NOTES

TURTLE POWER DOWN UNDER THE SEA?: COMPARATIVE DOMESTIC AND INTERNATIONAL LEGAL PROTECTION OF MARINE TURTLES BY AUSTRALIA AND THE UNITED STATES

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I. INTRODUCTION

"When we try to pick out anything by itself, we find it hitched to everything else in the universe."

- John Muir

Today at least seven species of marine turtles swim the world's oceans,² their home for over 150 million years before any human walked the earth.³ Gone are the untested oceans and halcyon shores of ages past; rather, sea turtles now must coexist with humankind, and thus face numerous threats to their existence: incidental takings by fisheries,⁴ development on nesting beaches,⁵ and general habitat alteration⁶ are merely a few examples. Recent scientific research also demonstrates that global climate change⁷ poses a serious threat to marine turtles in several ways.⁸ For example, the precise

¹ JOHN MUIR, MY FIRST SUMMER IN THE SIERRA 157 (Edward Hoagland ed., Penguin Books 1997) (1911).

² Alexander Gillespie, The Slow Swim From Extinction: Saving Turtles in the South Pacific, 21 INT'L J. MARINE & COASTAL L. 57, 57 (2006).

³ Chan Eng Heng & Liew Hock Chark, Saving the Turtles Saves Ourselves, U.N. CHRONICLE, Mar. 1, 2002, at 38.

⁴ Sali Jayne Bache, International Bycatch Policy: Options for Sea Turtle Conservation, 15 INT'L J. MARINE & COASTAL L. 333, 333 (2000) (explaining that the term "'[b]ycatch' has been defined as the incidental take of non-target species" and that marine turtles are sometimes caught in prawn and shrimp trawls); World Wildlife Fund, Species Fact Sheet: Bycatch at 1, http://assets.panda.org/downloads/bycatch_apr_2006.pdf ("Over 250,000 endangered loggerhead turtles and critically endangered leatherback turtles are caught annually on longlines set for tuna, swordfish, and other fish.").

⁵ Joseph C. Mitchell & Michael W. Klemens, *Primary and Secondary Effects of Habitat Alteration*, in TURTLE CONSERVATION 5, 18–19 (Michael W. Klemens ed., 2000) (describing the negative impacts of various types of developments on nesting grounds).

⁶ *Id.*; Michael W. Klemens, *Introduction*, *in* TURTLE CONSERVATION 1, 1 (Michael W. Klemens ed., 2000) ("Loss and alternation of habitat are still the major causes of turtle decline around the world.").

⁷ For an overview of global warming, climate models or "general circulation models," and climate proxy data, see David M. Dobson, From Ice Cores to Tree Rings: Understanding Climate Change from a Geological Perspective, in GLOBAL CLIMATE CHANGE 3 (Sharon L. Spray & Karen L. McGlothlin, eds., 2002). See also Contribution of Working Group I to the Fourth Assessment Report of the IPCC, Climate Change 2007: The Physical Science Basis 1–18 (Susan Solomon et al. eds., 2007), available at http://www.ipcc.ch/ipccreports/ar4-wg1.htm (providing a comprehensive account of research on climate change for policymakers).

PETER FUGAZZOTTO, SEA TURTLE RESTORATION PROJECT, BOILING POINT: THE IMPACT OF CLIMATE CHANGE ON SEA TURTLES AND THE URGENT NEED TO TAKE ACTION (2001), http://

temperature of nesting sand determines the gender of turtle embryos. Studies in the United States have found female-biased populations that will become further skewed and may eventually yield entirely female hatchlings as a result of global warming. Further, increased ocean water temperatures threaten coral reefs—vital habitats to certain marine turtle species. Additionally, rising sea levels compromise nesting grounds for turtles. Global warming has created these specific threats to sea turtles, but it also poses broader peril for marine biodiversity and the oceanic ecosystem.

Aside from purely environmentalist grounds, other weighty matters support the protection and conservation of sea turtles. For example, long-term marine turtle research allows for growth and development of scientific knowledge, which may lead to advancements in biology and possibly medicine. From an economic perspective, designating certain areas as marine conservation parks allows for revenue-producing ecotourism, which generates millions of dollars in gross revenue in certain cases. Marine turtle conservation and protection in effect compliments efforts to mitigate loss of biodiversity, as turtles are just one component of the marine environment. Interestingly, studies in the

www.seaturtles.org/pdf/Boiling_Point.pdf.

⁹ Id. at 2.

¹⁰ Id. at 7.

¹¹ *Id*. at 8.

¹² Id. at 9-10.

¹³ Id. at 2.

¹⁴ Scientists studying sea turtle biology indicate that a lack of long-term data is often a problem and that understanding sea turtle biology at all life stages would increase scientific knowledge. See Jack Frazier et al., Human-Turtle Interactions at Sea, in BIOLOGY AND CONSERVATION OF RIDLEY SEA TURTLES 253, 274 (Pamela T. Plotkin ed., 2007) ("One common problem is the lack of systemic, long term data."); see also Pamela T. Plotkin, Near Extinction and Recovery, in BIOLOGY AND CONSERVATION OF RIDLEY SEA TURTLES, supra, at 339 (stating that for certain species of turtles, scientists face the challenge of "increasing [their] biological and ecological knowledge of all life stages").

¹⁵ See Kathleen Doyle Yaninek, Turtle Excluder Device Regulations: Laws Sea Turtles Can Live With, 21 N.C. CENT. L.J. 256, 257 (1995) ("There is yet a more practical reason for preserving threatened and endangered species: their potential for increasing man's knowledge in the fields of science and medicine.").

¹⁶ Clevo Wilson & Clem Tisdell, Sea Turtles as a Non-Consumptive Tourism Resource Especially in Australia, 22 TOURISM MGMT. 279, 279 (2001); Gillespie, supra note 2, at 77–78 (noting that tourists are attracted to and will pay for excursions to sea turtle nesting grounds).

¹⁷ SEBASTIAN TROËNG & CARLOS DREWS, WORLD WILDLIFE FUND, MONEY TALKS: ASPECTS OF MARINE TURTLE USE AND CONSERVATION 21 tbl.5 (2004), http://assets.panda.org/downloads/hawksbill money talks.pdf.

¹⁸ See Yaninek, supra note 15, at 256-57 (contending that the preservation of endangered

United Kingdom indicate that contact with biologically diverse natural environments improves psychological well-being in many people. ¹⁹ Such examples signify the numerous incentives for protecting sea turtles.

Because marine turtles are migratory species, international, trans-boundary efforts are essential to the success of protection and conservation efforts.²⁰ Scientific data indicates that turtles nesting in Australia migrate as far as the United States' Pacific Coast;²¹ this further emphasizes that protection and conservation of marine turtle populations depends upon effective domestic and international law equally. Moreover, the lifespan of a turtle is a long one; some turtles mature over a period of up to fifty years.²² Journeying for decades between feeding and nesting grounds, marine turtles enter and exit multiple national jurisdictions throughout their lifetimes.²³ In short, shared goals and obligations across regions and among states is "fundamental to sea turtle survival."²⁴

Historically, the United States and Australia have been allies, both in terms of general foreign policy²⁵ and with respect to global environmental issues.²⁶

species is important because each species is a part of the biological system which is incomprehensible and the effect of a lost species is uncertain).

¹⁹ Alana Herro, Biodiversity Can Provide Mental Health Benefits, WORLD WATCH INSTITUTE, May 20, 2007, http://www.worldwatch.org/node/5096.

²⁰ Manjula Tiwari, An Evaluation of the Perceived Effectiveness of International Instruments for Sea Turtle Conservation, 5 J. INT'L WILDLIFE L. & POL'Y 145, sec. 1 (2002) ("Sea turtles are endangered species that migrate widely across international waters and among diverse habitats belonging to different nations... Therefore, sharing long-term objectives, conservation protocols, responsibilities, and management actions among different nations and regions becomes fundamental to sea turtle survival.").

²¹ B.W. Bowen et al., Trans-Pacific Migrations of the Loggerhead Turtle (Caretta caretta) Demonstrated with Mitochondrial DNA Markers, 92 PROC. NAT'L ACAD. Sci. U.S. 3731, 3732 (1995).

²² MARINE SPECIES SECTION, ENVIRONMENT AUSTRALIA, RECOVERY PLAN FOR MARINE TURTLES IN AUSTRALIA 3 (2003), available at http://www.environment.gov.au/coasts/publications/turtle-recovery/pubs/marine-turtles.pdf [hereinafter AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES].

²³ See id. (explaining that hatchlings feed and grow in waters that may be within another nations jurisdiction). The Flatback and the Loggerhead species, however, are exceptions. Id. The Loggerhead species primarily inhabits the "open ocean" while the Flatback mostly stays within Australia's jurisdiction. Id.

²⁴ Tiwari, supra note 20, sec. 1.

²⁵ U.S. Policy Toward South Pacific Island Nations, Including Australia and New Zealand: Hearing Before the Subcomm. on Asia, the Pacific, and the Global Environment of the H. Comm. on Foreign Affairs, 110th Congress 8, 10 (2007) (statement of Glyn Davies, Deputy Assistant Sec'y, Bureau of East Asian and Pac. Affairs, U.S. Dep't of State).

²⁶ Kenneth M. Murchison, Environmental Law in Australia and the United States: A

Through national law and international commitments, the United States and Australia each acknowledge the necessity of protecting marine turtles not only in their coastal waters, but also globally.²⁷ Recently, both the United States and Australia have taken significant steps in their ongoing efforts to protect sea turtles. In particular, Australia has designated a large turtle rookery a national marine park,²⁸ and the United States has granted significant funds to Papua New Guinea for sea turtle research.²⁹ Significantly, six of the seven species of marine turtles inhabit the Pacific Ocean, while another six of the seven species are found in Australian coastal waters—the East Indian and Southwest Pacific Oceans.³⁰ A comparison of the efforts of both states with regard to marine turtle conservation and legal protection allows for an up to date assessment of the legal status of turtles in this area of the world. Further, law pertaining to sea turtles provides a lens for evaluating the efficacy of current national and international environmental law espoused by these two countries.

In light of the threats to sea turtle survival and the incentives for effective sea turtle conservation, this Note takes the position that, in spite of noteworthy efforts undertaken by the United States and Australia to protect marine turtles, each state's domestic law has room for improvement. Specifically, the United States should seek to incorporate the biodiversity conservation goals espoused by Australian law into its national law.³¹ Both Australia and the United States

Comparative Overview, 22 B.C. ENVTL. AFF. L. REV. 503, 504-05 (1995).

