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Seeing Red: Gibbs v. Babbitt

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The reintroduction of the endangered red wolf into its historic range in North Carolina has proved a controversial endeavor. In 1988, the United States Fish and Wildlife Service (FWS) reintroduced red wolves into the Alligator River National Wildlife Refuge (Refuge) in North Carolina pursuant to section 10(j) of the Endangered Species Act (ESA). The red wolves prospered, even though many migrated from the Refuge onto private lands. In response to public opposition, several counties in North Carolina enacted resolutions objecting to the reintroduction. North Carolina subsequently enacted a statute that permitted the taking of the red wolf on private land under conditions that are more lenient than the federal regulation.

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3. See id. at 538.

Several individuals and counties brought suit in a North Carolina federal district court. The claimants alleged that the Commerce Clause does not allow the federal government to regulate wildlife on private land, which is a traditional state function. In Gibbs v. Babbitt, the United States Court of Appeals for the Fourth Circuit affirmed the district court's ruling and held that the Commerce Clause supports the federal regulation prohibiting the taking of the red wolf on private land.

Gibbs is significant because it is part of the changing Commerce Clause jurisprudence. The Supreme Court recently resurrected federalism to limit the federal government's regulatory authority. This new aggressive posture for the Court as the arbiter of federal authority raises questions as to the future of environmental law, the emergence of judicial activism, and the relationship between the Court and Congress.


7. See Gibbs II, 214 F.3d at 483.

8. See id. at 506 (holding as "a basic maxim of judicial restraint" that Congress may constitutionally address problem of protecting endangered species through anti-taking regulation).

9. See, e.g., United States v. Lopez, 514 U.S. 549 (1995); see also United States v. Morrison, 529 U.S. 598 (2000). From 1937 through 1995, the Supreme Court deferred to congressional determinations that activities were sufficiently related to interstate commerce in order to justify federal regulation pursuant to the commerce clause. See Lopez, 514 U.S. at 554-55. The Court only asked whether the decision was rational and whether the means chosen reasonably related to the ends sought. See id. at 557. In 1995, the Court, in United States v. Lopez, changed the conceptual framework for assessing federal commerce clause authority. See id. at 549. In Lopez, the Court determined that the federal government may only regulate an intrastate activity that substantially affects interstate commerce if that intrastate activity is economic in nature or is closely related to a larger economic regulatory program. See id. at 560-62. The federal statute must contain jurisdictional limits to distinguish federal and state regulation and avoid areas traditionally left to states. See id. In United States v. Morrison, the Supreme Court reiterated the conceptual framework. See United States v. Morrison, 529 U.S. 598 (2000).

because the Fourth Circuit, more than any other circuit court, is engaged in a continuing dialogue with the Supreme Court.\footnote{11}

This Article reviews the reintroduction of the red wolf into North Carolina and analyzes the Fourth Circuit's decision in \textit{Gibbs}.\footnote{12} It illustrates that the Fourth Circuit properly determined that the federal regulation regarding the taking of the red wolf is supported by the Commerce Clause. The red wolf is a migratory creature that freely crosses state boundaries.\footnote{13} Protection of the red wolf substantially impacts interstate commerce by promoting tourism, scientific study, and the possible restoration of the fur business; preserving biodiversity while helping to maintain the ecosystem; and preventing harmful interstate commerce.\footnote{14} These impacts were addressed in ESA's legislative history and have been upheld by many courts. The anti-taking regulation has adequate jurisdictional limits. Wildlife regulation is not an exclusive state function. The Fourth Circuit's decision, in \textit{Gibbs}, demonstrated that \textit{United States v. Lopez}\footnote{15} does not necessarily signal the demise of federal environmental statutes.\footnote{16}

\section{The Saga of the Red Wolf}

The red wolf originally inhabited the southeastern region of the United States from the Atlantic Ocean to central Texas and Oklahoma, and from the Gulf of Mexico to central Missouri and Illinois.\footnote{17} The habitat of the red wolf was the pristine river bottomlands, particularly the adjacent extensive “canebrakes” that har...

\begin{itemize}
  \item \textit{See} Warren Richey, \textit{Two Kindred Courts Break Legal Ground}, \textit{Christian Science Monitor} (June 19, 2000), available at http://www.csmonitor.com/cgi-bin/getasciiarchive?script/2000/06/19/pls3.txt. Professor Rodney Smolla noted that the Fourth Circuit “has shown some intellectual daring and a willingness to break new ground.” \textit{Id.} According to Professor Smolla, the Fourth Circuit judges “are taking leads from Supreme Court decisions and running with them, and that in turn leads the Supreme Court to take what the Fourth Circuit has done and build on it.” \textit{Id}.\footnote{11}
  \item For a further discussion of the Fourth Circuit's analysis in \textit{Gibbs II}, \textit{see infra} notes 59-63 and accompanying text.
  \item For a further discussion of the characterization of the red wolf as a “thing in interstate commerce,” \textit{see infra} note 57 and accompanying text.
  \item For a further discussion of the impact that protection of the red wolf has on interstate commerce, \textit{see infra} notes 69-187 and accompanying text.
  \item 514 U.S. 549 (1995).\footnote{15}
  \item \textit{See id.} (holding that Gun-Free School Zones Act, making it federal offense for any individual knowingly to possess firearm at place individual knows or has reasonable cause to believe is school zone, exceeded Congress' Commerce Clause authority, since possession of gun in local school zone was not economic activity that substantially affected interstate commerce).\footnote{16}
  \item \textit{See} Endangered and Threatened Wildlife and Plants; Determination of Experimental Population Status for an Introduced Population of Red Wolves in...
bored large populations of swamp and marsh rabbits, the red wolf's principal prey. Human activities, such as the drainage of lands for agriculture, dam construction, and predator control led to the red wolf's demise. The red wolf was viewed as a nuisance even though it was important to the ecosystem and it posed no threat to livestock in areas where adequate prey was available.

The red wolf was forced into the lower Mississippi region and, finally, into southeast Texas. In 1967, the Secretary of the Interior declared the red wolf an endangered species. Low numbers, poor health and threats posed by inbreeding with coyotes nearly drove the red wolf into extinction. In the 1970s, FWS captured the remaining red wolves and placed them in captive breeding programs for future reintroduction. Several limited experimental releases, in 1976 and in 1978, demonstrated that the red wolf could successfully be reintroduced into the wild.


20. See id. (discussing reintroduction of mated red wolves).

21. See id.

22. See Gibbs II, 214 F.3d at 488.

23. See id.

24. See id.


26. See id. (discussing additional reintroduction site for red wolves at Great Smokey Mountain National Park). The Alligator River National Wildlife Refuge was not the only site for red wolf reintroduction. In 1991, the FWS and National Park Service (NPS) reintroduced the red wolf into Great Smokey Mountain National Park. The experimental population area included Haywood and Swain counties in North Carolina and Bount, Cocke, and Deveier counties in Tennessee. A single family of red wolves was introduced into the Cades Cove area of the Park to assess the feasibility of establishing a wolf population. FWS wanted to learn how the wolves would acclimate to a mountain terrain where there was a great deal of human and livestock activity and a large coyote population. FWS also sought to
ber 14, 1987, through September 30, 1992, a total of forty-two wolves were released on fifteen separate occasions. The red wolves were introduced as a nonessential experimental population pursuant to section 10(j) of ESA. Section 10(j) requires that the experimental population be released outside the current range of the natural population and be geographically separate from the natural population. Since no red wolves existed in the wild, the Alligator River Refuge satisfied these requirements.

FWS and NPS decided to terminate red wolf reintroduction into the Park in 1998. There had been a very low pup survival rate because of parvovirus and common canid diseases, internal and external parasites, poor nutrition, and predation by black bears and coyotes. The wolves were unable to develop home ranges within the Park. Of the thirty-seven wolves released, twenty-six were recaptured or died outside of Park boundaries. The low availability of prey in the dense forest was suspected as the cause for the wolves straying from the Park. The remaining wolves were recaptured and returned to the captive breeding program. No red wolves were left in the Park for fear that they might breed with the coyotes and thereby weaken the gene pool. The existing regulations continued to apply in the region.


30. See id.

31. See id. Under § 10(j), members of an experimental population are treated as a threatened species when on federal land, but as a species proposed for listing, a less protective category, when located off federal land. See id. The Secretary of the Interior can establish flexible regulations regarding the experimental population to ease public concerns.
The experimental population reintroduction area initially included Dare, Tyrell, Washington, and Hyde Counties in North Carolina. Federal regulations originally allowed for the taking of a red wolf in this area for educational, scientific, zoological, and conservation purposes; to defend a person’s life or the life of another; to preclude any threat to human safety; or to prevent the depredation of domestic animals or personal property. The regulations required the taking to be reported immediately. The interstate transport of any red wolf taken in violation of these regulations was prohibited. FWS monitored and vaccinated the red wolves, which were recaptured and returned if they strayed from the refuge.

The regulations changed in 1991. Following the change, a red wolf could be taken incidental to a lawful recreational activity or to defend human life. A landowner could harass a red wolf that was pursuing or killing livestock on private property, but could not kill or injure the wolf. Additionally, a landowner could take the wolf to protect livestock actually pursued or being killed on private property after efforts to recapture the depredating wolf proved unsuccessful. FWS could take a red wolf if it could not stop the wolf’s depredation.

There have been two unsuccessful efforts to delist the red wolf as an endangered species. In 1992, the American Sheep Industry Association asserted that the red wolf was not a distinct species, but a wolf-coyote hybrid. FWS determined that the evidence did not
warrant delisting and indicated that the red wolf was a distinct species.\textsuperscript{43} In 1997, the National Wildlife Institute moved to delist the red wolf, asserting that the red wolf was a hybrid not essential to the species' survival.\textsuperscript{44} Again, FWS rejected the proposal, citing new evidence that the red wolf was not a hybrid.\textsuperscript{45}

\section*{III. \textsc{Gibbs v. Babbitt}}

Many in North Carolina opposed the reintroduction of the red wolf.\textsuperscript{46} In October 1990, Richard Mann shot and killed a red wolf that he feared might threaten his cattle and his property.\textsuperscript{47} The federal government prosecuted Mann for illegally taking a wolf under 50 C.F.R. § 17.84(c).\textsuperscript{48} Mann pled guilty to the offense and received a sentence, requiring him to build wolf houses and to feed the wolves.\textsuperscript{49} There was, however, a great deal of sympathy for Mann in the region.\textsuperscript{50} In response to the public opposition to the protection of red wolves on private land and the fear of federal government interference in private land use, several North Carolina counties passed resolutions opposing red wolf reintroduction.\textsuperscript{51} In 1994, North Carolina passed "[a]n Act to Allow the Trapping and Killing of Red Wolves by Owners of Private Land,” permitting the taking of red wolves on private land under limited circumstances.\textsuperscript{52} The Act initially involved Hyde and Washington counties, but was expanded to include Beaufort and Craven counties. This state law contradicted federal regulation dealing with the taking of red any releases of the red wolf into Alabama, Kentucky, Louisiana, Mississippi, North and South Carolina, and Tennessee; and (3) terminate the funding for the red wolf program.

\textsuperscript{43} See \textit{id.} (announcing red wolf will not be removed from list of Endangered Species).

\textsuperscript{44} See \textit{Endangered and Threatened Wildlife and Plants; 90-day Finding for a Petition to Delist the Red Wolf}, 62 Fed. Reg. 64,799 (Dec. 9, 1997).

\textsuperscript{45} See \textit{id.} (indicating insufficient scientific or commercial information existed to justify delisting red wolves).

\textsuperscript{46} For a further discussion of the opposition to red wolf reintroduction, see \textit{supra} notes 3-4 and accompanying text.

\textsuperscript{47} See \textit{Gibbs I}, 31 F. Supp. 2d at 533.

\textsuperscript{48} See \textit{id.}

\textsuperscript{49} See \textit{id.}

\textsuperscript{50} See \textit{id.}

\textsuperscript{51} See \textit{Gibbs II}, 214 F.3d at 489. In 1992, Hyde and Washington Counties and the towns of Bellhaven and Roper in North Carolina passed resolutions opposing red wolf reintroduction. \textit{See id.}

\textsuperscript{52} Trapping and Taking of Red Wolves by Owners of Private Land Act, 1994 N.C. Sess. Laws 299 (allowing owners of private land in North Carolina to trap and take red wolves when landowner reasonably believes red wolf may be threat to people or livestock and landowner previously requested FWS to remove red wolf), amended by 1995 N.C. Sess. Laws 83.
wolves on private land. Yet, no conflict between the federal and state law ever occurred.

On March 3, 1997, Charles Gibbs and Richard Mann, as private individuals, with Hyde and Washington Counties, filed suit, challenging the federal anti-taking regulation for violating the Commerce Clause. They sought an injunction to stop the program on private land, alleging the red wolf is a nuisance and federal protection of the red wolf precluded any effective defense of their property.

The United States District Court for the Eastern District of North Carolina, on cross motions for summary judgment, rejected plaintiffs' claims and found that Congress' power to regulate interstate commerce included the authority to prevent the taking of red wolves on private land. The court determined that the red wolves are "things in interstate commerce" because they cross state lines and their movement is followed by "tourists, academics, and scientists." Each of these activities has economic consequences, which substantially affect interstate commerce. The court concluded that the anti-taking regulation is "a legitimate exercise of federal power under the Commerce Clause." Gibbs, Mann, and the two counties in North Carolina appealed the decision.

The Fourth Circuit determined that the anti-taking regulation was a valid exercise of Congress' power under the Commerce Clause because it was economic in nature and part of a larger regulatory scheme. The court found that the cumulative impact of individual takings of the red wolf substantially affect interstate commerce by: (1) precluding tourism, scientific study, and the possibility of a renewed trade in wolf pelts; (2) decreasing biodiversity and frustrating efforts to maintain the ecosystem; and (3) encouraging states to lower their wildlife protection standards to achieve inter-

53. See Endangered and Protected Wildlife and Plants, Experimental Populations, 50 C.F.R. § 17.84(c)(4)(iii). The federal regulation only allowed a taking in specific instances when the wolf was in the act of killing livestock or pets or when wounded or dead livestock or pets were present and the taking was reported within twenty-four hours. See id.

54. See Gibbs I, 31 F. Supp. 2d at 532.

55. See id. at 489.

56. See id. at 535 (concluding there is clear nexus between protection of red wolves and interstate commerce which validates regulation as legitimate exercise of federal power).

57. Id. at 535 (noting that many persons travel from other states to attend red wolf "howling events").

58. See id. at 536 (noting that each act of Congress is entitled to "strong presumption of validity and constitutionality.").

59. See Gibbs II, 214 F.3d at 483.
state market advantages. The court held that wildlife regulation is not solely within state authority. Federal regulation is necessary when state wildlife regulation is inadequate. The anti-taking regulation was not found to disrupt state conservation authority because federal authority is limited to endangered and threatened species.

