The Endangered Species Act’s Precarious Perch: A Constitutional Analysis Under the Commerce Clause and the Treaty Power

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Provisions of the Endangered Species Act have come under attack by critics who believe that Congress overstepped its constitutional authority. Because underlying treaties do not support the view that the Endangered Species Act can be justified under the Treaty Power, the vitality of the Act rests on the Commerce Clause. The combination of the commercial importance of biological diversity and federalism concerns counsels against finding that any provisions of the Endangered Species Act are unconstitutional. In order to ensure that courts will arrive at this conclusion, Congress should modify the language defining the findings and purpose of the Act to clarify the connections with the Endangered Species Act’s connection to commerce.

CONTENTS

Introduction ........................................................................................................... 216
I. The Endangered Species Act ............................................................................ 221
   A. Historical Context ..................................................................................... 221
   B. The Endangered Species Act and Habitat Regulation .................................. 222
II. Treaty Power Justifications ............................................................................. 224
   A. The Treaty Power and Treaties Cited in the Endangered Species Act .......... 224
   B. The Western Convention .......................................................................... 227

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215
INTRODUCTION

Southern sea otters live in small groups that can be found floating like flotillas of tiny ships in estuaries along the California coast. In Monterey, California, one of the aquarium's main attractions is a group of three orphaned sea otters, and local outfitters rent sea kayaks that allow tourists to visit otters in their natural habitat. Similarly, in New England, tour boat operators take large groups of tourists on day cruises to observe humpback whales. Alaskan excursions allow the observation of grizzly bears. In addition to their value to the tourist industry, these animals share another feature: the federal government protects them as either threatened or endangered species.¹ This unfortunate distinction is one that these well-known and generally beloved animals share with lesser-known species such

¹ See 50 C.F.R. § 17.11(h) (1998).
as the snail darter, the northern spotted owl, and the Delhi Sands flower-loving fly. The protection of these latter three, lesser known species, however, has halted the construction of a dam in Tennessee, slowed logging in the Pacific Northwest, and, most recently, stopped the construction of a hospital in California.

Unlike otters, whales, and bears, which have an obvious connection to tourism, the snail darter, the northern spotted owl, and the Delhi Sands flower-loving fly are not popular with travelers and have no obvious connection to any other commercial activity. Nonetheless, Congress made no distinction in the Endangered Species Act of 1973 (ESA) between species with commercial value and species that appear to be of interest only to researchers. All endangered or threatened species receive protection, and this protection includes regulation of almost every activity that affects, or potentially affects, endangered wildlife. The lack of a clear connection between species protection and commerce would be an interesting footnote, instead of an important legal concern, except for the fact that the federal government is one of limited enumerated powers.

In enacting the ESA, Congress, at least implicitly, relied upon three of its enumerated powers—the power to regulate commerce, the power to become party to international treaties, and the power to make all laws necessary and proper for carrying out its other powers.
treaties, and the power to regulate spending. Prior to the Supreme Court’s decision in United States v. Lopez, it was assumed that Congress had the power to enact sweeping legislative programs despite limitations to these enumerated powers.

Since the Supreme Court’s decision in Lopez, which established that there must be real limits to federal legislative authority, the question of whether Congress has the authority under the ESA to prohibit habitat modification has been the subject of a court of appeals decision and a hot topic of legal debate.

In 1997, the Court of Appeals for the District of Columbia decided National Ass’n of Home Builders v. Babbitt, a case that upheld the ESA in a 2-1 decision featuring three separate opinions. In National Ass’n of Home Builders, the plaintiffs challenged the application of the ESA to the Dehli Sands flower-loving fly, a species that exists only in California, as exceeding Congress’ Commerce Clause power. One opinion found that endangered species were commercial, a concurring opinion established that the regulated activity was commercial, and the dissent stated that neither the species nor the activity was sufficiently linked to commerce to justify congressional

12. See id. art. II, § 2, cl. 2.
13. See id. art. I, § 8, cl. 1.
15. Id.
16. See National Ass’n of Home Builders v. Babbitt, 130 F.3d 1041 (D.C. Cir. 1997). Some have argued that Lopez will have little impact on any federal legislation. This analysis has been weakened by the recent Fourth Circuit decision holding that the Violence Against Women Act is beyond the Congress’ Commerce Clause authority. See Brzonkala v. Virginia Polytechnic Inst. and State Univ., 169 F.3d 820 (4th Cir. 1999). But see United States v. Page, 167 F.3d 325 (6th Cir. 1999) (upholding the Violence Against Women Act against a Commerce Clause challenge). Although forty federal laws have been upheld against Commerce Clause challenges, nine have been upheld over dissents. See William Funk, The Lopez Report, 23 ADMIN. & REG. L. NEWS, Summer 1998, at 15; see also National Ass’n of Home Builders v. Babbitt, 130 F.3d 1041 (D.C. Cir. 1997); United States v. Bird, 124 F.3d 667 (5th Cir. 1997) (DeMoss, J., dissenting) (questioning the constitutionality of the Freedom of Access to Clinic Entrances Act); United States v. Bailey, 115 F.3d 1222 (5th Cir. 1997) (Smith, J., dissenting) (questioning the validity of the Child Support Recovery Act).
18. 130 F.3d 1041 (D.C. Cir. 1997).
19. See id. at 1043.
regulation under the ESA.\textsuperscript{20}

Academic scholarship is similarly split. One viewpoint holds that the habitat modification provisions of the ESA are unconstitutional because such regulations are land use regulations that should be governed by local governments.\textsuperscript{21} A second concludes that habitat modification is constitutional only if it regulates a commercial activity or if the protected species has a clear connection to commerce.\textsuperscript{22} A third determines that the ESA is constitutional based on the Treaty Power,\textsuperscript{23} and a fourth finds that the ESA is constitutional based on the Commerce Clause.\textsuperscript{24}

These diverse viewpoints suggest the unfortunate possibility that a future court will find the regulation of habitat modifications unconstitutional. With that risk in mind, this Comment addresses two key questions. First, is the ESA constitutional? Second, how should the federal government revise either the ESA or the country's international commitments to safeguard habitat modification provisions?

Part I surveys the history, provisions, and application of the ESA. It establishes that the controversy surrounding congressional power and the ESA has focused on habitat modification prohibitions. The reasons for this focus are twofold: these provisions most directly impact private citizens, and other provisions of the ESA are clearly constitutional based on either the Spending Power or the Commerce Clause.

Part II turns to the Treaty Power and concludes that current treaties do not justify habitat regulation. This Part also suggests two possible courses of action that would bolster the Treaty

\textsuperscript{20} See id. at 1057, 1060, 1067. This is a simplification of the opinions and borrows heavily from Professor John Copeland Nagle's analysis of the case. See Nagle, supra note 17, at 179-80.

\textsuperscript{21} See David A. Linehan, Note, Endangered Regulation: Why the Commerce Clause May No Longer Be Suitable Habitat for Endangered Species and Wetlands Regulation, 2 Tex. Rev. L. & Pol. 365, 419 (1998) (stating that habitat modification restrictions are land use regulations traditionally governed by the states).

\textsuperscript{22} See Stephen M. Johnson, United States v. Lopez: A Misstep, but Hardly Epochal for Federal Environmental Regulation, 5 N.Y.U. Envtl. L.J. 33, 79-82 (1996); Nagle, supra note 17, at 213-14 (arguing that habitat modification restrictions should not be allowed unless either the animal or regulated activity has an independent connection to commerce).

\textsuperscript{23} See Villareal, supra note 17 (contending that the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere gives Congress the support necessary to enact the ESA).

Power with the aim of keeping the ESA intact. First, the executive branch could exercise its authority to update the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Western Convention),\(^{25}\) to provide the necessary justification. Second, the United States could become a party to the recently signed Convention on Biological Diversity.\(^{26}\) Because current treaties do not completely justify the ESA, however, additional sources of constitutional support must be examined.

Part III addresses whether the Commerce Clause justifies the ESA.\(^{27}\) This Part begins with a discussion of the *Lopez* decision and argues that practical and historic considerations play a large role in defining what Congress can regulate under the Commerce Clause. Application of *Lopez* to the ESA demonstrates that the economic importance of biological diversity makes species protection a commercial issue. Furthermore, the limitation that regulated activities must have a connection to an endangered species creates a real limit to congressional power. Finally, the correct balance of state and federal power dictates that Congress has the authority to maintain current species protections through habitat regulation.

Despite these arguments supporting the ESA's efforts at habitat regulation, courts may still focus too narrowly on the impacts on local zoning ordinances and the tenuous connection between individual species and commerce. This inappropriate focus could lead courts to determine that the habitat modification prohibitions are unconstitutional. Therefore, this Comment recommends amending the ESA's findings and purposes provisions to emphasize the connection between the Act and commerce.

