

CLIMATE CHANGE AND THE POLAR BEAR: IS THE ENDANGERED SPECIES ACT UP TO THE TASK?

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ABSTRACT

In this Note, the Author addresses the plausibility of using the Endangered Species Act (ESA) to combat greenhouse gas emissions. She concludes that the ESA is not an appropriate tool for tackling climate change. While the ESA was drafted broadly enough that it could apply to activities contributing to climate change, it would be ultimately ineffective because it cannot apply internationally. However, the ESA represents a valuable symbolic tool. By listing species such as the polar bear under the ESA, public awareness of climate change can be increased, ultimately leading to greater support for comprehensive carbon emission regulation.

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INTRODUCTION

Over the past decade, global warming has become one of the most critical issues facing the worldwide community. Ten years ago, the debate focused on whether human activities are contributing to or speeding up climate change. Today, however, the scientific community has come to the conclusion that climate change is already occurring, and carbon emissions from human activities around the globe are speeding up the process.¹ The scientific evidence compiled by thousands of researchers worldwide shows that humans are causing a rapid change in climate across the globe, which could have catastrophic results.²

The debate has now shifted from the existence and extent of climate change to what actions we must take in order to slow down the rapid changes already occurring. Global warming is a global problem that will require cooperation from countries throughout the world, or at least the several largest emitters of carbon dioxide.³ An individual country cannot achieve significant worldwide emissions reductions on its own. Many ideas have been suggested, but, politically, it has been hard for countries around the world to come to an agreement. While various countries have signed the Kyoto Protocol, giving each country a timetable by which to reduce emissions, the United States has not joined.⁴ The United States, China, and other large emitters did participate in the Copenhagen Accord in December 2009, though no legally binding agreement was reached.⁵

Meanwhile, although the European Union has adopted its own climate change policies, the United States has not passed legislation to deal with carbon emissions. Commentators have called for new legislation to regulate emissions through a tax system or a cap-and-trade

1. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE REPORT, SUMMARY FOR POLICY MAKERS 2, 7 (2007) [hereinafter IPCC REPORT].

2. *Id.* at 19.

3. *Id.* at 19–23.

4. UNITED STATES FRAMEWORK CONVENTION ON CLIMATE CHANGE, KYOTO PROTOCOL STATUS OF RATIFICATION (2009), available at http://unfccc.int/files/na/application/pdf/kp_ratification20090624.pdf.

5. See About U.S. Participation in COP-15, <http://cop15.state.gov/about/> (last visited Feb. 5, 2010).

system, but action has been slow. The Waxman-Markey Bill⁶ passed the House in June 2009,⁷ but the Senate has not yet voted on a companion bill. In the meantime, a number of citizens' groups have filed lawsuits arguing that several of the United States' current laws should be used to reduce carbon emissions. For example, significant litigation has addressed the Environmental Protection Agency's (EPA) resistance to regulating greenhouse gases under the Clean Air Act.⁸ Under the Obama administration, the EPA has begun rulemakings under the current Clean Air Act.⁹ Attention has also turned to another mechanism, the Endangered Species Act (ESA).

The Secretary of the Interior listed the polar bear as a threatened species under the ESA in May 2008.¹⁰ The Secretary cited the significant reduction of sea ice as the reason for the listing, but was careful not to mention the role of global warming.¹¹ The ESA creates a web of broad protections for both endangered and threatened species. Thus, activities that contribute to the melting of sea ice (for example, carbon emissions) are potential targets for both the Section 7 consultation requirements and the Section 9 takings prohibitions found in the ESA.¹² Because the Arctic is showing signs of warming more rapidly than the rest of the world,¹³ the polar bear has become the poster child for species threatened by global warming.¹⁴ However, climate change threatens the

6. American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009), available at http://energycommerce.house.gov/Press_111/20090515/hr2454.pdf.

7. Congressman Edward Markey, June 26, 2009—House Passes Historic Waxman-Markey Clean Energy Bill, http://markey.house.gov/index.php?option=com_content&task=view&id=3748&Itemid=141 (last visited Apr. 10, 2010).

8. See *Massachusetts v. Env'tl. Protection Agency*, 549 U.S. 497 (2007). Massachusetts and other state and local governments argued that the federal government is required to regulate greenhouse gases under the Clean Air Act. *Id.* at 505. The Government argued that carbon dioxide was not a pollutant under the Clean Air Act and that it had the discretion to decide whether to regulate carbon dioxide even if it were a pollutant. *Id.* at 511–12. The case went to the Supreme Court, which ruled in favor of Massachusetts. *Id.* at 532–35. The Supreme Court stated that greenhouse gases are pollutants and that the EPA must regulate them. *Id.* In its decision, the Supreme Court acknowledged the threat of global warming and the fact that carbon emissions are contributing to the problem. *Id.* at 508–09.

9. See, e.g., 40 C.F.R. § 98.1 (2006).

10. Press Release, Fish and Wildlife Service, Secretary Kempthorne, Press Conference on the Polar Bear Listing (May 14, 2008) [hereinafter Kempthorne Press Release].

11. *Id.*

12. See 16 U.S.C. §§ 1536, 1538 (2006).

13. Brendan Cummings & Kassie R. Siegel, *Ursus Maritimus: Polar Bears on Thin Ice*, 22 NAT. RESOURCES & ENV'T 3, 4 (Fall 2007).

14. See *id.* at 3.

existence of thousands of species,¹⁵ and, therefore, the ESA will most likely see a dramatic increase in the number of listed species over the next several decades. The Center for Biological Diversity has filed petitions with the Fish and Wildlife Service seeking the listing of several more species.¹⁶

Thus, the question becomes how to use the ESA to protect species threatened by a worldwide problem. The ESA, being one of the most powerful environmental statutes ever enacted,¹⁷ offers several tools for solving this problem. Climate change, however, is a complex problem that will need complex solutions. This Note argues that even though the ESA could be used to regulate greenhouse gas (GHG) emissions, and even though regulation of GHG emissions is desirable, the ESA is not the appropriate tool for regulating emissions. Given the ESA's strong language, the United States Department of the Interior may be unable to refuse to act against global warming under the ESA; therefore, rather than declining to act and risking a lawsuit, it is preferable for the Endangered Species Committee to invoke its authority to exempt matters from the ESA. At the same time, regulation of GHG emissions should be pursued under other laws, including comprehensive new climate legislation that obviates regulation under the ESA. Global warming will require global participation, something that the ESA cannot provide. While the ESA could serve as the United States' domestic approach for joining a global regime, the ESA is inferior to other domestic approaches.