The Fourth Circuit, in Gibbs, further noted it would not second-guess the wisdom of the policy, which is a legislative function. Congress determines whether the preservation of a species is a federal responsibility. The regulation is presumed to be constitutional and the burden of proof is on those challenging the regulation. While the Supreme Court's new Commerce Clause jurisprudence protects the states, it does not disassemble federal authority.

IV. ANALYSIS

The analytical framework the Fourth Circuit applies, in Gibbs, is set forth in United States v. Lopez. The Supreme Court, in Lopez, struck down the Gun Free School Zone Act, holding that the federal government's Commerce Clause authority extends to: (1) the channels of interstate commerce; (2) the instrumentalities of interstate commerce, or persons or things in interstate commerce; and (3) activities having a substantial relation to interstate commerce. The federal government may regulate intrastate "activities that arise out of or are connected with a commercial transaction, which viewed in the aggregate, substantially affects interstate commerce." Lopez determined that intrastate activities can also be regulated if they are "an essential part of a larger regulation of

60. See id. at 493-99 (holding that there is rational basis for sustaining regulation).
61. See id. at 499-504. "If the federal government cannot regulate the taking of an endangered or threatened species on private land . . . [that ruling] would place in peril the entire federal regulatory scheme for wildlife and natural resource conservation." Id. at 504.
62. See id. at 499-504.
63. See id.
64. See id. at 504.
65. See Gibbs II, 214 F.3d at 505-07 (stating regulation is presumed to be constitutional and that burden of proof is on those challenging regulation).
67. See id. (indicating broad categories of activity that Congress may regulate through its commerce power).
68. Id. at 561 (noting such regulations will be upheld).
economic activity," which can "be undercut unless the intrastate ac-
tivity were regulated." 69

The Lopez Court further considered the importance of legisla-
tive findings. 70 Both the majority and the dissenting opinions
agreed that specific legislative findings are not necessary, but may
help "to evaluate the legislative judgment that the activity in ques-
tion substantially affected interstate commerce." 71 Nevertheless,
the Court cautioned that "simply because Congress may conclude
that a particular activity substantially affects interstate commerce
does not necessarily make it so." 72 This language indicates that a
search through "the ashcans of the legislative process" is important
not only to decipher the intent and purpose of the statute, but also
to determine its constitutionality.

Congress' setting forth the nexus between the regulated activ-
ity and interstate commerce serves many interests. It puts state and
local officials on notice to respond and promotes congressional de-
liberation. Moreover, it reinforces due process, encourages public
scrutiny and political accountability, and fosters institutional dia-
logue. 73 Establishing the nexus is not a clearly factual or legal de-
determination, but a shared endeavor in which each institution must
participate. 74 When Congress demonstrates the link, it facilitates
the Court's role and precludes the appearance of judicial activism.

69. Id. at 561 (emphasizing that 18 U.S.C. § 922(q), as subject of Lopez case, is
criminal statute with nothing to do with interstate commerce, and, therefore, is
not part of larger regulation of interstate activity).

70. See id. at 563.

71. Lopez, 514 U.S. at 612-14 (Souter, J., dissenting) (determining that neither
statute nor its legislative history contain congressional findings regarding effects
upon interstate commerce of gun possession in school zone).

72. See id. at 557 n.2 (citing Hodel v. Virginia Surface & Mining Ass'n, 452
U.S. 264, 311 (1981) (holding Surface Mining Control and Reclamation Act [here-
inafter SMCRA] constitutional).

73. See Vicki C. Jackson, Federalism and the Uses and Limits of Law: Printz and
private activity and role of Congress as most competent and suited institution to
resolve state and local government concern about reach of federal regulation); see
generally, Frickey, supra note 10, at 728 (addressing post-Lopez question of role that
congressional process plays in reviewing constitutionality of federal legislation es-
poused pursuant to commerce power); see also Harold J. Krent, Turning Congress
into an Agency: The Propriety of Requiring Legislative Findings, 46 CASE W. RES. L. REV.
731, 743-47 (1996) (discussing relationship between Congress and judiciary and
question of whether judiciary should provide greater attention to congressional
process of enacting legislation).

74. See Frickey, supra note 10, at 716, noting:
In the final analysis, merely calling a question one of fact, and therefore
for the legislature, or one of law, and therefore for courts, substitutes
result-oriented labeling for careful institutional analysis. A realistic ap-
praisal suggests that 'characterizing a matter as one of law or of fact is no
Requiring Congress to establish the link is analogous to principles the Court set forth in other cases. The "hard look doctrine," in Motor Vehicles Manufacturing Association v. State Farm Mutual Automobile Insurance,75 requires agencies to "examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'"76 In addition, the "clear statement principle" that the Supreme Court articulated in Gregory v. Ashcroft77 "ensures that the legislature has in fact faced, and intended to bring into issue, the critical matters involved in the judicial decision."78

A. Things in Interstate Commerce

_Lopez_ permits the federal government to regulate "things in interstate commerce."79 The federal district court, in _Gibbs_, properly held that the anti-taking provision can be supported as a regulation of "things in interstate commerce."80 The red wolf is a migratory creature, originally inhabiting the entire southeastern region of the United States.81 By the early 20th century, the red wolf was present in only fourteen states, but was concentrated in Texas, Mississippi,
Louisiana, and Arkansas. 82 From 1920 through 1950, aggressive predator control extinguished the red wolf from its historic range. 83 By 1970, only 200 to 300 red wolves remained in Texas and Louisiana. 84 The red wolves were captured and sent to captive breeding programs throughout the United States. 85 If the reintroduction is successful, the red wolves will again cross state boundaries and repopulate the southeast region.

The Supreme Court first recognized federal authority over migratory species in Missouri v. Holland, 86 which upheld the Migratory Bird Treaty Act. 87 The Court noted that since "the subject matter is only transitorily within the State and has no permanent habitat therein," the birds "can only be protected by national action." 88 The Court warned that without the statute, there soon might be no birds for any authority to protect. 89 Subsequently, several circuit courts determined that migratory birds are objects of interstate commerce that are subject to federal regulation because they travel between states. 90

B. Substantial Effect on Interstate Commerce

According to the Lopez decision, the federal government can regulate activities, whatever their nature, provided that the activities "arise out of or are connected with a commercial transaction, which viewed in the aggregate, substantially affects interstate com-

82. See id.
85. See id. (referring to Congress' plan to continue direct predator control of red wolf).
86. 252 U.S. 416 (1920).
87. See id. (upholding federal statutes and regulations resulting from migratory bird treaty between United States and Great Britain).
88. Id. at 435 (discussing why national action can achieve necessary uniform regulation of migratory birds).
89. See id. (emphasizing that migratory birds' survival is direct cause of federal legislative action).
90. See, e.g., Cerritos Gun Club v. Hall, 96 F.2d 620, 623 (9th Cir. 1938). The migratory wild fowl are owned by the states, are capable of domestication and are domesticated and possessed, and, like grazing cattle wandering from one state to another, are in interstate commerce as they move across state boundary lines. See id.; see also Cochrane v. United States, 92 F.2d 623, 627 (7th Cir. 1937) (announcing that framers intended federal government to protect national property that is impossible to possess, such as migratory birds).
The federally regulated intrastate activity need not be economic in nature.\textsuperscript{92} The taking of the red wolf on private land substantially affects interstate commerce because it harms tourism, scientific study and any potential fur pelt business.\textsuperscript{93} Killing the red wolf also decreases biodiversity that provides products for future commerce and frustrates ecosystem management, which has interstate impacts.\textsuperscript{94} Moreover, states with lower wildlife protection standards are given an unfair competitive advantage.

Congress clearly recognized these impacts as significant in ESA. Species extinction is caused primarily by habitat destruction, pollution, and hunting, resulting from economic activities related to interstate commerce. In order to stop species extinction, Congress prohibited intrastate and interstate activities jeopardizing endangered and threatened species. The prohibition preserves the species' present and future benefits and precludes harmful interstate commerce. Many courts have found that these impacts provide a sufficient nexus to interstate commerce. Furthermore, the anti-taking regulation is an essential component of a larger regulatory scheme.\textsuperscript{95} Since the anti-taking regulation is economic in nature and part of a larger regulatory framework, courts must


\textsuperscript{92} See United States v. Olin Corp., 107 F.3d 1506, 1510-11 (11th Cir. 1999) (upholding Comprehensive Environmental Response, Compensation and Liability Act [hereinafter CERCLA] ban regarding on-site disposal of hazardous waste). The court concluded that CERCLA can be applied constitutionally under the circumstances of the case because the legislative history of the Act documents how the unregulated management of hazardous substances, even strictly within individual states, significantly impacts interstate commerce. See id. at 1511. In United States v. Bird, the Fifth Circuit acknowledged that on-site disposal is a non-economic intrastate activity, but is part of a larger regulatory scheme, substantially affecting interstate commerce by controlling the disposal of harmful chemicals. See United States v. Bird, 124 F.3d 667, 675-82 (5th Cir. 1997).

The Seventh Circuit, in United States v. Wilson, used similar reasoning to uphold the Federal Access Clinic Entrances Act [hereinafter FACE], regulating the intrastate activities of abortion protestors. See United States v. Wilson, 73 F.3d 675, 686-88 (7th Cir. 1995). The Seventh Circuit recognized that regulated intrastate activities do not have to be economic, but need only substantially affect interstate commerce. See id. If abortion protestors close abortion clinics, women will be unable to travel interstate to receive reproductive services. See id.; see also Terry v. Reno, 101 F.3d 1412, 1417 (D.C. Cir. 1996) (stating non-commercial, anti-abortion protests that reduce availability of abortion clinics substantially affect interstate commerce).

\textsuperscript{93} For a further discussion of the effects of taking red wolves, see infra notes 98-121 and accompanying text.

\textsuperscript{94} For a further discussion of biodiversity and ecosystem management, see infra notes 139-211 and accompanying text.

\textsuperscript{95} See Gibbs II, 214 F.3d at 483.
consider the cumulative impact of the taking of the red wolves and not individual red wolf takings.\textsuperscript{96}

1. Tourism

The Fourth Circuit, in Gibbs, correctly held that the taking of a red wolf substantially affects interstate commerce.\textsuperscript{97} The court recognized that there is a direct connection between the taking of the red wolf and interstate commerce.\textsuperscript{98} Absent red wolves, there will be no related interstate tourism or scientific study and no commercial trade in pelts.\textsuperscript{99} It is not necessary to pile inference upon inference to support this conclusion.\textsuperscript{100}

The desire of people to encounter and experience wildlife generates revenue through ecotourism.\textsuperscript{101} Tourists cross state lines to see and hear the red wolves in North Carolina. One study estimated that tourism to see the red wolves would generate between $39.61 and $184 million per year in northeastern North Carolina and between $132 and $354 million per year in the Greater Smokey Mountain National Park.\textsuperscript{102} Scientists also travel to North Carolina to study the red wolf. The movement of tourists and scientists constitutes interstate commerce subject to federal regulation.\textsuperscript{103}

\textsuperscript{96} See id.
\textsuperscript{97} See Gibbs II, 214 F.3d at 492-97 (determining that taking of red wolf is within three categories of activities Congress is authorized to regulate under Commerce Clause).
\textsuperscript{98} See id. (discussing why taking of red wolf implicates variety of commercial retail activities, connects interstate hunting markets, and preserves scarce natural resources for future benefit of all Americans).
\textsuperscript{99} See id.
\textsuperscript{100} See id. at 492.
\textsuperscript{102} See Gibbs II, 214 F.3d at 493-94 (citing William E. Rosen, Red Wolf Recovery in Northeastern North Carolina and the Great Smokey Mountains National Park: Public Attitudes and Economic Impacts (unpublished, Joint Appendix at 663)).
\textsuperscript{103} See Heart of Atlanta Motel v. United States, 379 U.S. 241, 256 (1964) (citing Hoke v. United States, 227 U.S. 308, 320 (1913) (finding it well-established that “commerce among the [s]tates ... consists of intercourse and traffic between their citizens.”).
Forty-one of the seventy-five red wolves in North Carolina live on private land.\textsuperscript{104} The red wolves migrate between the refuge and private land. Their takings on private land can be regulated to protect their economic role on public land. Congress may regulate activities outside the refuge that affect activities within the refuge, particularly when these activities are the reason for interstate travel.\textsuperscript{105} Congress may regulate the quality of commerce, as well as its magnitude.\textsuperscript{106} Consumer activity that occurs after interstate commerce has been completed may also be protected.\textsuperscript{107}

A potential business opportunity exists in wolf pelts. In the past, wolves were hunted for their pelts. If the red wolf is restored, commerce in their pelts may be rekindled. Both the federal government and private businesses have recognized the value of wolf pelts.\textsuperscript{108} Tourism, scientific study, and future commercial potential provides a sufficient nexus to interstate commerce to prohibit the taking of the red wolf. The importance of endangered species to interstate commerce is manifest in many legislative findings and congressional reports.\textsuperscript{109}

\textsuperscript{104} See Gibbs II, 214 F.3d at 488 (noting migratory tendency of red wolf originally reintroduced on private land).


\textsuperscript{106} See id. at 257 (citing Berman v. Parker, 348 U.S. 26 (1954)). "Just as Congress, with plenary power over the District of Columbia, may legislate to sustain the quality of life there, so, it would seem, may Congress, with full authority over the parks and the interstate travel to them, legislate broadly to protect the quality of the park experience." Id. at 257 n.92.

\textsuperscript{107} See id. (interpreting Congress' authority under Commerce Clause to include "ultimate consumer activity" that occurs after interstate commerce itself terminates). Sax noted:

The fact that the activity is . . . not itself a part of commercial dealings . . . does not invalidate the federal power. For the question is not whether the activity itself is an element of interstate commerce, but whether commerce is 'pinched' by the activity or by a class of activities of which an individual instance may itself be a trifling part whose contribution has not been proven.

Id. at 257.

\textsuperscript{108} See Last Chance for the American Wolf, 119 Cong. Rec. 8951, 8952 (Mar. 20, 1973) (statement of Rep. William Whitehurst of Va.). In 1973, the Department of Defense ordered 368,782 winter parkas with wolf fur trim, which would have necessitated killing more than 25,000 wolves. See id. Wilt Chamberlain, the former basketball star, bought a full year's crop of wolf pelts collected by bounty hunters in Alaska to make a rug and bedspread and cover two couches. See id. The Fourth Circuit, in Gibbs v. Babbitt, noted that a hunter in British Columbia can earn $300 per wolf pelt. See Gibbs II, 214 F.3d at 503 (remarking that red wolf pelts are highly valuable to consumers).

