

Fishing with a Bulldozer: Options for Unilateral Action by the United States under Domestic and International Law to Halt Destructive Bottom Trawling Practices on the High Seas

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Until relatively recently, the deep ocean was thought to be a barren seascape of cold, dark water and bone-crushing pressure, unable to support rich biodiversity like its shallower counterparts. Recent discoveries, however, show that the deep ocean is in fact teeming with life, even though scientists have biologically sampled only 0.0001% of the deep ocean floor. Seamounts, large underwater mountains, are among the latest of these biological wonders. Their unique geological features provide habitat to a wide variety of marine organisms and support rich biodiversity. Unfortunately, these unexplored ecosystems are directly threatened by a pernicious and irresponsible fishing practice: bottom trawling. This fishing method, which involves dragging a large net across the seafloor, not only indiscriminately catches many species of slow-growing fish but also completely levels vital habitat and deep-water coral colonies.

Because the majority of seamounts in the world lie in international waters, there is little, if any, regulation for fishing on them. The United Nations is currently working to achieve a moratorium to halt deep-sea bottom trawling until more information is obtained regarding the long-term effects on these seamount ecosystems. Due to resistance by a few major fishing powers, however, the pace for achieving a U.N. moratorium on deep-sea bottom trawling has been slow.

This paper explores and advocates an alternative course of action: using existing U.S. fisheries law to impose import prohibitions and trade sanctions on nations that participate in this environmentally destructive practice. The Secretary of Commerce and the President can utilize the Pelly Amendment, a powerful but rarely used U.S. fisheries law, to impose trade restrictions on

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nations that authorize their vessels to engage in deep-sea bottom trawling on seamounts. This paper also explores recent amendments to the Magnuson-Stevens Fishery Conservation and Management Act that bolster the case for imposing trade restrictions on these nations.

Finally, this paper examines the legality of utilizing unilateral trade measures to achieve environmental goals in international law. This analysis focuses on the recent Shrimp-Turtle dispute, comprised of two related and highly charged World Trade Organization cases. This section argues that the United States can utilize unilateral trade measures to address environmental concerns and should utilize them as long as the United States imposes them within the appropriate framework under the World Trade Organization.

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*“Just like a rake rakes up all the leaves on the grass, a dragger [trawler] kills everything. They destroy habitat. They should never open the fisheries to draggers ever again. My father saw the first dragger in Louisbourg and said that they shouldn’t call it a dragger, they should call it a destroyer. People laughed then, but he was right.”*¹

I. INTRODUCTION

Since ancient times, human beings have depended on the ocean for subsistence and travel and have been captivated by its mysterious nature. In ancient Greek storytelling, the sea sparked mythical images of sea sprites and nymphs, and old mariners were renowned for their fanciful tales of beautiful mermaids and terrifying sea monsters. Although in the modern age people tend to discount the validity of these exaggerated accounts of high seas adventure, in truth, we know very little about the deep sea and its inhabitants. In fact, we presently know more about the surface of Mars than the surface of the deep ocean floor.²

Until relatively recently, most scientists thought the deep ocean was a barren seascape of cold, dark water and bone-crushing pressure, unable to support rich biodiversity like its shallower counterparts. This worldview prevailed from the ancient time of Pliny until the late nineteenth century when the British ship *Challenger* took an historic voyage to uncover some of the deep sea’s mysteries.³ Even as *Challenger’s* dredges and trawls pulled up many new species of organisms, the conventional wisdom at the time still suggested that, because of the combination of extreme pressure, cold temperatures, and total absence of sunlight, organisms living in the deep sea were limited in number.⁴

Then, in 1977, the discovery of vibrant chemosynthetic ecosystems around deep-sea hydrothermal vents⁵ revolutionized biological science. Until this discovery, scientists based biological science on the premise that all life was dependent on energy from the sun. Even the mightiest carnivore depended on photosynthetic organisms to supply the foundation of the food chain. However, with the 1977 discovery of bacteria that derived nutrients from hydrogen sulfide

¹ Anonymous Canadian fisherman, quoted in *Out of Their Minds? How One Nation Was Allowed to Orchestrate a Global Tragedy*, DEEP SEA CONSERVATION COALITION, Nov. 23, 2006, <http://www.savethehighseas.org/display.cfm?ID=149>.