²⁷ See generally Marine Turtles-Office of Protected Resources, NOAA Fisheries, http://www.nmfs.noaa.gov/pr/species/turtles (last visited Oct. 25, 2008) [hereinafter NOAA Fisheries] (discussing briefly United States law protecting marine turtles and international agreements to which the United States is a party); Marine Turtles, Australian Government, Department of the Environment, Water, Heritage and the Arts, http://www.environment.gov.au/coasts/species/turtles/index.html (last visited Oct. 25, 2008) [hereinafter Marine Turtles] (describing Australian law protecting sea turtles in brief and providing hyperlinks to relevant international agreements to which Australia is a party).

²⁸ Brian Williams, *Australian Turtle Island Gets Protection*, COURIER MAIL, Aug. 24, 2007, available at http://www.news.com/au/couriermail/story/0,23739,22295614-3102,00.html.

²⁹ Press Release, U.S. Embassy, U.S. Helps Fund Program to Protect Endangered Sea Turtles in Papua (June 22, 2007), http://jakarta.usembassy.gov/press_rel/Sea_Turtles_Fund.html.

³⁰ The Green, Hawksbill, Leatherback, Loggerhead, and Olive ridley species are found in both the United States and Australia, while the flatback species is only found in Australia and the Kemp ridley only in the United States. *Compare* NOAA Fisheries, *supra* note 27, *with* Marine Turtles, *supra* note 27.

³¹ See Robert F. Blomquist, Protecting Nature "Down Under": An American Law Professor's View of Australia's Implementation of the Convention of Biological Diversity—Laws, Policies, Programs, Institutions and Plans 1992–2000, 9 DICK. J. ENVIL. L. & POL'Y 227, 324 (2000) (discussing several Australian laws and programs regarding conservation of biodiversity). Blomquist concludes that "Australia's implementation of the

can more effectively address the plight of sea turtles by more aggressively addressing the significant threat of global climate change in their respective national laws and through their international commitments.³² Additionally, in terms of their international roles, the United States and Australia must maintain their cooperative relationship to further effective protection of sea turtles in the Pacific, Southwest Pacific, and East Indian Oceans.³³

Part II of this Note provides background on the legal protection afforded marine turtles by American and Australian national law. Part III further discusses each state's efforts to protect and conserve sea turtle populations in the Pacific, South Pacific, and Indian Oceans by examining relevant American and Australian obligations under international law. Part IV assesses the comparative effectiveness of American and Australian efforts both domestically and internationally. Next, Part IV offers suggestions for change in national law and makes recommendations regarding each state's role in furthering international legal protection for sea turtles. Part V concludes this Note, placing this issue in the contexts of global protection for sea turtles and international environmental law generally.

II. PROTECTION OF MARINE TURTLES UNDER NATIONAL LAW

A. One Species at a Time: The American Way

In the United States, the Endangered Species Act of 1973 (ESA)³⁴ and the 1989 Sea Turtles Conservation Amendment³⁵ thereto serve as the primary statutory sources of protection for sea turtles.³⁶ Though marine turtles are reptiles, the Marine Mammal Protection Act Amendment (MMPA) affords certain incidental protections to them as well.³⁷ Lastly, an executive order

Convention on Biological Diversity—through numerous laws, policies, programs, institutions, and plans it has promulgated since 1992—is impressive and, practically speaking, even exemplary." *Id.* at 340.

³² See FUGAZZOTTO, supra note 8, at 11 (stating ways to reduce the impact of climate change on sea turtles).

³³ See Murchison, supra note 26, at 561 (noting that there are "trends that transcend national differences" when comparing Australian and U.S. environmental laws).

³⁴ Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (2006).

³⁵ Sea Turtles Conservation Amendment of 1989, Pub. L. No. 101-162, § 609, 103 Stat. 1037.

³⁶ See Yaninek, supra note 15, at 256, 282–84 (discussing the domestic and international effects of the ESA on sea turtles).

³⁷ Marine Mammal Protection Act of 1988, Pub. L. No. 100-711, 102 Stat. 4755 (codified as amended in scattered sections of 16 U.S.C.); see Richard J. McLaughlin, UNCLOS and the

requiring the development of a national system of marine protected areas (MPAs) is also an integral part of the United States' efforts to protect sea turtles.³⁸

The ESA is a relatively expansive law, enacted to address the problem of species extinction.³⁹ "[E]conomic growth and development untempered by adequate concern and conservation" are blamed for the demise of certain species in the ESA's first section.⁴⁰ In an apparent attempt to mitigate the adverse impacts of uncontrolled growth and development, the declared purpose of the ESA is to protect species whose survival is in jeopardy, specifically "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such . . . species and to take such steps as may be appropriate to achieve the purposes" of international agreements to which the United States is a party.⁴¹

Central to the ESA is the Secretary of the Interior's responsibility to maintain the endangered and threatened species lists and to develop recovery plans to ensure the "conservation and survival" of such species. ⁴² An endangered species is one "in danger of extinction throughout all or a significant portion of its range," while a threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future." Currently, all six species of turtles that inhabit American coastal waters are listed as either threatened or endangered. ⁴⁵

Demise of the United States' Use of Trade Sanctions to Protect Dolphins, Sea Turtles, Whales, and Other International Marine Living Resources, 21 ECOLOGY L.Q. 1, 20 (1994) (discussing the Marine Mammal Protection Act).

³⁸ Exec. Order No. 13,158, 65 Fed. Reg. 34,909 (May 26, 2000). Though judicial enforcement of executive orders raises complex issues, "[e]xecutive orders command executive agencies" and are essentially "presidential directives issued to federal government agencies or officials . . . [which] may have substantial effect on the public." 32 CHARLES ALAN WRIGHT & CHARLES KOCH, Jr., FEDERAL PRACTICE & PROCEDURE § 8278 (2008).

³⁹ 16 U.S.C. § 1531(a)–(b); Yaninek, supra note 15, at 264.

^{40 16} U.S.C. § 1531(a)(1).

⁴¹ Id. § 1531(b); Elizabeth P. McNichols, Case Note, Turtle Power: The Ninth Circuit Avoids a Tragedy on the High Seas, 12 Mo. ENVTL. L. & POL'Y REV. 57, 61 (2004) (discussing the ESA and noting it "has been called the 'broadest and most powerful law' with the purpose of protecting species").

^{42 16} U.S.C. § 1533(c)(1), (f)(1); McNichols, supra note 41, at 61.

^{43 16} U.S.C. § 1532(6).

⁴⁴ Id. § 1532(20).

⁴⁵ Turtle Species Protected Under the Endangered Species Act, NOAA Fisheries, http://www.nmfs.noaa.gov/pr/species/esa/turtles.htm (last visited Oct. 25, 2008). The Green turtle is

For species listed as threatened or endangered, the Secretary must "to the maximum extent prudent and determinable[,]... designate any habitat of such species... to be a critical habitat." Such designation may lead to "special management considerations or protection."

Similarly, designation of certain areas as MPAs is another means to protect marine habitats.⁴⁸ An MPA is defined as "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."⁴⁹ That such designations "provide recreation and economic opportunities . . . [and] [h]elp sustain critical habitats and marine resources" are touted by the National Marine Protected Areas Center of the United States as benefits of MPAs.⁵⁰ Quite boldly, the National Marine Protected Areas Center also proclaims that MPAs "[a]ct as an 'insurance policy' by helping protect marine resources from human impacts."⁵¹ In 2006, President George W. Bush established the world's largest MPA—an area of over eighty-four million acres around the Northwestern Hawaiian Islands.⁵²

Moreover, the Sea Turtles Conservation Amendment to the ESA allows the State Department to develop and enforce certification requirements for goods imported into the United States, which gives this domestic law a certain degree of international scope.⁵³ Under this provision, to supply shrimp to the United

considered endangered in Mexico's Pacific Coast but is listed as threatened in all other areas. The Olive ridley population on Mexico's Pacific Coast is listed as endangered but is listed as threatened elsewhere. The Hawksbill, Kemp's ridley, and Leatherback species are considered endangered. *Id.*

^{46 16} U.S.C. § 1533(a)(3)(A).

⁴⁷ Id. § 1532 (5)(A)(i).

⁴⁸ Exec. Order No. 13,158, 65 Fed. Reg. 34,909, 34,909-10 (May 26, 2000).

⁴⁹ Id. at 34,909.

⁵⁰ National Marine Protected Areas Center, All About Marine Protected Areas, http://mpa.gov/all_about_mpa/basics_sup.html (last visited Oct. 25, 2008) [hereinafter All About Marine Protection Areas]. The National Marine Protection Areas Center, established by the Departments of Commerce and the Interior, leads many federal, state, tribal, public and other organizations to create a scientifically based MPA program that protects natural and cultural marine resources. About the National Marine Protection Areas Center, http://mpa.gov/mpa_cent er/about mpa center.html (last visited Oct. 25, 2008).

⁵¹ All About Marine Protection Areas, *supra* note 50.

⁵² Press Release, Environmentalists Praise Bush's Action to Create the World's Largest Marine Protected Area: Northwestern Hawaiian Islands Sanctuary (June 15, 2006), http://www.edf.org/pressrelease.cfm?ContentID=5290.

⁵³ Sea Turtles Conservation Amendment of 1989, Pub. L. No. 101-162, § 609(b)(1), 103 Stat. 1037, 1038; Howard F. Chang, *Toward a Greener GATT: Environmental Trade Measures and the Shrimp-Turtle Case*, 74 S. CAL. L. REV. 31, 31 (2000).

States market, a commercial shrimping operation must verify that the "government of the harvesting nation" has adopted a program similar to that of the United States with respect to incidental sea turtle takings.⁵⁴

Similarly, the MMPA imposes a duty on the Secretary of the Treasury to "ban the importation of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards." The MMPA aspires to discourage certain trawling and gillnet fishing operations which result in high levels of bycatch, not just of mammals, but also of reptiles like sea turtles. 56

For the most part, the United States' imposition of trade sanctions pursuant to the MMPA and the Sea Turtles Conservation Amendment has not been well-received by the international community.⁵⁷ States disfavoring such action note that U.S.-imposed obligations often go beyond duties required under international agreements or the applicable law of those states.⁵⁸ In the same vein, those opposed to the international application of U.S. law point to the protectionist nature of these laws; that is, the United States' motivation stems from a desire to "protect U.S. fisherman from foreign competition by equalizing costs associated with environmental protection."⁵⁹

Though the ESA and its amendments mete out obligations to various members of the Cabinet, the National Oceanic and Atmospheric Administration (NOAA) is the federal agency responsible for applying the MMPA and the ESA in the United States' exclusive economic zone, ⁶⁰ specifically through the Office of Protected Resources. ⁶¹ The National Marine Fisheries Service (NMFS) may also issue regulations to protect endangered

^{54 § 609(}b)(2)(A), 103 Stat. 1038.

⁵⁵ McLaughlin, supra note 37, at 22.