\textsuperscript{109} See, e.g., Endangered Species Act, 16 U.S.C. § 1531(a)(3) (2000) (explaining that Congress determined endangered "species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to
Numerous cases have held that tourism, scientific study and commercial activities establish a sufficient nexus with interstate commerce. A federal district court, in *Palila v. Hawaii Department of Land and Natural Resources*, 110 determined that Hawaii had committed an unlawful taking of the endangered palila by maintaining feral goats and sheep for hunting that were destroying the palila habitat. 111 Even though the palila was found only in one state, its extinction would substantially affect interstate commerce. 112 The court noted that ESA "preserves the possibilities of interstate commerce in these species and of interstate movement of persons, such as amateur students of nature or professional scientists who come to a state to observe and study these species, that would otherwise be lost by state inaction." 113 The Ninth Circuit subsequently affirmed the district court's holding. 114

The Seventh Circuit, in *United States v. Byrd*, 115 determined that contiguous wetlands are subject to federal jurisdiction pursuant to the Clean Water Act (CWA), finding that filling in adjacent wetlands can affect interstate waters. 116 Out-of-state residents visit intrastate waters. Adjacent wetlands are important to maintain the quality of the intrastate waters. 117 If intrastate waters are degraded, out-of-state residents will not come, causing an adverse impact on interstate commerce.

The Tenth Circuit, in *Utah v. Marsh*, 118 prohibited the state from filling an intrastate lake that was used by interstate travelers

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111. See id.
112. See id. (holding that Tenth Amendment does not restrict enforcement of ESA, even with respect to species that is present in only one state).
113. See id. at 995.
114. See *Palila v. Hawaii Dept. of Land and Natural Res.*, 639 F.2d 495, 498 (9th Cir. 1981) (holding that State of Hawaii's game management practices involving feral goats and sheep in palila's habitat constituted unlawful taking as defined by Act).
115. 609 F.2d 1204 (7th Cir. 1979) (affirming district court's judgment that permanently enjoined defendant Byrd from placing any fill "on wetlands on his property without obtaining a permit from Army Corps of Engineers.").
116. See id. at 1210 (finding that destruction of wetlands around lake could impair attraction of lake for interstate travelers).
117. See id. at 1209-11 (concluding that "Congress constitutionally may extend its regulatory control of navigable waters under the Commerce Clause to wetlands which adjoin or are contiguous to intrastate lakes that are used by interstate travelers for water-related recreational purposes.").
118. 740 F.2d 799 (10th Cir. 1984).
for recreation, to irrigate crops sold in interstate commerce, and to support interstate commercial fisheries. The Tenth Circuit held that Congress can regulate local activities that impact interstate commerce. The movement of tourists between states creates a sufficient connection to interstate commerce, making the action subject to federal Commerce Clause authority.

The Ninth Circuit, in United States v. Bramble, upheld the Bald Eagle Protection Act (BEPA), which prohibits any commerce and possession of eagles and their parts. The Ninth Circuit declared that the extinction of eagles forecloses several types of commercial activities, including "future commerce in eagles or parts, future interstate travel to observe and study eagles, [and] future beneficial products derived from eagles through an analysis of their genetic material."

A lesson may also be learned from the standing jurisprudence. To establish standing, a party bringing suit must show an injury in fact. The type of injury shown may also demonstrate a sufficient nexus to interstate commerce. The Supreme Court, in Lujan v. Defenders of Wildlife (DOW), held that the denial of the right to see and study an endangered or threatened species constitutes a

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119. See id. (holding that discharge of dredged or fill material into Utah Lake by plaintiff or others could well have substantial economic effect on interstate commerce).

120. See id. at 803 (holding Congress' power to promote interstate commerce also includes power to regulate local incidents thereof).

121. See id. at 804. Non-residents fish, hunt, boat, water ski, camp, and take photographs of the lake while visiting. See id. at 803; see also Heart of Atlanta Hotel v. United States, 379 U.S. 241, 256 (1964) (holding public accommodations provisions of Civil Rights Act of 1964 valid under Commerce Clause).

122. 103 F.3d 1475 (9th Cir. 1996) (upholding EPA authority through valid exercise of commerce power with reasoning adopted from Missouri v. Holland, 252 U.S. 416 (1920)).

123. See 16 U.S.C. § 668 (1994). The Bramble court looked at the substantial effect of trade and possession of eagle parts on interstate commerce. See United States v. Bramble, 103 F.3d 1475, 1481 (9th Cir. 1996). The possibility of eagle extinction arose when clauses were aggregated together. See id.

124. See Bramble, 103 F.3d at 1481. The Bramble Court upheld BEPA as constitutional following the court's conclusion that there was a rational basis to conclude the extinction of the eagle would have a substantial effect on interstate commerce. See id.


126. See id.

127. 504 U.S. 555 (1991) (denying Defenders of Wildlife standing to challenge federal action abroad because its members only asserted that they might visit foreign contested sites in the future).
sufficient injury to grant standing. Justice Scalia declared that "the person who observes or works with a particular animal threatened by a federal decision is facing perceptible harm, since the very subject of his interest will no longer exist." In his concurrence, Justice Stevens agreed that when the government or a private party takes an action that negatively impacts a species or its habitat, there is an "injury to an individual's interest in studying or enjoying a species and its natural habitat." Justices Kennedy and Blackmun determined that an ecosystem nexus, animal nexus, and vocational nexus might support a claim of standing.

Other courts, however, established limits regarding the nexus between federal regulatory authority and interstate activities. The Fourth Circuit, in United States v. Wilson, held that the application of CWA to wetlands with no direct or indirect surface connection to navigable waters does not substantially affect interstate commerce. The mere possibility that intrastate waters can affect interstate commerce grants the federal government too much power and does not establish a sufficient nexus with federal authority. The Supreme Court, in Solid Waste Authority of Northern Cook County v. United States Army Corps of Engineers (SWANCC) questioned whether the use of isolated wetlands by migratory birds established a sufficient nexus with interstate commerce to support federal authority over the isolated wetlands. In both Wilson and SWANCC, the courts adopted too narrow a view of federal Commerce Clause jurisdiction. Gibbs, however, is distinguishable from these cases be-

128. See id.
129. Id. at 566.
130. See id. at 582 (Stevens, J., concurring). Justice Stevens disagreed with the majority's conclusion that respondents had not suffered "injury in fact" because they had not shown that the harm to the endangered species would produce "imminent" injury to the respondents. See id.
131. See id. at 579.
132. 133 F.3d 251 (4th Cir. 1997).
133. Id. at 257. The government argued jurisdiction of Clean Water Act [hereinafter CWA] claims should be extended even without a direct or indirect surface connection with interstate waters. See id. The defendants argued that the district court erred in allowing the jury to find a nexus with interstate commerce based on whether activities "could affect" interstate commerce. See id. at 255.
134. See id. at 257.
135. 531 U.S. 159 (2001) (reversing appellate court holding that Congress had jurisdiction to regulate based upon "cumulative impact" doctrine "under which a single activity that itself has no discernible effect on interstate commerce may still be regulated if the aggregate effect of that class of activity has a substantial impact on interstate commerce.") (internal citations omitted).
136. See id. at 172-73 (rejecting argument that Migratory Bird Rule falls within congressional power to regulate and concluding Migratory Bird Rule would result in significant infringement on states' rights).
cause, as the Fourth Circuit noted, there is a direct connection between the taking of a red wolf and interstate commerce.137

2. Biodiversity and Ecosystem Management

The Fourth Circuit, in Gibbs, accurately held that the anti-taking regulation substantially affects interstate commerce by preserving biodiversity, including the protection of scarce natural resources.138 Extinction is irreversible. Conservation provides for future interstate commerce.139 Congress is best suited to balance economic growth and species protection and protect the future uses of natural resources.140 Accordingly, the courts should not second guess congressional policy decisions.141

The anti-taking regulation helps to preserve biodiversity and maintain ecosystems that substantially affect interstate commerce.142 Biodiversity is the "total of genes, species and ecosystems on [the] earth."143 It is a "living, exploitable, renewable resource" with "economic importance and potential consumptive and transformative uses."144 The preservation of genes is critical to many fields of study, including the development of food and medicine and the maintenance of the ecosystem.145

Genetic preservation and discoveries are important in agriculture.146 Ecological changes necessitate adaptation, requiring genetic diversity.147 New crop strains are essential to adapt to climate change and to repel pests and disease.148 For example, when the

137. Gibbs II, 214 F.3d at 493 (adopting Lopez and Morrison reasoning that "individual takings can be aggregated together for the purpose of commerce clause analysis."). The Fourth Circuit noted that without red wolves, there would be no related tourism, scientific study or wolf pelt business. See id. at 492. Further, the court stated that it need not "pile inference upon inference to reach this conclusion." Id. at 492-93.
138. See Gibbs II, 214 F.3d at 483 (4th Cir. 2000).
139. See id.
140. See id. at 495.
141. See id.
144. See id.
145. See id. at 135 n.9.
147. See id.
yellow dwarf virus threatened the $160 million per year barley crop, scientists investigated 6500 varieties of barley before discovering the Ethiopian strain, which possessed immunity.149

Genetic discoveries assist in the development of medicines.150 Plants are an important source for medicines.151 For example, the pacific yew provides a chemical that helps to fight cancer.152 The bark from white willow produces salicin, an ancient version of aspirin.153 The grecian foxglove supplies digoxin, a cardiac medication.154 Nightshade creates atropine, an eye dilator and anti-inflammatory.155 The velt bean produces L-dopa, a treatment for Parkinson disease.156 The rosy periwinkle provides substances that are effective in the treatment of Hodgkin’s disease and lymphocytic leukemia.157 Bacteria in a Yellowstone geyser contains a DNA states limit effectiveness of plant protection and new crop strains are important for preservation because genetic uniformity is extremely susceptible to disease).


150. See Keith Saxe, Regulated Taking of Threatening Species Under the Endangered Species Act, 39 HAST. L.J. 399, 407 (1988) (explaining wildlife has tremendous value for medical research). One commentator noted:

Sea urchins have helped develop an understanding of human embryology; a desert toad has helped in the early determination of pregnancy; rhesus monkeys have contributed toward an understanding of human blood groups; the antlers of deer have provided a means measuring the degree of radioactive contamination in natural environments; studies of animal behavior have revealed new insights into the knots and travels encountered by psychiatrist in their studies of the human mind.

Id. (internal citations omitted).

151. See Nagle, supra note 101, at 1208 (noting plants have yielded lifesaving drug and possible cure for AIDS); see also Coggins and Harris, supra note 148, at 255-56 (noting that “[t]housands of plants have been used since prehistoric times to combat illness.”).


153. See Nagle, supra note 101, at 1208 n.139 (noting various species which have proved invaluable to medicine).

154. See id.

155. See id.

156. See id.

polymerase that can tolerate high temperatures and is valued at $80 million.\textsuperscript{158}

Animals, fish, amphibians, and insects also supply valuable medicines. The venom of the pit viper contains a substance for high blood pressure.\textsuperscript{159} Leech saliva provides an anticoagulant.\textsuperscript{160} Bear bile is the origin of ursodiol, a gallstone dissolver.\textsuperscript{161} Frogs produce antitoxins and pain killers.\textsuperscript{162} The octopus creates a substance that relieves hypertension.\textsuperscript{163} Insects secrete hormone-like substances.\textsuperscript{164} Future study will demonstrate the even greater medicinal value of these animals.\textsuperscript{165} One commentator noted that "genetic resources are approximately as important to biotechnology as iron is to steel manufacture."\textsuperscript{166}

Plants and animals exist in an interconnected ecosystem, affecting interstate commerce.\textsuperscript{167} The loss of one species impacts the entire system.\textsuperscript{168} Disruptions in the ecosystem cause environmental instabilities that diminish nature’s ability to establish food chains, cycle nutrients, maintain the quality of the atmosphere, control the climate, regulate the fresh water supply, maintain the soil, dispose of wastes, pollinate crops, and control pests and disease.\textsuperscript{169} For ex-


\textsuperscript{159} See Nagle, supra note 101, at 1208 n.141.

\textsuperscript{160} See id. at 1208 n.139, n.141.

\textsuperscript{161} See id. at 1208 n.139.

\textsuperscript{162} See id. at 1208 n.141.

\textsuperscript{163} See id.

\textsuperscript{164} See Nagle, supra note 101, at 1208 n.141.

\textsuperscript{165} See id. at 1208 (noting scientists have just begun to study most species to learn if they possess any medical value).

\textsuperscript{166} Christensen, supra note 146, at 290.

\textsuperscript{167} See Robert Costanza et al., The Value of the World's Ecosystem Services and Natural Capital, 387 NATURE 253 (1987) (stating "ecosystem functions refer variously to the habitat, biological or system properties or processes of ecosystems. Ecosystem goods (such as food) and services (such as waste elimination) represent the benefits human populations derive, directly or indirectly, from ecosystem functions.").

\textsuperscript{168} See Saxe, supra note 150, at 408 (noting interdependence of many species); see also Nagle, supra note 101, at 1210 (indicating that trouble to one species generally indicates trouble to whole ecosystem); Coggins and Harris, supra note 148, at 252 (discussing that almost all species depend on green plants for survival); George C. Coggins, Federal Wildlife Law Archives Adolescence: Developments in the 1970s, 1978 DUKE L.J. 753, 814 (1978) (discussing goal of federal wildlife laws to preserve natural diversity); see generally Parenteau, supra note 157, at 236-44 (discussing consequences of disruption of biodiversity to ecosystem in its entirety).

ample, the red wolf helps to check raccoons, deer, and rabbits that destroy farm crops. The red wolf also increases bird nesting by decreasing the raccoon population.  

Robert Costanza estimated the value of ecosystem services in the range of $16 to $54 trillion per year. With an estimated annual value of $33 trillion per year, ecosystems provide services that cost almost twice the total gross national product of all the nations of the world combined. Costanza noted that:

[B]ecause ecosystem services are not fully 'captured' in commercial markets or adequately quantified in terms comparable with economic services and manufactured capital, they are often given too little weight in policy decisions. This neglect may compromise the sustainability of humans in the biosphere. The economies of the Earth would grind to a halt without the services of ecological life-support systems, so in one sense their total value to the economy is infinite.  

Ecosystem maintenance requires a diverse gene pool. The degree of complexity necessary for healthy maintenance is unknown. Paul Ehrlich equates the loss of species to the loss of structural rivets on an airplane - a dozen might never be missed, but the loss of the thirteenth might spell disaster.  

Endangered and threatened species provide an early warning that the ecosystem is in danger. Endangered and threatened species "are the miners' canaries for the health of something larger, which we have not yet attempted to protect in a more holistic way." For example, the snail darter warned of the danger of

171. See id.
172. See Costanza et al., supra note 167, at 259. This attempt to calculate the estimated value of ecological systems is one of the first. See id.
173. See id.
174. Id. at 253 (discussing importance of ecosystem services).
175. See Parenteau, supra note 157, at 238-41 (recognizing functions and value of ecosystem).
176. See Extinction, supra note 169, at xii-xiii; see also Saxe, supra note 150, at 408 (examining problems of species decline and extinction).
177. Extinction, supra note 169, at xii-xiii.
damming rivers. The northern spotted owl signaled the harm to old growth forests caused by logging. The eagle demonstrated the dangers of DDT. The barton springs salamander indicated that the Edwards Aquifer was being overpumped. The Alabama beach mouse cautioned about dune erosion. Where a species is in danger, it is likely to signal a danger to humans.