Furthermore, the regulations promulgated in 2008, which carve out a special rule for the protection of the polar bear, are misguided and go against the spirit of the ESA. There are other legally available options to keep the polar bear and other species on the "endangered" or "threatened" lists without triggering the regulation of carbon emissions.

Part I of this Note gives an overview of the Endangered Species Act and the protections it offers to endangered and threatened species. The listing requirements of Section 4 are discussed, followed by an overview

15. Center for Biological Diversity, Global Warming and Life on Earth, http://www.biologicaldiversity.org/programs/climate_law_institute/global_warming_and_life_on_earth/index.html (last visited Apr. 10, 2010).

16. Center for Biological Diversity, Climate Law Institute, http://www.biologicaldiversity.org/programs/climate_law_institute/index.html (last visited Apr. 10, 2010). The species that are the subject of these petitions have included the Pika, Arctic Fox, Bowhead Whale, Ringed Seal, and others. See J.B. Ruhl, *Climate Change and The Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. REV. 1, 6 (2008).

17. See Cummings, *supra* note 13, at 3; Ari N. Sommer, *Taking the Pit Bull Off the Leash: Siccing the Endangered Species Act on Climate Change*, 36 B.C. ENVTL. AFF. L. REV. 273, 284 (2009).

of Sections 7 and 9, the two major tools used for protecting species. Part II discusses the plight of the polar bear and the reasons why the species was listed as threatened under the ESA, including an overview of the process to have the polar bear listed, as well as the regulations promulgated for its protection. Part III begins by analyzing how the ESA can be used to regulate carbon emissions, and concludes by discussing the pros and cons of such an approach.

I. THE ENDANGERED SPECIES ACT: AN OVERVIEW

A. The Listing Requirements Under Section 4

Section 4 of the ESA authorizes the Fish and Wildlife Service (FWS) to identify species as either “endangered” or “threatened.”¹⁸ Once listed, the FWS must designate the species’ critical habitat and develop a recovery plan.¹⁹

Section 4(1)(a) requires the FWS to:

Determine whether any species is an endangered species or a threatened species because of any of the following factors: the present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; other natural or manmade factors affecting its continued existence.²⁰

An endangered species is a species that is “in danger of extinction throughout all or a significant portion of its range.”²¹ A threatened species is one that is likely to become endangered within the foreseeable future.²² Either the Secretary of the Interior or the Secretary of Commerce can list species after an initiative by the FWS or the National Marine Fisheries Service (NMFS), or in response to an interested party’s petition.²³

Section 4(1) is a mandate. Once a petition is filed, the FWS is required to use only the best science available to determine whether a species meets any of the five factors, and if so, it *must* list the species as

18. 16 U.S.C. § 1433 (2006).

19. *Id.*

20. *Id.*

21. 16 U.S.C. § 1432 (2006).

22. *Id.*

23. Sommer, *supra* note 17, at 286.

endangered or threatened.²⁴ In addition, once a species is listed, the Secretary of the Interior *must* designate the species' critical habitat.²⁵ No discretion is given to the Department of the Interior or its Secretary under Section 4.²⁶ Furthermore, a decision not to list a species is subject to judicial review.²⁷

Once initiated, the listing process lays out a very strict timeline.²⁸ The agency must make an initial finding within ninety days, it must lay out a proposed rule within twelve months, and the final rule is required within twelve months after the proposed rule.²⁹ Despite the strict steps outlined for listing a species, most petitions are only processed after litigation.³⁰

B. Consultation for Federal Actions Under Section 7

Section 7(a)(2) of the ESA provides:

Each Federal agency shall, in consultation with and with the assistance of the Secretary, ensure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical . . .³¹

Section 7 mandates that all federal agencies and departments take necessary action to ensure that there is no harm to an endangered species.³² Unlike the National Environmental Protection Act (NEPA), which is merely a procedural statute that requires only informed agency decision-making, Section 7 contains both procedural and substantive mandates.³³ Procedurally, the section lays out a comprehensive list of required steps for carrying out a consultation to predict the effect an action will have on an endangered species.³⁴ Consultation under Section 7 results in a biological opinion by the FWS. However, following the procedure and making informed decisions is not enough. If an action

24. *Id.* at 287.

25. *See* Ruhl, *supra* note 16, at 35.

26. *See* Cummings, *supra* note 13, at 4.

27. *Id.*

28. *Id.*

29. 16 U.S.C. § 1533 (2006).

30. Cummings, *supra* note 13, at 4.

31. 16 U.S.C. § 1536 (2006).

32. *Id.*

33. Cummings, *supra* note 13, at 3.

34. Ruhl, *supra* note 16, at 43.

will “jeopardize” the species, the section commands that the action cannot be taken as proposed.³⁵ Instead, the FWS must provide “reasonable and prudent alternatives” so that the action goes forward in a manner that will not jeopardize the species in any way. Such alternatives can include cancellation of the entire project.³⁶

ESA regulations define “jeopardize” as “engag[ing] in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”³⁷ In determining the scope of such a standard, five regulatory definitions are revealing:³⁸

- (1) “Action” means “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas”;
- (2) “Effects of the action” means “the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline”;
- (3) “Environmental baseline” means “the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all the proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process”;
- (4) “Indirect effects” means “those that are caused by the proposed action and are later in time, but still are reasonably certain to occur”;
- (5) “Cumulative effects” means “those effects of future State or private activities, not involving Federal activities that are reasonably certain to occur within the action area of the Federal action subject to consultation.”³⁹

The requirements of Section 7 are strict and unyielding. In preparing the biological opinion, the FWS may not take any

35. Cummings, *supra* note 13, at 3.

36. *Id.*

37. 50 C.F.R. § 402.02 (2006).