⁵⁶ See id. at 22 (explaining that "[s] everal gillnet and trawl fisheries in the Pacific . . . are . . . subject to strict conservation measures" under the MMPA). See also Takako Morita, Marine Sea Turtles and Shrimp Trawling: Interplay Between the U.S. Courts and WTO Panels and Its Effect on the World Shrimp Industry, 10 HASTINGS N.-NW. J. ENVIL. L. & POL'Y 209, 209 (describing shrimp trawling as "one of the most significant threats to sea turtles today").

⁵⁷ McLaughlin, supra note 37, at 20.

⁵⁸ *Id*.

⁵⁹ Id. at 20.

⁶⁰ The exclusive economic zone includes areas 200 nautical miles from the coast. Josh Eagle, Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity, 16 DUKE ENVIL. L. & POL'Y F. 143, 150 n.35 (2006).

⁶¹ Id. at 150.

species like sea turtles.⁶² In the 1980s, the NMFS designed the Turtle Excluder Device (TED), which is now mandatory for large-scale shrimping operations when incidental capture of sea turtles is probable.⁶³

Another major provision of the ESA permits citizen suits against the Secretary of the Interior for failure to perform non-discretionary acts, which include decisions related to listings and critical habitat designations.⁶⁴ A citizen may also file suit in federal district court to enjoin actions which violate the ESA.⁶⁵ Certain cases dealing with the ESA Sea Turtles Conservation Amendment and the MMPA are helpful in understanding the extent to which U.S. law functions as an effective legal tool for protecting marine turtles. In particular, Turtle Island Restoration Network v. National Marine Fisheries Service,⁶⁶ Earth Island Institute v. Christopher,⁶⁷ and Earth Island Institute v. Mosbacher⁶⁸ help to define U.S. government powers under the ESA with respect to marine turtles.

In the early 1990s, the Earth Island Institute⁶⁹ sued the NMFS, the Secretary of State, and the Secretary of Commerce, among others, to enforce the ESA provision requiring the use of turtle saving technology, like TEDs, worldwide.⁷⁰ The Ninth Circuit determined that this portion of the ESA violates the separation of powers principle.⁷¹ The court also held that enforcement of the statute's provisions requiring the Secretary of State to initiate international discussion to protect sea turtles trampled upon the President's exclusive right to conduct foreign relations.⁷² However, the Court of International Trade proved to be a more favorable venue for Earth Island; upon hearing the matter in 1995, the court ordered the NMFS, Secretary of

⁶² See, e.g., Morita, supra note 56, at 209 (stating that the NMFS "promulgated regulations in 1987 that required all American shrimp trawlers to use Turtle Excluder Devices").

⁶³ Id. at 213-14; Turtle Excluder Devices, known as "TEDs," are metal grids with trap doors that let turtles escape trawling nets while captured shrimp are retained. Id. at 213.

⁶⁴ Endangered Species Act of 1973, 16 U.S.C. § 1540(g)(1)(C) (2006); Yaninek, *supra* note 15, at 268.

^{65 16} U.S.C. § 1540(g)(1)(A); Yaninek, supra note 15, at 268.

^{66 340} F.3d 969 (9th Cir. 2003).

^{67 6} F.3d 648 (9th Cir. 1993).

^{68 929} F.2d 1449 (9th Cir. 1991).

⁶⁹ The Earth Island Institute, founded by David Brower, is a conservation organization that provides support to a variety of programs addressing myriad environmental issues. Earth Island Institute, About Us, http://www.earthisland.org/index.php/aboutUs (last visited Oct. 25, 2008).

⁷⁰ Christopher, 6 F.3d at 648-50.

⁷¹ Id. at 650, 652.

⁷² *Id.* at 653.

State, Secretary of Commerce, and other defendants from the initial action to prohibit shrimp imports from certain nations.⁷³

In 2003, the Turtle Island Restoration Network⁷⁴ successfully utilized the citizen suit provision of the ESA to challenge the issuance of permits by the NMFS to longline fishing operations.⁷⁵ Ultimately, the Ninth Circuit held that the NMFS possessed the discretionary power to attach conditions to permits "for the benefit of protected species," such as sea turtles.⁷⁶

Similarly, the Ninth Circuit addressed executive power under the MMPA in *Earth Island Institute v. Mosbacher*. ⁷⁷ In that case, the MMPA was the basis for an embargo on certain tuna products originating from Pacific-based fishing operations with unacceptable numbers of incidentally killed dolphins. ⁷⁸ The court held that, under the circumstances, the executive branch must implement such an embargo until the Secretary of Commerce determines whether incidental take numbers justify lifting it. ⁷⁹ Though the case involved dolphins, the embargo affected gillnet and trawling operations that also result in incidental sea turtle deaths. ⁸⁰

The aforementioned cases highlight the effectiveness of protections afforded sea turtles under the Sea Turtles Conservation Amendment to the ESA and through embargos implemented through the MMPA. But scholars note, and history has proven, that such protections may not go unchallenged by other nations in various international fora.⁸¹ Dispute settlement records

⁷³ Earth Island Inst. v. Christopher, 19 Ct. Int'l Trade 1461, 1485–86, 913 F. Supp. 559, 579–80 (1995); Paul Stanton Kibel, *Justice for the Sea Turtle: Marine Conservation and the Court of International Trade*, 15 UCLA J. ENVIL. L. & POL'Y 57, 57 (1997).

The Turtle Island Restoration Network is a nonprofit organization that fosters international efforts to protect sea turtles through its Sea Turtle Restoration Project. Sea Turtle Restoration Project, STRP Mission, http://www.seaturtles.org/article.php?list=type&type=34 (last visited Oct. 25, 2008).

⁷⁵ Turtle Island Restoration Network v. Nat'l Marine Fisheries Serv., 340 F.3d 969, 970 (9th Cir. 2003).

⁷⁶ *Id*. at 971.

⁷⁷ Earth Island Inst. v. Mosbacher, 929 F.2d 1449, 1452 (9th Cir. 1991); see McLaughlin, supra note 37, at 21 (discussing that the Bush administration "balked at prohibiting Mexican tuna imports until forced to do so by court order").

⁷⁸ Mosbacher, 929 F.2d at 1449.

⁷⁹ McLaughlin, supra note 37, at 21-22.

⁸⁰ See id. at 22 (explaining that the decision affected "[s]everal gillnet and trawl fisheries"); see Morita, supra note 56, at 209 (stating that "shrimp trawling is one of the most significant threats to sea turtles today" and that "[e]very year, thousands of sea turtles worldwide die in shrimp fishing nets").

⁸¹ See McLaughlin, supra note 37, at 25 (explaining that the MMPA and Sea Turtles

from the World Trade Organization (WTO) and other international tribunals document the specific challenges made to these actions by the United States.⁸² Nonetheless, these cases indicate the willingness of courts in the United States to stand behind and bolster the ESA.

Thus, the United States affords meaningful protection to sea turtles not only through the ESA, but also with complementary statutes and regulations. In contrast, Australia utilizes a comprehensive statute that is discussed in the next section.

B. Biodiversity First and Foremost: The Australian Approach

The primary legal mechanism for protecting marine turtles in Australia is the Environment Protection and Biodiversity Conservation Act 1999 (EPBC).⁸³ Broad in its scope, the EPBC replaces several smaller-scaled environmental statutes⁸⁴ as it seeks to comprehensively outline the duties of the Commonwealth to protect the environment.⁸⁵

Along with environmental protection, the stated purposes of the EPBC include the "promot[ion of] ecologically sustainable development... and... conservation of biodiversity...." Another objective is "to assist in the cooperative implementation of Australia's international environmental responsibilities." Other objectives related to biodiversity issues are

Conservation Amendment may trigger the compulsory dispute settlement provisions of United Nations Convention on the Law of the Sea).

⁸² India, Pakistan, Thailand, and Malaysia are a few of the states that have challenged the United States' import bans as inviolate of the General Agreement on Tariffs and Trade of 1994 (GATT). See Panel Report, United States—Import Prohibition of Certain Shrimp and Shrimp Products, ¶3.2, WT/DS58/R (May 15, 1998) (recommending that the Dispute Settlement Body request that the United States bring its import bans into conformity with GATT).

⁸³ Environment Protection and Biodiversity Conservation Act 1999, No. 91, (as amended by Act No. 73 of 2008) (Austl.), available at http://www.frli.gov.au/ComLaw/Legislation/Act Compilation1.nsf/0/618AF28B395BB448CA2574980010E13B/\$file/EnvProtBioDivCons99V ol1WD02.pdf; cf. Australia Recovery Plan for Marine Turtles, supra note 22, at 1 (discussing the EPBC and its recovery objectives for marine turtles).

⁸⁴ Upon enactment, the EPBC replaced the Environment Protection Act of 1974, the Endangered Species Protection Act of 1992, the National Parks and Wildlife Conservation Act of 1975, the World Heritage Properties Conservation Act of 1983, and the Whale Protection Act of 1980. Blomquist, *supra* note 31, at 324.

⁸⁵ *Id.* (quoting Environment Australia, An Overview of the Environment Protection and Biodiversity Conservation Act (1999)).

⁸⁶ Environment Protection and Biodiversity Conservation Act 1999, c. 1, § 3(1)(b)-(c).

⁸⁷ Id. c. 1, § 3(1)(e).

recognizing and promoting use "of indigenous peoples' knowledge of biodiversity."88

Australia's Department of the Environment, Water, Heritage and the Arts administers the EPBC and is the primary Commonwealth department charged with environmental protection. ⁸⁹ This department also serves an advisory role in the Australian government's environmental and water policy development. ⁹⁰ Additionally, it seeks to employ "an effective response to climate change." In terms of international environmental efforts, this department serves as the representative of the Australian government. ⁹²

Each of the six species of sea turtles that nest on Australia's beaches and swim in her oceans are included on the list of threatened species promulgated pursuant to the EPBC in August of 2000. Threatened species are identified as "critically endangered," "endangered," or "vulnerable" by the EPBC. An "endangered" species "may become extinct if the threats to its survival continue. A listing as "vulnerable" means that the species "may become endangered if threats continue. Identification as a "critically endangered species" is the last category before a species is considered "extinct in the wild." Two marine turtle species inhabiting Australian waters are classified as "endangered," and four other species are classified as "vulnerable."

⁸⁸ Id. c. 1, § 3(1)(f)–(g); see also Blomquist, supra note 31, at 325 (discussing the EPBC provisions which address biodiversity issues and labeling them as the Act's "Biodiversity Objects").

National Heritage Organisations Australian Government, Department of the Environment, Water, Heritage and the Arts, http://www.environment.gov.au/heritage/organisations/national.html (last visited Oct. 25, 2008).

⁹⁰ *Id*.

⁹¹ *Id*.

⁹² Id.

⁹³ AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES, *supra* note 22, at 5 ("Six species of marine turtle found in Australian waters are listed as threatened species.").