Human action unquestionably threatens biodiversity. Population expansion, pollution, rapid industrialization, and the loss of habitats due to the demands for land and urbanization are causing extinction. The present rates of extinction are one hundred times the natural rates; 4000 plants and 5400 animals face extinction. This genetic erosion represents the irreversible loss of each species’ unique and highly valuable genetic resources. ESA recognizes that these “species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people.”


179. _See_ Houck, _supra_ note 178, at 301.

180. _See_ Nagle, _supra_ note 101, at 1211 (providing examples to serve as early warnings of impending danger).

181. _See id._

182. _See id._ at 1214 n.169.

183. _See id._ at 1210.

184. _See_ Parenteau, _supra_ note 157, at 241-42.

185. _See_ Boyd, _supra_ note 142, at 1290 n.9. One commentator noted: “The process is governed by distinct laws of life and balance. One is adaptation; each species finds a precise niche in the ecosystem that supplies it with food and shelter. At the same time, all animals have the defensive power to multiply faster than their own death rates. As a result, predators are required to hold the population within the limits of its food supply. The wolf that devours the deer is a blessing to the community, if not to the individual deer. Still another law is the necessity of diversity. The more different species there are in an area, the less chance that any single type of animal or plant will proliferate and dominate the community. Even the rarest, oddest species can thus be vital to life. Variety is nature’s grand tactic of survival.” _Id._

186. _See_ Christensen, _supra_ note 146, at 281.

187. _See id._

188. _See id._ In a section entitled “The Extinction Crisis,” Christensen analyzes the reasons and potentially devastating effects of driving plant and animal species to extinction. _See id._ Among the repercussions are irreversible loss of the world’s tropical rain forests and the many wild species that inhabit them. _See id._ Genetic variability will also be lost because of the same factors leading to extinction. _See id._ at 281-85.

The legislative history is replete with references regarding the necessity for protecting biodiversity. The 1969 Senate Commerce Committee Report on the Endangered Species Conservation notes, with each species we eliminate, we reduce the pool of germ-plasm available for use by man in future years. Since each living species and subspecies has developed in a unique way to adapt itself to the difficulty of living in the world’s environment, as a species is lost, its distinctive gene material, which may subsequently prove invaluable to mankind in improving domestic animals and increasing resistance to disease or environmental contaminants, is also irretrievably lost.

The 1973 House Merchant Marine and Fisheries Committee Report on ESA states,

the value of . . . endangered species is, quite literally, incalculable . . . . From the most narrow possible point of view, it is in the best interests of mankind to minimize the losses of genetic variations. The reason is simple: they are potential resources. They are keys to puzzles which we cannot solve, and may provide answers which we have not yet learned to ask.

Senator Tunney (D-Cal.), the floor leader and ESA Conference Committee Member, noted that each species is important for science. The diversity of genetic types is necessary for thorough scientific knowledge. The unknown potential of investigation into genetic structure must remain unhindered to produce knowledge for the benefit of man.
Many courts also have recognized the importance of biodiversity. The Supreme Court, in Tennessee Valley Authority v. Hill, acknowledged congressional concern regarding the undiscovered uses of endangered species and the unforeseeable position these creatures may have in the global chain of life. The District of Columbia Circuit Court of Appeals, in National Association of Home Builders v. Babbitt, halted the expansion of a hospital and the building of a road that impinged upon the habitat of the delphi fly, an endangered species. The court determined that the protection of biodiversity substantially affects interstate commerce. The taking of the delphi fly, which exists only in a limited area in California, will have genetic consequences. Every lost species reduces the gene pool and forecloses future commercial possibilities. Biodiversity must be protected to provide for future medicines and commercial activities.

A federal district court, in Building Industries of California v. Babbitt, rejected a challenge to the Secretary of the Interior’s listing of the fairy shrimp, existing within the internal waters of several western states, as an endangered species. Building Industries al-

195. 437 U.S. 153 (1978) (holding that continuing construction of federally-funded dam would violate ESA following Secretary’s listing of species that may have been affected by federal action). The Supreme Court interpreted Congress’ intentions for the Act to accord endangered species the highest priorities. See id.

196. See id. at 178-79 (emphasis omitted) (analyzing Congress’ statements regarding potential resources in genetic variations and possible benefits to human kind by minimizing losses of such variations).

197. 130 F.3d 1041 (D.C. Cir. 1997).

198. See id. (holding prohibition against taking of endangered fly was proper exercise of Congress’ Commerce Clause power because it regulated use of channels of interstate commerce); see also Frona M. Powell, Property Rights, Federalism, and the Endangered Species Act, 29 REAL ESTATE L.J. 13 (2000).

199. See Nat’l Ass’n of Home Builders, 130 F.3d at 1054 (holding that taking of endangered species would “deprive commercial actors of access to an important natural resource—biodiversity.”).

200. See id. at 1052 (citing Brief of Amici Curiae for Appellees at 20-21, Nat’l Ass’n of Home Builders v. Babbitt, 130 F.3d 1041, 1052 (1997) (No. 96-5354)) (stating that 521 of 1,082 species in United States currently designated as endangered or threatened are found in only one state).

201. See id. at 1052-54 (discussing valuable losses that would result by extinction of endangered species on interstate commerce, including loss of sources of medicine and protection against pest control); see generally John C. Nagle, The Commerce Clause Meets the Delphi Sands Flower-Loving Fly, 97 MICH. L. REV. 174 (1998) (analyzing Court of Appeals for District of Columbia’s opinion in National Ass’n of Home Builders).

202. 979 F. Supp. 893, 907 (D.D.C. 1997) (holding FWS’s listing of fairy shrimp in state waters does not exceed federal Commerce Clause power because “ESA directly and expressly regulates that import, export and sale of listed species in interstate commerce.”).

203. See id.
leged that "there is no nexus between the fairy shrimp and inter-state commerce and listing interferes with state and local sovereignty over land use."\textsuperscript{204} The court held that the listing did not exceed the federal government's Commerce Clause authority.\textsuperscript{205} ESA is a comprehensive federal statute that is designed to preserve genetic material. Congress clearly recognized that species preservation substantially affects interstate commerce.\textsuperscript{206}

The Ninth Circuit, in \textit{United States v. Bramble}, upheld BEPA, finding that prohibition of commerce in bald eagles permits their regeneration, which may restore their commercial value, thereby causing businesses to profit.\textsuperscript{207} Any loss of the gene pool is bad because the missing genetic information may prove invaluable to mankind. Furthermore, each species is part of an interconnected ecosystem. Consequently, it is rational to conclude that the extinction of the eagle will substantially affect interstate commerce.\textsuperscript{208}

In \textit{United States v. Romano},\textsuperscript{209} a federal district court upheld the Lacey Act, prohibiting the interstate transport of fish, wildlife, reptiles, mollusks, and crustaceans taken in violation of any federal, state or foreign law.\textsuperscript{210} The court found that the Lacey Act's effort to stop illegal trade preserves future commerce with the species.\textsuperscript{211} It is important to preserve the gene pool. Scarce natural resources

\textsuperscript{204} Id. at 906 (stating reasons for argument that listing fairy shrimp exceeded Tenth Amendment and Congress' Commerce Clause power).

\textsuperscript{205} See id. at 907.

\textsuperscript{206} See id. (differentiating ESA from legislation at issue in \textit{Lopez} and finding interstate commerce substantially affected).

\textsuperscript{207} 103 F.3d 1475, 1479 (9th Cir. 1996) (holding extinction of eagle would substantially affect interstate commerce by foreclosing possibility of commercial activity). \textit{See} 16 U.S.C. § 668 (2000). The Bald Eagle Protection Act \textit{[hereinafter BEPA] prohibits a person from taking, possessing, selling, purchasing, bartering, offering to sell, purchase or barter, transport, export or import any American or golden eagle. See id. This prohibition applies to eagles dead and alive, as well as any of their parts, nests or eggs. \textit{See id. BEPA violations carry civil and/or criminal punishment. See 16 U.S.C. § 668(a) (2000). For a discussion on the economic and commercial consequences of eagle extinction, see supra notes 136-37 and accompanying text.}

\textsuperscript{208} \textit{See Bramble}, 103 F.3d at 1480-82.

\textsuperscript{209} 929 F. Supp. 502 (D. Mass. 1996). In this case, the district court upheld the constitutionality of the Lacey Act based on the aggregation principle, reasoning that one "unlicensed hunter, who employs the services of a guide and kills wildlife for sport, poses little or no threat to interstate commerce; a rash of illegal hunting, on the other hand, may well result in a reduction in wildlife-related goods and services." Id. at 508.

\textsuperscript{210} \textit{See} 16 U.S.C. § 3371(b) (1994). A person who knowingly violates the Lacey Act may be assessed a civil penalty of $10,000 if the market value of the fish, wildlife, or plants transported is greater than $350. \textit{See id.}

\textsuperscript{211} \textit{See Romano}, 929 F. Supp. at 508 (stating that Congress has continuously perceived need to secure long-term natural resources for commercial purposes).
have to be protected for future commercial purposes. Manufacturers require a safe supply of fish, wildlife, and plants. Service industries related to hunting, study and travel all rely on a healthy ecosystem.\textsuperscript{212}

ESA is also concerned with ecosystem maintenance. The purpose of ESA, which is the ultimate goal of Congress, is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved."\textsuperscript{213} Senator Tunney declared that each species provides a service to the environment and is part of a complex ecosystem that depends on all its components for stability.\textsuperscript{214} Because the value of each species is unknown, its loss cannot be assessed.\textsuperscript{215}

Many courts have recognized the importance of ecosystem maintenance to interstate commerce. The Fifth Circuit, in \textit{Zabel v. Tabb},\textsuperscript{216} upheld the Army Corps of Engineers' refusal to issue a dredge and fill permit for ecological reasons.\textsuperscript{217} The Fifth Circuit determined that the destruction of fish and wildlife have substantial and, in some areas, devastating effects on interstate commerce.\textsuperscript{218} Dredge and fill permits "may tend to destroy the ecological balance and thereby affect commerce substantially."\textsuperscript{219}

Justice Henderson, in \textit{National Association of Home Builders v. Babbitt},\textsuperscript{220} determined that endangered species must be preserved in order to maintain the interconnected ecosystem.\textsuperscript{221} If one species is harmed, the ecosystem will be disrupted, causing interstate commerce to suffer.

\textsuperscript{212} See \textit{id.}

\textsuperscript{213} 16 U.S.C. § 1531(b) (2001). An additional purpose of this section is to provide a program for the conservation of such endangered and threatened species. \textit{See} \textit{HENRY M. HART, JR. & ALBERT M. SACKS, THE LEGAL PROCESS} 1124-25 (Foundation Press 1994). The authors discuss tools used in statutory interpretation and outline three rules to help decipher the statute's purpose, including a presumption that a statute has a reasonable purpose unless the contrary is proven. \textit{See id.} at 1125.


\textsuperscript{215} \textit{See id.} (categorizing trend of rapid extinction of species as "disturbing" and calling for "urgent" need for protective legislation like ESA).

\textsuperscript{216} 430 F.2d 199 (5th Cir. 1970).

\textsuperscript{217} \textit{See id.} at 215 (considering House Report and National Environmental Policy Act of 1969 together with Fish and Wildlife Coordination Act and holding that "there is no doubt that the Secretary can refuse on conservation grounds to grant a permit under the Rivers and Harbors Act").

\textsuperscript{218} \textit{See id.} at 203-04 (holding question as to whether destruction of fish and wildlife has substantial effect on interstate commerce is "hardly questioned").

\textsuperscript{219} \textit{Id.} at 204 (asserting that "[b]ecause of these potential effects Congress has the power to regulate such projects").

\textsuperscript{220} 130 F.3d 1041 (D.C. Cir. 1997).

\textsuperscript{221} \textit{See id.} at 1057-60.
Congress can regulate land use and development, which harms the ecosystem and substantially affects interstate commerce.223

Opponents to the red wolf reintroduction argue that biodiversity and ecosystem management cannot justify the reintroduction because the red wolf is already extinct and is only being introduced as a nonessential experimental population.224 This reasoning is flawed. The Department of Interior designed the reintroduction of the red wolf to restore balance to the ecosystem, enhance biodiversity, and manage the ecosystem.225 The non-essential population designation concerns only the management of the red wolf and not the red wolf's importance to the ecosystem.226 A non-essential population designation simply means that there are other red wolves in captive breeding programs and the released population is "not essential to the continued existence of the endangered species or threatened species."227

3. Prevention of Harmful Interstate Commerce

The Fourth Circuit, in Gibbs, appropriately determined that the anti-taking regulation prevents a state from establishing any unfair

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222. See id.
223. See id. (stating that loss of biodiversity has substantial effect on ecosystem and interstate commerce).
224. See Gibbs II, 214 F.3d at 497-98.
225. For a discussion of the cumulative impact of taking the red wolves, see supra notes 98-121 and accompanying text.
competitive market advantage.\textsuperscript{228} No state can lower its wildlife protection standards to benefit in-state economic interests. The federal regulation avoids a race to the bottom.\textsuperscript{229}

The anti-taking regulation is part of a larger regulatory statute that prevents any interstate competitive market advantage. Red wolves are taken to protect farming, ranching, and land development.\textsuperscript{230} If a state fails to protect red wolves, competing economic interests in the state will have the advantage of lower production costs because they will not have to bear the costs due to predators. If a state wants to attract and promote business, it will not choose to protect red wolves. This will precipitate a race to the bottom. Congress can act to prevent a state from attaining any interstate competitive market advantage.\textsuperscript{231}

Prior to the enactment of ESA, Congress recognized that state regulation of endangered species was inadequate.\textsuperscript{232} Some states had developed programs to protect endangered wildlife, while others failed to act because of rural pressures in the state legislatures, state reliance on licensing revenues, and territorial restrictions.\textsuperscript{233} Consequently, interstate controls were needed.\textsuperscript{234} The legislative history of ESA demonstrates the inadequacies of then-existing federal and state statutes as well as congressional concern with the impact of species extinction on interstate commerce.\textsuperscript{235}

The first comprehensive legislative effort, the Endangered Species Preservation Act of 1966 (ESPA), granted the Secretary of the Interior authority to conserve, restore and bolster wild populations threatened with extinction on federal lands.\textsuperscript{236} In addition, it authorized the acquisition of endangered species habitat for inclusion.

\begin{itemize}
\item \textsuperscript{228} See Gibbs II, 214 F.3d at 501-03.
\item \textsuperscript{229} See id. (stating that Congress may stop "race to the bottom" in order to prevent interstate competition whose overall effect would damage quality of national environment).
\item \textsuperscript{230} For a further discussion of the regulatory aspects of the anti-taking regulation, see supra notes 36-40 and accompanying text.
\item \textsuperscript{232} See Boyd, supra note 142, at 1291.
\item \textsuperscript{233} See id.
\item \textsuperscript{234} See id. at 1291 (discussing problem of wildlife protection).
\item \textsuperscript{235} See id. at 1291-92, 1298-1301 (examining inadequacies of then-existing state and federal law and discussing Commerce Clause issues).
\end{itemize}
into the National Wildlife Refuge System. ESPA specifically noted that economic growth and development caused the extermination of some native species of fish and wildlife. Serious losses of other species of native wild animals with educational, historic, recreational and scientific value were occurring. Treaties committed the United States to conserve and protect the various species of native fish and wildlife that were threatened with extinction. While ESPA identified the causes of extinction, it focused only on habitat protection. It did not protect foreign wildlife and did not prohibit wildlife transport through interstate commerce. Moreover, taking restrictions remained with the states. Federal takings were only regulated in the national wildlife refuge system.