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27. Reauthorization of the ESA to provide for more environmental protection is something that will have to wait for a less conservative Congress. Previous attempts by the conservative 104th Congress show that the ideas contemplated were attempts to weaken rather than strengthen the ESA. See generally Tanya L. Godfrey, Note, *The Reauthorization of the Endangered Species Act: A Hotly Contested Debate*, 96 W. Va. L. Rev. 979 (1996) (analyzing the various reauthorization bills of the 104th Congress).
To date, the Endangered Species Act of 1973 is the most expansive bill passed to protect wildlife in the United States. Its passage followed almost a century of stop-and-go interest in preserving rare wildlife. As early as the 1870s, Congress showed interest in protecting plains bison but did not enact any legislation. Instead, species protection on a national scale commenced in 1900 with the passage of the Lacey Act. This statute prohibited interstate commerce in animals killed in violation of state law and directed the Secretary of Agriculture to ensure the continued abundance of game animals and birds. The legislative record of the Lacey Act recognized that the states alone had inadequate resources to prevent species extinction and that federal help was necessary. Sixteen years later, the United States explicitly recognized the international scope of the species extinction problem by entering into an international treaty protecting migratory birds.

Further protection of endangered species waited until the 1960s, when the National Wilderness Preservation System was implemented to provide crucial habitat for endangered species. In 1966, Congress passed the Endangered Species Preservation Act, directing the Departments of Defense, Agriculture, and Interior to protect endangered species where such protection was practicable and consistent with the primary purposes of their departments. This Act also created the National Wildlife Refuge System and directed the Department of the Interior to compile lists of endangered species. In 1969, Congress added the

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30. See id.
35. See id. § 1(c), 80 Stat. at 926-27.
Endangered Species Conservation Act. This Act recognized for a second time the international scope of species extinction and banned the importation of endangered species.

The most recent phase in the development of endangered species protection in the United States occurred in the early 1970s. In 1971, Congress enacted legislation prohibiting the taking or importation of endangered marine mammals. In 1973, the United States signed the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a multilateral treaty that established a complex scheme for placing import-export restrictions on trade in endangered species. Later that year, recognizing that previous legislation was not adequate to address the species extinction problem, Congress overwhelmingly passed the Endangered Species Act, intended to comprehensively protect endangered species. The ESA has been modified twice—in 1978 and 1982—but the basic regulatory framework has not changed.

B. The Endangered Species Act and Habitat Regulation

In enacting the ESA, Congress intended "to halt and reverse the trend toward species extinction." To this end, Congress empowered the Secretary of Commerce to determine which species are "in danger of extinction throughout all or a significant portion of [their] range" and to create a list of such

37. See id. §§ 2, 3(a), 83 Stat. at 275.
40. The Senate passed the ESA by a unanimous vote. See 119 Cong. Rec. 42,535 (Dec. 19, 1973), reprinted in Comm. on Env't and Pub. Works, 97th Cong., 2d Sess., A Legislative History of the Endangered Species Act of 1973, at 474. The vote in the House of Representatives was 345 to 4. See id. at 915-16. The previous acts failed for three primary reasons: (1) they failed to give protection to endangered populations of otherwise healthy species; (2) they had no takings prohibitions, leaving this to the states; and (3) they failed to protect endangered species habitat. See Villarel, supra note 17, at 1129.
41. The amendments made in 1978 allowed the government to grant exemptions from the ESA for federal projects whose economic benefits were larger than the benefits obtained by protecting the species. The 1982 amendments provided for habitat conservation plans that allow incidental takings of endangered species if they do not affect the likelihood of survival and the owner takes steps to reduce risks. See 16 U.S.C. § 1539 (1994).
43. 16 U.S.C. § 1532(6) (1994). An important distinction is that plant life is only
species. The ESA directs the Secretary to list species that are currently endangered or could become endangered because of planned or proposed activity. Once added to the appropriate list, the endangered or threatened species receive special protections.

Many of these protections involve government activities. For example, Section 7 of the ESA directs federal agencies to "insure that any action authorized, funded, or carried out by [such agency . . . is not likely to] jeopardize the continued existence' of [endangered species or threatened species] or 'result in the destruction or modification of [critical] habitat." Other provisions require federal officials to coordinate with state and foreign governments to protect endangered wildlife and authorize specific agencies to acquire land to support conservation programs. These provisions are clearly within the federal government's authority under the spending power.

Section 9 of the ESA, which prohibits private conduct on private land, is the most controversial and the most difficult to defend against constitutional attack. While provisions that prohibit the sale, importation, or exportation of endangered species clearly regulate commercial activities, many other prohibitions do not fall under the Commerce Clause as easily.

The most important of these prohibitions makes it illegal to "take" endangered species within the United States, in the territorial seas of the United States, or upon the high seas. "Take" is defined as "to harass, harm, pursue, hunt, shoot,
wound, kill, trap, capture, or collect.\textsuperscript{52} This definition, as interpreted by the Department of the Interior, forbids "significant habitat modification or degradation where it actually kills or injures wildlife."\textsuperscript{53} This provision has come under strenuous attack because it hinders private as well as public enterprises’ various building and commercial activities.\textsuperscript{54} Arguably, this habitat modification restriction amounts to a land use or zoning regulation of private lands, traditionally the province of state and municipal governments,\textsuperscript{55} and can even affect recreational uses such as driving off-road vehicles and walking in the sand.\textsuperscript{56} Critics argue that this broad regulation, particularly the habitat modification restrictions, cannot be justified under either the Treaty Power or the Commerce Clause.

\section{TREATY POWER JUSTIFICATIONS}

\subsection{The Treaty Power and Treaties Cited in the Endangered Species Act}

It is natural to first examine the possibility that Congress has the authority to enact the ESA under the Treaty Power because Congress explicitly stated in the ESA that:

[T]he United States has pledged itself as a sovereign state in the international community to conserve to the extent practicable the various species of fish or wildlife and plants facing extinction, pursuant to:

(A) migratory bird treaties with Canada and Mexico;
(B) the Migratory and Endangered Bird Treaty with Japan;
(C) the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere;
(D) the International Convention for the Northwest Atlantic Fisheries;

\begin{itemize}
\item \textsuperscript{52} \textit{Id.} \S 1532(19).
\item \textsuperscript{53} 50 C.F.R. \S 17.3 (1998); see also \textit{Babbitt v. Sweet Home Chapter of Communities for a Great Oregon}, 515 U.S. 687, 708 (1995). The Supreme Court upheld the Secretary's definition in a 6-3 decision that found the interpretation reasonable and consistent with the ESA. See \textit{id.}
\item \textsuperscript{54} \textit{See Sweet Home}, 515 U.S. at 692; \textit{National Ass'n of Home Builders v. Babbitt}, 130 F.3d 1041, 1044 (D.C. Cir. 1997).
\item \textsuperscript{55} \textit{See Linehan, supra note 21, at 419.}
\end{itemize}
(E) the International Convention for the High Seas Fisheries of the North Pacific Ocean;
(F) the Convention on International Trade in Endangered Species of Wild Fauna and Flora; and
(G) other international agreements.\textsuperscript{57}

The conventional view is that the Tenth Amendment’s reservation of the states’ rights does not limit the treaty power.\textsuperscript{58} This view is based upon Missouri v. Holland,\textsuperscript{59} where the Supreme Court stated that the Constitution expressly delegates to the President the power “by and with the Advice and Consent of the Senate to make Treaties, provided two-thirds of the Senators present concur,”\textsuperscript{60} and that under Article VI of the Constitution, these treaties become the “supreme law of the land.”\textsuperscript{61} Holland involved a challenge, made by the State of Missouri, to laws promulgated under the Migratory Bird Treaty Act to satisfy the United States’ treaty obligations to Canada.\textsuperscript{62} Similar laws enacted by the federal government prior to the ratification of the treaty had been invalidated because birds were owned by the states, and the federal government had no power to displace that control.\textsuperscript{63} The Holland Court held that the prohibitory words found in the Constitution defined the limits of the Treaty Power.\textsuperscript{64} In upholding the federal government’s regulatory power, the Supreme Court stressed that the treaty protecting migratory birds implicated a national interest that could only be adequately addressed through coordinated action with foreign powers.\textsuperscript{65} Because the ESA involves the same national interest in wildlife protection, which can only be

\textsuperscript{59} 252 U.S. 416 (1920).
\textsuperscript{60} U.S. CONST. art. II, § 2, cl. 2.
\textsuperscript{61} Holland, 252 U.S. at 433.
\textsuperscript{62} Id. at 430.
\textsuperscript{63} See id. at 432.
\textsuperscript{64} Id. at 433-34. Later, the Court would clarify that the Treaty Power does not override individual rights under the Constitution. See Boos, 485 U.S. at 324; Reid, 354 U.S. at 16-19.
\textsuperscript{65} See Holland, 252 U.S. at 435 (stating the treaty involved “a national interest of very nearly the first magnitude” which could only be protected “by national action in concert with that of another power”).
addressed at an international level, international treaties arguably convey power to Congress beyond that which would exist absent these international environmental obligations.