38. Ruhl, *supra* note 16, at 43.

39. 50 C.F.R. § 402.02 (2006).

considerations into account beyond the best available science.⁴⁰ This means the FWS cannot evaluate economic concerns when determining whether a federal action can go forward in the manner proposed.⁴¹ In *Tennessee Valley Authority v. Hill*,⁴² the Supreme Court made it clear that Section 7 is an unequivocal mandate to protect listed species at any and all cost:

The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost. This is reflected not only in the stated policies of the act, but in literally every section of the statute. . . . The pointed omission of the type of qualifying language previously included in endangered species legislation reveals a conscious decision by Congress to give endangered species priority over the "primary missions" of federal agencies.⁴³

In 1967, following a congressional appropriation, the Tennessee Valley Authority (TVA) began construction on the Tellico Dam and Reservoir. This project was designed to improve the economic conditions in the valley.⁴⁴ The dam was designed to impound water covering over 16,500 acres, much of which would be converted from valuable farm land.⁴⁵ Despite the fact that the dam had been virtually completed and was ready for operation, it never opened.⁴⁶ Throughout the construction of the dam, several local citizens and national conservation groups brought lawsuits alleging that the TVA had not followed the requirements under the NEPA.⁴⁷ The district court then enjoined the dam's completion but later withdrew the injunction.⁴⁸ After the withdrawal, the Secretary of the Interior listed the snail darter, a type of perch, as endangered.⁴⁹ The Secretary found that operation of the dam would have resulted in the complete destruction of the snail darter's habitat.⁵⁰ The petitioners then filed a new suit seeking to enjoin the completion of the dam on the grounds that it would directly cause the extinction of the snail darter, in violation of the ESA.⁵¹ The Tennessee

40. Cummings, *supra* note 13, at 3.

41. See *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 185 (1978).

42. 437 U.S. 153 (1978).

43. *Id.* at 185.

44. *Id.* at 157.

45. *Id.*

46. *Id.* at 157-58.

47. *Id.* at 158.

48. *Id.*

49. *Id.* at 158-61.

50. *Id.* at 161-62.

51. *Id.* at 164.

Valley Authority argued that an injunction was inappropriate both because \$78 million had already been expended towards the construction of the dam and because Congress could not have intended the abandonment of the project, since it had appropriated money to the dam even after the snail darter had been listed as endangered.⁵²

The district court found that operation of the dam would “result in adverse modification, if not complete destruction, of the snail darter’s critical habitat.”⁵³ Despite this finding, the court dismissed the complaint.⁵⁴ The court wrote, “[a]t some point in time a federal project becomes so near completion and so incapable of modification that a court of equity should not apply a statute enacted long after inception of the project to produce an unreasonable result Where there has been an irreversible and irretrievable commitment of resources by Congress to a project over a span of almost a decade, the Court should proceed with a great deal of circumspection.”⁵⁵ The court refused to believe that Congress had intended to halt a multi-million dollar project nearing completion in order to protect an endangered species.⁵⁶

The court of appeals disagreed and issued an injunction on the basis of a blatant statutory violation.⁵⁷ It held that “actions” in Section 7 encompass the terminal phases of ongoing projects:

Current project status cannot be translated into a workable standard of judicial review. Whether a dam is 50% or 90% complete is irrelevant in calculating the social and scientific costs attributable to the disappearance of a unique form of life. Courts are ill-equipped to calculate how many dollars must be invested before the value of a dam exceeds that of the endangered species.⁵⁸

After this ruling, both the House and Senate Appropriations Committees recommended that the full amount needed for completion of the project be approved.⁵⁹ The House Appropriation Committee even went as far to say: “It is the Committee’s view that the Endangered Species Act was not intended to halt projects such as these in their advanced stage of completion, and [the Committee] strongly

52. *Id.* at 170–71.

53. *Id.* at 165.

54. *Id.* at 166.

55. *Id.*

56. *Id.* at 166–67.

57. *Id.* at 168.

58. *Id.* at 169.

59. *Id.* at 170.

recommends that these projects not be stopped because of misuse of the Act.”⁶⁰

The United States Supreme Court, in one of the most important ESA rulings to date, agreed with the court of appeals and held that the language in Section 7 explicitly demanded the permanent halting of construction on the near-complete dam.⁶¹ In an exhaustive survey of the legislative history behind the ESA, the Court found that Congress unequivocally “intended endangered species to be afforded the highest of priorities.”⁶² The Court specifically noted that when Congress passed the ESA, it intended to pass stricter, more exhaustive laws because previous laws were not preventing the loss of species.⁶³ The final version of the 1973 Act was careful to omit all reservations and qualifying language considered during the legislative session.⁶⁴ For example, the Senate passed a version of Section 7 that required federal agencies to carry out programs “as are practicable for the protection of species listed.”⁶⁵ However, the House version omitted the “as are practicable” language, and the ultimate law did not contain this language.⁶⁶ The Court stated that “the plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, *whatever the cost.*”⁶⁷

Thus, the Endangered Species Act became one of the most powerful and controversial statutes in the United States.⁶⁸ Shortly after the Court’s ruling, Congress passed an authorization for the Tellico Dam that exempted the project from ESA Section 7, and, more broadly, Congress passed a law that created the Endangered Species Committee, colloquially known as the “God Squad.”⁶⁹ In essence, the God Squad can determine that the economic costs of protecting a species are too great.⁷⁰ Upon making such a determination, the committee may exempt actions of a federal agency from Section 7’s requirements.⁷¹ To exempt a species from Section 7’s protections, five of the seven members must vote in

60. *Id.*

61. *Id.* at 172–73.

62. *Id.* at 174.

63. *Id.* at 175–77.

64. *See id.* at 180–85.

65. *Id.* at 182.

66. *Id.* at 182–83.

67. *Id.* at 184 (emphasis added).

68. Cummings, *supra* note 13, at 3.

69. See Jason C. Wells, *National Security and the Endangered Species Act: A Fresh Look at the Exemption Process and the Evolution of Environmental Policy*, 31 WM. & MARY ENVTL. L. & POL’Y REV. 255, 261 (2006).

70. *Id.* at 261–62.

71. *Id.*

favor of the exemption.⁷² The following conditions must be met for a species to be considered for exemption:

- (1) There must be no reasonable alternative to the agency's action;
- (2) The benefits of the action must outweigh the benefits of an alternative action where the species is conserved;
- (3) The action is of regional or national importance; and
- (4) Neither the federal agency nor the exemption applicant made irreversible commitments of resources.⁷³

However, even if an exemption is granted, mitigation efforts must be taken in order to reduce negative effects on the endangered species.⁷⁴

C. Prohibition on Takings Under Section 9

Section 9 of the ESA prohibits any person from "taking" an endangered species.⁷⁵ This prohibition gives the ESA its bite for private citizens.⁷⁶ Not only does the section outlaw takings within the United States and its territorial seas, it also forbids takings "upon the high seas."⁷⁷ In addition, the ESA broadly defines "person" as any:

[I]ndividual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States.⁷⁸

Despite the broad geographical reach of Section 9 and the expansive definition of "person," the scope of "taking" is the most important aspect of Section 9. "Take" means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."⁷⁹ While most of these activities are straightforward, the Secretary of the Interior defined "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns,

72. *Id.*

73. *Id.*

74. *Id.*

75. 16 U.S.C. § 1538 (2006).

76. Sommer, *supra* note 17, at 287–88.

77. 16 U.S.C. § 1538 (2006).

