, the case for protecting the U.S. population is similarly more compelling, even if one has confidence in the basic intent of other countries to preserve that species.

¹¹² See Species at Risk Act, 2002 S.C., ch. 29 (Can.), available at http://www.sararegistry.gc.ca/approach/act/sara_e.pdf ("The purposes of this enactment are to prevent Canadian indigenous species, subspecies and distinct populations of wildlife from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species, to encourage the management of other species to prevent them from becoming at risk.").

¹¹³ One might worry that other countries will relax conservation policies if they know that the United States will protect domestic populations. However, if anything, by taking a strong stance on species protection, the United States could lead other countries to follow suit. See Charlene D. Daniel, Note, *Evaluating U.S. Endangered Species Legislation—The Endangered Species Act as an International Example: Can This Be Pulled Off? The Case of the Rhinoceros and Tiger*, 23 WM. & MARY ENVTL. L. & POL'Y REV. 683, 683 (1999) ("The United States has a great ability to affect endangered species protection on an international level."). For example, one article argues that the appearance of stronger endangered species protections in the United States has given environmental advocates momentum to push for improvements in Canada. See Natasha Affolder, *Domesticating the Exotic Species: International Biodiversity Law in Canada*, 51 MCGILL L.J. 217, 242 (2006) ("Exploiting the fact that Canadians hate to be seen as less environmentally conscious than their neighbours to the South, campaigners routinely contrasted Canada's lack of federal legislation with the Endangered Species Act in the United States."). With respect to developing countries, which tend to have poor species protection mechanisms in place, further relaxation of their policies is unlikely to have a significant impact, thus the United States should not avoid strengthening its own species protection laws. See Karen L. Smith, *Habitat Protection for the New Millennium: An Analysis of Domestic and International Regimes in North America*, 13 GEO. INT'L ENVTL. L. REV. 509, 532 (2001) (discussing how Mexico's "lack of enforcement . . . has resulted in an ineffective regime for the protection of habitat").

For example, in its final notice to delist the Arizona pygmy-owl DPS, FWS noted that many commenters identified various risks to the Mexican population of pygmy-owls.¹¹⁴ However, FWS said that these risks went only to the question of whether the species was “threatened or endangered” and not to the question of whether “the Arizona DPS was a listable entity under the DPS Policy.”¹¹⁵ Thus, under the DPS Policy, FWS could not list the Arizona pygmy-owl population, even though the Mexican population appeared to be at risk of extinction in the future.

2. *The Importance of the Population Segment to the American People*

In deciding whether to list a DPS, FWS should also consider whether the particular species is valued by the American people.¹¹⁶ While such determinations are invariably subjective, there are three factors that can limit agencies’ discretion and ensure that only species that are particularly significant are preserved under this prong: (1) whether the species has been designated as an official state or federal animal, (2) whether the species attracts significant tourism, and (3) whether there have been local movements to preserve the species. The first factor is narrow since there are only a limited number of animals that have been officially designated as state symbols. The other factors involve less conclusive evidence but still could be applied narrowly. While it would be easy to establish that belugas and killer whales attract significant numbers of tourists, it would be difficult to establish that lesser known species generate significant tourism revenue. Similarly, the amount of time, effort, and money that people are willing to invest to protect species through local movements can iden-

¹¹⁴ Final Rule To Remove Pygmy-Owl, *supra* note 4, at 19,456 (discussing risks “including the invasion of natural vegetation communities by non-native species; the loss of soil organic carbon, soil litter and vegetative cover; more intense drought effects, including higher nighttime minimum temperature increasing evapotranspiration; and increased fire”).