² Press Release, Press Conference by Deep-Sea Conservation Coalition (July 6, 2004), <http://www.un.org/News/briefings/docs/2004/deepseapc.doc.htm>.

³ Tim Flannery, *Where Wonders Await Us*, THE N.Y. REVIEW OF BOOKS, Dec. 20, 2007 (reviewing TONY KOSLOW, *THE SILENT DEEP: THE DISCOVERY, ECOLOGY, AND CONSERVATION OF THE DEEP SEA* (Univ. of Chi. Press 2007)), available at <http://www.nybooks.com/articles/20897>.

⁴ *Id.*

⁵ Peter Lonsdale, *Clustering of suspension-feeding macrobenthos near abyssal hydrothermal (sic) vents at oceanic spreading centers*, 24 DEEP-SEA RES. 857, 857–63 (1977).

on hydrothermal vents, and later, in 1984, with the discovery of bacteria dependent on methane from “cold-seep” vents,⁶ scientists found two previously unknown biological life systems within a span of ten years. Considering that man has biologically investigated only 0.0001% of the deep seabed,⁷ the potential for discoveries of previously unknown ecosystems to enlighten humanity’s understanding of biological science is staggering.

Seamount ecosystems are among the latest of these amazing recent discoveries. Seamounts are large underwater mountains rising at least 1000 meters above the sea floor.⁸ Man has explored less than 1% of the estimated 30–100,000 seamounts in the ocean.⁹ Because of seamounts’ unique geological features—imagine mountains on a flat ocean plane—these volcanic formations provide essential habitat to numerous benthic¹⁰ organisms and excellent breeding grounds for pelagic¹¹ species.¹² Some scientists estimate that several million species of organisms exist only on seamounts.¹³ Of these seamount species, scientists believe that 15% are endemic to individual seamounts or seamount clusters.¹⁴

The rich biodiversity of the world’s seamounts, however, is now directly threatened by a widespread industrial fishing technique known as bottom trawling. Bottom trawling is a fishing method by which fishing vessels drag large nets across the ocean floor and across the tops of seamounts, scooping up desirable bottom-dwelling fish.¹⁵ The weighted nets, however, do not discriminate; instead, they inadvertently capture all types of marine organisms,

⁶ C. K. Paull et al., *Stable isotope evidence for chemosynthesis in an abyssal seep community*, 317 *NATURE* 709–11 (1985); see also Paull, C.K. et al., *Biological Communities at the Florida Escarpment Resemble Hydrothermal Vent Taxa*, 226 *SCIENCE* 965–67 (1984).

⁷ See U.N. Secretary-General, *Oceans and the Law of the Sea: Report of the Secretary-General: Addendum*, at 53, U.N. Doc. A/59/62/Add.1 (Aug. 18, 2004) [hereinafter U.N. Secretary-General, *Oceans and the Law of the Sea*].

⁸ Valerie Allain, *Seamounts and Pelagic Fisheries Interactions Under Study*, S. PAC. COMM’N NEWSLETTER NO. 116, Jan./Mar. 2006, at 33, available at www.ffa.int/gef/files/gef/Seamounts-Under-Study.pdf.

⁹ *Mysteries and Mountains of the Deep: Seamounts and Cold-water Corals*, DEEP SEA CONSERVATION COALITION POLICY PAPER, 2004, at 2, available at http://www.savethehighseas.org/publicdocs/DSCC_Seamounts_US.pdf [hereinafter DSCC: *Seamounts*].

¹⁰ Benthic organisms are bottom-dwelling organisms.

¹¹ Pelagic species, also known as “open-ocean” species, live in the upper and middle depths of the ocean.

¹² S.J. Turner et al., *Fishing Impacts and the Degradation or Loss of Habitat Structure*, 6 *FISHERIES MGMT. & ECOLOGY* 401, 402 (1999).