⁹⁴ Environment Protection and Biodiversity Conservation Act 1999, No. 91, c. 2, § 18(2)–(4) (as amended by Act No. 73 of 2008) (Austl.), available at http://www.frli.gov.au/ComLaw/Le gislation/ActCompilation1.nsf/0/618AF28B395BB448CA2574980010E13B/\$file/EnvProtBioDivCons99Vol1WD02.pdf.

⁹⁵ Marine Turtles, supra note 27.

⁹⁶ Id.

⁹⁷ See Environment Protection and Biodiversity Conservation Act 1999, c. 5, § 179 (listing "critically endangered" immediately after "extinct in the wild").

⁹⁸ AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES, supra note 22, at 5 tbl.2.

Pursuant to the EPBC, the Commonwealth Environment Minister is responsible for development of recovery plans for threatened species. The stated objective of the most recent recovery plan for marine turtles is to reduce negative impacts on Australian marine turtle populations and to "promote their recovery in the wild." Development of monitoring programs, habitat protection, adherence to existing agreements, and development of "collaborative programs with neighboring countries" are some of the more specific objectives of the recovery plan. Further, the recovery plan highlights the "biodiversity benefits" of protecting sea turtles. For instance, TED usage reduces bycatch of all marine species, and protection of sea grass and continental shelf organisms results from securing sea turtle habitats. Likewise, actions against debris sources damaging to marine turtles benefit other species similarly threatened by ocean and beach debris. In certain cases, where "feasible" and "efficient," a "threat abatement" plan is required in addition to a recovery plan.

Also relevant to sea turtle protection is the assessment and approval process established by the EPBC. ¹⁰⁶ In particular, activities that will or might significantly impact listed threatened species, migratory species, or an endangered ecological community, as well as any activities "involving the marine environment," are subject to the assessment and approval process. ¹⁰⁷ A public environment report is just one form of assessment. ¹⁰⁸ However, the EPBC is flexible in allowing for several forms of assessment, including environmental impact statements, public inquiry, and processes defined by

⁹⁹ Blomquist, supra note 31, at 328.

¹⁰⁰ AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES, supra note 22, at 1.

¹⁰¹ Id. at 2 (listing six specific objectives).

¹⁰² Id.

¹⁰³ Id. Researchers highlight loss of seagrass beds as a major impact of civilization on Australia's natural environment. See Blomquist, supra note 31, at 248 (noting the decline in sea grass beds in temperate areas in the last 200 years).

¹⁰⁴ AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES, supra note 22, at 2.

¹⁰⁵ Blomquist, supra note 31, at 328.

¹⁰⁶ See generally Environment Protection and Biodiversity Conservation Act 1999, No. 91, c. 4, § 66 (as amended by Act No. 73 of 2008) (Austl.), available at http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/618AF28B395BB448CA2574980010E13B/\$file/EnvProtBioDivCons99Vol1WD02.pdf (establishing an assessment and approval process for controlled actions).

¹⁰⁷ Id. c. 2, §§ 18, 20, 23; Blomquist, supra note 31, at 326–27.

¹⁰⁸ Environment Protection and Biodiversity Conservation Act 1999, c. 4, § 66.

bilateral agreements. 109 The Minister may also issue declarations outlining assessment processes. 110

The EPBC provides that the Commonwealth must not only maintain lists of threatened species but must identify and list threatened ecological communities as well. 111 And, under the EPBC, the Australian government has the power to designate areas within the Australian exclusive economic zone as MPAs. 112 The Commonwealth defines an MPA as "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and managed through legal or other effective means."113 Notably, the Commonwealth emphasizes that "the primary objective is conservation of biological diversity."114 Some of the primary benefits of MPAs are protection of rare or threatened species and communities along with conservation of "scientific reference sites," biodiversity, ecosystems, and cultural heritage. 115 Further, the Commonwealth recognizes educational and ecotourism benefits of MPA designations. 116 An area's designation as an MPA leads to restrictions on commercial fishing practices and thus affords protection to wildlife and marine species, like sea turtles.¹¹⁷ Australia has taken a strong lead in this method of marine protection, as "one-third of the world's MPAs [are] located in Australian waters."118 Hundreds of thousands of square kilometers are protected as MPAs along the Australian coast. 119

¹⁰⁹ Id

¹¹⁰ Id. ("An assessment may be done using . . . a process specified in a declaration by the Minister.").

¹¹¹ Id. c. 5, § 181; Blomquist, supra note 31, at 327.

¹¹² Marine Protected Area Legal Framework, Australian Government, Department of the Environment, Water, Heritage and the Arts, http://www.environment.gov.au/coasts/mpa/legal.ht ml#declaring (last visited Oct. 25, 2008).

¹¹³ About Australian Marine Protected Areas, Australian Government, Department of the Environment, Water, Heritage and the Arts, http://www.environment.gov.au/coasts/mpa/about/index.html (last visited Oct. 25, 2008).

¹¹⁴ Id.

¹¹⁵ Id.

¹¹⁶ Id

¹¹⁷ A Review of Recent Developments in Ocean and Coastal Law, 12 OCEAN & COASTAL L.J. 181, 202 (2006).

¹¹⁸ Id. at 201-02.

¹¹⁹ Id. at 201 (noting that there are 226,000 square kilometers of protected areas); see Marine Protected Areas, Australian Government, Department of the Environment, Water, Heritage and the Arts, http://www.environment.gov.au/coasts/mpa/index.html (last visited Oct. 25, 2008) (providing a list of MPAs in Australia with links to specific information for each MPA).

The Australian Federal Court has interpreted the purposes of the EPBC relatively broadly, requiring meaningful efforts by the Environment Minister to protect threatened species. ¹²⁰ Several recent Australian court cases requiring interpretation of the EPBC illustrate its effectiveness in protecting sea turtles and other species. *Queensland Conservation Council Inc. v. Minister for the Environment and Heritage*, ¹²¹ *Booth v. Bosworth*, ¹²² and *Brown v. Forestry Tasmania* are three such cases, and are discussed below.

In 2003, the Queensland Conservation Council¹²⁴ challenged the Environment Minister's approval of dam construction on a river that merges into tributaries that connect to the Great Barrier Reef World Heritage Area, a feeding and nesting area inhabited by sea turtle populations.¹²⁵ Determining that the EPBC requires a broad inquiry by the Environment Minister into the impacts of a given activity on species and ecosystems, the Federal Court remitted the matter for further, fuller inquiry by the Minister.¹²⁶

Equally important for marine turtle protection are recent decisions protecting endangered species through interpretation of the EPBC. ¹²⁷ In Booth v. Bosworth, the Federal Court determined that, under the EPBC, it was authorized to grant an injunction prohibiting owners of a fruit farm from electrocuting spectacled flying foxes threatening their fruit. ¹²⁸ In Brown v. Forestry Tasmania, findings indicated that certain forestry operations in the Wielangta area would have a significantly negative impact on the swift parrot and the broad-toothed stag beetle. ¹²⁹ Therefore, the Federal Court held that

¹²⁰ See, e.g., Queensland Conservation Council v. Minister for Env't & Heritage (2003) [2003] F.C.A. 1463, paras. 40–41 (Austl.) (requiring a more extensive inquiry by the Environment Minister into the environmental impact of approved activity), aff'd, (2004) 139 F.C.R. 24.

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¹²² Booth v. Bosworth (2001) 114 F.C.R. 39.

¹²³ Brown v. Forestry Tasmania (No. 4) (2006) 157 F.C.R. 1, rev'd, (2007) 167 F.C.R. 34.

The Queensland Conservation Council is a leading non-governmental advocate for environmental protection in Queensland, Australia. Queensland Conservation Council Homepage, http://www.qccqld.org.au/ (last visited Oct. 25, 2008).

¹²⁵ Queensland Conservation Council (2003) [2003] F.C.A. 1463, paras. 22–23 (reproducing the Environment Minister's findings in the approval and discussing the challenge that approval).

¹²⁶ Id. paras. 40–41.

¹²⁷ Brown, 157 F.C.R. at 20, 24; Booth (2001) 114 F.C.R. at 42, 66. See Lee Godden & Jacqueline Peel, The Environment Protection and Biodiversity Conservation Act 1999 (Cth): Dark Sides of Virtue, 31 MELB. U. L. REV. 106, 109, 125–31 (2007) (mentioning Brown in passing, but discussing Booth in more detail).

¹²⁸ Booth, 114 F.C.R. at 42, 66.

¹²⁹ Brown, 157 F.C.R. at 3, 20, 24.

such operations required approval from the Environment Minister.¹³⁰ Such cases indicate that the Australian Federal Court will interpret the EPBC to provide vigorous protection for endangered and threatened species.

The Australian government's desire not only to consolidate its environmental law into one comprehensive act, but also to provide a tool for the state to more effectively fulfill international obligations prompted passage of the EPBC.¹³¹ Part III addresses the international environmental commitments pertinent to marine turtle protection.

III. INTERNATIONAL ROLES OF THE UNITED STATES AND AUSTRALIA IN AFFORDING LEGAL PROTECTION TO SEA TURTLES

A. American Commitments

The Sea Turtles Convention Amendment to the ESA requires that the executive branch undertake efforts to protect sea turtles through international negotiations and agreements. Specifically, the provision on international cooperation places responsibility upon both the Secretary of Commerce and the Secretary of State to promote international agreements protecting vital areas on land and at sea and to "initiate negotiations with other nations to develop bilateral or multilateral sea turtle conservation agreements." One such agreement is the Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC).

¹³⁰ Id. at 42 (holding that Forestry Tasmania's actions are not exempt from the EPBC under section 38 which allows some activities to be exempt from environmental approvals). The Court reversed the decision on grounds that the activity in question was exempt from certain provisions of the EPBC on the condition that the State monitor activity and ensure compliance with other management provisions, indicating that activities with a certain degree of impact on species still warrant oversight and approval by the Commonwealth. Forestry Tasmania v. Brown, (2007) 167 F.C.R. 34, 40–42 (stating: "[T]he exemption for RFA forestry operations in [section] 38 of the Act must be seen, in context, as providing an exception only if an alternative means of promoting the recovery of a species is achieved by a Regional Forest Agreement").

¹³¹ Brown, 157 C.F.R. at 42.

¹³² Sea Turtles Conservation Amendment of 1989, Pub. L. No. 101-162, § 609(b)(1), 103 Stat. 1037, 1038.

¹³³ Marlo Pfister Cadeddu, Note, Turtles in the Soup? An Analysis of the GATT Challenge to the United States Endangered Species Act Section 609 Shrimp Harvesting Nation Certification Program for the Conservation of Sea Turtles, 11 GEO. INT'L ENVIL. L. REV. 179, 185 (1998).

¹³⁴ Inter-American Convention for the Protection and Conservation of Sea Turtles, Dec. 1, 1996, S. TREATY DOC. NO. 105-48, 2164 U.N.T.S. 31 [hereinafter IAC].