To determine whether the Treaty Power does in fact convey this additional power, it is necessary to consider the actual terms of individual treaties in order to see which, if any, of the ESA's provisions are required by the treaty language. The ESA cited as support seven treaties in the findings and purposes, but only the Western Convention is significant to an analysis of the constitutionality of habitat modification prohibitions. The CITES is self-limiting in that it mainly applies to the import and export of endangered species and thus cannot justify prohibitions on habitat modification. ESA provisions relating to the actual buying and selling of animals are not in question because these provisions clearly relate to a commercial activity. The remaining five treaties are of more limited value as justification for the ESA. Three of them apply only to migratory birds, and the other two relate specifically to fisheries in the Atlantic and Pacific Oceans. The migratory bird treaties are further limited to birds that migrate between the United States and foreign nations.


67. CITES pertains almost exclusively to trade in endangered species and does not prescribe how governments should protect species entirely contained within their own borders. Appendix I of CITES contains species "threatened with extinction which are or may be affected by trade." CITES, supra note 39, at 1092. Appendix II contains species that are less seriously threatened that are or may be affected by trade. See id. at 1132.

68. The only parts of the ESA that CITES explicitly or implicitly requires are the regulations that prohibit the export and import of endangered species and the sections that prescribe penalties for exporting and importing endangered species. See id.


71. The listed families of birds protected by the migratory bird treaties are the Anatidae (swans, geese and ducks), Rallidae (rails, gallinules, and coots), Gruidae (cranes), Charadriidae (plovers and lapwings), Haematopodidae (oystercatchers), Recurvirostridae (stilts and avocets), Scolopacidae (sandpipers, phalaropes, and allies), and Columbidae (pigeons and doves). See Canada Convention, supra note 32, art. I; Mexico Convention, supra note 69, art. II; Birds Protected by the Migratory Bird Treaty Act [visited Sept. 1, 1999] <http://www.fws.gov/r9mbmo/intrnltr/
addition, the migratory bird treaties focus on hunting, trade, and egg collection, not on prohibiting habitat modification. Finally, the applicability of the marine treaties is limited only to fish species important to commercial fishing.

Overall, these six treaties provide a patchwork that might justify prohibitions on habitat modification for limited species. As will become clear from the following discussion, the Western Convention has broader language that could justify the broad protections found in the ESA's habitat modification prohibitions. As such, the Western Convention and its implications for the ESA deserve a more detailed analysis.

B. The Western Convention

Fifteen nations, including the United States, signed the
Western Convention. The Convention's preamble states that the signatories seek "to protect and preserve in their natural habitat representatives and species of the genera of their native flora and fauna" to ensure their protection from extinction. The treaty's first Article defines terms, while the remaining eleven Articles define the signatories' commitments to protect wildlife and other natural resources. Some scholars have argued that the Western Convention may support the ESA under the Treaty Power. One author in particular, Gavin Villareal, argues that the Western Convention adequately supports the ESA based on the broad authority that Article II and Article V confer on Congress for species and habitat protection. In addition to these Articles, however, Article VIII of the Western Convention may also support the ESA.

1. Article II

With regard to Article II, Villareal argues that the United States, as a signatory, must provide nature monuments. The Western Convention defines the term "nature monument" as:

Regions, objects, or living species of flora or fauna of aesthetic, historic or scientific interest to which strict protection is given. The purpose of nature monuments is the protection of a specific object, or a species of flora or fauna, by setting aside an area, an object, or a single species, as an inviolate nature monument, except for duly authorized scientific investigations or government inspection.

Article II requires contracting governments to explore the possibility of establishing nature monuments as soon as feasible. Villareal argues that endangered species qualify as nature monuments because they are of scientific interest, and thus that congressional action is justified.

Villareal's argument is inconsistent with the language of the Western Convention. The parties to the treaty intended nature monuments to be areas owned and controlled by the signing governments. Evidence for this is found in Article V, which

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76. Id. Preamble.
77. See Villareal, supra note 17, at 1158.
78. See id. Villareal in his text appears to use the terms "national monument" and "natural monument" interchangeably to mean a third term defined in the actual treaty text as "Nature Monuments." Compare id., with Western Convention, supra note 25, art. I, para. 3 (defining "Nature Monuments").
79. Western Convention, supra note 25, art. I.
80. See id. art. II, para. 1.
81. See Villareal, supra note 17, at 1158.
allows for the adoption of protective laws for flora and fauna "within [the signatories'] national boundaries, but not included in the national parks, national reserves, nature monuments, or strict wilderness reserves." The implication is that the signing governments would own and operate nature monuments and the other specified areas protecting nature. Only in areas where those governments lacked ownership would there be a need for separate laws. Therefore, Article II would support efforts by the federal government to obtain land under the land acquisition provision of the ESA but not to protect wildlife on private lands.

A second and more powerful argument that endangered species were not intended to be considered nature monuments is found in Article VIII of the treaty. Article VIII refers separately to endangered species, stating that "the protection of the species mentioned in the Annex to the present convention[] is declared to be of special urgency and importance. Species included therein shall be protected as completely as possible . . . ." Article VIII demonstrates that the drafters of the Western Convention recognized endangered plants and animals as a separate category deserving special protection. The drafters did not equate endangered species with the nature monuments created under Article II. If nature monuments were connected to endangered species, it is reasonable to conclude that the drafters would have mentioned this connection. Because it appears that nature monuments are not synonymous with endangered species, Article II of the Western Convention cannot justify the habitat modification provisions of the ESA.

2. Article V

Villareal's second argument is that Article V of the Western Convention "creates a broad grant of authority for species and habitat protection." Article V requires contracting governments to "agree to adopt, or to propose such adoption . . . [of] suitable laws and regulations for the protection and preservation of flora and fauna" that are not found on property owned and protected by the government. There are two problems with Article V as a
basis for the ESA. First, this requirement does not appear to be a command to enact laws, but rather a command to consider legislation. Second, the treaty states that the contracting governments must consult "appropriate law-making bodies." The clearest reading of this provision is that governments must consult the appropriate law-making body, as determined by that government's own laws, and propose suitable species protection regulations. In the case of the United States, it first must be determined whether the Constitution delegates this authority to Congress or to the states. If the appropriate bodies for adopting endangered species laws reside in state governments, then the ESA would not be an appropriate use of congressional authority because of the Tenth Amendment's reservation of power to the states. If Congress is the appropriate body, then the Western Convention is merely a superfluous justification for the ESA because Congress inherently possesses such authority. Thus, Article V of the Convention cannot justify the ESA's habitat modification provision.

3. Article VIII

Article VIII of the Western Convention contains a provision that provides for complete protection of certain listed species. Those species are to be "protected as completely as possible," and the killing of such species is prohibited absent governmental permission based on "special circumstances." Thus, unlike Articles II and V, Article VIII supports Section 9 of the ESA, the Section that prohibits taking endangered species, and the prohibition against significant habitat modifications.

Nevertheless, it is incorrect to conclude that Article VIII completely supports the habitat modification prohibitions: the treaty only applies to the ten species listed in the annex. Eight of those ten species, including the southern sea otter, California condor, and manatee, are endangered and thus protected under the ESA. For these eight species, the protections contained in Section 9 of the ESA are an appropriate exercise of the Treaty

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88. id.
89. id. art. VIII.
90. id.
91. id.
94. See Western Convention, supra note 25, annex.
95. See 50 C.F.R. § 17.11 (1998). The two species not currently listed as endangered are the Hudsonian Godwit and the Trumpeter Swan. See id.
Power. The protection of these eight species, however, is the limit of the support that the Western Convention, as currently implemented, lends to the ESA.

C. Possible Modifications that Would Influence a Treaty Power Analysis

1. The Possibility of Modifying the Western Convention

The ESA could be supported by amending the annex to the Western Convention. Currently, Article VIII of the Western Convention provides adequate Treaty Power support for ESA legislation covering those species listed in the annex. This allows for a tremendous opportunity because the annex to the Western Convention was never intended to remain static. In fact, a letter sent to the governing board of the Pan American Union from the U.S. Department of State declared:

It is understood by the Department that such lists are to be considered as flexible rather than permanent in character and may from time to time be modified or altered by the respective Governments by the addition or removal of such species from their several lists as changes in conditions may seem to them to warrant.