¹³ Matthew Gianni, Consultant, Int’l Union for the Conservation of Nature and Natural Res., Presentation at the United Nations Fourth Meeting of the Consultative Process on Oceans and the Law of the Sea, Protecting Vulnerable Marine Ecosystems: Seamounts and the Biodiversity of the Deep Sea 2 (June 2-6, 2003), available at http://www.un.org/depts/los/consultative_process/documents/no5_iucn.pdf [hereinafter Gianni, Protecting Vulnerable Marine Ecosystems].

¹⁴ *Id.*

¹⁵ See Les Watling & Elliot Norse, *Disturbance of the Seabed by Mobile Fishing Gear: A Comparison to Forest Clearcutting*, 12 *CONSERVATION BIOLOGY* 1180, 1181-83 (Dec. 1998).

many of which fisherman discard as by-catch. Most troubling of all, because of the crushing weight of the equipment, the nets level everything in their paths. The heavy nets destroy unique geological features of the seafloor that marine organisms use for protection and spawning. The process also decimates fragile deep-water coral and sponge ecosystems that marine biologists are only just now discovering. Bottom trawling has the ability to exploit traditionally hard-to-reach, unexplored resources in an extremely efficient manner. Unlike many fishing methods that are damaging to specific fish populations, however, bottom trawling does not only affect the fish stocks it targets. It also devastates the habitat in which other fish and organisms live. Bottom trawling is like clear-cutting an entire forest to catch a few deer.¹⁶

Given the large number of endemic marine organisms in the deep sea and the fact that deep-sea explorations have been so minimal, many in the international community wish to preserve these unexplored areas in their pristine states. These unique ecosystems have the potential to enhance humanity's understanding of the natural world, and many people feel a moral responsibility to leave these areas intact for future generations to explore.¹⁷ Many nations share this sense of responsibility as well. Restrictions on bottom trawling in many coastal countries' Exclusive Economic Zones¹⁸ (EEZs) and the recent growing momentum for a United Nations (U.N.) General Assembly resolution to enact a moratorium on trawling on international waters are prime examples of this growing sentiment.¹⁹

Unfortunately, due to the slow reproductive rates of many deep-sea organisms and the extreme destruction that just one trawling pass can wreak on a seamount ecosystem,²⁰ some see the United Nations' pace in enacting meaningful restrictions on trawling on the high seas²¹ as maddeningly slow. Scientists,

¹⁶ Scientists and environmentalists extensively use this analogy. See, e.g., Statement by Joshua Reichert, Managing Director, Pew Charitable Trusts Environment Group, quoted in John Heilprin, *U.S. Seeks High-Seas Ban on Bottom Trawling*, SEATTLE TIMES, Oct. 4, 2006, available at <http://community.seattletimes.nwsourc.com/archive/?date=20061004&slug=trawling04> (“[Trawling is] like clear-cutting the forest to catch a squirrel.”); see also Daniel Pauly et al., *Towards Sustainability in World Fisheries*, 418 NATURE 689, 691 (2002), available at <http://www.nature.com/nature/journal/v418/n6898/full/nature01017.html> (“[If] an analogy is required, it should be that of clear cutting forests in the course of hunting deer.”).

¹⁷ See, e.g., SYLVIA EARLE ET AL., *GULF OF MEXICO: ORIGIN, WATERS, AND BIOTA 2* (Tex. A & M Univ. Press 2009) (listing moral reasons why society needs to protect and manage biodiversity).

¹⁸ An EEZ is the 200-mile boundary stretching from a nation's shores to the open ocean. Within this zone, a nation has exclusive rights to exploit the economic resources found in these waters. See United Nations Convention on the Law of the Sea, arts. 55–57, U.N. Doc. A/CONF.62/122 (Dec. 10, 1982), available at http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm [hereinafter UNCLOS]. For examples of countries that restrict bottom trawling in their EEZs, see *infra* Part III.A, note 92.

¹⁹ See *infra* Part III.

²⁰ See *infra* Part II.