Congress, in the early 1990s, urged international action to provide better protection for sea turtles.¹³⁵ Talks with Latin American nations eventually led to the creation of the IAC in 1996.¹³⁶ The United States became party to the IAC in 2000¹³⁷ and the IAC entered into force by May of 2001.¹³⁸

The goal of the IAC is "to promote the protection, conservation and recovery of sea turtle populations and of the habitats on which they depend, based on the best available scientific evidence, taking into account the environmental, socioeconomic and cultural characteristics of the Parties." The treaty encourages regulation of fishing operations and promotes protection of marine turtle habitats. While it is unclear whether the treaty mandates habitat protection, at the very least, it is clear that the treaty requires parties to restrict human activities that could seriously affect sea turtles. Likewise, parties are encouraged, but perhaps not required, to safeguard sea turtle populations through beach management practices and designation of protected areas. As an agreement solely for sea turtle protection, the IAC is certainly a breakthrough. Critics, however, emphasize its failure to mandate specific action as a major weakness.

Nevertheless, what the IAC lacks in terms of mandatory action it makes up for in the monitoring and compliance mechanisms it establishes. ¹⁴⁴ Under the treaty, parties must meet once very two years to assess the extent to which they have undertaken meaningful actions to meet their shared goals. ¹⁴⁵ To further monitor and assess parties' efforts, the IAC establishes a scientific committee to analyze various issues affecting sea turtle populations. ¹⁴⁶ The scientific committee is also available to develop and suggest courses of actions to better

¹³⁵ McNichols, supra note 41, at 60.

¹³⁶ Id.

¹³⁷ *Id*.

¹³⁸ Inter-American Sea Turtle Convention, http://www.iacseaturtle.org/English/home.asp (last visited Oct. 25, 2008).

¹³⁹ IAC, supra note 134, art. II.

¹⁴⁰ Chris Wold, The Status of Sea Turtles Under International Environmental Law and International Environmental Agreements, 5 J. INT'L WILDLIFE L. & POL'Y 11, secs. 5.4–5.4.1 (2002).

¹⁴¹ See id. sec. 5.4.1 (discussing the language of the IAC and how mandatory language is not used consistently with regard to habitat protection).

¹⁴² IAC, supra note 134, Annex II; Wold, supra note 140, sec. 5.4.1.

¹⁴³ Wold, *supra* note 140, sec. 5.4.1.

¹⁴⁴ See id. sec. 5.4.3 (calling the IAC's monitoring and compliance mechanisms "rigorous").

¹⁴⁵ IAC, supra note 134, art. V, para. 1; Wold, supra note 140, sec. 5.4.3.

¹⁴⁶ IAC, *supra* note 134, art. VIII; Wold, *supra* note 140, sec. 5.4.3.

protect sea turtles at the request of any party.¹⁴⁷ Moreover, the treaty obliges each party to report annually on efforts to conserve turtles and their habitats, any new laws protecting turtles, and any currently implemented research and education programs.¹⁴⁸

By encouraging the development and implementation of an international agreement like the IAC, the United States has assumed an important leadership position in promoting meaningful and effective protection for marine turtles on the international level.

B. Australian Obligations

As discussed previously, Australia enacted the EPBC as part of an effort to better meet international environmental obligations. The EPBC, therefore, incorporates the Convention on Biological Diversity (Biodiversity Convention), and a major international environmental agreement, into several of its provisions. Along with the Biodiversity Convention, Australia is also a party to the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the United Nations Convention on the Law of the Sea (UNCLOS). Each of these treaties is relevant in assessing Australia's efforts to protect marine turtles in the international arena.

Though the Biodiversity Convention makes no reference to sea turtle protection specifically, parties to the agreement are required to undertake

¹⁴⁷ IAC, supra note 134, art. VIII; Wold, supra note 140, sec. 5.4.3.

¹⁴⁸ IAC, supra note 134, art. XI; Wold, supra note 140, sec. 5.4.3.

¹⁴⁹ Brown v. Forestry Tasmania (No. 4) (2006) 157 F.C.R. 1, 41, rev'd, (2007) 167 F.C.R. 34.

¹⁵⁰ Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79, 143 [hereinafter Biodiversity Convention].

¹⁵¹ See Environment Protection and Biodiversity Conservation Act 1999, No. 91, c. 2, § 34(D) (as amended by Act No. 73 of 2008) (Austl.), available at http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/618AF28B395BB448CA2574980010E13B/\$file/EnvPr otBioDivCons99Vol1WD02.pdf (requiring that declarations by the Environment Minister related to threatened species and ecological communities be consistent with Australia's obligations under the Biodiversity Convention).

¹⁵² Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 1651 U.N.T.S. 28395 [hereinafter CMS].

¹⁵³ United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 3, 397 [hereinafter UNCLOS].

¹⁵⁴ Marine Species Convention-International Conventions, Australian Government, Department of the Environment, Water, Heritage and the Arts, http://www.environment.gov.au/coasts/species/conventions.html (last visited Oct. 25, 2008) (listing international agreements to which Australia is a party).

efforts to protect species' habitats and the marine environment.¹⁵⁵ This agreement encourages, but does not require, parties "as far as possible and as appropriate," to incorporate sustainable use and conservation policies into their own national strategies or plans and to assess environmental impacts of activities that may negatively affect biodiversity.¹⁵⁶ Parties to the treaty are also expected to revitalize struggling ecosystems and to designate protected areas as part of their efforts to conserve biological diversity.¹⁵⁷ Such provisions bode well for endangered and threatened species, as do the requirements that parties "promote the recovery of threatened species" and "maintain necessary legislation... for the protection of threatened species." and "maintain necessary legislation... for the protection of threatened species." A downside to the Biodiversity Convention, however, is that it does not specifically designate marine turtles a priority. In the protection of the protection of the protection of threatened species.

Another of Australia's international commitments relevant to sea turtle conservation, recovery, and protection is the CMS. The CMS entered into force in 1983, and Australia became a party to it in 1991.¹⁶¹ Embracing the idea that "wild animals constitute a common natural heritage for humankind," the CMS aims to foster dialogue between governments in order to protect migratory species.¹⁶² Specific obligations are not outlined in the agreement; rather, CMS parties are expected to enact national laws to meet the

¹⁵⁵ See Biodiversity Convention, supra note 150, pmbl. (noting that the "fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats"); see Wold, supra note 140, sec. 4.2 (discussing how protection of biological diversity inherently protects sea turtles).

¹⁵⁶ Biodiversity Convention, supra note 150, arts. 6, 14(1)(a); Wold, supra note 140, sec. 4.2.1.

¹⁵⁷ Biodiversity Convention, supra note 150, art. 8(a), (c), (f); Wold, supra note 140, sec. 4.2.2.

¹⁵⁸ Biodiversity Convention, supra note 150, art. 8(f), (k).

Wold, *supra* note 140, sec. 4.2.3 (discussing how migratory species could qualify as a matter of "mutual interest" which warrants the inference that such species are covered by the agreement) (quoting Biodiversity Convention, *supra* note 150, art. 5).

¹⁶⁰ Wold, *supra* note 140, sec. 4.2.2.

¹⁶¹ CONVENTION ON MIGRATORY SPECIES, 25 YEARS OF JOURNEYS 16, 23 (2004), available at http://www.cms.int/news/PRESS/nwPR2004/25th_Anniversary/CMS_25_YEARS_EN_pre ss.pdf; Parties to the Convention on the Conservation of Migratory Species of Wild Animals and Its Agreements as at October 2008, http://www.cms.int/about/partylist_eng.pdf (last visited Oct. 25, 2008).

¹⁶² Richard Caddell, International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention, 16 COLO. J. INT'L ENVTL. L. & POL'Y 113, 115–16 (2005) (discussing how Article II requires parties to take action, individually or collectively).

agreement's generalized requirements. Appendices to the CMS function as lists of species that deserve particular attention. Six sea turtle species are included in Appendix I as endangered species, which means parties must afford protection to them. With a few limited exceptions, states must forbid takings of endangered species like sea turtles. He Furthermore, where feasible and appropriate, parties should undertake habitat restoration efforts and minimize adverse impacts on such species. By providing funding for special research projects, the CMS has directly promoted marine turtle recovery and protection. Additionally, the CMS supports public awareness and education regarding marine turtle issues by providing funding for related projects and materials. Through the CMS, parties may also draft regionalized agreements, called Memoranda of Understanding, in which states that are not members of the CMS may participate.

As a party to UNCLOS,¹⁷¹ Australia has an "obligation to protect and preserve the marine environment." Under UNCLOS, coastal states have the right to manage the marine environment within their exclusive economic zone.¹⁷³ This right goes hand in hand with the UNCLOS recognition of each state's sovereignty over its exclusive economic zone.¹⁷⁴ Such powers,

¹⁶³ Id. at 115; see also CMS, supra note 152, arts. III-IV (explaining purposes of the appendices for endangered and migratory species).

¹⁶⁴ Douglas Hykle, The Convention on Migratory Species and Other International Instruments Relevant to Marine Turtle Conservation: Pros and Cons, 5 J. INT'L WILDLIFE L. & POL'Y 105, sec. 1 (2002) (discussing Appendices I and II of the CMS).

The CMS Appendices, CMS Appendix I, http://www.cms.int/documents/appendix/additions_table.pdf (last visited Oct. 25, 2008); Hykle, *supra* note 164, sec. 1 (noting that all marine turtles, but one, are listed in Appendix I).

¹⁶⁶ CMS, *supra* note 152, art. III(5) (stating that range states of an endangered migratory species must prohibit the taking of said species); Caddell, *supra* note 162, at 118.

¹⁶⁷ CMS, supra note 152, art. III(4)(a), (b); Caddell, supra note 162, at 116.

¹⁶⁸ See Hykle, supra note 164, sec. 1 (listing projects funded by CMS).

¹⁶⁹ Id

¹⁷⁰ CMS, *supra* note 152, art. V(2); Hykle, *supra* note 164, sec. 1 (discussing the more flexible agreements that can be made under the CMS).

¹⁷¹ Australia joined UNCLOS in 1994. United Nations Treaty Collection, Status of Treaties, UNCLOS, http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&id=458&chapter=21 &lang=en (last visited Oct. 25, 2008).

¹⁷² UNCLOS, *supra* note 153, art. 192; *see* McLaughlin, *supra* note 37, at 38–39 (discussing the duties included in this obligation to the marine environment).

¹⁷³ UNCLOS, *supra* note 153, art. 56(1); *see* McLaughlin, *supra* note 37, at 30–31 (discussing Article 56).