78. 16 U.S.C. § 1532 (2006).

79. *Id.*

including breeding, feeding or sheltering.”⁸⁰ Much of the litigation in this area has focused around how far to stretch the concept of “significant habitat modification.”

In *Palila v. Hawaii Department of Land and Natural Resources (Palila I)*,⁸¹ the United States District Court for the District of Hawaii found an unlawful taking when the State of Hawaii allowed herds of feral sheep and goats to graze in the habitat of the endangered palila, a bird found solely on the island of Hawaii.⁸² The sheep and goats primarily fed on the leaves, sprouts, and seedlings of mamane trees, which provided food, shelter and nesting space for the palila.⁸³ The court held that the acts and omissions of the State unequivocally constituted significant environmental modification or degradation and were thus “takings” as defined by the ESA.⁸⁴

Several years later in *Palila v. Hawaii Department of Natural Resources (Palila II)*,⁸⁵ interested parties again brought suit against Hawaii for allowing mouflon sheep to graze in the habitat of the palila.⁸⁶ This time, the State argued that the Secretary of the Interior had taken action since *Palila I* to limit the reach of the definition of “harm.”⁸⁷ The State claimed that the Secretary redefined “harm” to stress the requirement of an actual injury resulting from habitat modification.⁸⁸ It further argued that the plaintiffs had to show an actual decline in the palila population resulting from the mouflon sheep in order to satisfy this definition.⁸⁹ The palila population had not decreased.⁹⁰ The court found this argument unpersuasive.⁹¹ The judge stated, “I refuse to accept, the Secretary’s final redefinition does not support, and Congress could not have intended such a shortsighted and limited interpretation of ‘harm.’”⁹² The court noted that Congress had recognized the destruction of habitats as the primary threat to endangered species and therefore had intended to prohibit habitat destruction.⁹³ The court also clarified that there must be a connection between the habitat destruction and the harm, but an

80. See 50 C.F.R. § 17.3 (2009).

81. 639 F.2d 495 (9th Cir. 1981).

82. *Id.* at 495–96.

83. *Id.* at 496.

84. *Id.* at 497–98.

85. 649 F. Supp. 1070 (D. Haw. 1986), *aff’d*, 852 F.2d 1106 (9th Cir. 1988).

86. *Id.* at 1071–72.

87. *Id.* at 1075.

88. *Id.*

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.*

93. *Id.* at 1076.

actual showing of death or injury is not necessary.⁹⁴ “If habitat modification prevents the population from recovering, then this causes injury to the species and should be actionable under [S]ection 9.”⁹⁵

Finally, in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*,⁹⁶ a group of parties dependent on the forest product industry brought an action in the United States District Court for the District of Columbia against the Secretary of the Interior, in which they claimed that Congress did not intend the word “take” to encompass all destruction or modification of an endangered or threatened species’ habitat.⁹⁷ The parties feared that logging activities in the Pacific Northwest and Southeast would have to shut down due to the listing of the red-cockaded woodpecker as an endangered species and the northern spotted owl as a threatened species.⁹⁸ They argued that even though logging activities would indirectly result in the death of some woodpeckers and owls, the ESA did not apply to these activities because “harm” should only apply to the direct application of force against the animal taken.⁹⁹ The district court rejected their arguments and dismissed the case, but the court of appeals reversed and held that “harm,” like the other words in the definition of “take,” should be read as only applying to direct application of force against the taken species.¹⁰⁰ This holding was in direct conflict with the Ninth Circuit’s decisions in *Palila I* and *Palila II*, creating a circuit split.

The Supreme Court granted certiorari in *Babbitt* to resolve the conflict.¹⁰¹ The Supreme Court refused to limit the application of harm to direct injury to the species.¹⁰² It granted *Chevron* deference to the agency’s interpretation of the ambiguous term “harm.”¹⁰³ Thus, it agreed that the Secretary of the Interior had the authority to reject the narrower interpretation, and noted that Congress defined “take” in “the broadest

94. *Id.* at 1077.

95. *Id.*

96. 515 U.S. 687 (1995).

97. *Id.* at 693.

98. *Id.* at 692.

99. *Id.* at 695.

100. *Id.* at 694–95.

101. *Id.* at 695.

102. *Id.* at 707–08.

103. In *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), the Supreme Court held that courts must defer to administrative agency interpretations of the authority granted to them by Congress where (1) the statute is ambiguous and (2) the agency’s interpretation is reasonable or permissible.

possible manner to include every conceivable way in which a person can 'take' or attempt to 'take' any fish or wildlife."¹⁰⁴

Section 10 provides exceptions to the takings prohibitions for certain actions.¹⁰⁵ Under Section 10, permits may be granted for incidental takings.¹⁰⁶

II. THE POLAR BEAR'S LISTING

On May 15, 2008, the Department of the Interior announced its decision to formally list the polar bear as a threatened species under the Endangered Species Act.¹⁰⁷ The decision to list the polar bear was made because its habitat is disappearing due to global warming, although the final rule cites warming air temperatures rather than global warming or carbon emissions.¹⁰⁸ The decision marked a day of celebration for many who had been fighting for such a listing for several years.¹⁰⁹ However, the celebration was short-lived. Dirk Kempthorne, Secretary of the Interior, announced that a special rule for the conservation of the polar bear would be adopted under Section 4(d).¹¹⁰ This special rule was adopted in order to allow certain activities associated with carbon emissions to continue.¹¹¹ Kempthorne publicly stated that the Endangered Species Act was not intended to fight climate change.¹¹² Unfortunately for the polar bear, the special rule created an exemption for activities that cause global warming, the biggest threat to the polar bear.

A. Adverse Modification of the Polar Bear's Habitat

The polar bear is completely dependent on its sea ice habitat for survival.¹¹³ The species uses the ice for essential behaviors such as

104. *Babbitt*, 515 U.S. at 704.

105. 16 U.S.C. § 1539 (2006).

106. *Id.*

107. Kempthorne Press Release, *supra* note 10.

108. *See* 50 C.F.R. § 17.11 (2009).

109. *See* Press Release, Center for Biological Diversity, Environmental Groups Win Protection for Polar Bear (May 14, 2008) [hereinafter Polar Bear Press Release].

110. Press Release, U.S. Department of the Interior, Secretary Kempthorne Announces Decision to List the Polar Bears Under the Endangered Species Act (May 14, 2008) [hereinafter DOI Press Release].

111. *See* Sommer, *supra* note 17, at 274.