¹¹⁵ *Id.*

¹¹⁶ One may criticize this approach as favoring charismatic species over less charismatic species and favoring vertebrates over invertebrates. Nevertheless, as a policy matter, I argue that it makes sense to honor democratic choice and invest more resources in protecting species that are especially desirable to the public. Further, one must recognize that the ESA has already institutionalized this bias by only permitting the listing of *vertebrate* DPSs. 16 U.S.C. § 1532(16) (2006) (defining “species” as including “distinct population segment of any species of *vertebrate* fish or wildlife” (emphasis added)). Also, as discussed below, there is ample evidence that the listing process favors the listing of well-liked species over other species. *See infra* notes 157–58 and accompanying text.

tify species that are worth protecting, regardless of the species' prevalence in the rest of the world.¹¹⁷

If my proposal were in place, FWS could unambiguously justify its listing of the Cook Inlet beluga and the state of Alaska would have a much more difficult time mounting a legal challenge. After all, regardless of whether the Cook Inlet beluga is significant to the taxon as a whole, the population segment would be protected based on the second prong of my proposal. While the beluga is not an official state animal, there have been local efforts to preserve it and it is a popular tourist attraction that generates significant tourism revenue.¹¹⁸ Thus, species like the beluga that are culturally significant and important to local economies would be protected under my proposal.

One concern about my proposal might be that a policy that makes it easier to list domestic populations of species might lead to excessive restraints on private enterprise—the precise issue behind the *Home Builders* case—or vast increases in government expenditures to protect species. However, since the conditions that would lead to the application of my proposal are not very common, it is unlikely that it would significantly increase the number of protected domestic populations. Other critics might consider my proposal too timid, in that it might preclude protection of vulnerable domestic populations because foreign populations are currently insufficiently threatened or because the species is not particularly valuable to Americans. Still, because an agency's decision not to list a population can be challenged at any time,¹¹⁹ one can be reasonably confident that if a population merits protection, it will eventually be protected.

B. *Consistency of the Proposal with the Text and Legislative History of the ESA*

The remaining question is whether this proposed solution is consistent with the text and legislative history of the ESA. As this Section

¹¹⁷ Considering actual campaigns geared towards protecting species is in fact a much more meaningful factor than considering public opinion surveys because public opinion surveys only measure “hypothetical willingness-to-pay” rather than actual willingness-to-pay. See Peter A. Diamond & Jerry A. Hausman, *Contingent Valuation: Is Some Number Better Than No Number?*, J. ECON. PERSP., Fall 1994, at 45, 45–46, 62 (arguing that “contingent valuation is a deeply flawed methodology for measuring nonuse values” because such surveys “do not measure the preferences they attempt to measure”).

¹¹⁸ *Supra* note 30 and accompanying text; see also Warren Rhodes, Sandy Gerjevic & T.C. Mitchell, *Best of Anchorage—Summer 1999*, ANCHORAGE DAILY NEWS, June 11, 1999, at H11 (reporting that best place to see wildlife in Alaska provides for views of belugas and other species).

¹¹⁹ See 16 U.S.C. § 1540(g)(1)(A)–(C) (providing that “any person may commence a civil suit” to enforce provisions of ESA).

demonstrates, the text and legislative history suggest that Congress intended neither to mandate nor forbid the protection of species which are endangered solely within the United States. Thus, while the ESA does not necessitate changing the DPS Policy, the delegated agencies would have the authority under the ESA to amend the DPS Policy to enhance domestic protection.

1. *Text of the Statute*

To determine whether the ESA permits the listing of species that are endangered solely within the United States, one must examine the definitions of both “endangered species” and “species.” The Act defines “endangered species” as “any species which is in danger of extinction throughout all or a significant portion of its range.”¹²⁰ Since this language is similar to that of the second prong of the DPS Policy, which states that significance can be established if the loss of the DPS “would result in a significant gap in the range of a taxon,”¹²¹ one might argue that this definition in the ESA should be interpreted in the same way as the definition in the DPS Policy, precluding the protection of species that are endangered only within the United States. However, a key difference between the provisions suggests that the ESA should not be interpreted so narrowly. Notably, the ESA definition describes “range” in reference to “species,” while the DPS Policy describes “range” in terms of “taxon,” a scientific term. While “species” is also a scientific term, the Act defines “species” more broadly than scientists to include “any subspecies . . . and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”¹²² Thus, as long as a DPS is found to be in danger of extinction “throughout all or a significant portion” of its range, the DPS would qualify as an endangered species. Because “distinct population segment” is not defined in the ESA and is not a scientific term, FWS and NMFS have some leeway to determine what qualifies as a DPS and thus could protect species that are endangered solely within U.S. borders.