¹⁷⁴ See McLaughlin, supra note 37, at 30 (noting that this sovereign control allows states to regulate living resources within its zone in any manner provided it is consistent with the state's

however, are not entirely unbounded. Instead, within their coastal zones, UNCLOS parties should not permit activities or management practices that will lead to the over-exploitation of marine resources.¹⁷⁵ As far as the high seas are concerned, UNCLOS encourages parties to negotiate non-discriminatory conservation efforts using the best available scientific data.¹⁷⁶ Particularly relevant to sea turtle protection and recovery are the provisions requiring states to "protect and preserve rare or fragile ecosystems as well as the habitat of . . . threatened or endangered species and other forms of marine life."¹⁷⁷

Australia's commitment to these international agreements illustrates its considerably active role in regional and global measures to protect sea turtles, as well as the development and implementation of international environmental law.

C. Mutual Responsibilities

In addition to the previously discussed international instruments, Australia and the United States share obligations internationally that are relevant to the protection of marine turtles. Namely, both states are party to the Memorandum of Understanding on the Conservation and Management of Marine Turtles and Their Habitats of the Indian Ocean and South-East Asia (IOSEA MoU) as well as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). 178

international agreements).

¹⁷⁵ UNCLOS refers to over-exploitation without defining it. UNCLOS, *supra* note 153, art. 61(2). Presumably the term refers to the idea that using or exploiting natural resources to a certain degree is acceptable, but detrimental use or over-exploitation is not. *See* McLaughlin, *supra* note 37, at 31.

¹⁷⁶ McLaughlin, supra note 37, at 33.

¹⁷⁷ Id. at 39 (quoting UNCLOS art. 194(5) and arguing that, when read with Article 192, "broad affirmative duty" is created to protect habitats of threatened and endangered species, like sea turtles).

¹⁷⁸ Memorandum of Understanding on the Conservation and Management of Marine Turtles and Their Habitats of the Indian Ocean and South-East Asia, June 23, 2001, *available at* http://www.ioseaturtles.org/Mou/IOSEA_MoU_Final.pdf; Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 [hereinafter CITES].

The IOSEA MoU is a non-binding agreement made pursuant to the CMS.¹⁷⁹ Australia and other parties formulated this agreement in 2001 to address protection and recovery of six turtle species in the Indian Ocean and South-East Asia region.¹⁸⁰ Despite its non-binding nature, the IOSEA MoU is not without some meaningful effect. One significant component of the IOSEA MoU is its conservation and management plan.¹⁸¹ The plan ambitiously seeks to revitalize and even "reverse the decline" of sea turtles in the area by protecting habitats, addressing threats, and educating the public.¹⁸² More generally, the IOSEA MoU encourages the exchange of scientific information between party states to better address the plight of marine turtles in the region.¹⁸³

Pursuant to a resolution by the World Conservation Union, international efforts to address the threat posed by international trade on wild fauna and flora resulted in the formulation of CITES in the early 1970s. ¹⁸⁴ In 1974, the United States became a signatory to CITES, and in 1976, Australia became a party to the agreement. ¹⁸⁵ CITES does not replace the national laws of each party; instead, it requires each party "to adopt . . . domestic legislation to ensure that [the treaty] is implemented at the national level." ¹⁸⁶ CITES forbids trade for "primarily commercial purposes" of species listed in its first appendix—those that are at risk of extinction or that "are or may be affected by trade." ¹⁸⁷ Furthermore, the agreement allows only limited, non-detrimental

¹⁷⁹ CONVENTION ON MIGRATORY SPECIES, supra note 161, at 17 (discussing the IOSEA MoU); Hykle, supra note 164, sec. 1 (explaining that the IOSEA MoU is in the CMS family of agreements and was made pursuant thereto). Non-party states may participate in Memoranda of Understanding (MoU). Convention on Migratory Species, supra note 161, at 4. However, these MoUs are not legally binding. Caddell, supra note 162, at 138.

¹⁸⁰ The IOSEA MoU covers the Loggerhead, Olive ridley, Leatherback, Flatback, Hawksbill, and Green turtle species. Indian Ocean - South-East Asian Marine Turtle Memorandum of Understanding Home, Fact Sheet, available at http://www.ioseaturtles.org/fact_sheet.php (last visited Oct. 25, 2008) [hereinafter IOSEA MoU, Fact Sheet].

¹⁸¹ See Caddell, supra note 162, at 138 (discussing the IOSEA MoU's "comprehensive conservation and management plan").

¹⁸² Hykle, *supra* note 164, sec. 1.

¹⁸³ IOSEA MoU, Fact Sheet, supra note 180.

¹⁸⁴ Discover CITES: What is CITES?, http://www.cites.org/eng/disc/what.shtml (last visited Oct. 25, 2008).

¹⁸⁵ Discover CITES: Alphabetical List of Parties, http://www.cites.org/eng/disc/parties/alp habet.shtml (last visited Oct. 25, 2008).

¹⁸⁶ Discover CITES: What is CITES?, supra note 184.

¹⁸⁷ Wold, supra note 140, sec. 4.1 (discussing CITES).

trade of Appendix II species—those that are close to threatened status. ¹⁸⁸ Under CITES, every marine turtle species is listed in Appendix I. ¹⁸⁹ Acknowledging that sustainable use of turtles could be possible, CITES theoretically allows for some "ranching" of certain sea turtle eggs, but, to date, all proposals for such operations have been rejected. ¹⁹⁰ Though CITES does not address domestic trade and other threats to sea turtles, the agreement has effectively addressed the threat of international trade on sea turtle populations; it has even been accredited with halting "all legal international commercial trade in sea turtles." ¹⁹¹

These obligations evince the leadership of both Australia and the United States in the protection of marine turtles regionally and globally, and their cooperation and friendship in so doing.

IV. ANALYSIS

A. Comparative Effectiveness of the ESA and the EPBC

In terms of objectives, scope, and judicial application, there are fundamental differences between the United States' ESA and Australia's EPBC. In particular, habitat destruction and bycatch are addressed by each nation differently. Notably, loss of biodiversity and global warming impacts on the marine environment are addressed by Australian law while largely ignored by the United States.

In terms of the stated purposes and objectives, the ESA and the EPBC differ in meaningful ways. The United States' ESA sets out to provide "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such . . . species." On the other hand, the EPBC takes a more holistic approach, seeking not only to ensure the protection of individual species but rather to "promote the conservation of biodiversity." 193

¹⁸⁸ Id.

¹⁸⁹ *Id*.

¹⁹⁰ *Id.* sec. 4.1.2. In the context of CITES, "ranching" is " 'the rearing in a controlled environment of specimens taken from the wild' and is dependent upon the wild population." *Id.* ¹⁹¹ *Id.* sec. 4.1.

¹⁹² Endangered Species Act of 1973, § 2(b), 16 U.S.C. § 1531(b) (2006).

¹⁹³ Environment Protection and Biodiversity Conservation Act 1999, No. 91, c. 1, § 3(1)(c) (as amended by Act No. 73 of 2008) (Austl.), *available at* http://www.frli.gov/au/ComLaw/Legislation/ActCompilation1.nsf/0/618AF28B395BB448CA2574980010E13B/\$file/EnvProtBio DivCons99Vol1WD02.

Nonetheless, an important similarity between the ESA and EPBC is that each endeavors to provide a means by which the United States and Australia, respectively, may fulfill their obligations under international agreements. ¹⁹⁴ Perhaps much should not be imputed from the differences between the ESA and the EPBC; after all, the ESA is a smaller-scale statute designed to address problems specifically associated with struggling species, while the EPBC is a comprehensive statute, addressing a variety of environmental issues. However, the EPBC's more comprehensive, holistic approach reflects Australia's realization that effective environmental law must recognize the environment as the interconnected, intricate system that it is, rather than compartmentalizing individual environmental issues in a way that ignores this reality.

One of the chief differences between the ESA and the EPBC lies in the terminology used to categorize species experiencing varied levels of threats to their survival. Under the ESA, the United States lists species as either "endangered" or "threatened," the former being any species "in danger of extinction throughout all or a significant portion of its range,"195 and the latter being "any species which is likely to become an endangered species within the future."196 foreseeable In contrast, the EPBC creates categories—"critically endangered," "endangered," or "vulnerable"—which seem to provide for greater precision in developing policies to ensure survival of listed species.¹⁹⁷ Australia's definition of "endangered" does not differ greatly from the United States' definition. A species is listed as "endangered" per the EPBC if it "may become extinct if the threats to its survival continue." 198 Under the ESA "endangered" means that a species is "in danger of extinction throughout all or a significant portion of its range."199 Similarly, a listing as "vulnerable," is not unlike a listing as "endangered" under the ESA; "vulnerable" species "may become endangered if threats continue." 200 However, unlike the ESA, the EPBC provides for a third category of "critically endangered species" before a species is declared "extinct in the wild."201 Though no marine turtle species are currently listed as critically endangered,

¹⁹⁴ Compare 16 U.S.C. § 1531(b), with Environment Protection and Biodiversity Conservation Act 1999, § 3(1)(e).

¹⁹⁵ 16 U.S.C. § 1532(6).

¹⁹⁶ Id. § 1532(20).

¹⁹⁷ See Environment Protection and Biodiversity Conservation Act 1999, § 18(2)–(4) (proscribing action that harms a member of any of the three categories).

¹⁹⁸ Marine Turtles, *supra* note 27.

^{199 16} U.S.C. § 1532(6).

²⁰⁰ Marine Turtles, supra note 27.

²⁰¹ Environment Protection and Biodiversity Conservation Act 1999, § 179(3).

such classification of a species in the future will presumably ensure special attention to turtles facing the most imminent threat of extinction.

The ESA and the EPBC also differ with regard to marine turtle habitat protection. Along with the critically endangered, endangered, and vulnerable species listings, the EPBC also requires listings of threatened ecological communities.²⁰² Coupled with this listing requirement is a provision for designation of certain coastal areas and waters as MPAs.²⁰³ Impressively. Australia's MPA designations cover hundreds of thousands of square kilometers and comprise one-third of MPAs in the world.²⁰⁴ While the United States grants the Secretary of the Interior discretionary power to designate particular areas as critical habitats²⁰⁵ and seeks to monitor a national system of MPAs, ²⁰⁶ Australia's approach more fully recognizes the potential gains to be realized from MPA designations.²⁰⁷ First, Australia defines an MPA as "an area of land and/or sea,"208 explicitly allowing for the inclusion of nesting beaches. On the other hand, the United States' definition only includes areas in the "marine environment," a term which excludes land that is not submerged.²⁰⁹ Further, conservation of biodiversity is the primary purpose and one of the highlighted benefits of Australian MPAs.²¹⁰ In contrast, the United States does not appear to recognize conservation of biodiversity as a benefit or proclaim it as an objective of MPA designations.²¹¹ Along with species

²⁰² Id. § 181; Blomquist, supra note 31, at 327.

²⁰³ Environment Protection and Biodiversity Conservation Act 1999, § 344(1)(b); see A Review of Recent Developments in Ocean and Coastal Law, supra note 117, at 201 (discussing the addition of thirteen MPAs in Australian waters).

²⁰⁴ A Review of Recent Developments in Ocean and Coastal Law, supra note 117, at 201–02.