112. DOI Press Release, *supra* note 110.

113. CTR. FOR BIOLOGICAL DIVERSITY, NOT TOO LATE TO SAVE THE POLAR BEAR: A RAPID ACTION PLAN TO ADDRESS THE ARCTIC MELTDOWN 2 (2007).

hunting and migration to and from denning areas.¹¹⁴ However, the past decade has seen a significant decrease in Arctic sea ice.¹¹⁵ In 2007, the extent of sea ice coverage shrank to a record one million square miles below the average recorded during the summer over the past several decades.¹¹⁶ Global warming appears to be having a more intense effect on the Arctic than any other area on Earth.¹¹⁷

Arctic changes will affect virtually every aspect of the polar bear's existence. For example, delayed ice formation and earlier melting will shorten the bear's hunting season, which will cause reduced fat stores, deteriorated body condition, and a reduced survival and reproduction rate.¹¹⁸ In addition, there will be a reduction in ice-dependent prey, and increased distance between the ice's edge and land will require greater outputs of energy to reach denning areas.¹¹⁹ Ultimately, all of these effects will result in a greater incidence of polar bear starvation.¹²⁰ Furthermore, as more of the Arctic becomes accessible to humans, the frequency of contact between humans and bears will increase, leading to a greater likelihood of harmful contact.¹²¹

On February 16, 2005, the Center for Biological Diversity filed a petition with the FWS to list the polar bear as an endangered species.¹²² The petition noted the scientific community's consensus on global warming¹²³ and pointed out that the average temperature in the Arctic increased at nearly twice the rate as in other parts of the world over the past two decades.¹²⁴ Additionally, the petition cited reports showing that changes in sea ice would have a detrimental impact on polar bears' feeding, breeding, and movement.¹²⁵

The FWS failed to release its initial finding within ninety days, as required by statute, and the Center for Biological Diversity sued in December 2005.¹²⁶ Facing several threats of litigation, the FWS finally

114. *Id.*; U.S. FISH AND WILDLIFE SERV., POLAR BEAR 1–2 (2008).

115. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 113, at 2.

116. *Id.*

117. *Id.*; Cummings, *supra* note 13, at 4.

118. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 113, at 2–3; *see also* U.S. FISH AND WILDLIFE SERV., *supra* note 122, at 1–2.

119. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 113, at 3.

120. *Id.*

121. *Id.*

122. U.S. FISH AND WILDLIFE SERV., TIMELINE OF POLAR BEAR ACTIONS (2008), available at <http://www.fws.gov/home/feature/2008/polarbear012308/pdf/Timeline.pdf>. [hereinafter TIMELINE].

123. CTR. FOR BIOLOGICAL DIVERSITY, PETITION TO LIST THE POLAR BEAR AS A THREATENED SPECIES UNDER THE ENDANGERED SPECIES ACT iii (2005).

124. *Id.* at iv.

125. *Id.* at iv–vi.

126. TIMELINE, *supra* note 122.

issued its proposed rule in December 2006.¹²⁷ The proposed rule specifically found that:

Changes in the timing of sea ice formation and break-up and the loss of the polar bear's sea ice habitat will pose increasing risk to polar bears as the climate continues to warm . . . and ultimately all polar bear populations will suffer. . . . [I]f current trends continue, polar bears and other species that require a stable ice platform for survival could become extinct by the end of the century.¹²⁸

After the proposed rule was issued, the FWS opened the public comment period and received over 670,000 comments.¹²⁹ In January 2008, the FWS announced a delay in its final decision.¹³⁰ After more litigation, the FWS released its final rule on May 15, 2008, more than three years after the initial petition was filed.¹³¹ The rule stated, “[w]e find, based on the best available scientific and commercial data, that the polar bear habitat—principally sea ice—is declining throughout the species’ range and that this decline is expected to continue into the foreseeable future, and that this loss threatens the species throughout all of its range.”¹³² However, on the same day, the Secretary of the Interior announced an “interim final rule” under Section 4(d) of the ESA that would lay out exceptions to the final rule.¹³³ This special rule was finalized in December 2008.¹³⁴

B. The 4(d) Exception

Section 4(d) of the ESA states: “Whenever any species is listed as a threatened species . . . the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species.”

While Section 9 prohibitions apply to the taking of *endangered* species, Section 4(d) gives the Secretary of the Interior the discretion to

127. *Id.*

128. Endangered and Threatened Wildlife and Plants: 12-Month Petition Finding and Proposed Rule to List the Polar Bear (*Ursus Maritimus*) as Threatened Throughout Its Range, 72 Fed. Reg. 1064, 1081 (proposed Jan. 9, 2007) (to be codified at 50 C.F.R. pt. 17).

129. TIMELINE, *supra* note 122.

130. *Id.*

131. *Id.*

132. Endangered and Threatened Wildlife and Plants: Determination of Threatened Status for Polar Bear (*Ursus Maritimus*) Throughout Its Range, 73 Fed. Reg. 28,212, 28,224 (May 15, 2008) (to be codified at 50 C.F.R. pt. 17).

133. *Id.*

134. TIMELINE, *supra* note 122.

issue tailored rules specific to the needs of *threatened* species.¹³⁵ While this leaves the Secretary with some flexibility, a 4(d) rule must be necessary and advisable to provide for the conservation of the species.¹³⁶ In some cases, a threatened species receives the same protections as those provided in Section 9.¹³⁷ Other times, tailored rules will be promulgated that may be more or less restrictive than those found in Section 9.¹³⁸ In any case, the rule announced under 4(d) is intended to provide the flexibility needed for the species to receive the best plan possible for its recovery.¹³⁹

After the Secretary issued the final listing rule for the polar bear, he also announced a corresponding special rule, finalized in December 2008.¹⁴⁰ Through this special rule, the Secretary issued special regulations under section 4(d).¹⁴¹ Instead of applying the Section 9 prohibition on all “taking” (including harm and habitat modification) to the polar bear, the special rule provided that all activities allowable under the Marine Mammal Protection Act (MMPA) and the Convention on International Trade in Endangered Species (CITES) are also allowed under the ESA.¹⁴² The polar bear was already protected by the MMPA and CITES prior to its listing under the ESA.¹⁴³ This special rule does not affect the consultation requirements under Section 7.¹⁴⁴

The Secretary also announced a sweeping rule that would take greenhouse gases out of the scope of the ESA completely.¹⁴⁵ This rule “reflect[ed] the Department’s desire to reduce the regulatory burden of the consultation process and remove consideration of GHG emissions from the consultation process.”¹⁴⁶ The rule removed the requirement for government agencies to consult with the FWS on the contribution of emissions to global warming.¹⁴⁷ The rule received an extremely negative reaction from the public, with many environmental groups calling it an “egregious and sweeping assault on the ESA.”¹⁴⁸ However, in 2009, a

135. 16 U.S.C. § 1533 (2006).