The Endangered Species Conservation Act of 1969 (ESCA) was enacted to address the shortcomings of ESPA. Congress used the Commerce Clause to expand federal authority. ESCA authorized the Secretary of Interior to create a list of species "threatened with worldwide extinction" and to ban their importation into the United States. Federal authority to acquire habitat was expanded. The Senate Commerce Committee report recognized that species were being exterminated at an alarming rate and that the protec-

237. See id.
238. See id.
239. See id.
240. See id. The legislation noted:
The United States has pledged itself, pursuant to migratory bird treaties with Canada and Mexico and the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, to conserve and protect, where practicable, the various species of native fish and wildlife, including game and nongame migratory birds that are threatened with extinction.

Id.
242. See id. The Secretary of Interior stated, "The bill does not authorize the Department to control or regulate the hunting or fishing of endangered species . . . on non-federal land."
243. See Boyd, supra note 142, at 1292 n.23.
246. See id.
247. See id.
248. See id. This act also gave the Secretary of the Interior the power to consult with the Secretary of State to promote preservation worldwide through international agreements. See id.
tion of endangered fish and wildlife was urgent. The international market needed to be dried up to reduce poaching. Outlawing the sale and purchase of any endangered species taken in violation of national, state or foreign law provides the incentive for ending poaching.

ESPA and ESCA, however, afforded inadequate protection to endangered and threatened species. New legislation was necessary to protect threatened species; to provide a national program of endangered and threatened species protection; to authorize funds for land acquisition; and to encourage the states to provide adequate endangered species protection. On February 8, 1972, President Richard Nixon called for additional endangered species protection in his Environmental Message. President Nixon stated that the then-existing law failed to provide the management tools necessary to act early enough to save vanishing species.

ESA, which was enacted in 1973, prohibits the taking of endangered and threatened species on private land. The House Merchant Marine and Fisheries Committee Report stated that the protection of endangered species is not a matter that can be handled in the absence of coherent national and international policies: the result of a series of unconnected and disorganized policies and

249. See S. REP. NO. 91-526 (1969), reprinted in 1969 U.S.C.C.A.N. 1413-14. Since 1600, more than 125 species of birds and mammals have become extinct, as have nearly 100 additional subspecies (i.e., geographical races or varieties). Today it is estimated that one or two species of birds or mammals disappear each year. The International Union for the Conservation of Nature and Natural Resources presently lists approximately 275 species of mammals and 300 birds as rare and endangered; 89 different forms of fish and wildlife have been identified as endangered within the United States by the Secretary of the Interior.

250. See id. The Act recognized that restricting trade would have the greatest impact on species threatened due to their commercial value. See id. Notably, a proposal to grant the states exclusive control over wildlife was specifically rejected in 1969. See Boyd, supra note 142, at 1306-07 (citing Endangered Species Conservation Act of 1969, Pub. L. No. 91-135 (1969), reprinted in 1969 U.S.C.C.A.N. 300). The bill stated that the Nation’s best interest was that “the States have the sole, exclusive, and undisputed legal right to manage, regulate, and control fish and wildlife in accordance with State laws and regulations notwithstanding the ownership or control of the lands by the Government of the United States within the boundaries of the respective states.” Id. The Departments of Interior, Justice, and State opposed the bill. The National Governor’s Association supported the bill. See Boyd, supra note 142, at 1306-07. Rejected proposals are important because they show the issue was raised and defeated.


252. See id.

253. See id. The Department of the Interior also expressed difficulties in expanding the practical effects of the law to meet its stated goals. See id.

programs by various states might well be confusion compounded." Senator Tunney declared the taking provision the most important section of the bill because it provides the most effective means to achieve the legislative purposes. Senator Tunney stated,

Extinction . . . is a national problem necessitating involvement of the Federal Government. Endangered animals are not limited to any one area or State of the Nation so it is impossible for the individual States to limit their movement in interstate or foreign commerce. Furthermore, no one state should be responsible for balancing its interests against those of other States for the entire Nation. Central authority is necessary to oversee endangered species protection programs and to insure that local political pressures do not lead to the destruction of a vital national asset.

The Supreme Court, in Hodel v. Virginia Surface Mining and Reclamation Association (VSMRA), recognized that Congress can regulate intrastate actions to eliminate dangers to interstate commerce. The Court determined that the Surface Mining and Reclamation Control Act (SMRCA), a "comprehensive statute designed to establish a nation-wide program to protect society and the environment from the adverse effects of surface coal mining," did not violate the Commerce Clause. VSMRA alleged "[SMCRA's] principal goal is regulating the use of private lands within the borders of the States [and] land-use regulation is within the inherent police powers of the States and their political subdivisions." The Court, rejecting VSMRA's allegations, found the legislative record provides ample evidence of the harmful environmental effects of surface coal mining on interstate commerce. Congress decided that the "inadequacies in existing state laws and the need for uni-

257. Id.
259. Id. at 268 (citing 30 U.S.C. § 1202(a) (Supp. III 1976)).
260. See id. at 280.
262. See id. at 277 (citing 30 U.S.C. § 1201(c) (Supp. III 1976)).
form minimum nationwide standards made federal regulations imperative.” According to the Court, the key is not whether the activity is designated as local or intrastate, but whether the intrastate activity substantially affects interstate commerce. The Court also acknowledged congressional findings:

that nationwide surface mining and reclamation standards are essential in order to insure that competition in interstate commerce among sellers of coal produced in different states will not be used to undermine the ability of the several States to improve and maintain adequate standards on coal mining operations within their borders.

This is precisely the “sort of destructive interstate competition” that Congress can address pursuant to the Commerce Clause.

The Supreme Court, in *Hodel v. Indiana*, held that the prime farmland provisions of SMRCA do not violate the Commerce Clause. The Court found that SMRCA ensures that production of coal for interstate commerce would not come at the expense of agriculture, the environment, or public health and safety, because any such injury would have deleterious effects on interstate commerce. SMRCA protects “mine operators in States adhering to high performance and reclamation standards from disadvantageous competition with operators in States with less rigorous regulatory programs.”

The D.C. Circuit utilized a similar rationale in *National Association of Home Builders v. Babbitt*. The Babbitt court determined that ESA regulates economic activity that substantially affects interstate commerce. ESA, like SMRCA, regulates private intrastate non-commercial activities to prevent actions that will harm interstate commerce by destroying the environmental quality in other states and the variety of species. Furthermore, ESA, like SMRCA, en-

263. VMSRA, 452 U.S. at 280.
265. VMSRA, 452 U.S. at 281-82 (citing 30 U.S.C. § 1201(g) (Supp. III 1976)).
267. See id. at 330 (holding “District Court erred in concluding that the challenged provisions of the Act contravene the Tenth Amendment.”).
268. See id. at 329.
269. Id. at 330. The Court stated, “The pertinent inquiry therefore is not how much commerce is involved but whether Congress could rationally conclude that the regulated activity affects interstate commerce.” Id. at 324.
270. 130 F.3d 1041 (D.C. Cir. 1997).
271. See id. at 1053.
272. See id. at 1055-56.
sures that economic growth does not undermine conservation and species preservation, which are injurious to interstate commerce.273

C. The Larger Economic Regulatory Program

The Fourth Circuit, in Gibbs, correctly determined that the taking regulation is "an essential part of a larger regulation of economic activity, in which the regulatory scheme could be undercut unless the intrastate activity were regulated."274 ESA is a comprehensive statute that regulates all aspects of endangered and threatened species. The federal government uses the best scientific evidence to identify endangered and threatened species.275 Federal action cannot jeopardize the existence of endangered or threatened species or their critical habitat without a statutory exemption.276 Under ESA, no person can import or export such species from the United States, take any such species within the U.S., including the territorial sea, or take any such species upon the high seas.277 In addition, no person can (1) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of the law; (2) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity any such species; or (3) sell or offer for sale in interstate or foreign commerce any such species.278 Further, the federal government must implement recovery plans in order to conserve and promote the survival of endangered and

273. See id. at 1054-57. Judge Hendersen also focused on the economic development that threatened the delphi fly. See id. She asserted that the economic development itself has substantial interstate implications because the hospital and road will be utilized by interstate travelers.


276. See H.R. REP. No. 97-567, at 10 (1982), reprinted in 1982 U.S.C.C.A.N. 2807, 2809-10. Congress amended ESA in 1976, 1978 and 1979 "to increase the flexibility in balancing species protection and conservation with development projects." Id. If a federal project poses a threat to an endangered species, the Endangered Species Committee, an interagency committee known as the God Squad, decides whether to issue an exemption for the project. See 16 U.S.C. § 1536. The Committee considers the costs and benefits of the project, alternatives to the project, and the regional and national significance of the project. See id.


278. See id.
threatened species.\textsuperscript{279} Endangered and threatened species can be reintroduced back into their historic range.\textsuperscript{280}

The taking of an endangered or threatened species is an intrastate activity that precedes any interstate transport. There can be no interstate transport without the prohibited taking, which also frustrates species recovery and reintroduction. If an intrastate taking cannot be proscribed, there will be many problems.

ESA prohibits the taking of an endangered or threatened species on federal land or in the course of federal activity.\textsuperscript{281} If a taking on state or private land is not proscribed, federal Commerce Clause authority will be confined to the movement of endangered and threatened species through interstate commerce. This harkens back to an earlier discredited Commerce Clause rationale. In \textit{Hammer v. Dagenhart},\textsuperscript{282} the Supreme Court declared the Child Labor Act, governing the conditions of child labor, unconstitutional.\textsuperscript{283} The Court held that the mere fact that the goods produced by child labor were intended for interstate transport does not make their production subject to federal control because commerce is traffic, not manufacture.\textsuperscript{284} Production is subject to state, not federal, authority. Congress cannot use Commerce Clause authority to regulate state activity.\textsuperscript{285} Federal authority does not begin until goods are transported through interstate commerce.\textsuperscript{286}

In \textit{United States v. Darby},\textsuperscript{287} the Supreme Court overturned \textit{Hammer v. Dagenhart} and upheld the Fair Labor Standards Act.\textsuperscript{288} The Court found that Congress may prohibit from interstate commerce, goods produced by labor not meeting federal requirements.\textsuperscript{289} Under this view, there is no distinction between

\begin{itemize}
\item \textsuperscript{279} See 16 U.S.C. § 1533(e)(1) (2001) (referring to Secretary’s duty to develop and implement recovery plans unless it is determined that such plans will not promote conservation of affected species).
\item \textsuperscript{280} See 16 U.S.C. § 1539 (2001).
\item \textsuperscript{282} 247 U.S. 251, 276 (1918), \textit{overruled by United States v. Darby}, 312 U.S. 100 (1941).
\item \textsuperscript{283} See id. (finding that production is separate from traffic of commerce and therefore is not subject to federal Commerce Clause authority).
\item \textsuperscript{284} See id. at 272-76.
\item \textsuperscript{285} See id. (noting Congress cannot use Commerce Clause authority to regulate state activity).
\item \textsuperscript{286} See id.
\item \textsuperscript{287} 312 U.S. 100 (1941).
\item \textsuperscript{288} See id. at 117 (finding that Congress can prohibit goods produced by labor not meeting federal requirements of interstate commerce).
\item \textsuperscript{289} See id.
\end{itemize}
production and commerce. The Court stated that the "motive and purpose of a regulation of interstate commerce are matters for the legislative judgment upon the exercise of which the Constitution places no restriction and over which the Courts are given no control." The Court held that Congress can regulate intrastate activity that affects interstate commerce or the exercise of the power of Congress over it. Congress can protect interstate commerce from goods produced under substandard labor conditions and prevent any state from gaining any advantage in interstate markets by allowing such production.

Since the anti-taking regulation is part of a larger economic regulatory program, the effect on commerce must be viewed from the cumulative impact of such takings, not the taking of one wolf. The Court, in Lopez, stated that "where a general regulatory statute bears a substantial relation to commerce, the de minimis character of individual instances arising under that statute is of no consequence."

Judge Luttig's dissent, in Gibbs, asserted that the taking of forty-one red wolves on private property cannot substantially impact interstate commerce because of its limited scope. The dissent, however, failed to appreciate ESA's purpose. When a species is designated endangered or threatened, only a limited number of the species remain. The fewer the number, the greater the need for congressional action. The Fourth Circuit, in Gibbs, declared that "it would be perverse indeed if a species nearing extinction were

290. See id.

291. Id. at 115 (stating that regardless of their motive, regulations of commerce not explicitly prohibited by Constitution are within Congress' plenary power).

292. See Darby, 312 U.S. at 118 (explaining that Congress' power over interstate commerce is not confined to regulation of commerce among the states).

293. See id. at 122-24 (discussing ultimate aim of legislation is suppression of activities that restrain trade and result in unfair competition).

294. See Gibbs II, 214 F.3d at 497 (quoting United States v. Lopez, 514 U.S. 549, 561 (1995)). "A single red wolf taking may be insubstantial by some measures but that does not invalidate a regulation that is part of the ESA and seeks conservation not only of any single animal but also the recovery of the species as a whole." Id. at 498.

295. See United States v. Lopez, 514 U.S. 549, 558 (1995); see also Perez v. United States, 402 U.S. 146, 154 (1971)(noting "where the class of activities is regulated and that class is within the reach of federal power, the courts have no power to excise, as trivial, individual instances of the class.").

296. See Gibbs II, 214 F.3d at 508-09 (Luttig, J., dissenting) (arguing small taking has no economic impact or character now or in foreseeable future).
found to be beyond Congress’ power to protect while abundant species were subject to full federal regulatory power.”

1. Jurisdiction

The Court, in *Lopez*, was concerned that federal regulatory statutes delineated jurisdictional boundaries between federal and state government authority. In *Gibbs*, the Fourth Circuit appropriately held that the anti-taking regulation possesses jurisdictional parameters. Specifically, the regulation does not apply to all wildlife and plants, but only to endangered and threatened species.

Section four of ESA permits the Secretary of the Interior to determine whether a species is endangered or threatened because of “(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.” This determination rests solely on the basis of the best scientific and commercial data available. The Secretary publishes a list of all endangered and threatened species. Once every five years the Secretary reviews the status of each species on the list. If the Secretary removes a species from the list, authority over the species is returned to the states.

297. *Gibbs II*, 214 F.3d at 498 (rejecting view that endangered species lie beyond Congressional protection because there are too few animals left to make commercial difference).