²⁰⁵ Endangered Species Act of 1973, § 4(b), 16 U.S.C. § 1533(b)(1)(B) (2006).

²⁰⁶ See National Marine Protected Areas Center: National System MPA Definitions and Criteria, http://mpa.gov/all_about_mpa/mpa_def_criteria.html (last visited Oct. 25, 2008) (explaining certain terms and concepts associated with the U.S. national system of MPAs and stating that the federal government, along with other entities, manages the national system of MPAs).

²⁰⁷ Compare About Australian Marine Protected Areas, supra note 113 (stating that "the primary objective is [of MPAs] conservation of biological diversity"), and All About Marine Protected Areas, supra note 50 (failing to mention biodiversity as a benefit of MPAs).

²⁰⁸ About Australian Marine Protected Areas, *supra* note 113.

²⁰⁹ Exec. Order No. 13,158,65 Fed. Reg. at 34,909 (defining "marine environment" as "areas of coastal and ocean waters . . . and submerged land thereunder, over which the United States exercises jurisdiction").

²¹⁰ About Australian Marine Protected Areas, supra note 113.

²¹¹ Exec. Order No. 13,158, 65 Fed. Reg. 34,909, 34,909 (May 26, 2000) (noting that "[a]n expanded and strengthened comprehensive system of marine protected areas throughout . . . would enhance the conservation of our Nation's natural and cultural marine heritage and the

protection, Australia recognizes the full range of opportunities that MPAs present, from ecotourism destinations to scientific research and educational sites.²¹² The United States' apparent failure to acknowledge such benefits is unfortunate and calls into question the seriousness of the state's efforts to beneficially manage a national system of MPAs.

In terms of their execution, the ESA and the EPBC differ as well. Multiple governmental agencies and executive officials are involved in implementing the ESA, the Sea Turtles Conservation Amendment, and relevant provisions of the MMPA. In particular, NOAA;²¹³ the NMFS;²¹⁴ and cabinet level officials like the Secretaries of Commerce,²¹⁵ the Interior,²¹⁶ State,²¹⁷ and the Treasury²¹⁸ play integral roles in executing the ESA and developing related policy. Execution of the EPBC, on the other hand, primarily involves the Australian Commonwealth's Minister of Environment and the Department of the Environment, Water, Heritage and the Arts.²¹⁹

Also worth noting is the extent to which the government entities that implement the ESA in the United States and the EPBC in Australia seek to address global climate change and its impact on the environment. The Commonwealth Department of the Environment, Water, Heritage and the Arts defines its role, in part, as "focus[ing] on national environmental issues by: ... [i]mplementing an effective response to climate change."²²⁰ Notably, while the

ecologically and economically sustainable use of the marine environment for future generations" but not mentioning biodiversity); All About Marine Protected Areas, *supra* note 50 (noting that MPAs can be "an effective ecosystem management tool" but not mentioning biodiversity).

²¹² About Australian Marine Protected Areas, supra note 113.

²¹³ Eagle, *supra* note 60, at 150.

²¹⁴ See Morita, supra note 62, at 209 (highlighting one example of NMFS's authority to issue regulations furthering the protection of sea turtles).

²¹⁵ See Sea Turtles Conservation Amendment of 1989, Pub. L. No. 101-162, § 609(a), 103 Stat. 1037, 1037; McNichols, supra note 41, at 61.

²¹⁶ Endangered Species Act of 1973, § 4(c)(1), (f)(1), 16 U.S.C. § 1533(c)(1), (f)(1) (2006); McNichols, *supra* note 41, at 61.

²¹⁷ See § 609(a)(1), 103 Stat. at 1037 (discussing the Secretary of State's rule in encouraging foreign programs).

²¹⁸ See McLaughlin, supra note 37, at 22 (explaining the oversight role of the Secretary of Treasury in relation to the MMPA).

²¹⁹ See Australian Government, Department of the Environment, Water, Heritage and the Arts - Legislation, http://www.environment.gov.au/about/legislation.html (last visited Oct. 25, 2008) (listing the EPBC in a section on the Department's website entitled, "Legislation," and on a list of "Legislation administered by the Minister").

²²⁰ Australian Government, Department of the Environment, Water, Heritage and the Arts, National Heritage Organisations, *supra* note 89.

United States Environmental Protection Agency has identified global climate change as an issue, NOAA and the NMFS do not explicitly identify climate change as a problem to address through marine resource policy.²²¹

The ESA and the EPBC also differ in terms of the types of actions required of the executive branches. Under the ESA, the Secretary of the Interior maintains the endangered and threatened species lists and also develops recovery plans for species.²²² In contrast, the NMFS may issue regulations²²³ and NOAA applies the ESA in the exclusive economic zone.²²⁴ In Australia, the Department of Environment, Water, Heritage and the Arts administers the EPBC²²⁵ while the Commonwealth Environment Minister develops recovery plans.²²⁶ For the most part, these differences merely reflect the peculiarities of each state's bureaucratic structure.

Both the American and Australian court systems have contributed positively to the protection of marine turtles by broadly interpreting the ESA and the EBPC, respectively. In the United States, the Court of International Trade proved to be a faithful ally of the sea turtle, bolstering provisions of the ESA requiring import bans against operations failing to meet certain minimum fishing practice standards.²²⁷ Similarly, the Ninth Circuit affirmed the strong discretionary power of the NMFS to attach conditions to longline fishing permits—a significant regulatory and policy tool for the agency.²²⁸ Likewise, in Australia, the Federal Court has interpreted the EPBC to require extensive investigation into the possible effects of a proposed activity on a particular

²²¹ Compare Office of Chief Financial Officer, EPA 2006–2011 Strategic Plan, http://www.epa.gov/ocfo/plan/plan.htm (last visited Oct. 25, 2008) (listing Clean Air and Global Climate Change as one of five strategic goals), with NOAA Fisheries - Mission, http://www.nmfs.noaa.gov/what/mission.htm (last visited Oct. 25, 2008) (identifying its goal as "balancing... public needs and interests in the sustainable benefits and use of living marine resources, without compromising the long-term biological integrity of coastal and marine ecosystems").

²²² Endangered Species Act of 1973, § 4(c)(1), (f)(1), 16 U.S.C. § 1533(c)(1), (f)(1) (2006); McNichols, *supra* note 41, at 61.

²²³ See, e.g., Morita, supra note 56, at 209 (discussing the issuance of a regulation requiring turtle excluder devices).

²²⁴ Eagle, *supra* note 60, at 150.

²²⁵ Australian Government, Department of Environment, Water, Heritage and the Arts, About the Department of Environment, Water, Heritage and the Arts, http://www.environment.gov.au/about/index.html (last visited Oct. 25, 2008).

²²⁶ Blomquist, supra note 31, at 328.

²²⁷ Earth Island Inst. v. Christopher, 19 Ct. Int'l Trade 1461, 1485–86, 913 F. Supp. 559, 579–80 (1995); Kibel, *supra* note 73, at 57.

²²⁸ Turtle Island Restoration Network v. Nat'l Marine Fisheries Serv., 340 F.3d 969, 970-71 (9th Cir. 2003).

species population, its habitat, and the surrounding ecosystem.²²⁹ Further, the Federal Court has interpreted the EPBC to require approval from the Environment Minister for any non-exempt activity which may produce such an impact.²³⁰ Injunctions may issue from the Federal Court to cease activities that jeopardize listed species as well.²³¹ Such holdings reflect a tendency of courts in both states to broadly and zealously apply their state's legislation to protect listed species.

As a matter of policy, the ESA and the EPBC differ in their respective impact upon and regulation of the fishing industry—an important factor in ensuring survival of marine turtle species. In particular, issuance of regulations by the NMFS in the United States has led to important changes in fishing industry practice, specifically the use of TEDs. 232 Through the MMPA and Sea Turtles Conservation Amendment, the United States may also regulate the fishing industry with certification requirements and by imposing import bans on operations with high bycatch levels.²³³ While aggressive and effective, such regulations have not always been enthusiastically received.²³⁴ Australia, the recovery plans issued by the Commonwealth Environment Minister tend to establish ambitious goals and precise standards to achieve particular levels of recovery.²³⁵ Rather than focusing narrowly on species recovery alone, the Commonwealth's current recovery plan emphasizes "biodiversity benefits" that accompany zealous marine turtle protection, such as requiring TEDs.²³⁶ Thus, other marine species, organisms, and flora, like sea grass, benefit from aggressive regulation and strategies to protect turtles. ²³⁷

With distinct purposes and objectives, Australia and the United States address the threats to marine turtles with two contrasting statutes implemented

²²⁹ Queensland Conservation Council v. Minister for Env't & Heritage (2003) [2003] F.C.A. 1643, paras. 39–41 (Austl.) (interpreting section 75 of the EPBC to require the Minister to give "the widest possible consideration" to potential adverse impacts a proposed plan will have on an area or species).

²³⁰ Brown v. Forestry Tasmania (No. 4) (2006) 157 F.C.R. 1, rev'd, (2007) 167 F.C.R. 34.

²³¹ Booth v. Bosworth (2001) 114 F.C.R. 39, 39, 66.

²³² Morita, *supra* note 56, at 213-14.

²³³ See McLaughlin, supra note 37, at 22–23 (discussing the restrictions the MMPA and the Sea Turtle Conservation Amendments place on foreign nations).

²³⁴ See id. at 20 (discussing the international community's hostility and its accusation of protectionism).

²³⁵ See AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES, supra note 22, at 10–32 (detailing the Commonwealth's specific objectives to promote marine turtle recovery).

²³⁶ Id. at 2.

²³⁷ Id.

by very different government entities. Along with national law, both states have assumed varying degrees of responsibility on the international level to protect sea turtles. International efforts undertaken by Australia and the United States are compared in the next section.

B. Comparative International Leadership of the United States and Australia

Through their roles in international bodies and accession to various international agreements, the United States and Australia have each assumed major leadership positions in providing international legal protection to marine turtles.

The IAC represents a meaningful effort by the United States to implement marine turtle protection policies on an international level. The strength of the IAC lies in its provision that the best scientific data available dictate action and in its use of a scientific committee.²³⁸ Through its monitoring and compliance mechanisms, the structure of the IAC ensures that the status of sea turtle populations is continually assessed and evaluated.²³⁹ Moreover, the United States' bold and responsible leadership in initiating talks leading to the IAC cannot be overemphasized.²⁴⁰

For its part, Australia has contributed to great strides in the international arena by assenting to several landmark international agreements. Namely, Australia's participation in the Biodiversity Convention, the CMS, and UNCLOS serves as a meaningful, effective complement to the state's domestic protection for marine turtles. As a party to the Biodiversity Convention, Australia signals its deep commitment to the preservation and restoration of biodiversity and to the incorporation of sustainable use practices into domestic legislation.²⁴¹ Prioritization of sea turtles by the Biodiversity Convention, however, would be a meaningful change for which the Australian

²³⁸ IAC, supra note 134, arts. II, VII; see Wold, supra note 140, sec. 5.4.3 (discussing the purpose of the scientific committee).