Another important provision to consider is Section 1533, which discusses listing determinations.¹²³ Section 1533(a) provides that “[t]he Secretary shall by regulation . . . determine whether any species

¹²⁰ *Id.* § 1532(6).

¹²¹ DPS Policy, *supra* note 1, at 4725.

¹²² 16 U.S.C. § 1532(16). The scientific definition of “species” is “a population or group of populations whose members have the potential to interbreed in nature and produce viable, fertile offspring.” NEIL A. CAMPBELL & JANE B. REECE, *BIOLOGY* 473 (7th ed. 2005). Thus, the scientific definition does not encompass “distinct population segments.”

¹²³ 16 U.S.C. § 1533.

is an endangered species or a threatened species” based on five factors including: “(A) the present or threatened destruction . . . of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.”¹²⁴ Again, these factors are discussed in reference to the term “species,” which includes DPSs.¹²⁵ Thus, any “natural or manmade factors affecting [the DPS’s] continued existence”¹²⁶ could justify endangered or threatened status, even if the species as a whole is not at risk of extinction.

However, while protecting domestic populations appears to be allowed under the ESA, it is not mandated, since the Act also emphasizes international protection. Indeed, many ESA provisions suggest that its main concern is ensuring that species exist somewhere in the world, rather than ensuring their existence within the United States. For example, Section 1533(b)(1)(A), which discusses factors that the Secretary must consider in making listing determinations, requires that the Secretary “conduct[] a review of the status of the species” and “tak[e] into account” efforts by other countries to conserve the species.¹²⁷ If protecting domestic populations of species were the Act’s primary goal, there would be no need to require the Secretary to consider conservation efforts in other nations since the species’ status elsewhere would be irrelevant to its status in the United States.

Additionally, Sections 1531(a)(4) and 1531(b) establish that the ESA is the mechanism for implementing international treaties and conventions relating to the protection of endangered species.¹²⁸ Similarly, Section 1537 involves international protection, authorizing the President to provide aid to foreign countries so they can better protect endangered species.¹²⁹

Still, despite this language, the Act does not forbid the protection of domestic populations, since the Secretary is only required to “tak[e] into account”¹³⁰ the efforts being taken by other nations. Whether—and to what extent—other countries are protecting species does not determine whether a DPS will be protected. Thus, while international protection is the Act’s focus, the Act can nonetheless be used to protect domestic populations. In fact, Section 1531, the Findings section,

¹²⁴ *Id.* § 1533(a).

¹²⁵ *Id.* § 1532(16).

¹²⁶ *Id.* § 1533(a)(1)(E).

¹²⁷ *Id.* § 1533(b)(1)(A).

¹²⁸ *Id.* § 1531(a)(4), (b).

¹²⁹ *Id.* § 1537(a).

¹³⁰ *Id.* § 1533(b)(1)(A).

reveals a purely domestic purpose: “[T]hese species of fish, wildlife, and plants are of esthetic, . . . recreational, and scientific value to the Nation and its people.”¹³¹ This section is significant for two reasons. First, it demonstrates that the ESA is not concerned solely with protecting species for scientific and biological reasons; it is also concerned with protecting species with “esthetic” and “recreational” value. Second, it demonstrates a commitment to allowing Americans to take advantage of the recreational and scientific benefits that endangered species provide, suggesting that protection of domestic species is important under the ESA.¹³²

Thus, since the Act does not expressly forbid the protection of species that are endangered solely within the United States and since Section 1531(a)(3) suggests that it may be important to protect species domestically, FWS and NMFS have the authority to change the DPS Policy to allow for the protection of endangered domestic populations. In fact, the next Section demonstrates that Congress expected that the Act, under certain circumstances, would protect populations of species within the United States even when they were abundant elsewhere.