This interpretation was echoed in letters sent to the Pan American Union by government officials from Bolivia, Argentina, El Salvador, and Guatemala. With an amendable annex, the appropriate government officers are free to list additional plants and animals. Accordingly, the United States would be committed to protecting any additionally listed species "as completely as possible."

Interpreting the Western Convention annex as flexible is consistent with recent judicial interpretations of species protection under CITES. In United States v. Ivey, the Fifth Circuit Court of Appeals opined that it is incorrect to view CITES "as a static document without the ability to add species as they become endangered or remove animals that are no longer

96. See supra Part II.B.3.
97. Western Convention, supra note 25, annex (letter from Dep't of State to Pan American Union dated Jan. 27, 1941).
98. See id.
99. See id. art. VIII.
100. CITES, supra note 39.
endangered." The Appeals Court went on to say that amending wildlife treaties is necessary "to guarantee that species may be added or deleted as required to ensure their protection." The parallels are obvious. The appendix in CITES lists animals that international governments have pledged to protect by restricting international trade. The CITES list is flexible depending on the level of protection needed by the animals based on changing circumstances. Similarly, the Western Convention has an annex that manifests the same concerns. Because parties to the Western Convention, including the United States, intended the annex to be flexible, the United States should be able to add species to the Western Convention annex.

The obvious question is, who is empowered to act on behalf of the federal government to add new species? The answer lies in the ESA, which appoints the Secretary of the Interior, in cooperation with the Secretary of State, to "act on behalf of, and represent, the United States in all regards as required by the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere." Under this authority, the Secretary of State should amend the Western Convention annex. The federal government has been updating its list of protected species since the Fish and Wildlife Service started listing "redbook" species in the 1960s. The Secretary of State has simply failed to inform the international community of the changes in status of various species. This is an easily correctable oversight. The Secretary of State should add the remaining indigenous species on the federal endangered and threatened species lists to the annex to the Western Convention. This action would commit the United States to protecting these animals on an international level as well as on a national level. It would also provide the necessary Treaty Power justification for the continued application of the ESA by federal authorities.

102. Id. at 764 (rejecting the argument that only the species listed in CITES in 1973 when the ESA was promulgated were to be considered part of the ESA).

103. Id.

104. See Western Convention, supra note 25, annex (letter from Dep't of State to Pan American Union dated Jan. 27, 1941).


106. The Department of State takes the lead in communicating with foreign nations and therefore should be the department that actually conveys the list. The Secretary of the Interior should provide the list of endangered species to the State Department.

107. See Steven Lewis Yaffee, Prohibitive Policy: Implementing the Federal Endangered Species Act 35 (1982). The Committee within the Department of the Interior was not yet named the U.S. Fish and Wildlife Service at the time redbook listings commenced.
2. The Possibility of Ratifying the Convention on Biological Diversity

A second option to strengthen the ESA based on the Treaty Power would be to sign the Convention on Biological Diversity. The Convention, which was signed by 157 countries in Rio de Janeiro, Brazil, and ratified by more than 90, entered into force in December 1993. The United States is not one of the signatory nations. Before suggesting that the United States should have been a signatory, it is important to recognize that there are significant concerns regarding how the Convention would affect existing conservation laws and the flow of genetic resources to biotechnology companies. Even if ratifying the Convention on Biological Diversity would help to prevent constitutional attacks on the ESA, recommending that the United States ratify the treaty should only come after carefully examining concerns such as these.

The potential benefits to the ESA of ratifying the Convention on Biological Diversity are similar to the benefits of adding species to the Western Convention list. The Convention on Biological Diversity would, if ratified, commit the United States to "[d]evelop national strategies, plans or programmes for the conservation and sustainable use of biological diversity." In addition, the treaty obligates the contracting parties to "[e]stablish a system of protected areas or areas where special measures need to be taken to conserve biological diversity" and to "[r]egulate or manage biological resources important for the conservation of biological diversity, whether within or outside protected areas."

These directives, while not as strong as those found in Article VIII of the Western Convention, may serve to justify not only Section 9, but perhaps the entire ESA. The Convention

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109. See id. at 821.
111. See id.
114. A detailed analysis of these concerns is, however, beyond the scope of this Comment.
115. Convention on Biological Diversity, supra note 26, art. 6(a).
116. Id. art. 8(a).
117. Id. art. 8(c).

mandates a national program, not just an obligation to propose legislation. The explicit purpose of this national program is to protect biological diversity. The obligation to create protected areas justifies the designation of critical habitats and the imposition of restrictions on habitat modification. The argument that the government should own the protected areas, which could be forcefully applied to the Western Convention's Article II, does not apply to the Convention on Biological Diversity. For these reasons, the Convention on Biological Diversity, if signed and ratified, could defend the ESA from constitutional attack.

D. Stability of Laws Enacted Under the Treaty Power

Although international agreements such as the Western Convention and the Convention on Biological Diversity may support the ESA, they may also undermine such support. Justifications based on the Treaty Power are inherently less stable than justifications based on the Commerce Clause. Treaties can be amended either by both the United States or by foreign governments. If the United States Secretary of the Interior is able to amend the Western Convention to include a new species, a different Secretary could easily re-amend the treaty to remove that species. Foreign nations could terminate the treaty for any reason, including reasons unrelated to environmental issues such as trade disagreements. This instability suggests that although Treaty Power justifications could play an important part in protecting the ESA from constitutional attack, it would be preferable to find constitutional support in the Commerce Clause.

III

THE COMMERCE CLAUSE

While there are opportunities to modify the United States' international obligations in a manner that would help protect the ESA, the Treaty Power does not currently justify habitat modification regulations. The vitality of these regulations relies on the Commerce Clause. The following discussion of the Commerce Clause and the ESA begins with a brief explanation of

118. See supra Part II.B.2.
119. Unlike the Western Convention, protected areas are not grouped with other government owned property. See Convention on Biological Diversity, supra note 26.
120. See Western Convention, supra note 25, annex (letter from Dep't of State to Pan American Union dated Jan. 27, 1941).
the background of Commerce Clause jurisprudence and then proceeds with a detailed analysis of *United States v. Lopez.* The lessons of the *Lopez* decision are then applied to the ESA. This application demonstrates that biological diversity is connected to commerce, and that meaningful limits to congressional authority exist with regard to the protection of biological diversity. The analysis of the *Lopez* decision further reveals that the appropriate balance of federal and state power dictates that the federal government should maintain ultimate control of regulating habitat modifications that affect endangered species.

### A. Commerce Clause Background

The Constitution gives the federal government the power to "regulate Commerce with foreign Nations, and among the several States." The Supreme Court has been interpreting the extent of the Commerce Clause power since the landmark decision *Gibbons v. Ogden* in 1824. Because the history of Commerce Clause jurisprudence has been discussed many times, this Comment will present only a brief sketch.

Prior to 1936, there were significant limitations upon the power of the federal government to regulate commerce, but since *NLRB v. Jones Laughlin Steel Corp.*, the Court has almost completely deferred to Congress in such matters. The Court's most expansive interpretation of the Commerce Clause is

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122. U.S. CONST. art. I, § 8, cl. 3.
123. 22 U.S. (9 Wheat.) 1, 189-90 (1824).
126. 301 U.S. 1 (1937) (upholding a law preventing companies from engaging in unfair labor practices). This ruling overruled in substance a case decided less than a year previously. See Carter v. Carter Coal Co., 298 U.S. 238, 310-11 (1936) (striking down similar labor laws in the context of the Bituminous Coal Conservation Act).
127. See, e.g., Hodel v. Virginia Surface Mining & Reclamation Ass'n, 452 U.S. 264, 276-80 (1981) (upholding Surface Mining Control and Reclamation Act based on interstate effects of coal mining); Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241, 258 (1964) (finding a sufficient connection between hotels/inns and commerce to justify anti-discrimination laws); United States v. Darby, 312 U.S. 100 (1941) (upholding the prohibition of shipment in interstate commerce of lumber made by employees who were not paid the minimum wage).
found in *Wickard v. Filburn*. In *Wickard*, the Court found that the federal government could prohibit a farmer from growing wheat exclusively for home use because homegrown wheat competes with wheat in interstate commerce, thereby affecting interstate commerce and justifying federal regulation. This expansive view of the Commerce Clause resulted in the belief that Congress had almost unlimited power to legislate based on the Commerce Clause. It was not until *United States v. Lopez* that the Supreme Court reestablished limits to congressional authority and brought the constitutionality of newer federal laws into question.