²³⁹ Wold, *supra* note 140, sec. 5.4.3 (discussing regular meetings to assess implementation and enforcement of the IAC).

²⁴⁰ McNichols, *supra* note 41, at 60 (briefly discussing the United States role in "initiating lengthy negotiations with Latin American nations").

²⁴¹ See Biodiversity Convention, supra note 150, arts. 6, 14(1)(a) (outlining the parties' commitments regarding the development or adaptation of national strategies to address biological diversity and the commitment to use environmental impact statements for future projects); see also Wold, supra note 140, sec. 4.2.1 (discussing, in general, the obligation of parties to prepare national plans and policies in light of conservation, sustainable use, and biodiversity).

Commonwealth should advocate.²⁴² Nonetheless, the listing by the CMS of six turtle species²⁴³ to a certain extent makes up for this weakness in the Biodiversity Convention. Notable, also, is the requirement under the CMS for parties to restore species' habitats "where feasible and appropriate."²⁴⁴ Through direct funding for education and public awareness along with support for marine turtle protection, the CMS influences public understanding of issues related to marine turtle survival and works as a tool for ensuring effective protection.²⁴⁵ Similarly, under UNCLOS, the Commonwealth of Australia is obligated to "protect and preserve . . . [the] habitat . . . of threatened or endangered species and other forms of marine life."²⁴⁶ Significantly, UNCLOS sets an appropriate best available science standard in its encouragement of high seas conservation efforts.²⁴⁷

As parties to the IOSEA MoU, the United States and Australia are now allies in protecting marine turtles in the South-East Asia region and the Indian Ocean. Through provisions in the agreement to promote the exchange of scientific data, both states are better equipped to pursue the conservation plan to "conserve and replenish depleted marine turtle populations." Likewise, accession to CITES by the United States and Australia is both symbolic and practically significant; the international instrument is lauded for ceasing legal sea turtle trade on the international level. 250

These international agreements serve as meaningful compliments to both Australia's and the United States' domestic laws. The next section offers suggestions for how each state may, nonetheless, enhance national and international legal protection for marine turtles.

²⁴² See Wold, supra note 140, sec. 4.2.2 (explaining that the Biodiversity Convention does not prioritize sea turtles).

²⁴³ The CMS Appendices, CMS Appendix I, *supra* note 165 (listing species by scientific name); *see* Hykle, *supra* note 164, sec. 1 (noting that all marine turtles except one are listed in Appendix 1).

²⁴⁴ CMS, supra note 152, art. III(4)(a); Caddell, supra note 162, at 116.

²⁴⁵ See Hykle, supra note 164, sec. 1 (discussing various programs funded by the CMS).

²⁴⁶ UNCLOS, *supra* note 153, art. 194(5).

²⁴⁷ McLaughlin, supra note 37, at 33.

²⁴⁸ IOSEA MoU, Fact Sheet, *supra* note 180 (noting that the United States participates in the MoU even though it is not within the coverage area).

²⁴⁹ *Id.*; Hykle, *supra* note 164, sec. 1.

²⁵⁰ Wold, *supra* note 140, sec. 4.1.

C. Swimming Ahead: Suggestions for Change

A comparison of the EPBC and the ESA and the overall environmental policy stemming from each sheds light on many of the weaknesses underlying efforts to protect marine turtles through national law. In many respects, the United States could strengthen its policy towards the marine environment by following Australia's example. Taking a closer look at the roles of Australia and the United States in affording international legal protection to marine turtles reveals how each state could utilize their leadership positions to bolster such protection internationally.

To further the ESA's purported objective of protecting ecosystems upon which endangered and threatened species depend, the United States should take serious note of Australia's approach towards MPAs. By placing the conservation of biodiversity as a top priority in the process designating MPAs, as Australia does, the United States should be able to produce better long-term results in the effort to shield endangered species from major threats and to protect the marine environment as a whole.

Loss of biodiversity is a significant issue that the United States should address directly in its laws for sea turtles. If the United States is concerned about the costs of implementing a more rigorous policy to protect marine biodiversity, the potential benefits that could arise from scientific research, educational opportunities, and even ecotourism should allay those concerns. ²⁵¹ By recognizing and emphasizing the wide-range of potential benefits derived from MPA designations, the United States government could garner broad support for more effective sea turtle protection. ²⁵² By designating certain areas as marine-protected, the United States would indirectly address the plight of sea turtles by generally addressing loss of biodiversity. These designated areas would protect educational and scientific research sites while possibly creating ecotourism destinations.

The United States has taken important steps to regulate the fishing industry as one aspect of marine turtle protection. The United States could, however, learn from Australia's realization that regulations to reduce marine turtle bycatch will lead to numerous benefits to the entire marine ecosystem.²⁵³

²⁵¹ See supra note 113 and accompanying text; Wilson & Tisdell, supra note 16, at 279 (discussing sea turtles as an ecotourism resource).

²⁵² See About Australian Marine Protected Areas, supra note 113 (listing the benefits of MPAs).

²⁵³ See AUSTRALIA RECOVERY PLAN FOR MARINE TURTLES, supra note 22, at 2 (discussing the benefits to biodiversity created by the plan).

Undoubtedly, identifying the full range of benefits for particular regulations and protection efforts allows for broader consensus building. Emphasizing such benefits could allow for the passage of more stringent legislation in the future and lessen skepticism of the United States' true motives in regulating the fishing industry.²⁵⁴

Another point where the United States should follow Australia's example is by directly addressing the impact of global climate change on the marine environment. Global climate change represents yet another threat to sea turtle populations by skewing gender ratios and depleting coral reef habitats.²⁵⁵ To more effectively address loss of habitat and population threats to turtles brought on by climate change, NOAA and the NMFS should consider identifying climate change as explicitly as the Australia's Department of Environment, Water, Heritage and the Arts has prioritized it.²⁵⁶

Both the United States and Australia have proven to be effective and responsible leaders in terms of international efforts to protect sea turtles. The United States' leadership in forming the IAC²⁵⁷ and Australia's participation in progressive agreements like the Biodiversity Convention, the CMS, and UNCLOS have no doubt improved the status of sea turtle populations not only in the Pacific, South Pacific, and Indian Oceans but also globally.²⁵⁸ Similarly, the efficacy of agreements like the IOSEA MoU and CITES highlights the collaborative strength of the United States and Australia.²⁵⁹

Nonetheless, on the international level, the United States and Australia should utilize their leadership positions to further international legal protection for sea turtles. For instance, Australia should secure prioritization of sea turtles under the Biodiversity Convention. Making sea turtles a priority would

²⁵⁴ See Mclaughlin, supra note 37, at 20 (discussing accusations that the U.S. standards are protectionist measures designed to favor U.S. fishermen).

²⁵⁵ FUGAZZOTTO, supra note 8, at 2, 7-8.

²⁵⁶ See Australian Government, Department of Environment, Water, Heritage and the Arts, About the Department of Environment, Water, Heritage and the Arts, supra note 225 (listing "Greenhouse gas abatement programs" and "Community and household climate action" as matters dealt with by the department).

²⁵⁷ McNichols, supra note 41, at 60.

²⁵⁸ See Wold, supra note 140, sec. 4.2.1 (discussing potential benefits of the Biodiversity Convention on sea turtle egg-harvesting); see also Hykle, supra note 164, sec. 1 (discussing various scientific and educational programs funded by CMS); see also McLaughlin, supra note 37, at 33 (noting that UNCLOS allows for stringent regulation).

²⁵⁹ IOSEA MoU, Fact Sheet, *supra* note 180 (noting that the United States and Australia were among the first states to sign IOSEA MoU); Discover CITES: What is Cites?, *supra* note 184 (noting that while CITES is voluntary it has an extensive membership of 173 states).

require member states to consider threats to sea turtle species in developing management practices.²⁶⁰ Unfortunately, the impact of global climate change on marine turtle populations, in particular, has been overlooked by relevant international instruments. In order for the United States and Australia to maintain their active, meaningful roles in international environmental law, each state must face this issue directly. Both countries must not hesitate to bring this issue, as it relates to marine turtle survival, to the forefront, either through a new agreement or an existing instrument.

Continued collaboration and dialogue between the United States and Australia is imperative to the implementation of effective international law to protect marine turtles. Just as the two nations have joined forces by participating in the IOSEA MoU and CITES, they should continue to strengthen and expand their shared commitment to conservation and protection of sea turtles in the Pacific, South Pacific, and Indian Oceans. Maximizing existing opportunities to share and exchange resources and capitalizing on all new opportunities to shape and implement better marine turtle protection law and policy are ways for the United States and Australia to fortify their alliance.

By continuing their partnership and initiating actions to effect these recommended changes in national and international law, both Australia and the United States may more effectively address the plight of sea turtles in light of the current knowledge and understanding of the perils that marine turtle populations face.

V. CONCLUDING REMARKS

This comparison of American and Australian efforts to protect marine turtles allows, to a certain extent, for more general conclusions on each state's national law and role in international environmental law development.

By incorporating biodiversity protection with laws for endangered species, Australia addresses threats to the natural environment in a more holistic fashion than the United States. Moreover, emphasizing biodiversity conservation allows Australia to identify and realize a broader array of benefits from its environmental laws and policy. Acknowledgment of the educational, scientific, and economic benefits of biodiversity conservation provides

²⁶⁰ See Wold, supra note 140, sec. 4.2.2 (explaining that sea turtles are not currently a priority but future guidelines on a variety of issues could potentially benefit turtles if sea turtles are considered in the guideline formulation).

Australia's environmental law with stronger fundamental underpinnings and greater purpose in application.

As the decline in marine turtle populations reveals, environmental problems cross boundaries and meander in and out of various jurisdictions. Thus, mutual goals and shared vision are imperative for effective environmental protection. Despite the positive results of innovative, aggressive leadership on the part of one state, little progress is possible if other states lag hopelessly behind. This reality highlights the extent to which the United States must revamp its environmental law and policy to promote conservation of both marine and general biodiversity and to tackle the problem of global climate change, as it affects marine life, more directly.

The combined power of the United States and Australia in terms of international environmental law should not be overlooked. Both the United States and Australia must endeavor to address the problem of global climate change and its impact on marine turtles in particular. The successes of their past collaboration indicate that such an undertaking is feasible.

The inclination of the courts in both the United States and Australia to zealously provide broad protection for endangered species is encouraging. Equally heartening is the successful history of the United States and Australia in their collaborative efforts to address threats to sea turtles. Together, the United States and Australia have the power to secure a safer environment, for the sea turtle and for the future. Whether each state is willing to make critical changes in domestic law, and to undertake the progressive leadership necessary on the international level, will determine if such an achievement is realized.