2. *Legislative History*

Compared with the statute’s text, its legislative history contains more specific information about the goal of protecting U.S. populations of species. Not surprisingly, before the “distinct population segment” language was added to the statute and when the term “species” broadly included “any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature,”¹³³ the legislative history suggests that Congress believed that the ESA could be used to protect domestic populations. For example, the Committee Report accompanying the original 1973 House bill (H.R. 37) explains that the Act’s definition of “Endangered Species” “includes the possibility of declaring a species endangered within the United States where its principal range is in another country, such as Canada or Mexico.”¹³⁴ Thus, when Congress initially

¹³¹ *Id.* § 1531.

¹³² One counterargument might be that the aesthetic, recreational, and scientific value of species can be achieved through global protection since Americans can still enjoy viewing wildlife by traveling to other countries and can derive useful benefits from species (like medicine or food) as long as they are preserved somewhere. However, not everyone can travel to other countries to visit species, so conserving species within the United States makes them more accessible.

¹³³ Endangered Species Act of 1973, Pub. L. No. 93-205, § 3(11), 87 Stat. 884, 886 (codified as amended at 16 U.S.C. § 1532(16) (2006)).

¹³⁴ LEGISLATIVE HISTORY, *supra* note 26, at 149.

passed the Act, it appears to have envisioned that agencies would occasionally protect domestic populations of species pursuant to the Act, even when the species were abundant in other countries.

Of course, in 1978—presumably because Congress wanted to narrow the number of populations that agencies could list as endangered or threatened—the definition of “species” was amended to include “any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”¹³⁵ Despite this rather significant change, there is little information about the definition of this term in the legislative history of the 1978 Amendments.¹³⁶ One Representative did propose eliminating this language from the bill and restricting the definition of species to “a generally biologically accepted definition of ‘species’”: “[a] group of fish, wildlife, or plants, consisting of physically similar organisms capable of interbreeding, but generally incapable of producing fertile offspring through breeding with organisms outside of this group.”¹³⁷ However, this amendment was rejected, and Representative John D. Dingell argued that it was “mischievous” not to allow the Secretary to list certain populations of a species as endangered so long as the species was present somewhere else.¹³⁸ Dingell discussed the importance of listing populations of certain species in specific states even if the species is abundant in other states:¹³⁹

Today the Secretary can declare the bald eagle in the lower 48 States to be endangered . . . and . . . say that in Alaska the species is not endangered. Under the amendment offered . . . the Secretary could not say that the bald eagle is endangered in the lower 48 States and is not endangered in Alaska, he would have to either

¹³⁵ 16 U.S.C. § 1532(16) (2006). This definition still appears in the Act.

¹³⁶ See *supra* note 36 and accompanying text (discussing why little is said about “distinct population segments” in 1978 legislative history).

¹³⁷ LEGISLATIVE HISTORY, *supra* note 26, at 881.

¹³⁸ *Id.* at 882. While it would be unfair to assume that the views of this lone Congressman were representative of the entire body of Congress, Dingell’s comments suggest a plausible reason why the proposed amendment that would have narrowed the definition of “species” was not ultimately adopted.

¹³⁹ While this Note’s focus is whether we should protect species that are endangered in the United States and abundant elsewhere, an important and related question is whether we should protect species that are endangered in one region of the United States but abundant in another. While a detailed answer is beyond the scope of this Note, an answer that is consistent with my proposal is that we should afford protection to DPSs in certain localities when there is a strong public demand to have that species present there. For example, because of the cultural significance of the bald eagle, many people have supported protecting this species in their locality, despite its abundance elsewhere in the United States. See *supra* note 26 and accompanying text.

declare it endangered throughout the whole of its range, or not declare it endangered at all.¹⁴⁰

While Dingell's comment does not specifically discuss the case where a species is endangered in the United States and abundant elsewhere, it shows that Congress wanted agencies to have the ability to list populations of species that were endangered in some areas even if not endangered elsewhere. Still, this language suggests that Congress only wanted to give agencies permission to protect endangered DPSs, without mandating that the agencies protect any DPS that comprises the entire remaining population of a species within the United States.