298. *See Lopez*, 514 U.S. at 564 (discussing Congress’ authority under legislation to regulate not only all violent crime, but all activities that might lead to violent crime).

299. *See Gibbs II*, 214 F.3d at 503-04 (distinguishing federal government’s responsibility for protection of red wolves from its responsibility for guns in school zone).

300. *See id.*


304. *See 16 U.S.C. § 1533(c) (1982).* The Secretary, after reviewing the status of a listed species, may remove the species from the list, change its status from endangered to threatened or threatened to endangered, or leave its status unchanged. *See id.*

305. *See U.S. CONST. amend. X (reserving to states or people those powers not delegated to United States).*
2. Federalism

The *Lopez* Court stressed that there must be a distinction between what is truly national and what is truly local.\(^{306}\) Federal regulation must not impinge on an "area of traditional state concern," to which "States lay claim by right of history and expertise."\(^{307}\) The Fourth Circuit, in *Gibbs*, acknowledged that it "must particularly scrutinize regulatory activity that falls within an area of the law where States historically have been sovereign and countenance of the asserted federal power would blur the boundaries between the spheres of federal and state authority."\(^{308}\) The *Gibbs* court correctly concluded that the states play an important role in regulating wildlife, but found that state control is circumscribed by federal regulatory authority.\(^{309}\)

State control over wildlife has long been acknowledged. Originally, state authority was based on the theory that the state owned the wildlife within its border. This precluded state regulation of wildlife from dormant Commerce Clause authority. The state ownership theory began with *Geer v. Connecticut*\(^{310}\) in 1896 and ended with *Hughes v. Oklahoma*\(^{311}\) in 1979. During the same period and thereafter, the federal government regulated wildlife pursuant to the Commerce Clause, treaty power, and Property Clause.\(^{312}\) Federal regulation was consistently upheld by the courts. The more accurate view is that states regulate wildlife, unless preempted by federal authority. The Court declared that, "[a]lthough states have important interests in regulating wildlife and natural resources


\(^{307}\) Id. at 580, 583 (Kennedy, J., concurring).

\(^{308}\) *Gibbs II*, 214 F.3d at 499 (citing Brzonkala v. Virginia Polytechnic Inst. and State Univ., 169 F.3d 820, 837 (4th Cir. 1999) (suggesting value of impartial court analysis when federal regulation infringes on traditional role of state)).

\(^{309}\) See id. at 499-502 (citing *Geer v. Connecticut*, 161 U.S. 519 (1896)) (describing prolonged erosion of *Geer* decision and its ultimate reversal). The *Gibbs II* court explained that, even post-*Lopez*, Congress is authorized to regulate private land use for wildlife conservation and concluded that endangered wildlife regulation has not been an exclusive or primary state function.

\(^{310}\) 161 U.S. 619 (1896).

\(^{311}\) 441 U.S. 322 (1979).

within their borders, this authority is shared by the Federal Government when the Federal Government exercises one of its enumerated powers."313

a. Dormant Commerce Clause

The Commerce Clause has both positive and negative attributes. Negative or dormant Commerce Clause authority precludes state regulation that discriminates against interstate commerce.314 In 1896, the Supreme Court, in Geer v. Connecticut,315 upheld a state statute that prohibited the export of game birds.316 The Court declared that the state can “control and regulate the common property in game” because the state holds such a right in “trust for the benefit of the people.”317 In light of the state’s ownership “it may well be doubted whether commerce is created” by the killing and subsequent sale of the game.318 However, state power extends only as far as its exercise is not incompatible with, or restrained by, the

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314. See Minnesota v. Clover Leaf Creamery, 449 U.S. 456, 472 (1981). A court must decide if the statute incidentally burdens interstate commerce or explicitly discriminates against interstate commerce. See id. A statute that regulates evenhandedly and only incidentally burdens commerce is generally upheld if the burden imposed on interstate trade is not excessive in relation to its putative benefits. See id. A statute that explicitly or effectively discriminates against interstate commerce is presumed to be invalid and is subject to strict judicial scrutiny. See id.; see also City of Philadelphia v. New Jersey, 437 U.S. 617 (1978); see generally Edward A. Fitzgerald, The Constitutional Division of Powers with Respect to the Environment in the United States, in Federalism and the Environment: Environmental Policymaking in Australia, Canada, and the United States, at 1-36 (Kenneth Holland, F.L. Morton, Brian Galligan, eds., 1996).
316. Id. at 533-35. The Supreme Court, in Geer, based its rationale, in part, on idea that there is fundamental distinction between the qualified ownership in game and the perfect nature of ownership in other property . . . . [Thus, State has authority] over property in game killed within its confines, [as well as] consequent power . . . to follow such property into whatever hands it might pass with the conditions and restrictions deemed necessary for the public interest.
Id.
317. Id. at 534 (noting that “right to preserve game flows from the undoubted existence in the State of a police power to that end, which may be none the less efficiently called into play, because by doing so interstate commerce may be remotely and indirectly affected.”).
318. Id. at 530 (explaining that even if sale of game does create commerce, “it does not follow that such internal commerce became necessarily the subject-matter of interstate commerce, and therefore under the control of the Constitution of the United States. The distinction between internal and external commerce and interstate commerce is marked, and has always been recognized by this court.”).
Constitutional rights conveyed to the federal government. The *Geer* decision established the state ownership theory, exempting state wildlife regulation from dormant Commerce Clause authority.

Twelve years later, the federal government brought suit against a vessel for taking sponges in the Gulf of Mexico and utilizing diving apparatus that violated a federal statute. The Supreme Court, in *The Abby Dodge v. United States*, upheld the validity of the federal statute that was restricted to waters outside of state territorial waters. The Court noted that state ownership of the sponges precluded the application of the federal statute in state waters. This, however, was the last time that the *Geer* decision was cited as authority.

The Court first criticized *Geer* in *Missouri v. Holland* in 1920. The Court stated that:

> [n]o doubt it is true that as between a state and its inhabitants the State may regulate the killing and sale of such birds, but it does not follow that its authority is exclusive of paramount powers. To put the claim of the State upon title is to lean upon a slender reed. Wild birds are not in the possession of anyone; and possession is the beginning of ownership.

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319. *See id.* at 528 (deferring ostensibly to federal government to extent state authority conflicts with enumerated powers of federal government).
320. *See The Abby Dodge v. United States, 223 U.S. 166 (1912).*
321. *See id.*
322. *See id.*
323. *See id.*
The people of the United States, as distinguished from the people of the several States, have no common property in wild animals, oysters, fish, etc., within the boundaries of the several States, which will give them as citizens of the United States the right to legislate for the preservation of such property within the limits of the several States. The right to legislate on this subject being based upon the common ownership of the property, the several States have this authority when they are erected; but neither the States nor the United States have this authority over the waters of the high seas outside the limits of the several States.

*Id.*

323. *See id.* at 175.
324. *See Coggins, supra* note 312, at 295.
325. 252 U.S. 416 (1920).
326. *See id.* (holding that government could constitutionally regulate killing of migratory birds and still comport with valid treaty).
327. *Id.* at 434-35 (concluding “it is not sufficient to rely upon the States” to protect a national interest of very nearly the first magnitude by stating “[t]he reliance is vain.”).
In 1928, the Court examined *Geer v. Foster-Fountain Packing Co.* striking down a Louisiana statute that required shrimp harvested in Louisiana waters to be processed in Louisiana. The Court held that Louisiana was not attempting to keep the shrimp for domestic consumption so “as to such shrimp the protection of the Commerce Clause attaches at the time of taking.” The initial taking “puts an end to the trust upon which the State is deemed to own or control the shrimp for the benefit of its people.”

The state ownership theory continued to disintegrate in two Supreme Court cases decided in 1948. In *Toomer v. Witsell,* the Court struck down a South Carolina statute that charged out-of-state commercial shrimp harvesters licensing fees one hundred times those of residents as a violation of the Privileges and Immunities Clause. The Court declared state ownership a “fiction” employed in the past to allow a state to regulate the exploitation of wildlife within its borders. In *Takahashi v. Fish and Game Commission,* the Court invalidated a state statute that denied a fishing license to any person not eligible to be a citizen of the United States. The Court noted:

> [t]o whatever extent the fish in the three-mile belt may be ‘capable of ownership’ by California, we think that ‘ownership’ is inadequate to justify California in excluding any and all aliens who are lawful residents of the state from making a living in fishing in the ocean off its shores while permitting all others to do so.

Both cases rejected the state ownership claims and precluded state regulations that violated the Constitution.

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328. 278 U.S. 1 (1928).
329. *See id.* (ruling in opposition to *Geer* and suggesting that state ownership as expansive right should be reconsidered).
330. *Id.* at 13 (noting that shrimp were caught for transportation and sale in interstate commerce in direct opposition to conservation for intrastate use).
331. *Id.* (moving further from *Geer* by noting that state does not have absolute ownership over state game, but operates in its sovereign capacity as representative of people).
332. 334 U.S. 385 (1948).
333. *See id.* at 396 (finding South Carolina statute “plainly and frankly” discriminates against non-residents).
334. *See id.* at 402.
335. 334 U.S. 410 (1948).
337. *Id.* at 421.
338. *See Coggins, supra* note 312, at 316-18; *see also* Boyd, *supra* note 142, at 1304 (noting state ownership claims violate Constitution).
In 1977, the Supreme Court, in *Douglas v. Seacoast Products, Inc.*,\(^{339}\) struck down a Virginia statute that denied commercial fish licenses to aliens and restricted the rights of nonresidents to fish.\(^{340}\) The Court noted that, "[a]t earlier times in our history there was some doubt whether Congress had power under the Commerce Clause to regulate the taking of fish in state waters; there can be no question today that such power exists where there is some effect on interstate commerce."\(^{341}\) Federal Commerce Clause authority was based on "the movement of vessels from one state to another in search of fish, and back again to processing plants . . . ."\(^{342}\) The Court rejected state ownership as a legal fiction and concluded that the question under modern analysis is whether the State's exercise of its police power is in conformity with the federal laws and the Constitution.\(^{343}\)

The Supreme Court finally overturned *Geer* in 1979 in *Hughes v. Oklahoma*.\(^{344}\) The *Hughes* Court invalidated an Oklahoma statute, prohibiting the export of natural minnows and declaring the *Geer* analysis eroded "to the point of virtual extinction in cases involving regulation of wild animals."\(^{345}\) Wildlife legislation must be evaluated according to the same principles applied to state regulations of other natural resources.\(^{346}\) Nevertheless, the Court acknowledged that there are legitimate state concerns for conservation and protection of wild animals underlying the 19th century theory of state ownership.\(^{347}\) *Hughes* ended the state ownership theory and brought state wildlife regulation within Commerce Clause restrictions.\(^{348}\)

**b. Commerce Clause**

The Commerce Clause grants a positive authority to the federal government that has been used to support federal wildlife reg-


\(^{340}\) See id. (holding Virginia statutes were preempted by Federal Enrollment and Licensing Act and were invalid under Supremacy Clause).

\(^{341}\) Id. at 281-82 (stating extent of Commerce Clause power to regulate fishing in state waters).

\(^{342}\) See id.

\(^{343}\) See id. at 284-85; see also Coggins, *supra* note 312, at 317.

\(^{344}\) 441 U.S. 322 (1979).

\(^{345}\) Id. at 331 (demonstrating *Geer* analysis as inadequate).

\(^{346}\) See id. at 335 (showing wildlife legislation is no different than regulation of other natural resources).

\(^{347}\) See id. at 335-36 (acknowledging state concerns of wild animals).

ulation in the face of inadequate state control. The Lacey Act of 1900, as the first exercise of federal Commerce Clause authority precluded any wildlife killed in violation of federal, state, or foreign law from interstate commerce. Congress initially aimed the Lacey Act at “pot hunters,” who killed large amounts of wildlife for sale, and the importation of game unlawfully killed in another state.

Congress amended the Act in 1935 to prohibit the transportation of animals taken in violation of federal and foreign laws. Congress recognized “the inability of individual states to protect wildlife resources against well organized commercial interests able to harvest excessive quantities of wildlife and promptly ship them in interstate commerce out of the reach of the state where they were harvested.” The Lacey Act has been upheld as a valid exercise of federal commerce power.

The Bald Eagle Protection Act of 1940 (BEPA), which was amended in 1962 to include golden eagles, is designed to protect eagles from extinction. The Act prohibits all commerce in eagles or eagle parts, including the taking, possession, sale, purchase, barter, transportation, exportation or importation of bald or golden eagles or their parts. Courts have found that the commerce in and the possession of eagle parts, taken as a class, substantially affect interstate commerce because both activities, even when conducted wholly intrastate, threaten the eagle with extinction.

349. See id. at 313 (suggesting Commerce Clause is valuable tool for wildlife regulation).
350. See Field, supra note 241, at 468-69 (noting first significant federal wildlife legislation began at beginning of 20th century); see also Robert S. Anderson, The Lacey Act: America's Premier Weapon in the Fight Against Unlawful Wildlife Trafficking, 16 PUB. LAND L. REV. 27, 85 (1995). One commentator noted that the Lacey Act “is arguably our nation's most effective tool in the fight against an illegal wildlife trade whose size, profitability, and threat to global diversity Lacey could probably not have imagined.” Id.
353. Id. at 447.
354. See, e.g. United States v. Bryant, 716 F.2d 1091 (6th Cir. 1983); United States v. Power, 923 F.2d 131 (9th Cir. 1990).
356. See id.
357. See Coggins, supra note 312, at 310-11; see, e.g., Rupert v. United States, 181 F. 87 (8th Cir. 1910); Eager v. Jonesboro, Lake City & Express Co., 147 S.W. 60, 60-61 (Ark. 1912).
Supreme Court, in *Andrus v. Allard*, found it reasonable for Congress to conclude that the potential for commercial gain poses a "special threat to the preservation of the eagles because that prospect creates a powerful incentive both to evade statutory prohibitions against taking birds and to take a large volume of birds." Further, the Ninth Circuit, in *United States v. Bramble*, determined that Congress had a rational basis to conclude that the extinction of the eagle would have a substantial effect on interstate commerce and the means necessary to accomplish this were rationally related to the ends.

The Marine Mammal Protection Act of 1972 (MMPA) recognized that certain species of marine mammals are in danger of extinction because of human activity. The Act established a moratorium on the taking and importation of marine mammals and any products made from them. State law is preempted and takings are broadly defined. MMPA states:

> Marine mammals . . . either (A) move in interstate commerce, or (B) affect the balance of marine ecosystems in a manner which is important to other animals and animal products which move in interstate commerce, and that the protection and conservation of marine mammals and their habitats is therefore necessary to insure the continuing availability of those products which move in interstate commerce.