136. See U.S. DEP’T OF INTERIOR, NOTICE OF PROPOSED SPECIAL RULE 5 (2008).

137. *Id.*

138. *Id.*

139. See 16 U.S.C. § 1533(4)(d) (2006).

140. U.S. DEP’T OF INTERIOR, *supra* note 136.

141. *Id.*

142. *Id.*

143. *Id.*

144. American Bar Association, *Environmental Law Update*, 23 PROB. & PROP. 37, 37 (Feb. 2009).

145. *Id.*

146. *Id.*

147. *Id.* at 37–38.

148. *Id.* at 37.

new Secretary of the Interior was appointed under the Obama Administration, and he rescinded the rule.¹⁴⁹ Yet, even though many believed the Secretary would also repeal the 4(d) special rule for the polar bear, he left it in effect.¹⁵⁰ Many environmental groups fiercely attacked the decisions of the Secretary, the FWS, and President Obama as arbitrary decision making.¹⁵¹ These groups felt that there was no reason to repeal the greenhouse gases rule while keeping the polar bear's special 4(d) rule intact.¹⁵² However, this view ignores the fact that the special rule does not exempt the polar bear from Section 7.

Because the special rule allows any activity permitted under the MMPA and CITES, it provides considerably less stringent protections for the polar bear than ESA Section 9. The MMPA was enacted in 1972 to protect and conserve marine mammals and their population stocks.¹⁵³ The goal of the program is to recuperate the populations of various marine mammal species to a sustainable level.¹⁵⁴ The MMPA provides a moratorium on the taking and importation of all marine mammals and their products, although the act also grants exemptions for certain activities.¹⁵⁵

CITES was enacted in 1973 and is intended to protect certain species that are at risk from international trade.¹⁵⁶ The treaty has been signed and implemented by more than 170 countries, including the United States.¹⁵⁷ CITES regulates both commercial and noncommercial trade in various plants and animals and products made from these species.¹⁵⁸ Depending on how close a species is to extinction, it is regulated at one of three levels.¹⁵⁹ Species that are near extinction are listed in Appendix I; those that are not currently in danger, but may be without protection, are listed in Appendix II;¹⁶⁰ and countries can list other species in the Appendix III list to receive international cooperation

149. Press Release, Center for Biological Diversity, Secretary Salazar Rescinds Bush Regulations Weakening Endangered Species Act, But Leaves Polar Bear Extinction Rule in Place (Apr. 28, 2009), available at http://www.biologicaldiversity.org/news/press_releases/2009/esa-regulations-04-28-2009b.html.

150. *Id.*

151. *Id.*

152. *Id.*

153. Martin Robards & Julie Joly, *Interpretation of "Wasteful Manner" Within the Marine Mammal Protection Act and its Role in Management of the Pacific Walrus*, 13 OCEAN & COASTAL L.J. 171, 172 (2008).

154. U.S. DEP'T OF INTERIOR, *supra* note 136.

155. *Id.*

156. *Id.*

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

to regulate trade in those species.¹⁶¹ Although CITES does not regulate domestic trade or takings of listed species, it has been an important step in protecting those species by shutting down international trade in them.¹⁶² Since 1975, CITES has listed polar bears in Appendix II.¹⁶³

Under the special rule promulgated for the polar bear under Section 4(d), any activity authorized by either MMPA or CITES will be allowed.¹⁶⁴ Those activities will not require any other authorization or exemption under the ESA.¹⁶⁵ Additionally, any activities not covered by MMPA or CITES fall under the requirements of Section 9.¹⁶⁶ Finally, under the special rule, any incidental “taking” of polar bears that is the result of activities that occur outside of the polar bears’ habitat will not be considered a taking under the ESA.¹⁶⁷

III. THE ENDANGERED SPECIES ACT AND CLIMATE CHANGE

A. Application to Various Private and Public Actions

1. Major Carbon Emitters

Assume for the moment that the special rule 4(d) for polar bears did not exist and that the taking of polar bears is instead regulated by Section 9; that polar bears are threatened due to the ongoing melting of their habitat; that global warming is the cause of that melting; and that carbon emissions, in turn, are speeding up the rate of global warming. Under these assumptions, carbon emitters would arguably be in violation of the ESA. This Note will only focus on major carbon emitters, as it is easier to show the causal link between major carbon emitters and global warming than it is to link a single consumer’s vehicle with global warming.

Consider a coal-burning power plant; with such large emissions, the coal power plant could be in violation of Section 9. As noted before, Section 9 prohibits the taking of any endangered or threatened species by any person.¹⁶⁸ A taking includes “harm,” which the Department of the Interior has defined broadly to encompass any significant habitat modification that leads to the death or injury of the species.¹⁶⁹ There

161. *Id.*

162. *Id.*

163. *Id.*

164. *Id.*

165. *Id.*

166. *Id.*

167. *Id.*

168. 16 U.S.C. § 1538 (2006).

169. 50 C.F.R. § 17.3 (2009).

must be a connection between the habitat destruction and the activity, but it is not necessary for the activity to directly cause death or injury to the species.¹⁷⁰

In a suit against a coal-burning power plant, the plaintiff would allege that the emissions are causing a modification of the polar bear's habitat that is resulting in the death or injury of the bear, or is likely to do so in the future.¹⁷¹ After *Babbitt*, it is likely that a plaintiff will have to show:

(1) the party in question significantly modified the habitat of a listed species; (2) the modification significantly impaired essential behavioral patterns, which (3) actually resulted in the death or injury to one or more identifiable members of a listed species, or is substantially likely to cause death or injury in the near future.¹⁷²

A plaintiff should easily be able to show the last two requirements. The studies relied upon by the FWS when determining whether to list the polar bear, as well as the final rule listing the species, clearly show that a reduction in sea ice (modification of habitat) impairs the polar bear's breeding, feeding, and sheltering (essential behavioral patterns).¹⁷³ Additionally, the very reason the polar bear was listed as threatened is that this modification in habitat will lead to the death or significant injury of the polar bear in the foreseeable future.¹⁷⁴ Thus, the last two requirements are satisfied by the same science which was relied upon when the polar bear was listed in the first place.