**B. The Lopez Case**

The *Lopez* decision is the only Supreme Court decision since the New Deal to find that Congress exceeded its power under the Commerce Clause. A student named Alfonso Lopez was convicted of violating the Gun-Free School Zones Act of 1990, an act that made it a federal criminal offense to knowingly possess a firearm within a school zone. Lopez challenged the conviction, arguing that the Act was beyond the authority of Congress under the Commerce Clause. A divided court in a 5-4 decision overturned the conviction and struck down the Act. Chief Justice Rehnquist wrote the opinion of the court, joined by Justices Scalia, Thomas, O'Connor, and Kennedy, finding that the government had failed to establish a sufficient connection between the Gun-Free School Zones Act and interstate commerce. Justice Kennedy wrote a concurrence, which was joined by Justice O'Connor, emphasizing the importance of keeping the proper balance of power between federal and state authority. Finally, the four dissenting Justices, Stevens,
Souter, Breyer and Ginsburg, advocated an expansive reading of the Commerce Clause, stressing deference to congressional findings regarding the relationship between interstate commerce and the regulated activity. The dissent would have found the Act constitutional under the rational basis test.

After a brief overview of Commerce Clause jurisprudence, the majority opinion identified three broad categories of activities that Congress may regulate under the Commerce Clause. First, Congress may regulate the channels of interstate commerce. Second, Congress is empowered to regulate and protect the instrumentalities of interstate commerce even if the threat comes from intrastate activities. Finally, Congress may regulate activities that substantially affect interstate commerce. The first two of these categories are well-defined. Hotels, restaurants, and other activities servicing interstate commerce can be regulated as channels of interstate commerce and kept free of injurious uses. Similarly, cars, trucks, airplanes, and pilots are instrumentalities of interstate commerce and can therefore be regulated by Congress.

Chief Justice Rehnquist began his analysis of the third category by stating that "[w]here economic activity substantially affects interstate commerce, legislation regulating that activity will be sustained." The analysis then focused on the government's two main arguments for how guns near schools affected interstate commerce. One argument made by the government was that possession of a firearm at a school may result in violent crime, and violent crime has a substantial

138. See id. at 602-31.
139. In the primary dissenting opinion, Justice Breyer stressed three factors which were of particular importance: (1) Congress has the authority to regulate local activities if they affect interstate commerce; (2) a Commerce Clause analysis involves the cumulative effect of all similar activities; and (3) the test should be whether Congress had a rational basis for finding a substantial connection to interstate commerce. See id. at 615-17. Finally, Justice Souter and Justice Stevens wrote separate dissenting opinions stressing various points of Breyer's primary dissent. See id. at 602-03.
140. See id. at 558.
141. See id. at 558-59.
142. See id.
143. See id.
144. See id. (citing Heart of Atlanta Motel, 379 U.S. 241 (1964)).
145. See id. at 558-59.
146. Id. It is interesting to note that of the five cases that purportedly establish this pattern, two had already been cited as involving regulation that fell into one of the two other broad categories. See id. (citing Heart of Atlanta Motel as a channel of interstate commerce case and Perez as an instrumentalities case).
147. See id. at 563-64.
impact on commerce. A second argument made by the government was that the proximity of guns to schools threatens the educational process, resulting in a less productive citizenry and therefore having a substantial impact on interstate commerce.

The Supreme Court rejected these arguments, noting that if the government could regulate any activity related to the economic productivity of citizens, it would be "difficult to perceive any limitation on federal power." Further, Rehnquist concluded that Congress should not intrude on the regulation of education, or other traditional state functions, because these are areas where the "States historically have been sovereign." He observed that under the government's justification, the federal government could mandate a "federal curriculum for local elementary and secondary schools." Accordingly, the first important lesson of Lopez is that any justification for federal power must have a perceivable limit in order to pass judicial scrutiny. A second, related, lesson of Lopez is that federal regulations that touch upon areas of traditional state concern trigger a more searching inquiry under the Commerce Clause.

Beyond establishing the need for some limit to the federal government's authority, the Supreme Court never attempted to refute the claim that education per se influences commerce. The Court was implicitly stating that while many things can be regarded as commercial, an analysis of a law's effect on the balance of power between state and federal governments is important in informing a Commerce Clause analysis in a close case.

Justice Kennedy's concurrence draws upon the importance of the balance between state and federal power. Kennedy begins by stating his belief that the Lopez decision is a "necessary though limited holding," and by stressing the importance of a well-defined distribution of power between the state and federal governments so that each is held politically

148. See id.
149. See id. at 564.
150. Id.
151. Id. at 699.
152. Id.
153. This requirement of a limit on federal power is the central theme in Professor John Copeland Nagle's article questioning whether the Commerce Clause justifies the ESA. See Nagle, supra note 17, at 191-92.
154. See infra Part III.C.3.b.
155. See Lopez, 514 U.S. at 568.
accountable. His particular concern was with blurring the lines of political responsibility rather than devolving too much authority to the federal government. Focusing his attention on the Gun-Free School Zones Act, Kennedy found that neither the purpose nor design of the Act had an evident commercial nexus. Because Congress was trying to legislate based on the indirect effects of an activity, Kennedy determined that an important question was "whether the exercise of national power seeks to intrude upon an area of traditional state concern." In answer to this question, Kennedy, like the majority, stated that education is traditionally a state concern, without addressing the question of whether education has a substantial relationship to commerce. Kennedy found that education's place as a traditional state function gave the Supreme Court a particular duty to ensure that the federal-state balance was not upset. Thus, the lesson that can be drawn from the Lopez concurrence is that in a close case the Court will look beyond the imprecise content-based boundaries of whether or not an activity is commercial to the question of how a decision will influence the balance of power between federal and state governments.

The split among the Justices complicates any analysis of the Lopez decision. While five Justices signed onto the opinion of the Court, the Kennedy concurrence represents a more moderate view that stresses different concerns. It appears that any justification of federal regulation under the Commerce Clause that would satisfy any member of the Lopez majority would also satisfy the four dissenting Justices' liberal view of the rational basis test. This Comment assumes that if the concerns of Justices Kennedy or O'Connor (widely considered the swing votes in Commerce Clause cases) or any other member of the majority could be satisfied, then the ESA would pass judicial scrutiny.

156. See id. at 576-77.
158. See Lopez, 514 U.S. at 580.
159. Id.
160. See id. at 580-81.
161. See id. at 581. Justice Kennedy continued to highlight the importance of states as laboratories that allow the federal government to determine the best solutions for problems. See id. at 582.
162. See id. at 580 (Kennedy, J., concurring).
C. Applying Lopez to the Endangered Species Act

It is difficult to argue that the ESA involves either the channels or the instrumentalities of interstate commerce. Habitat modification alone simply does not implicate either of these categories. Consequently, it is necessary to determine if the ESA falls within a third category of legislation: regulation that has a substantial relation to interstate commerce.

In order to determine whether habitat modification bears a substantial relationship to commerce, it is important to look at several factors. One factor is whether a connection between the regulation and commerce exists. A second factor is whether the justification for the regulation, if accepted, would result in the federal government having the ability to regulate everything. Finally, it is necessary to establish that allowing Congress to prohibit habitat modification would not upset the balance between federal and state power.

1. A Commercial Connection

a. Individual Species

The link between endangered species regulation and the Commerce Clause is strongest where the species for which the regulation is enacted has a clear economic or commercial value—or as Professor Nagle defines the term—are significant commerce actors. See Nagle, supra note 17, at 181-83. Sea otters, a protected species, and plains bison, which do not currently need protection under the ESA, are examples of animals that fit this definition. The southern sea otter was hunted almost to extinction in the 1900s for its valuable fur. Once thought to be gone entirely from its southern habitat, a small group of otters was discovered in 1938. While otter populations have not recovered to the point where they can be commercially hunted, they still remain a potentially valuable commercial commodity because of their fur. Similarly, bison were an important source of both food and clothing to the Native Americans and to white settlers in the

164. Nagle, supra note 17, at 181-83.
166. Wood bison are protected under the ESA, see 50 C.F.R. § 17.11(h) (1998), but plains bison are no longer considered threatened as a result of protection efforts and domestication measures undertaken prior to the enactment of the ESA.
168. See id.
plains states. The bison population fell from more than sixty million prior to European settlement to under a thousand by 1889 due to excessive hunting. It was only in 1901, when the military caretakers of Yellowstone Park decided to breed the Yellowstone bison with plains bison, that the wild bison population began to recover. In addition to the Yellowstone bison, there are approximately 200,000 bison currently managed as livestock. There are even those who believe that bison should replace certain livestock in areas where other livestock causes too much ecological damage. The protection of bison almost a century ago is an example of how the preservation of a species can result in economic benefits to present day farmers who sell bison meat as part of their business.