Congress specifically acknowledged the value of ecosystem management, warning that marine mammal populations cannot be allowed to "diminish beyond that point at which they cease to be a significant functioning element in the ecosystem of which they are a part." Furthermore, the focus of their management "should be

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359. *Id.* at 58 (showing commerce presents special threats to eagles).
360. *See United States v. Bramble*, 103 F.3d 1475, 1482 (determining eagle extinction would have substantial impact on interstate commerce).
363. *See 16 U.S.C. § 1362(13) (2000)(defining taking to mean "to harass, hunt, capture or kill, or attempt to harass, hunt, capture or kill any marine mammal.").
365. *Id.*
to maintaining the health and stability of the marine ecosystem.”

Lawsuits challenging MMPA generally have been unsuccessful.

c. Treaty Power

The federal government can regulate wildlife pursuant to a treaty. The Constitution grants the President the power to make treaties “by and with the Advice and Consent of the Senate.” The treaty and its implementing legislation become “the Supreme Law of the Land.” In 1916, the United States and Great Britain signed a convention to protect migratory birds in the United States and Canada, which was implemented in 1918 by the Migratory Bird Treaty Act (MBTA). The Supreme Court upheld MBTA, in Missouri v. Holland, as legislation necessary and proper to implement the treaty. Federal treaty-making authority was not limited by any “invisible radiation from the general terms of the Tenth Amendment.”


367. See, e.g., Globe Fur Dyeing Corp. v. United States, 467 F. Supp. 177 (1978) (holding MMPA does not violate guarantees of either due process or equal protection); see also Coggins, supra note 312, at 311 (noting lawsuits challenging MMPA’s validity have been unsuccessful).
368. See Coggins, supra note 312, at 326-27 (discussing treaty power supporting federal wildlife statutes); see also Boyd, supra note 142, at 1293-95 (stating use of treaty power was valid under Supremacy Clause); Coggins & Hensley, supra note 312, at 1122-25 (noting validity of statutes implementing treaties, but acknowledging limitations of treaty power); Saxe, supra note 150, at 469-71 (discussing regulation of migratory birds by implementation of treaty in Migratory Bird Act of 1918).
369. U.S. Const. art. II, § 2 (defining President’s power to make treaties provided that two thirds of Senators present concur).
370. U.S. Const. art. VI, § 1 (stating Supremacy Clause).
371. See United States v. McCullagh, 221 F. 288, 292 (D. Kan. 1915) (finding that states hold power of control over game and holding that power is not dictated by Commerce Clause authority); see also United States v. Shauver, 214 F. 154, 154 (E.D. Ark. 1914) (holding states, not federal government own game).
372. 252 U.S. 416 (1920).
373. See id. (upholding statute implementing Migratory Bird Treaty).
374. Id. at 434.
376. See 16 U.S.C. § 1531(4) (2000) (stating “the 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 . . . the Convention on International Trade in Endangered Species of Wild
d. Property Clause

The federal government can also regulate wildlife pursuant to the Property Clause, granting Congress the "[p]ower to dispose of and make all needful Rules and Regulations respecting the territory or other property belonging to the United States."\(^{377}\) Congress possesses a plenary power over federal lands that overrides any inconsistent state authority.\(^{378}\) Congress can protect and conserve wildlife that is physically present on federal land and prevent activities on private land that threaten public land.\(^{379}\) The Court, in *Camfield v. United States*,\(^{380}\) upheld a federal statute precluding the enclosure of public lands by fences built on private land authorized by state law.\(^{381}\) Further, in *United States v. Alford*,\(^{382}\) the Court determined that the federal government could prohibit the setting of a fire on private land that potentially endangers the federal forest.\(^{383}\)

In 1975, the Supreme Court reaffirmed *Camfield* and *Alford* in *Kleppe v. New Mexico*.\(^{384}\) At the request of a federal lessee, authorities in New Mexico removed wild burros from federal lands and

Fauna and Flora."); *see also* Coggins, *supra* note 312, at 326-27 (noting that Congress recognized CITES and other treaties as agreements that ESA was designed to implement); Anderson, *supra* note 330, at 35 (discussing ESA implementation of CITES to prohibit improper trade in species protected under treaty).

377. U.S. CONST. art. IV, § 3 (mandating Congress' power to regulate land).

378. *See* id.


380. 167 U.S. 518 (1897).

381. *Id.* at 528 (holding Congress exercised its constitutional right of protecting public lands from nuisances from adjoining property).

382. 274 U.S. 264 (1927).

383. *Id.* at 265 (holding Congress may prohibit acts on privately owned lands that endanger publicly owned forests).

The United States Bureau of Land Management demanded compensation pursuant to the Wild Free-Roaming Horses and Burros Act (WFRHBA), which protects unbranded and unclaimed horses on public lands as "living symbols of the historic and pioneer spirit of the West." The animals are considered an integral part of the natural system of public lands and the Act directs the Secretaries of Interior and Agriculture to protect and manage them as components of public lands. New Mexico brought suit, challenging the constitutionality of WFRHBA. The Supreme Court upheld the Act, stating that the "furthest reaches of [the] Property Clause have not yet been definitively resolved," but the power "necessarily included the power to regulate and protect the wildlife living there."

An alternative argument to restrict the taking of the red wolf exists pursuant to the Property Clause. The reintroduced red wolves were born in federal captive breeding programs and released on federal land. The red wolves can be considered federal property. The Supreme Court has recognized that the federal government can regulate activities on private land that affect federal property.

e. Traditional State Authority

Prior to Lopez, the Supreme Court attempted to identify traditional state functions that were immune from federal regulation. This effort began in National League of Cities, et al. v. Usery, but was abandoned in Garcia v. San Antonio Metropolitan Transit Authority because the Court was unable to articulate any basis for such a distinction. The Court resurrected this issue in Lopez, but provided no principled basis for establishing enclaves of state authority free from federal intrusion.
The scope of Congress' Commerce Clause authority has varied throughout United States' history. Initially, the Supreme Court, under Justice Marshall, established broad and expansive federal commerce authority.\textsuperscript{393} From 1833 to 1937, the Court fostered dual federalism, restricting federal commerce power when it interfered with the states' Tenth Amendment authority.\textsuperscript{394} Following President Roosevelt's unsuccessful attempt to pack the Court in 1937, the Court accepted almost unlimited congressional Commerce Clause authority and promoted cooperative federalism.\textsuperscript{395} From 1937 to 1976, the Court upheld all federal legislation enacted pursuant to the Commerce Clause. Several commentators were critical of the Court's retreat.\textsuperscript{396} Professor Paul Freund argued that the courts still had an important role to play in protecting state sovereignty.\textsuperscript{397} Professor Edward Corwin noted that "today the question faces us whether the constituent States of the system can be saved for any useful purpose, and thereby saved as the vital cells that they have been heretofore of democratic sentiment, impulse and action."\textsuperscript{398} Professor Herbert Wechsler responded that aggressive judicial action to protect states' rights is not necessary because there are inherent political safeguards to protect federalism.\textsuperscript{399}

\textsuperscript{393} See Gibbons v. Ogden, 22 U.S. 1 (1824) (asserting supremacy of act of Congress regulating navigation of United States' waters).

\textsuperscript{394} See United States v. E.C. Knight, 156 U.S. 1 (1895) (holding indirect affect on commerce insufficient to allow regulation); see also Hammer v. Dagenhardt, 247 U.S. 251 (1918) (prohibiting Congress from exercising police power over states); Carter v. Carter Coal Co., 298 U.S. 238 (1936) (forbidding application of commerce power to local industries); A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495 (1935) (upholding attempted regulation of intrastate transactions that only affected interstate commerce indirectly).

\textsuperscript{395} See NLRB v. Jones Laughlin Steel Corp., 301 U.S. 1 (1937) (ruling intrastate activities closely connected to interstate commerce subject to congressional regulation); see also United States v. Caroline Products Co., 304 U.S. 144 (1938) (upholding prohibition of interstate shipments of particular products); United States v. Darby, 312 U.S. 100 (1941) (allowing restriction on interstate shipments based on violation of wage standard for manufacturing employees).

\textsuperscript{396} See Paul A. Freund, Umpiring the Federal System, 54 COLUM. L. REV. 561 (1954) (arguing state interests in regulating commerce); see also Larry D. Kramer, Putting the Politics Back Into the Political Safeguards of Federalism, 100 COLUM. L. REV. at 216-17 (criticizing Supreme Court's aggressive federalism); Edward S. Corwin, The Passing of Dual Federalism, 36 VA. L. REV. 1 (1950).

\textsuperscript{397} See Freund, supra note 396, at 561 (noting that many areas may still be protected).

\textsuperscript{398} See Corwin, supra note 36, at 2-4.

\textsuperscript{399} See Herbert Wechsler, The Political Safeguards of Federalism: The Role of the States in the Composition and Selection of the National Government, 54 COLUM. L. REV. 543 (1954).
In 1976, the Supreme Court, in *National League of Cities et al. v. Usery*, attempted to revive dual federalism, declaring unconstitutional the 1974 amendments to the Fair Labor Standards Act (FLSA), which extended minimum wage and maximum hour provisions to state and local government employees. The Court held that the power to establish wages and working hours for state employees is "an undoubted attribute of state sovereignty" protected by the Tenth Amendment. The Court, however, noted that federal power over the states is not as great as that over private actions pursuant to the Commerce Clause. Justice Blackmun, in his concurrence, cautioned that the Court did "not outlaw federal power in areas such as environmental protection, where the federal interest is demonstrably greater and where state facility compliance with imposed federal standards would be essential."

In 1981, the impact of *National League of Cities* on environmental legislation was examined in *Hodel v. Virginia Surface Mining and Reclamation Association*. The *Hodel* Court upheld SMRCA and stated that the Tenth Amendment does not limit Congress' Commerce Clause authority to preempt or displace state regulation of private activity. The Court must "defer to a congressional finding that a regulated activity affects interstate commerce, if there is any rational basis for such a finding." Once this is established, a court's only inquiry is whether the means chosen by Congress are "reasonably adapted to the end permitted by the Constitution." The Court stressed that the states are in a different position when

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401. See *Garcia v. San Antonio Metro. Transit Auth.*, 469 U.S. 528, 537 (1985). The Court identified four conditions for invalidating federal regulation of state activities pursuant to the Commerce Clause. See id. First, the federal statute at issue must regulate "the States as States." Id. Second, the federal statute must "address matters that are indisputably attributes of state sovereignty." Id. Third, state compliance with the federal statute must "directly impair [the States'] ability to structure integral operation in areas of traditional governmental functions." Id. Finally, the federal interest does not justify state submission. See id.


403. Id. at 856 (outlining federal areas of interest).


405. See id.

406. Id. at 276 (setting out analytical framework for Commerce Clause issues).

407. Id.
challenging the exercise of Congress' power to regulate commerce than an individual or corporation.\textsuperscript{408}

In 1985, the Court overturned \textit{National League of Cities} in \textit{Garcia v. San Antonio} and resurrected the political safeguards of federalism.\textsuperscript{409} The Court was unable to rely on a historical or functional analysis to identify core state governmental functions that were immune from federal regulation.\textsuperscript{410} Consequently, the Court rejected "as unsound in principle and unworkable in practice, a rule of state immunity from federal regulation that turns on a judicial appraisal of whether a particular governmental function is 'integral' or 'traditional.'"\textsuperscript{411} The Court declared that the states must rely on the political process to prevent Congress from intruding on state sovereignty.\textsuperscript{412}

In the 1990s, the Supreme Court revived federalism and rejected political safeguards to protect federalism.\textsuperscript{413} The Court is seeking to protect the states from Congress by establishing enclaves of state authority immune from federal regulation.\textsuperscript{414} This aggressive role as structural referee, however, is based on a flawed constitutional premise.\textsuperscript{415} Professor Larry Kramer argues that "[a]ctive judicial intervention to protect the states from Congress is consistent with neither the original understanding [of the Constitution] nor with more than two centuries of practice."\textsuperscript{416}

\begin{itemize}
  \item \textsuperscript{408} See \textit{id.} at 286-87 (noting that states hold substantially greater power to challenge Congress' exercise of its commerce power).
  \item \textsuperscript{410} See \textit{id.} at 546-47.
  \item \textsuperscript{411} See \textit{id.} (finding distinctions between "integral" and "traditional" government functions impractical).
  \item \textsuperscript{412} See \textit{id.} Courts remained quiet as to what the realistic likelihood of success in reliance on political process might be. See \textit{id.}
  \item \textsuperscript{413} See \textit{Gregory v. Ashcroft}, 501 U.S. 452 (1991) (holding qualifications of state officeholders to be states' realm to regulate); \textit{Seminole Tribe of Florida v. Florida}, 517 U.S. 44 (1996) (prohibiting Congress from abrogating sovereign immunity of states); \textit{Printz v. United States}, 521 U.S. 898 (1997) (preventing Congress from conscripting state officers to enforce federal regulatory program); see generally \textit{Wechsler, supra} note 399, at 546-59 (asserting that most important instrument that protects states is "political tradition" that "imposes a burden of persuasion on those favoring national intervention."). According to Wechsler, state governments "are the strategic yardsticks for the measurement of interest and opinion, the special centers of political activity, the separate geographical determinants of national as well as local politics." \textit{Id.} at 559; see generally \textit{Kramer, supra} note 375, at 220-28.
  \item \textsuperscript{414} See \textit{Jackson, supra} note 73, at 2231-46 (discussing federal regulation of private activity).
  \item \textsuperscript{415} See \textit{Kramer, supra} note 396, at 289-90 (analyzing Court's justifications for its stance).
  \item \textsuperscript{416} \textit{Id.}
\end{itemize}
"backed by nothing except formal adherence to a fictitious concept of monolithic judicial review that is wholly abstract and that does not square with the original practice, reason, or subsequent experience." 417 Furthermore, the Court provided no principled basis for delineating the parameters of traditional state authority. 418 The Court should recognize that past efforts in this regard "have been controversial failures that accomplished little other than to damage the Court's reputation." 419

IV. CONCLUSION

The reintroduction of the red wolf into Alligator River National Wildlife Refuge in North Carolina generated conflict between the federal and state governments. 420 North Carolina enacted a statute that permitted the taking of red wolves on private land under more lenient conditions than the federal regulation. 421 Several individuals and counties brought suit, challenging the federal government's authority to prohibit the taking of the red wolf on private property. 422 The Fourth Circuit properly invalidated the North Carolina statute and determined that the anti-taking regulation was supported by the Commerce Clause. 423

The red wolf is a migratory creature that is subject to federal regulation as "a thing in interstate commerce." 424 Red wolves were taken from captive breeding programs in the United States and reintroduced into the federal refuge. 425 Some wolves migrated off federal land onto private property. 426 If the reintroduction is successful, the red wolves will migrate across state lines and repopulate

417. Id.
418. See id. at 289-93 (criticizing Supreme Court's approach); see also Jackson, supra note 73, at 2231-46 (suggesting Supreme Court should focus on a "necessary and proper" analysis).
419. Kramer, supra note 396, at 290.
420. For a general discussion of the reintroduction conflicts between federal and state governments, see supra notes 1-8 and 46-55 and accompanying text.
421. For a further discussion of the North Carolina statute permitting the taking of red wolves on private lands, see supra note 4 and accompanying text.
422. For a further discussion of lawsuits challenging the federal government's authority to prohibit the taking of red wolves on private land, see supra note 54 and accompanying text.
423. See Gibbs II, 214 F.3d at 506 (holding "[o]f course natural resource conservation is economic and commercial.").
424. For a further discussion of the migratory nature of the red wolf, see supra notes 16-45 and accompanying text.
425. See id.
426. See id.
the southeast region. The wolves' migration across state lines subjects them to federal Commerce Clause authority.