The first requirement will present a more imposing hurdle. In *Palila I* and *Palila II*, the court was willing to draw the connection between the sheep's consumption of the mamane leaves and the foreseeable harm to the palila.¹⁷⁵ However, in the *Palila* cases, there was only a single actor contributing to the modification of the habitat. Here, any single coal power plant would not be the sole contributor to global warming. While scientific evidence today allows us to connect carbon emissions as a

170. *Palila v. Hawaii Dep't of Natural Res.*, 649 F. Supp. 1070, 1075 (D. Haw. 1986) (*Palila II*), *aff'd*, 852 F.2d 1106 (9th Cir. 1988).

171. Sarah Jane Morath, *The Endangered Species Act: A New Avenue for Climate Change Litigation*, 29 PUB. LAND & RESOURCES L. REV. 23, 36 (2008).

172. *Id.* at 35.

173. See *Endangered and Threatened Wildlife and Plants: Determination of Threatened Status for Polar Bear (Ursus Maritimus) Throughout Its Range*, *supra* note 132, at 28224.

174. See Remarks of Secretary Kempthorne, New York Times Dot Earth Blog (May 14, 2008), <http://dotearth.blogs.nytimes.com/2008/05/14/administration-polar-bear-threatened-but-co2-not-relevant> (last visited Apr. 10, 2010).

175. See *Palila II*, 649 F. Supp. at 1077-78.

whole to global warming, it is difficult to draw that same connection between any one facility and climate change.¹⁷⁶

By contrast, with a 4(d) special rule in place for polar bears, a coal power plant would not be in violation of the ESA. Under the special rule, any incidental takings resulting from activities taking place outside the species' critical habitat area will not be considered takings under the ESA.¹⁷⁷ However, 4(d) only applies to threatened species and not to any species that could potentially be listed as threatened. Additionally, the special rule does not affect the consultation requirements under Section 7.¹⁷⁸ Therefore, any action by a federal agency or department that is likely to "jeopardize the continued existence" of a species or "result in the destruction or adverse modification of habitat" of the species is still open to challenge under Section 7.¹⁷⁹

Consequently, private actions exempted from Section 9 by the polar bear special rule may still be prevented if those actions require a federal permit (subject to Section 7). If the federal government issues a permit to a major carbon emitting facility, that permit will arguably require consultation under Section 7 and would be subject to the "no jeopardy" provision of Section 7.¹⁸⁰ However, the question again becomes one of causal link. Ultimately, we might expect only those actions that will add very large amounts of carbon dioxide to the atmosphere to trigger "jeopardy" under Section 7. Some have argued that such actions may include the corporate average fuel economy standards, which are set by the National Highway Transportation Safety Administration, a federal agency.¹⁸¹ The transportation sector is one of the largest carbon emitters in the United States.¹⁸² Therefore, the standard chosen by the government will have tremendous effects on the volume of carbon emitted by drivers across the country.¹⁸³

Another federal action that deserves attention is the sale of seabed tracts to oil companies for drilling. This activity results in billions of barrels of oil being produced for consumption, exponentially increasing

176. American Law Institute, American Bar Association, Continuing Legal Education (Aug. 13, 2008).

177. U.S. DEP'T OF INTERIOR, *supra* note 136.

178. *Id.*

179. See 16 U.S.C. § 1536 (2006).

180. "Jeopardize" means to engage in an action that "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02 (2006).

181. Cummings, *supra* note 13, at 7.

182. *Id.*

183. *Id.*

the level of carbon in the atmosphere.¹⁸⁴ This federal action has even more Section 7 implications when the seabed tracts are located off the shore of Alaska, in the heart of polar bear habitat.

2. *Extraction of Minerals that Lead to Carbon Emissions: Chukchi Sea Leases*

On February 6, 2008, the Department of the Interior's Minerals Management Service (MMS) completed a lease/sale of tracts of seabed on Alaska's outer continental shelf.¹⁸⁵ The area, located in the Chukchi Sea, contains approximately fifteen million barrels of retrievable oil and seventy-seven trillion cubic feet of retrievable natural gas.¹⁸⁶ The tracts for sale encompassed a total of 29.7 million acres and extend twenty-five miles to two hundred miles off shore.¹⁸⁷ The sale took in a record number of bids, evidencing the high level of interest in drilling for oil in Alaska.¹⁸⁸

Despite the concerns expressed by environmental groups and Alaska Natives, the MMS claims that the drilling will take place far enough from shore to leave room for the near shore polynya¹⁸⁹ through which many marine mammals, including the bowhead and beluga whales, travel.¹⁹⁰ However, the MMS has admitted that activities associated with the drilling will contribute to the death of animals, despite the distance.¹⁹¹ Although it is unclear how close the connection must be, direct application of force against the animal is not necessary.¹⁹²

First, as the MMS acknowledges, drilling activities will most likely directly result in the deaths of some polar bears.¹⁹³ Thus, the consultation requirements of Section 7 may be triggered on this basis. However, the deaths of individual bears directly caused by the drilling

184. *Id.*

185. Matt Irwin, *Polar Bears, Oil, and the Chukchi Sea: The Federal Government Sells Mineral Rights in Polar Bear Habitat in Alaska*, 8 SUSTAINABLE DEV. L. & POL'Y 40, 40 (2007-2008).

186. *Id.*

187. Press Release, MMS Finalizes Chukchi Sea Lease Sale (Jan. 2, 2008), available at <http://www.mms.gov/ooc/press/2008/press0102.htm> [hereinafter MMS Press Release].

188. Irwin, *supra* note 185, at 40.

189. A polynya is an area of open water surrounded by sea ice.

190. MMS Press Release, *supra* note 187.

191. CHUKCHI SEA PLANNING AREA, FINAL ENVIRONMENTAL IMPACT STATEMENT, Volume I, 145-71 (2007), available at http://www.mms.gov/alaska/ref/EIS%20EA/Chukchi_FEIS_193/feis_193.htm.

192. *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687, 707-08 (1995).

193. CHUKCHI SEA PLANNING AREA, *supra* note 191, at 163.

probably are not enough to show jeopardy to the continued existence of the polar bear.¹⁹⁴

The indirect effects that drilling activities have on the polar bear's habitat may be enough to trigger Section 7 requirements. In addition, the indirect adverse impact of the drilling activities on polar bear habitat may be enough to prohibit federal action. Billions of barrels of oil will be pumped from the Chukchi seabed over the entire lifetime of production. Most of this oil will no doubt return to the atmosphere in the form of carbon after being consumed.