²¹ For the purposes of this paper, high seas and international waters are used interchangeably.

scholars, and diplomats are currently advocating and discussing different methods to end the destructive practice of bottom trawling on seamounts. This paper seeks to contribute to that collaborative process. Part II provides a background on the problem of deep-sea bottom trawling on seamounts. It explains the biological complexity of seamount ecosystems, describes trawling gear and trawling practices, and discusses high seas bottom trawling in the context of global fisheries. Part III describes current efforts in the U.N. General Assembly to enact a global moratorium on high seas bottom trawling and monitor General Assembly Resolution 61/105,²² a recent attempt to reign in the destructive practice. Part IV of this paper discusses legal options for the United States if it chooses to pursue unilateral action against bottom trawling nations. Such legal options include imposing trade sanctions and import prohibitions. Part IV also examines the Pelly Amendment,²³ a powerful but rarely used domestic law that allows the United States to impose unilateral trade measures against other nations for international environmental law violations. This section explores different international fisheries agreements and potential violations of those agreements by bottom trawling nations. Lastly, Part IV reviews the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA),²⁴ a progressive revision of the original Magnuson-Stevens Fishery Conservation and Management Act (MSA) that now provides for trade measures against deep-sea bottom trawling nations. Part V concludes the paper by describing the legal challenges facing the United States if it decides to pursue economic trade measures against deep-sea bottom trawling nations under the Pelly Amendment and the MSRA. Part V also examines the World Trade Organization's rulings in the recent *Shrimp-Turtle* dispute,²⁵ which consisted of two cases addressing challenges to the United

Some dictionaries define high seas and international waters as waters outside a nation's territorial sea (12 miles), but others define these terms as all waters beyond a nation's EEZ (200 miles). This paper uses the latter definition. Also, although the deep sea is not always in the high sea, and vice-versa, for the purposes of this paper they are used interchangeably as well. Further, to avoid redundancy, the term "deep-sea bottom trawling" is frequently shortened to simply "bottom trawling."

²² G.A. Res. 61/105, U.N. Doc A/RES/61/105 (Mar. 6, 2007) [hereinafter UNGA Resolution 61/105].

²³ Pelly Amendment to the Fishermen's Protective Act of 1967, 22 U.S.C. § 1978 (2006) (amending 22 U.S.C. § 1978 (1971)).

²⁴ Magnuson-Stevens Fishery Conservation and Management Reauthorization Act, 16 U.S.C. §§ 1801 et. seq. (2006).

²⁵ The *Shrimp-Turtle* dispute refers to two WTO Appellate Body cases involving challenges to a U.S. domestic law that imposed an embargo on shrimp products from countries that did not use "Turtle-Excluder Devices" (TEDs) in their trawl nets. See Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (Oct. 12, 1998) [hereinafter Appellate Body Report 1998]; Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products; Recourse to Article 21.5 of the DSU by Malaysia*, WT/DS58/AB/RW (Oct. 22, 2001) [hereinafter Appellate Body Report 2001]. For a more detailed discussion, see *infra* Part V.

States' use of unilateral trade measures against shrimp-fishing nations that violated U.S. environmental law.

II. BACKGROUND

Although knowledge of deep-sea ecosystems is limited, scientists do know that these ecosystems are varied and complex. Unfortunately, due to their relative seclusion, many deep-sea ecosystems, like coral and sponge colonies, are particularly vulnerable to the destructiveness of bottom trawling gear. The following section describes the nature of seamounts, the biodiversity of deep-sea ecosystems, bottom trawling operations, and the countries that participate in deep-sea bottom trawling.

A. *What Makes Seamount Ecosystems Unique?*

Seamounts are underwater mountains that rise at least 1000 meters above the sea floor.²⁶ They are formed by volcanic and tectonic processes²⁷ and exist singly, in clusters, or in chains.²⁸ Although many seamounts are isolated, others form extensive underwater mountain chains, such as the 6000-kilometer Emperor Seamounts in the Pacific.²⁹ In fact, the longest mountain chain in the world—the Mid-Ocean Ridge—is actually underwater, stretching around the world like seams on a baseball.³⁰ Because seamounts have such diverse bathymetry,³¹ rising sharply above the otherwise level seafloor, they deflect and alter ocean currents and thereby form upwelling areas of cool, nutrient-rich water.³² If the seamount is tall enough, these upwelling areas generate an increase in total biomass and biological productivity in waters close to the surface.³³ This increase in productivity results in higher concentrations of prey organisms, fish, and marine mammals in waters surrounding the seamounts.³⁴ Additionally, both benthic and pelagic species can aggregate on the same

²⁶ See Allain, *supra* note 9; see also DSCC: *Seamounts*, *supra* note 10.