Most congressional discussion of the term "distinct population segment" did not occur until a year after the language had been adopted. A 1979 report from the Senate Committee on Environment and Public Works (the Committee) discusses the Government Accountability Office's (GAO) recommendation to amend the definition of "species" to "prevent the FWS from listing geographically limited populations of vertebrates as threatened or endangered."¹⁴¹ The GAO argued that FWS had "interpreted the term 'species' to include any population of the animal, regardless of its size, location or total numbers" and that this "could result in the listing of squirrels in a specific city park, even though there is an abundance of squirrels in other parks in the same city, or elsewhere in the country."¹⁴² FWS and NMFS opposed this recommendation because "it would severely limit their ability to require the appropriate level of protection for a species based on its actual biological status."¹⁴³ The Committee sided with the agencies since "there may be instances in which [agencies] should provide for different levels of protection for populations of the same species," and "the U.S. population of an animal should not necessarily be permitted to become extinct simply because the animal is more abundant elsewhere in the world."¹⁴⁴ This statement from the Committee is probably the best evidence that Congress wanted to leave open the possibility of protecting populations of species that are endangered only in the United States. Of course, because of the GAO report, the Committee expressed that it was "aware of the great potential for abuse of this authority and expect[ed] the FWS to use the ability to list

¹⁴⁰ LEGISLATIVE HISTORY, *supra* note 26, at 882. Representative Dingell further explained that the Secretary would face this dilemma with other species, such as the alligator. *Id.*

¹⁴¹ S. REP. NO. 96-151, at 6 (1979).

¹⁴² *Id.* at 6-7.

¹⁴³ *Id.* at 7.

¹⁴⁴ *Id.*

populations sparingly and only when the biological evidence indicates that such action is warranted.”¹⁴⁵

However, Congress never added to the Act the command that FWS and NMFS list DPSs “sparingly,” despite numerous suggestions to do so from both industry representatives and congresspersons.¹⁴⁶ Congress declined to make this change most recently in 2001 when Steven P. Quarles—representing the American Forest & Paper Association—proposed amending the Act to insist that DPS designations should only be made sparingly.¹⁴⁷ Quarles suggested that the ESA currently requires a species unit, such as a population segment, to be protected “if that species unit is biologically endangered . . . over a significant portion of its range” and that Congress needs “to provide in the form of a statutory command its previous committee report admonition that such listing authority be exercised only ‘sparingly.’”¹⁴⁸ In declining this invitation to limit DPS designations, Congress signaled a desire to continue allowing for some flexibility in making such decisions.

Despite the support in the legislative history for my proposal to protect domestic populations of species, the second prong of my proposal may encounter a possible roadblock. This prong—the population’s importance to the American people—arguably conflicts with the ESA because the Act does not allow the agencies to list a species merely because the species is culturally important or well-liked. The ESA states that determinations to list a species should be made “solely on the basis of the best scientific and commercial data available,”¹⁴⁹ and thus that any aesthetic, educational, and cultural benefits that may come from having a particular species within U.S. borders are irrelevant to the listing decision. While this argument seems compelling, there are many ways to respond to it.

First, the ESA’s requirement to use scientific data refers only to the determination that a species is endangered or threatened.¹⁵⁰ While the agencies’ determination that a DPS is endangered or threatened must be based on scientific data, the agencies’ finding that a particular population qualifies as a DPS can be based on other factors because

¹⁴⁵ *Id.*

¹⁴⁶ *Listing and Delisting Processes Under the Endangered Species Act: Hearing Before the Subcomm. on Fisheries, Wildlife, and Water of the S. Comm. on Env’t & Pub. Works, 107th Cong. 83–89 (2001)* (statement of Steven P. Quarles, Counsel, American Forest & Paper Association and the QuadState County Government Coalition).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 89.

¹⁴⁹ 16 U.S.C. § 1533(b)(1)(A) (2006). *But see* Geoffroy & Doyle, *supra* note 7 (criticizing non-scientific factors enumerated in DPS Policy).

¹⁵⁰ 16 U.S.C. § 1533(b)(1)(A).