Unfortunately, most species on the protected lists are not, and never have been, commercially important. The northern spotted owl is not a significant source of meat, does not provide an attractive or warm pelt, and does not bring tourists flocking to the forest of the Pacific Northwest. Very few people outside the legal community are even aware of the existence of the Delhi Sands flower-loving fly. In fact, most people have perhaps never heard of many of the species on the endangered species list. Conservationists seeking to protect these species must rely on prohibited activities or the animal's importance as one of the group of endangered species if they are going to be federally regulated under Congress's Commerce Clause authority.

b. Regulated Activities and Commerce

It has been argued that the connection between regulated activities and commerce is important as a means of protecting endangered species.
activities (the regulated industries) and interstate commerce is sufficient to prevent challenges to the ESA under the Commerce Clause.\textsuperscript{176} For example, in \textit{National Ass'n of Home Builders}, the Delhi Sands flower-loving fly case, the court upheld the ESA because it regulated land development necessary to build a hospital, a commercial activity. Support for the contention that the regulated activity can provide justification for the Congress implementing legislation that has a non-commercial purpose lies primarily in Supreme Court decisions upholding civil rights and environmental regulations.\textsuperscript{177}

These cases can easily be distinguished from the \textit{Lopez} case and any case that could arise under the ESA. For example, \textit{Heart of Atlanta Motel, Inc. v. United States}\textsuperscript{178} involved prohibitions of racial discrimination in public accommodations.\textsuperscript{179} The Supreme Court upheld this regulation because the anti-discrimination law explicitly stated that the regulated business establishments affected interstate commerce and the motel in question fit this description.\textsuperscript{180} In \textit{Hodel v. Virginia Surface Mining and Reclamation Ass'n},\textsuperscript{181} the Court upheld an environmental statute that regulated the coal mining industry.\textsuperscript{182} While there was no explicit jurisdictional element, the very nature of the law limited its applicability to a single undeniably commercial industry. The ESA habitat provisions, in contrast, regulate both commercial and non-commercial activity making the ESA fundamentally different from the laws involved in these earlier cases.\textsuperscript{183}

The Supreme Court in \textit{Lopez}, recognizing this distinction, did not consider whether a jurisdictional element could be established based on the specific facts of the case, but rather judged the constitutionality based on the terms of the statute.\textsuperscript{184}

\textsuperscript{176} See, \textit{e.g.}, Dwyer, \textit{supra} note 163, at 10,428; Nagle, \textit{supra} note 17, at 182. This is the approach taken by Judge Henderson in the District of Columbia Circuit case that involved the Delhi Sands flower-loving fly and the building of a hospital. See \textit{National Ass'n of Home Builders v. Babbitt}, 130 F.3d 1041, 1059 (D.C. Cir. 1997) (Henderson, J., concurring) (stating that regulation of land and its development had a substantial effect on commerce).


\textsuperscript{178} 379 U.S. 241 (1964).

\textsuperscript{179} See \textit{id.} at 245.

\textsuperscript{180} See \textit{id.} at 248.

\textsuperscript{181} 452 U.S. 264 (1981).

\textsuperscript{182} See \textit{id.} at 280-83.


The Gun-Free School Zones Act in *Lopez* contained no "jurisdictional element which would ensure, through case-by-case inquiry,"185 that the activity in question actually affected commerce.186 The Supreme Court was unwilling to save the Act on the basis that most guns move through commerce. There is no indication that the ESA would be upheld in its entirety because most regulated activities have a connection to commerce.

The ESA's habitat protections regulate a wide range of activities, from logging to walking in certain areas.187 Some regulated or at least potentially regulated activities, such as logging or building a hospital, have a commercial nexus, while others, like walking, do not. The Supreme Court in *Lopez* did not address the issues of whether the gun actually traveled in commerce. Similarly, courts in any future ESA case should not justify legislation based on the argument that sometimes, or even normally, the regulated activity is commercial.188 Therefore, it is necessary to ask whether endangered species as a whole affect commerce.

c. The Impact of Biological Diversity

It has been argued that biological diversity provides better support for justifying the ESA,189 and Congress was well-aware of the value of biological diversity at the time it enacted the ESA.190 The House report prepared on the ESA cites the possibility that cures for cancer and other diseases are contained in the genetic pool that the ESA was designed to protect.191 Most importantly, the report states that the risk of losing these cures compels us to avoid destroying these resources.192 Although such justifications are only speculative, one could argue that Congress has the authority to make decisions without requiring proof of the consequences of an activity or the commercial nature of an asset based on the substantial element of political judgment

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186. This distinction was not, however, looked at in the Delhi Sands flower-loving fly case. See National Ass'n of Home Builders, 130 F.3d at 1059 (Henderson, J., concurring).
187. See supra Part I.B.
188. See *Lopez*, 514 U.S. at 561.
189. See Holman, supra note 131, at 208.
192. See id. at 5.
recognized by Justice Kennedy in *Lopez.* This argument makes sense, but in the case of the ESA and the value of biological diversity, the argument is unnecessary. Industry, and the biotechnology sector in particular, has already answered the question of whether biological diversity is commercial. Industry's emphatic response is that biological diversity has value and that industry is willing to pay for it.

The biotechnology industry in the United States will have estimated annual sales of over $100 billion dollars by the year 2000. Amgen and Merck, two of the leading biotechnology companies, have a combined market capitalization of over $225 billion. Among the reasons for the biotechnology industry's success is modern bioprospecting, which uses advanced methods of screening an organism's genetic material in order to find new pharmaceuticals.

For example, the Natural Cancer Institute originally became interested in the Pacific yew tree when it found that an extract of the Pacific yew was effective against mouse leukemia *in vitro.* Subsequent testing resulted in drugs derived from both the Pacific yew tree and the English yew tree. The Federal Drug Administration approved the drug obtained from the Pacific yew tree, Paclitaxel, in December 1992 for the treatment of ovarian carcinomas, and in April 1994 for advanced breast carcinomas. While drug companies are investigating the

193. See *Lopez,* 514 U.S. at 579.
194. In fact, this value is one of the primary reasons that the United States has been unwilling to enter into the Convention on Biological diversity. See *Tolba,* supra note 112, at 159.
200. See University of Pennsylvania Cancer Center (visited Sept. 1, 1999) <http://oncolink.upenn.edu/pdq_html/6/engl/600715.html> [hereinafter University of Pennsylvania Cancer Center]. The cost of therapy was listed at over $3,000 for
possibility of using synthetic forms of the drug, the preferred source is still the bark of the Pacific yew. Thus, timber companies now have an additional product, the bark of the Pacific yew, to sell to drug companies. The Pacific yew is just one of many examples of biological prospecting leading to useful substances. *Thermus acquatis*, a bacterium found in the hot springs of Yellowstone National Park contains a DNA polymerase tolerant of extremely high temperatures. The value of the polymerase itself has been estimated at $80 million.

Recognizing that the ability to successfully bioprospect is essential to their competitiveness in the biotechnology industry, companies have gone to great lengths to obtain genetic material. One company has encouraged its employees to take soil collection kits with them on international vacations. More typical methods of obtaining genetic material involve companies buying the right to conduct bioprospecting in various areas. Perhaps the most famous of these agreements is between the government of Costa Rica, through a non-profit scientific organization INBio, and the Merck pharmaceutical company. Merck clearly regards genetic material as an important natural resource and is willing to pay a significant amount of money in order to acquire it. In addition to the Merck deal, another biotechnology company has signed bioprospecting agreements with Costa Rica and Iceland, and is negotiating to sign agreements with Mexico and Indonesia. If Merck and other companies regard biological diversity as a commercially natural resource, the courts should also find that biological diversity has a substantial connection to commerce.

A more recent bioprospecting agreement further illustrates the importance of biological diversity to the United States
economy. Diversa Corporation recently completed a five-year bioprospecting agreement with Yellowstone National Park.\textsuperscript{207} The agreement calls for Diversa to make annual financial contributions to the Park for royalties based on revenues generated by the enzymes identified from samples taken in Yellowstone.\textsuperscript{208} Although halted due to a court decision, the Diversa agreement nevertheless shows that not only are companies willing to go overseas to pay for access to genetic information, but they are also willing to pay for such access here in the United States.

However, it is not sufficient simply to establish that biological diversity has a connection to commerce. It also must be established that endangered species have a substantial relationship to biological diversity. Scientists estimate that there are approximately ten million species on the planet.\textsuperscript{209} With ten million species, an argument could be made that the Delhi Sands flower-loving fly has no affect on commerce because the loss of a single species does not significantly impact biological diversity. This argument suffers from three flaws. First, this sort of judgment is best left to the legislature. Congress should decide whether the chance that species may have benefits is great enough that they deserve protection despite the costs. Second, as technology continues to advance, different species may become important. Thirty years ago it would have been impossible to make a treatment from the material in the yew. Now at least two companies have done so.\textsuperscript{210} Future research may identify something useful and unique in almost every organism. Extinction of species forecloses the possibility of gaining these benefits.\textsuperscript{211} Finally, the United States' domestic policy could have significant impacts on the federal government's diplomatic efforts to slow species extinction internationally.\textsuperscript{212}

\textsuperscript{207} See id. A court has recently stopped this agreement by requiring an environmental impact statement under NEPA. See Andrew Pollack, Yellowstone Biotechnology Deal Is Suspended by a Federal Judge, N.Y. TIMES, Mar. 26, 1999, at A18.