²⁷ U.N. Secretary-General, *Oceans and the Law of the Sea*, *supra* note 8, at 47.

²⁸ Andre Friewald et al., *Cold-water Coral Reefs: Out of Sight – No Longer Out of Mind*, UNITED NATIONS ENVIRONMENT PROGRAMME WORLD CONSERVATION MONITORING CENTRE, 20 (June 2004), available at http://www.unep-wcmc.org/resources/publications/UNEP_WCMC_bio_series/22.htm.

²⁹ R.W. Grigg, *Paleoceanography of Coral Reefs in the Hawaiian-Emperor Chain*, 240 SCIENCE 1737-43 (1988), available at <http://www.botany.hawaii.edu/Faculty/Morden/BotZool450/Grigg1983.pdf>.

³⁰ Greenpeace Int'l, *Bottom Trawling*, <http://www.greenpeace.org/international/campaigns/oceans/bottom-trawling> (last visited Oct. 15, 2010).

³¹ Bathymetry is underwater topography.

³² Gregory D. Pendleton, *State Responsibility and the High Seas Marine Environment: A Legal Theory For the Protection of Seamounts in the Global Commons*, 14 PAC. RIM L. & POL'Y 485, 489 (2005).

³³ *Id.*

³⁴ *Id.*

seamount because of its diversity of depths.³⁵ These aggregations create isolated systems rich in nourishing organic matter and detritus in the middle of the deep sea.³⁶ Unfortunately, many deep-sea organisms have low fecundity,³⁷ slow growth rates and delayed sexual maturity.³⁸ The combination of these traits makes deep-sea organisms especially susceptible to the destructive nature of bottom trawling because fishermen catch them faster than they can reproduce.

Many people think that coral habitats are restricted to warm, shallow, sunlit waters in coastal areas, but recent discoveries have shown that nearly two-thirds of all corals dwell in cold water,³⁹ yet another indication of how little we really know about the deep sea.⁴⁰ Some deep-sea coral colonies, for instance, provide pivotal habitats for many deep-sea species⁴¹ and might be eight thousand years old.⁴² Bottom trawling, however, can destroy 97–98% of the coral on a seamount,⁴³ and fishermen usually trawl seamounts repeatedly.⁴⁴ The amount of living coral that instantly transforms into by-catch is staggering. In 1997 alone, bottom trawlers fishing for orange roughy, a valuable deep-water fish, on the South Tasman Rise, caught 4000 tons of orange roughy and 10,000 tons of coral as by-catch.⁴⁵ Also, between 1990 and 2002, trawling off the Aleutian Islands in Alaska “produced over 2 million kilograms (4.4 million pounds) of coral and sponge by-catch.”⁴⁶ These slow-growing corals formations “once destroyed . . .

³⁵ Anna Vinson, Note, *Deep Sea Bottom Trawling and the Eastern Tropical Pacific Seascape: A Test Case for Global Action*, 18 GEO. INT’L ENVTL. L. REV. 355, 357 (2006).

³⁶ *Id.* at 358.

³⁷ DSCC: *Seamounts*, *supra* note 10, at 2.

³⁸ Sara Maxwell et al., *Medicines from the Deep: the Importance of Protecting the High Seas from Bottom Trawling*, NATURAL RESOURCES DEFENSE COUNCIL ISSUE PAPER, Mar. 2005, at 5, available at http://www.mcbi.org/publications/pub_pdfs/Maxwell_et_al_2005.pdf.

³⁹ *United Scientific Community Calls for Moratorium on Deep Seas Bottom Trawling*, DEEP SEA CONSERVATION COALITION POLICY PAPER, 2004, at 2, available at http://www.savethehighseas.org/publicdocs/DSCC_Science.pdf [hereinafter DSCC: *Moratorium*].

⁴⁰ Vinson, *supra* note 36, at 358.

⁴¹ *Id.*

⁴² See Friewald et al., *supra* note 29, at 9.