“distinct population segment” is not a scientific term.¹⁵¹ Also, the ESA allows the listing of only vertebrate distinct population segments,¹⁵² which suggests that Congress prioritized listing certain species over others without any scientific reason. In statements attached to the DPS Policy, FWS and NMFS acknowledge that the Act requires the “use [of] the best available scientific information” and that interpretations of the term “distinct population segment” be in line with “sound biological principles.”¹⁵³ However, they note that “[a]vailable scientific information provides little . . . enlightenment in interpreting the phrase ‘distinct population segment’” and that “[t]his term is not commonly used in scientific discourse.”¹⁵⁴ Since DPS is not a scientific term, agencies could argue that they should have more flexibility in determining what constitutes a DPS, which might include factors that are not purely scientific. Second, as noted, the legislative history suggests congressional intent to preserve domestic populations of certain species even when they exist elsewhere.¹⁵⁵ Third, current DPS Policy includes factors that are not purely scientific, such as the consideration of “international governmental boundaries,” in determining whether a population segment is “discrete.”¹⁵⁶

Also, scholars have shown that FWS and NMFS have not based listing decisions solely on science, prioritizing the listing of well-liked species without saying so.¹⁵⁷ As Holly Doremus notes, many controversies regarding listing decisions do not involve “scientific question[s],” but rather “question[s] of values on which people sharply disagree.”¹⁵⁸ Thus, for the sake of transparency, FWS and NMFS

¹⁵¹ See *supra* notes 40–41 and accompanying text.

¹⁵² 16 U.S.C. § 1532(16).

¹⁵³ DPS Policy, *supra* note 1, at 4722.

¹⁵⁴ *Id.*

¹⁵⁵ See *supra* notes 135–45 and accompanying text.

¹⁵⁶ DPS Policy, *supra* note 1, at 4725.

¹⁵⁷ See, e.g., Jonathan H. Adler, *Money or Nothing: The Adverse Environmental Consequences of Uncompensated Land Use Controls*, 49 B.C. L. REV. 301, 349 (2008) (“Large charismatic species, for example, are more likely to be listed than less attractive animal species that do not have the same political constituency.”); John C. Nagle, *Playing Noah*, 82 MINN. L. REV. 1171, 1197 (1998) (“Experience shows that the agency makes some . . . decisions with an eye toward the species that is at stake. . . . [T]he FWS follows ‘an informal hierarchy in which mammals are often given priority over birds, birds over cold-blooded vertebrates, and cold-blooded vertebrates over invertebrates—with plants trailing behind them all.’” (quoting Dennis D. Murphy, *Invertebrate Conservation*, in *BALANCING ON THE BRINK OF EXTINCTION: THE ENDANGERED SPECIES ACT AND LESSONS FOR THE FUTURE* 181, 185 (Kathryn A. Kohm ed., 1991))); Daniel J. Rohlf, *Section 4 of the Endangered Species Act: Top Ten Issues for the Next Thirty Years*, 34 ENVTL. L. 483, 506–07 (2004) (referring to requirement that listing decisions be based solely on scientific information as “charade”).

¹⁵⁸ Holly Doremus, *The Purposes, Effects, and Future of the Endangered Species Act’s Best Available Science Mandate*, 34 ENVTL. L. 397, 420–21 (2004) (discussing how main

should amend the DPS Policy to allow them to openly protect certain popular species.

CONCLUSION

While the DPS Policy is not clearly contrary to the ESA—which is primarily concerned with ensuring that species exist somewhere in the world as opposed to specifically in the United States—there are many compelling reasons to protect species that are endangered solely within the United States. Since the loss of a species is an irreversible harm, domestic populations of species may be worth protecting if there are strong indications that its foreign populations may be at risk of extinction in the future. In addition, some species hold cultural, educational, and aesthetic significance for Americans and should be protected regardless of how abundant the species are abroad. Although there is evidence that such considerations have influenced some previous FWS and NMFS decisions, that influence has necessarily been covert, in light of court decisions interpreting the present policy. To enhance species protection both internationally and domestically, the DPS Policy should be revised to unambiguously allow government agencies to preserve domestic populations of species in certain instances. Under my proposed revision, American citizens would not have to worry about someday losing some of their most cherished animals.

controversy surrounding delisting of gray wolf “is not the likelihood of survival of the species in its few current strongholds within the continental United States, but whether the wolf ought to be restored to some or all of its remaining historic range”).