\textsuperscript{208} See Diversa Corp., supra note 205. Supporters of the Park should be aware that the royalties are to be paid directly to Yellowstone Park rather than to the federal treasury. See id.

\textsuperscript{209} See TOLBA, supra note 112, at 127; see also E.O. Wilson, The Current State of Biological Diversity, in BIODIVERSITY 5 (E.O. Wilson ed., 1988) (stating that there are between 5-30 million species on the planet).

\textsuperscript{210} See Cyberbotanica, Description and Natural History of the English and Pacific Yews, supra note 199.

\textsuperscript{211} See Wilson, supra note 209, at 282.

\textsuperscript{212} Tropical rainforests have been deforested at a rate in excess of 25 million acres a year. See Newman, supra note 113, at 484.
the federal government does not have the authority to regulate internal activities, it will make it even more difficult to convince developing countries to protect their resources.\textsuperscript{213} The ability to prevent developing countries from destroying their biodiversity may be more important to our biotechnology industry than the protection of the relatively small number of species that are currently on the endangered species list.

2. \textit{Established Limits—Endangered Species}

Having shown that endangered species as a whole have a connection to interstate commerce, it is important to ensure that this justification would not give the federal government unlimited regulatory authority. In his article discussing the Commerce Clause, Professor Nagle describes a hierarchy of control: from regulation that protects an individual animal to legislation that regulates all living things.\textsuperscript{214} Nagle argues that regulation of a single animal would be permissible if the animal had a connection with commerce. Nagle suggests that for species with a definite connection to commerce, there would be no constitutional concerns with protecting that specific species.\textsuperscript{215} He goes on to say, however, that the regulation of all living things would be impermissible because it would lead to unlimited federal power.\textsuperscript{216} Thus, in Nagle's view the correct answer lies somewhere between aggregating all endangered species and not aggregating any species with "Congress giving deference to choose what activities to combine ...."\textsuperscript{217}

Nagle's reasoning is flawed because his argument inappropriately shifts the focus from all living things to all endangered species. Although the regulation of all living things may well lead to unlimited federal authority, the regulation of endangered species has inherent limits. Congress has provided that the ESA only applies to species which are "in danger of extinction" or are likely to face the danger of extinction soon.\textsuperscript{218} While there are a large number of activities that can be regulated once there is a determination that a species is endangered, the initial threshold serves as a very important restriction, namely

\begin{itemize}
\item \textsuperscript{213} See Wilson, \textit{supra} note 209, at 336.
\item \textsuperscript{214} See Nagle, \textit{supra} note 17, at 196 (arguing that this concept lies at the heart of the \textit{Lopez} decision).
\item \textsuperscript{215} See \textit{id.} at 192.
\item \textsuperscript{216} See \textit{id.} at 204.
\item \textsuperscript{217} \textit{id.}
\item \textsuperscript{218} 16 U.S.C. § 1532(6), (20) (1994).
\end{itemize}
the regulation must relate directly to an endangered species.

Nagle's argument that any justification based on prospective consequences is constitutionally infirm takes too narrow a view of the *Lopez* decision. He argues that because any consequence is possible, prospective justifications cannot be the basis for federal authority.\(^{219}\) The implications of this statement are that Congress lacks the institutional capacity to legislate proactively. Justice Kennedy's concurrence in *Lopez* and his statement regarding judicial competency to make political judgments helps illuminate this issue.\(^{220}\) While courts are well-suited to decide cases based on facts presented, they are ill-equipped to make policy determinations about what will be important in the future. The substantial element of political judgment that is always involved in legislation is even more important in environmental law where the effects of a policy may not be felt for generations.\(^{221}\) It is, and should remain, Congress' prerogative to balance the probability that something will have future value against the cost of protecting it. By passing the ESA, Congress has decided that the appropriate level of aggregation is all endangered species. A court should not substitute its own political judgment for that of the legislature.

3. *Federalism Concerns*

The federalism concerns outlined in *Lopez* can be approached from two different angles. The first approach addresses the possible infringement of ESA habitat regulations on traditional state functions. The second approach examines whether considerations of political accountability and institutional capacity for regulating habitat modifications dictate that the regulation should occur at the federal or state level.

a. *Traditional State Concerns*

*Geer v. Connecticut*\(^{222}\) is an early case that addressed the Commerce Clause and wildlife regulation. The State of Connecticut had enacted a law that prohibited the transportation of game birds, even those lawfully taken, across state lines.\(^{223}\) The Court found that "wild game within a state

\(^{219}\) See Nagle, supra note 17, at 199.

\(^{220}\) See *Lopez*, 514 U.S. at 579.

\(^{221}\) See *Wilson*, supra note 209, at 311-12.

\(^{222}\) 161 U.S. 519 (1896).

\(^{223}\) See id. at 521.
belongs to the people in their collective sovereign capacity." As such, the Court found that the Commerce Clause did not prohibit the Connecticut wildlife law. This holding in Geer was eroded in a series of later wildlife decisions and was finally explicitly overruled in Hughes v. Oklahoma. In Hughes, the Court dismissed the Geer reasoning as reflecting a nineteenth century legal fiction that did not apply in modern times. The Supreme Court did not, however, go so far as to say that wildlife regulation was exclusively a federal concern. Instead, the Court stated that wildlife should be treated the same as any other natural resource in a Commerce Clause analysis, but that states have a legitimate interest in the conservation and protection of wild animals. Hughes suggests that the Court views wildlife as a natural resource over which the federal and state governments have concurrent authority. If so, the federal government would not upset the balance between federal and state power by regulating wildlife.

Perhaps the most forceful federalism argument against the ESA, however, is that habitat modification restrictions impermissibly interfere with state land use regulation. The Supreme Court has addressed a similar question in relation to the Surface Mining Control and Reclamation Act (SMCRA). In Hodel v. Virginia Surface Mining & Reclamation Ass’n, a group of coal mine operators contended that the SMCRA should be analyzed under a stricter test than the rational basis test typically used by courts in Commerce Clause cases because the Act regulated land use, traditionally an activity that is locally regulated.

The Hodel Court rejected this argument due to the coal

224. Id. at 529.
225. See id. at 530.
226. See Foster-Fountain Packing Co. v. Haydel, 278 U.S. 1, 13 (1928) (holding Louisiana regulation restricting shipment of shrimp parts burdened interstate commerce); Missouri v. Holland, 252 U.S. 416, 434 (1920).
227. 441 U.S. 322, 335 (1979).
228. See id.
229. See id. at 335-36.
230. See Holman, supra note 131, at 186-87.
233. See id. at 281. Scholars widely accept that habitat modification restrictions interfere with local zoning regulations. See Dwyer, supra note 163, at 10,429-30 (stating that a court that weighed heavily the concern over federal intrusion and viewed the evidence of effects on commerce as weak might determine that the ESA was unconstitutional); Linehan, supra note 21, at 419 (arguing that habitat modification restrictions are land use regulations that traditionally are governed by the states).
industry's effect on interstate commerce.\textsuperscript{234} The Court further stated that the denomination of an activity as local or interstate does not resolve the question of whether it may be regulated under the Commerce Clause.\textsuperscript{235} Lopez, however, shows that while designating an activity as local may not resolve the question, it does have some bearing on the question.\textsuperscript{236} This allows courts to view land use regulation as a traditional state function but to maintain the position that particular land uses that sufficiently affect interstate commerce are justifiably federally regulated. Moreover, this factor of traditional state function can also be weighed against other implications to the balance of power, such as the ESA's impacts on political accountability and the institutional capacity of states to regulate endangered species.