The taking of the red wolf substantially affects interstate commerce. The anti-taking regulation is economic in nature and is an intrinsic part of a larger economic regulatory statute. Consequently, the cumulative impact of the taking of the red wolves on interstate commerce must be considered. If there are no red wolves, there will be no tourism, no scientific study and no future pelt business. The absence of the red wolf decreases biodiversity that may produce future products for interstate commerce and effects ecosystem management, which has significant interstate impacts. If the taking of the red wolf is permitted, states will lower wildlife protection standards to attract business and precipitate a race to the bottom.

The reasons behind red wolf extinction include farming, ranching, and economic development, which are, in part, the result of interstate commerce. These concerns were specifically addressed by Congress when it enacted ESA and by the courts both before and since Lopez. The anti-taking regulation contains adequate federal and state jurisdictional limits because only endangered and threatened species are subject to federal regulation. The states traditionally have regulated wildlife, but within the parameters of federal law.

The Fourth Circuit's decision, in Gibbs, is important in light of the Supreme Court's new emerging Commerce Clause jurisprudence. In Lopez and in Morrison, the Court held that legislative

427. See Red Wolves of Alligator River, Frequently Asked Questions, available at http://www.nczooreredwolf.org (last visited Aug. 1, 2001). Total population of red wolves, as of August 1999, was estimated at 245, while the wild population in North Carolina was estimated at eighty-three. See id. Remaining red wolves were located in 34 captive breeding facilities. See id.

428. For a further discussion of the effects of red wolf reintroduction on interstate commerce, see supra notes 91-92 and accompanying text.

429. See id.

430. See id.

431. See Costanza et al., supra note 167, at 259 (noting "ecosystem services provide an important portion of the total contribution to human welfare on this planet. We must begin to give the natural capital stock that produces these services adequate weight in the decision making process, otherwise current and continued future human welfare may drastically suffer.").


434. See Boyd, supra note 142, at 1289.

findings are unnecessary, but may be helpful in determining the nexus between the regulated activity and interstate commerce.\textsuperscript{436} The Fourth Circuit relied on informal legislative findings in ESA's legislative history to support its conclusion that the taking of the red wolf substantially affects interstate commerce.\textsuperscript{437} This indicates that the tools of statutory interpretation, including the text, intent and purposes, will be important not only to determine statutory meaning, but also to support the statute's constitutional justification.\textsuperscript{438} In addition, several commentators have noted that the hard-look doctrine and clear statement principle "might sometimes make a determinative difference in Commerce Clause cases."\textsuperscript{439}

In \textit{Lopez} and \textit{Morrison}, the Supreme Court announced a new aggressive posture regarding judicial review of federal statutes enacted pursuant to the Commerce Clause. The colloquy between the dissent and majority, in \textit{Gibbs}, regarding judicial activism demonstrates some of the problems with the Court's new Commerce Clause jurisprudence. Judge Luttig's dissent advocated strong judicial activism in Commerce Clause cases.\textsuperscript{440} Judge Luttig found that the taking of the red wolf is not an economic activity, and, even if it can be considered an economic activity, the taking of the forty-one red wolves living on private land does not substantially effect inter-


\textsuperscript{437} See Gibbs II, 214 F.3d at 503 (discussing importance of understanding ESA as "culmination of a long legislative process of trial and error.").

\textsuperscript{438} See Jackson, supra note 73, at 2231-46 (discussing role of federalism and stating Supreme Court's past processes for interpreting Constitution); see also Frickey, supra note 10, at 719-20 (exploring relation between Congressional fact-finding authority, relation between Congressional process and judicial statutory interpretation techniques found in constitutional values, and relation between Congressional process and judicial constitutional scrutiny); Krent, supra note 73, at 734-47 (discussing need for legislative fact-finding and its role in judicial review).

\textsuperscript{439} Morrison, 520 U.S. at 663 (Breyer, J., dissenting) (noting that whether Congress takes hard look might make determinative difference in Commerce Clause); see also Gregory v. Ashcroft, 501 U.S. 452, 460 (1991) (stating Congress can only adjust "the usual constitutional balance between the States and Federal Government" by making clear statement in statute); Lawrence Lessing, \textit{Translating Federalism: U.S. v. Lopez}, 1995 SUP. CT. REV. 125, 194-214 (1995) (taking hard look at Congress' enumerated powers, specifically Necessary and Proper Clause, as limiting factor for Commerce Clause, as well as other factors, such as economic effects and separation of powers); see generally Cass Sunstein, \textit{Deregulation and the Hard Look Doctrine}, 1983 SUP. CT. REV. 177.

\textsuperscript{440} See Gibbs II, 214 F.3d at 506 (Luttig, J., dissenting).
state commerce. Judge Luttig argued that the courts, not Congress, should make these decisions.

This aggressive role for the courts, as arbiters of public policy, poses a number of problems. First, the distinction between economic and non-economic activities is difficult to establish and depends upon how the activity is perceived. The case law cited by the Supreme Court never rested upon this factor. This distinction reintroduces formalism into Commerce Clause determinations, which has been rejected as unworkable in the past, for example, the distinctions between production and commerce and between direct and indirect effects. Justice Breyer, dissenting in *Lopez*, pointed out that focusing on the "nomenclature such as production and indirect... forecloses consideration of the actual effects of the activity in question upon interstate commerce."

Second, the judgment as to whether an activity substantially affects interstate commerce depends upon the focus of the statute and the degree of aggregation. Almost all intrastate actions can be aggregated to establish substantial interstate effects. This is the

441. See id. at 508 (Luttig, J., dissenting) (asserting "[W]e do not have before us an activity that has obvious economic character and impact, such as is typically the case with non-wildlife natural resources, and even with other wildlife resources.").

442. See Gibbs II, 214 F.3d at 506-10 (Luttig, J., dissenting) (characterizing decision as judicial review of Congress' power under Commerce Clause and finding Constitutional interpretation rests within judiciary).

443. See *United States v. Lopez*, 514 U.S. 549, 565 (1995) (conceding that "depending on the level of generality, any activity can be looked upon as commercial."); see also Robert F. Nagel, *The Future of Federalism*, 46 CASE W. RES. L. REV. 643, 648 (1996) (discussing *Lopez*, which distinguishes between commercial and non-commercial activities); Shane, *supra* note 10, at 220-22 (stating that because activity can be considered both commercial and noncommercial, depending on how one looks at activity, it is impossible to create guidelines); Regan, *supra* note 231, at 555, 564-65 (stating distinctions between commercial and noncommercial activities present in *Lopez* are gloss, not present in precedent, and noting definition of commerce is expansive); H. Geoffrey Moulton, Jr., *The Quixotic Search for a Judicially Enforceable Federalism*, 83 MINN. L. REV. 849, 887-88 (1999) (stating impossibilities of formulating set guidelines for distinguishing between commercial and noncommercial activities).

444. See Moulton, *supra* note 443, at 887 (stating precedent relies on various factors and refuses to formulate strict rules).

445. See *Lopez*, 514 U.S. at 627-31 (Breyer, J. dissenting) (stating earlier cases warned against formulating guidelines); see also *Morrison*, 520 U.S. at 655-63 (revealing it difficult to determine distinctions); Frickey, *supra* note 10, at 729 (stating all situations are not analogous); Shane, *supra* note 10, at 222-23 (noting strict formulations would exclude many activities); Kramer, *supra* note 375, at 292 (noting Court should not define limits).

446. *Lopez*, 514 U.S. at 628 (citing Wickard v. Filburn, 317 U.S. 111, 120 (1942)).

447. See Lino Graglia, *United States v. Lopez: Judicial Review Under the Commerce Clause*, 74 TEX. L. REV. 719, 768-69 (1996) (stating question is degree to which activ-
realities of living in a national interrelated economy and has allowed Congress to address national problems that are not suited to individual state remedies, such as loan sharking, racial discrimination, and environmental protection.\textsuperscript{448} Justice Breyer, in his dissent in \textit{Lopez}, recognized that the Commerce Clause is "an affirmative power commensurate with national needs" and the "Commerce Clause does not operate so as to render the nation powerless to defend itself against economic forces that Congress decrees inimical or destructive of the national economy."\textsuperscript{449} Professor Kramer commented that the Court might be able "to replace rigid lines that establish a fixed domain of exclusive state jurisdiction with more fluid tests that turn on some notion of functionality. But governing a modern society is much too complicated [sic] the Court's preferences about where or how to draw the line to inspire much confidence."\textsuperscript{450}

Third, Congress is institutionally better suited to make determinations regarding federal-state authority.\textsuperscript{451} Congress possesses superior fact finding capabilities and is comprised of representatives who are accountable to state constituencies. Members of Congress consult with state and local governments when enacting policy and are responsible for protecting state and local authority.\textsuperscript{452} Congress can protect the national interest by preserving natural resources and determine the proper balance between environmental


\textsuperscript{449} \textit{Lopez}, 514 U.S. at 625 (Breyer, J., dissenting).

\textsuperscript{450} Kramer, \textit{supra} note 396, at 289.


\textsuperscript{452} \textit{See Morrison}, 529 U.S. at 661; \textit{Regan, supra} note 231, at 585-86; Wechsler, \textit{supra} note 313, at 558-60. For a refutation of Wechsler's particulars, but concurrence with Wechsler's conclusions, see Kramer, \textit{supra} note 396.
The proper forum for resolving this policy dispute is Congress. Professor Tiefer noted that "[i]t is for Congress to decide, after a national discourse, whether changing conditions affect the national environment; that involves issues beyond the competence of courts."

Fourth, the existence of enclaves of traditional state authority that are immune from federal regulation rests on questionable constitutional history. Federal-state relations have changed in response to national conditions. There is no clearly delineated zone of traditional state authority that is exempt from federal regulation. Neither the Constitution nor the Supreme Court provides any guidance regarding the parameters of this protected zone. Professor Kramer declared that there is no "clear constitutional mandate demanding judicial intercession . . . . More than two centuries of successful federalism without the aid of an aggressive judiciary suggests that no such intercession is needed."

Finally, the Court must not substitute its own policy preferences for those of Congress. In the past, the Court invoked federalism to support laissez-faire economics. Federalism is now being brandished to limit national government authority. The Court obviously sees very little risk in pursuing this goal under the protection of a Republican Congress and now a Republican President, but this political constellation will not remain constant. One day the Court will be facing a Democratic Congress and President, which may be less enthusiastic regarding the invalidation of statutes and policy positions such as gun control, gender violence, and environmental protection that their constituents support. The

453. See Gibbs II, 214 F.3d at 504-06.
454. See id.
455. Tiefer, supra note 10, at 10893.
456. See Kramer, supra note 396, at 290.
458. See Jackson, supra note 73, at 2231-46; Kramer, supra note 375, at 289-93; Regan, supra note 231, 566-67; Moulton, supra note 443, at 851.
460. See Shane, supra note 10, at 223-43.
462. See Moulton, supra note 443, at 892-93.
463. See William N. Eskridge, Post-Enactment Legislative Signals, 57 LAW & CONTEMP. PROBS. 75 (1994) (stating positive political theory views political institutions as rational actors who cooperate and compete to have their policy preferences prevail); Daniel A. Farber and Philip P. Frickey, Forward: Positive Political Theory in the Nineties, 80 GEO. L.J. 457, 462 (1992); Friedman, supra note 10, at 776-84.
Supreme Court has gone down this road in the past and "is ignoring the painful lesson learned in 1937."464

The majority decision, in Gibbs, effectively demonstrated that Lopez does not necessarily condemn federal environmental statutes.465 In an earlier case, Judge Wilkinson, the author of the Gibbs decision, applauded the Supreme Court's new judicial activism regarding the Commerce Clause, but also recognized that it is a "grave judicial act to nullify the product of the democratic process . . . . [R]espect for institutions of self-government requires deference to the action of legislative bodies."466 Offering some astute advice, Judge Wilkinson stated:

maintaining the integrity of the enumerated powers does not mean that statutes will topple like falling dominos. Rather, the values of federalism must be tempered by the maxims of prudence and restraint . . . . A wholesale invalidation of environmental, civil rights, and business regulation would signal a different and disturbing regime—

464. Lopez, 514 U.S. at 609 (Souter, J., dissenting).
465. See Solid Waste Agency of N. Cook County v. U.S. Army Corps of Eng'rs, 531 U.S. 159 (2001) [hereinafter SWANCC] (indicating that such optimism might be misplaced). The Corps developed the migratory bird rule which held that isolated bodies of waters that provided habitat for migratory birds were subject to federal regulation. See Final Rule, Consolidation of Army Corps of Engineers Permit Regulations, 51 Fed. Reg. 41,217 (Nov. 13, 1986). Most of the circuit courts that reviewed the migratory bird rule found that migratory birds provided a sufficient nexus with interstate commerce to make isolated waters subject to federal regulation. See Leslie Salt Co. v. United States, 55 F.3d 1388 (9th Cir. 1995); see also Hoffman Homes, Inc. v. EPA, 999 F.2d 256 (7th Cir. 1997). The Supreme Court, in SWANCC, relied on statutory interpretation and rejected the migratory bird rule, holding that Congress did not intend the definition of navigable waters to include isolated wetlands. See SWANCC, 531 U.S. at 171-73. The Court also recognized Commerce Clause problems and indicated that Lopez would not support the migratory bird rule. See id. The Court noted that "[p]ermitting respondents to claim federal jurisdiction over ponds and mudflats falling within the 'Migratory Bird Rule' would result in a significant impingement of the State's traditional and primary power over land and water use." Id. at 174.

Justice Stevens in his dissent supported the view that the Gibbs majority adopted. Justice Stevens held that the discharge of fill into isolated waterways "will, in the aggregate, adversely affect migratory bird populations." Id. at 194. People "participate in bird watching and hunting and that those activities generate a host of commercial activities of great value." Id. at 195. Consequently, "the causal connection between the filling of wetlands and the decline of commercial activities associated with migratory birds is not 'attenuated.'" Id. Furthermore, the migratory bird rule does not blur the "distinction between what is truly national and what is truly local." Id. at 195. See also, Rob Strang, Gibbs v. Babbitt: The Taking of Red Wolves on Private Land, a Post Lopez Challenge to the Endangered Species Act, 14 Tul. Envtl. L.J. 229 (2000).

466. Brzonkala v. Virginia Polytechnic Inst. and State Univ., 169 F.3d 820, 890 (4th Cir. 1999); see also Shane, supra note 10.
other than that which we have now. If modern activism accelerates to a gallop, then this era will go the way of its discredited forbearer.467