The American Bar Association delivered an update responding to questions regarding compliance with Section 7 on actions that would emit greenhouse gases. It argued that:

The future effects of any emissions that may result from the consumption of petroleum products refined from crude oil pumped from a particular drilling site would not constitute indirect effects and therefore would not be considered during [S]ection 7 consultations. The best scientific data available to the Service today do not provide the degree of precision needed to draw a causal connection between the oil produced at a particular drilling site, the GHG emissions that may eventually result from the consumption of the refined petroleum product, and a particular impact to listed species or their habitats. At present, there is a lack of scientific or technical knowledge to determine a relationship between oil and gas leasing, development, or production activity and the effects of the ultimate consumption of petroleum products (GHG emissions).¹⁹⁵

However, such an argument is misguided. It would not be necessary to establish a causal connection between any particular drilling site and greenhouse gas emissions. The sale of the entire seabed should constitute one action. Therefore, a causal connection only needs to be drawn between the Chukchi seabed sale and greenhouse gas emissions. While it is probably true that it is too difficult to predict the exact amount of oil that will eventually be put to carbon-emitting uses, Section 7 does not require such precision. Section 7 only requires adverse modification of the habitat to be a *likely* result of the federal action. Clearly, with billions of barrels being produced from the Chukchi sea bed, it is *likely* that hundreds of millions of barrels will be used in

194. Although individual polar bear deaths caused by drilling activities may not trigger Section 7 requirements, such a direct killing would trigger Section 9, which is outside the reach of the special rule.

195. American Law Institute, *supra* note 176.

processes that emit carbon. Therefore, Section 7 should prohibit the MMS sale of oil drilling tracts in the Chukchi Sea.

B. Arguments For and Against the Endangered Species Act's Application to Greenhouse Gases

The ESA has several aspects that make it a good tool for regulating climate change. The ESA was written very broadly, enabling the statute to deal with new threats to wildlife that were not foreseen at the time the statute was originally enacted.¹⁹⁶ Therefore, the ESA has the ability to change over time, evolving to meet the demands of the present day. In addition, the ESA is extremely flexible. While some sections are more restrictive, other sections provide the FWS leeway in formulating a plan for recovery.¹⁹⁷

Despite this broad scope and flexibility, the ESA most likely cannot be effective in regulating greenhouse gases. First, climate change is a global problem. While it is easy to see the connection between greenhouse gases and climate change on the macro level, it is much more difficult to draw the connection between emissions from an individual facility and the melting polar ice caps.¹⁹⁸ Without this connection, it is unlikely that all greenhouse gas emissions will fall under the scope of the ESA. Furthermore, the costs of regulating greenhouse gases under the ESA would be very large compared to the results likely to be achieved.¹⁹⁹ As noted earlier, achieving significant cuts in carbon emissions will only come through international cooperation. Yet, the ESA cannot regulate emissions abroad. Thus, the act would not be able to cut emissions enough to be worthwhile. Furthermore, the ESA precludes consideration of cost (at least under section 7). The ESA was not designed to deal with a complex problem like climate change.²⁰⁰ Moreover, neither the Department of the Interior nor the FWS are equipped to take on the role of regulating greenhouse gas emissions, which would require the oversight of farms, industrial facilities, and auto emissions, among other areas.²⁰¹ The FWS does not

196. See John Kostyack & Dan Rohlf, *Conserving Endangered Species in an Era of Global Warming*, 38 ENVTL. L. REP. NEWS & ANALYSIS 10203, 10204 (2008).

197. See Ruhl, *supra* note 16, at 34.

198. See Ari G. Altman & Jessica M. Lewis, *Recent Clean Air Act Developments*, 38 ENVTL. L. REP. NEWS & ANALYSIS 10357, 10360–61 (2008).

199. See Ruhl, *supra* note 16, at 13 (“[T]he ESA alone will not arrest the causes or effects of our planet’s . . . future.”).

200. See *id.*

201. See *id.* at 59.

have either the expertise or the data collection systems to regulate such large sectors of the economy.²⁰²

C. An Appropriate Time for the God Squad to Act

Because the challenges facing the ESA regarding regulation of greenhouse gases outweigh the possible benefits, the ESA should not be used to combat climate change. Any results would be slow since copious amounts of litigation surround any action taken under the ESA. There is no need, however, to enact special rules to keep greenhouse gases out of the scope of ESA's reach. This seems like the exact situation for which the "God Squad" was created.

On the other hand, if the Endangered Species Committee acts every time a species is listed as endangered or threatened due to global warming, what is the point of listing these species at all? Arguably, the symbolism behind the listing is just as important as any protections the species might receive through the ESA. This is especially true for those species listed due to the effects of climate change. With climate change in the forefront of public policy debate today, the listing serves as a catalyst for public awareness. The polar bear has become the "iconic example of the devastating impacts of global warming on the Earth's biodiversity."²⁰³ Perhaps the listing of species as endangered or threatened will increase public support for much needed greenhouse gas regulations and serve as an impetus for American action. Furthermore, the listing also triggers the prohibition of direct killing under Section 9 and the "no jeopardy" provision for other federal projects under Section 7. These are valuable partial protections, even if global warming is the main threat to the species.

CONCLUSION

Climate change has become a critical issue in the United States and around the world. While the existence of global warming was still being debated only a decade ago, today the scientific evidence overwhelmingly points in one direction. Scientists across the world agree that global warming is already occurring and that human activities—namely, the emission of carbon dioxide—have increased the rate of change.

Many interested individuals and groups have been frustrated by the perceived slowness of political action to regulate emissions. These

202. *See id.*

203. Cummings, *supra* note 13, at 3.

interested parties have sought to regulate greenhouse gases through creative uses of existing statutes. When the polar bear was listed as a threatened species under the ESA, several groups seized the opportunity to use the statute to combat climate change.

The ESA has been described as one of the most powerful environmental laws ever passed and offers several tools for regulating carbon emissions. However, climate change is an extremely complex problem that requires complex solutions. The type of solutions needed cannot be achieved through the Endangered Species Act. The costs associated with regulating greenhouse gas emissions will far outweigh any benefit the Endangered Species Act will be able to provide. This is because global warming is a global problem that will require global participation and cooperation. The Endangered Species Act cannot regulate emissions worldwide and, thus, will be ultimately ineffective.

Instead, the listing of species affected by climate change should be used symbolically. The listing raises public awareness and could ultimately increase the public support needed to pass new, comprehensive laws to fully regulate carbon emissions and combat climate change.²⁰⁴ As Chief Justice Burger wrote:

The value of this genetic heritage 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 to questions which we have not yet learned to ask.²⁰⁵

204. Such new climate legislation should address GHGs as well as explicitly carve out GHG regulation from the province of the ESA.

205. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 178 (1978) (quoting H.R. Rep. No. 93-412, 4-5 (1973)).