\textit{b. Political Accountability and Institutional Capacity}

As Justice Kennedy's concurrence noted, it is important for citizens to know whether to hold federal or state governments accountable for regulating each important area of governmental activity.\textsuperscript{237} Parents and teachers know that state and local governments are in control of education. Thus, lobbying efforts can be directed in an efficient manner. Similarly, crime is treated as a predominantly local concern. The federal government may be asked to stop the smuggling of drugs from foreign countries, but preventing robbery and other violent crime is considered a local issue. The federal government's areas of expertise include national defense, interstate commerce, and the environment. In these fields, concerned citizens know that the first place to look for protection is the federal government. The federal government has taken the lead in the arena of environmental protection.\textsuperscript{238} National programs for endangered species protection have been in place since 1964, and the current scheme was implemented in 1973.\textsuperscript{239} The Clean Air Act of 1970 nationalized the regulation of

\textsuperscript{235} See id.
\textsuperscript{236} See supra Part III.B.
\textsuperscript{238} See Dwyer, supra note 163, at 10,428 (finding that it is too late "to claim that federal environmental legislation in general improperly intrudes on state authority" and the "environmental regulatory power since 1970 has completely restructured federal and state relations in this area").
\textsuperscript{239} See supra Part I.A.
air pollution. Similarly, the Clean Water Act, the primary legislation protecting the nation's water, assumed its present form in 1972. Further, the federal government enacted the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to address national concerns regarding hazardous waste disposal. While it is arguable that the Clean Air Act, the Clean Water Act, and CERCLA have stronger implications for commercial activities, it is beyond dispute that a clear pattern has been established by these environmental laws—the federal government is in charge of environmental concerns, and one of those concerns certainly includes wildlife protection.

As a result of the federal government taking the lead in environmental regulation, over the past twenty-five years it has acquired the experience necessary to manage endangered species. Although most states have enacted their own species protection laws to complement the ESA, these statutes are inadequate to meet the problem of species extinction. New Jersey's laws are an example of inadequate state species protection laws. New Jersey has had its own species protection laws since 1973. Unfortunately, New Jersey lacks the money necessary to enforce its program because the funding is provided by voluntary contributions from taxpayers. In addition, the New Jersey species protection laws lack teeth because no mandatory restrictions upon local zoning and planning boards are included. Finally, without national leadership, New Jersey would face serious difficulties coordinating its efforts with other states. Other state programs often rely upon the ESA listing of a

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245. See id. at 608-09.

246. See id. at 615.
species in order to determine which species to protect. In addition, because many of the benefits of species protection are often felt outside the state while the primary economic costs are often felt inside the state, species protection is prone to a race to the bottom. This is not a concern in traditionally state controlled areas like crime prevention and education where states have incentives to keep their citizens safe and well-informed.

Because state programs are inadequate, concerned citizens must rely on the national government to ensure the protection of endangered species. This reliance is consistent with the federal government's ultimate control over clean air, clean water, and hazardous waste. The lines of regulatory responsibility are as Justice Kennedy suggests they should be—clear. If a court were to abrogate the federal government's authority to protect endangered species, the result would be a blurring of the lines of political accountability.

The Supreme Court has provided a significant voice in this area with several important cases involving the ESA. In *Tennessee Valley Authority v. Hill*, the Court found that federal projects should be stopped for violation of an ESA provision. The Court later held in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon* that significant habitat modification that harms endangered species could be prohibited under the ESA. Finally, in *Bennett v. Spea* the Court found that ranchers had standing to challenge ESA decisions. On the whole, these cases demonstrate the Court's implicit recognition that the ESA is a justifiable congressional action and that the federal government has the right to protect habitat critical to endangered species.


250. See id. at 193-95. Congress immediately enacted amendments to the ESA to temper the effect of this decision. See 16 U.S.C. §§ 1539-1542 (1994).


252. Id. at 708.


254. See id. at 166.
4. Conclusions Regarding Commerce Clause Justifications of the Endangered Species Act

 Courts should conclude that the ESA is justifiable under the Commerce Clause. Biological diversity creates a connection between endangered species and commerce as evidenced by industry's willingness to pay for the right to conduct bioprospecting. In addition, there is no danger of the federal government having unlimited legislative power based on the biological diversity premise because the laws are limited to only those activities that directly impact endangered species. Further, despite the ESA's impacts on state land use regulation, other federalism factors such as political accountability and the capacity of states to properly deal with endangered species protection counsels against preventing the federal government from exercising control over endangered species regulation. Unfortunately, because Congress did not provide the courts with these justifications, a court focusing on the states' traditional role of controlling land use regulation and the difficulty involved in connecting an individual species with a commercial activity may determine otherwise. To guarantee that constitutional challenges to the ESA will not succeed, Congress should modify the ESA to address these concerns.

D. Suggested Changes to the ESA

There are two possible ways to change the ESA to justify the Act under the Commerce Clause. One method would involve changing the substantive provisions of the Act. While this method may be the easiest way to address Commerce Clause concerns, it might affect the Act's effectiveness. The second method would involve changing the findings and the purpose of the ESA to reflect not only Congress' concern with endangered wildlife, but also the importance of biological diversity as a natural resource with significant commercial value.

Perhaps the easiest way to change the ESA to address Commerce Clause concerns would be to add a jurisdictional element to the habitat modification provisions. While this solution would solve the constitutional concerns, it might introduce practical problems of implementing and preserving the effectiveness of the ESA. Private parties whose actions adversely affect endangered species would likely claim that their actions had no connection to interstate commerce. Litigation costs might increase as the government or environmental groups would be
forced to show both that the activity would adversely impact the species, and that the activity had a substantial connection to interstate commerce. This concern can be tempered somewhat because based on Lopez, courts could be satisfied with as little a connection to interstate commerce as a gun moving across state lines, so long as a jurisdiction element existed in the legislation. Further, because most threats to endangered species come from commercial activities, the effectiveness of the ESA as a whole would probably not be significantly decreased.

Despite the fact that the overall effectiveness of the ESA would probably not be significantly impacted by adding a jurisdictional element, this change would introduce inefficiencies into the system. Allowing some activities that would threaten endangered species would signal that the importance of wildlife preservation had decreased. In addition, increased litigation, even if unsuccessful, would increase the inefficiency of implementing the program. Finally, the changes to the findings and purpose of the ESA described later should be sufficient to protect the ESA without changing the substantive provisions. Thus, this change should only be undertaken if changes not requiring a substantive change in the law do not work.

Congress' failure to address Commerce Clause considerations while drafting the ESA has created latent problems with the ESA's findings and purposes. The findings only contain broad statements pertaining to the impact of economic growth on species extinction, and the purposes contain nothing regarding commercial impacts. Therefore, it is easy for courts and commentators to state that the ESA has little connection with interstate commerce.

The findings of the ESA are one place where modifying the nation's commitments under the Western Convention or becoming a party to the Convention on Biological Diversity would strengthen a defense to the ESA. International considerations already mitigate against devolving control over endangered species regulation to the states because states lack the capacity to bargain with foreign nations. However, none of the treaties

255. See Dwyer, supra note 163, at 10,428.
256. See id. at 10,428-30.
258. See id. § 1531(b).
260. See, e.g., Linehan, supra note 21, at 419.
261. See supra Part III.C.3.b.
 currently in force obligates the United States to protect species in the same manner as the ESA. Committing the nation to international obligations such as these by incorporating the statement that the United States is committed to conserving species "to the extent practicable." would strengthen defenses to the ESA.

Congress should alter the purposes of the ESA even more radically. The current statement is that "[t]he purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species." and to meet the nation's international obligations. This statement of purpose focuses on endangered species and ecosystems, but it ignores the ESA's connection to commerce. The statement should be rewritten with more attention paid to what the species are being protected from—commercial exploitation. The primary purpose of the ESA should be to protect endangered and threatened species from destruction due to private commercial activities and public projects. Because commercial activities have already forced many species to the brink of extinction, an explicit secondary purpose of the ESA should be to protect species whose decline has been caused by commercial exploitation of their habitat. Further, the purpose should state that one of the important reasons for conservation of endangered species is the commercial value of biological diversity as evidenced by the many biotechnology companies that rely on bioprospecting.

CONCLUSION

The Endangered Species Act is not currently justifiable under the Treaty Power, and the connections between individual species and commerce are not always obvious. Fortunately for the Endangered Species Act, however, a significant connection between all endangered species and commerce through biological diversity is evidenced in the marketplace. In addition, the risk of upsetting the balance of federal and state power through federal regulation of habitat modification is relatively small. Clear limitations to federal power exist even if Congress is allowed to aggregate all endangered species for regulatory purposes. Based on these considerations, courts should determine that the entire Endangered Species Act is constitutional under the Commerce

263. Id. § 1531(b).
Clause.

In order to further preserve the Endangered Species Act and prevent needless litigation, the federal government should take certain steps to ensure that the Endangered Species Act *in toto* is considered constitutional. The Secretary of State should commit the United States to protecting the animals on the endangered species list under the Western Convention, and the President and the Senate should examine the possibility of ratifying the Convention on Biological Diversity. These actions would allow courts that are uncomfortable with the Commerce Clause justifications to uphold the Endangered Species Act based on the Treaty Power. Finally, Congress should amend the Endangered Species Act to demonstrate the connection between commerce and both the regulated activities and the protected animals. With these actions, the federal government would be able to ensure that the Endangered Species Act would remain a viable avenue for protecting threatened wildlife into the coming century.