⁴³ See Matthew Gianni, *High Seas Bottom Trawl Fisheries and Their Impacts on the Biodiversity of Vulnerable Deep-Sea Ecosystems: Options for International Action*, INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN – The World Conservation Union, Gland, Switzerland), 2004, at 15, available at <http://assets.panda.org/downloads/giannihsbottomtrawlingfullversion.pdf> [hereinafter Gianni, *High Seas Bottom Fisheries*] (citing a study showing the difference in coral coverage for unfished seamounts [100 percent] and fished seamounts [2-3 percent]). See also Deep Sea Conservation Coalition, *Save the High Seas: Bottom Trawling*, <http://www.savethehighseas.org/trawling.cfm> (last visited Oct. 15, 2010) (describing one study in the Gulf of Alaska where scientists observed a 700-meter trawl path that contained thirty-one red tree coral colonies. The scientists found that even after seven years of no trawling, the surviving coral colonies were still missing 95–99% of their branches and young corals had not yet replaced the dead ones in the damaged colonies.).

⁴⁴ Gianni, *High Seas Bottom Fisheries*, *supra* note 44, at 15.

⁴⁵ *Id.* 1997 was the first year of the area’s orange roughy seamount fishery.

⁴⁶ Deep Sea Conservation Coalition, *supra* note 44.

may require two hundred to four hundred years to recover.”⁴⁷ The damage to coral from trawling gear is not only structural. The trawl net churns up massive amounts of sediment that becomes suspended in the water column and may damage the coral polyps as well.⁴⁸

B. Deep Sea Biodiversity and Medicinal Benefits

There is great biodiversity in deep-sea organisms. Estimates of deep-water species counts range between 500,000 and 100 million.⁴⁹ Scientists think that as much as 15% of species living around seamounts might be endemic to a particular seamount or seamount chain.⁵⁰ Scientists also think that as much as 10% of all marine organisms exist only on seamounts.⁵¹ The pharmaceutical industry has already realized the huge potential for novel medicines and treatments available from deep-sea organisms. In some sense, the industry is in a race against industrial fishing for these valuable resources.⁵² Scientists have only biologically sampled about 250 out of an estimated 15,000 deep-sea seamount ecosystems and less than 0.1% of the abyssal plain.⁵³ Despite this low sampling, the United States and the United Kingdom have already issued “dozens of patents . . . for products . . . associated with deep-sea hydrothermal vents” and “at least half a dozen deep-sea compounds are in development for medical use.”⁵⁴

Deep-sea sponges on seamount ecosystems are a potential goldmine for the pharmaceutical industry. Because they are sedentary and vulnerable, they protect themselves by releasing biological chemicals to deter predators. This defense mechanism indicates that deep-sea sponges harbor a wealth of natural biotic compounds to guard themselves.⁵⁵ If scientists properly manipulate and direct these compounds, they can “exhibit anti-cancerous properties against

⁴⁷ Turner et al., *supra* note 13, at 407.

⁴⁸ Friewald et al., *supra* note 29, at 39 (describing the relationship between sedimentation and coral growth rates).

⁴⁹ Gianni, *High Seas Bottom Fisheries*, *supra* note 44, at 4.

⁵⁰ *Id.* at 7.

⁵¹ Press Release, *supra* note 3.

⁵² Peter Prows, *A Mouse Can Roar: Small Island States, the United Nations, and the End of Free-For-All Fishing on the High Seas*, 19 COLO. J. INT'L ENVTL. L. & POL'Y 1, 15 (2008).

⁵³ *Id.* (citing SALVATORE ARICO & CHARLOTTE SALPIN, BIOPROSPECTING OF GENETIC RESOURCES IN THE DEEP SEABED: SCIENTIFIC, LEGAL AND POLICY ASPECTS 17 (United Nations University – Institute of Advanced Studies 2005), available at <http://www.ias.unu.edu/binaries2/DeepSeabed.pdf>).

⁵⁴ *Id.* (citing David Kenneth Leary, *More Than Just Bugs and Bioprospecting in the Abyss: Designing an International Legal Regime for the Sustainable Management of Deep-Sea Hydrothermal Vents Beyond National Jurisdiction* 491–97 (2005) (unpublished Ph.D. dissertation, Macquarie University Centre for Environmental Law) (on file with Prows, *supra* note 53)).

⁵⁵ Tamara Mullen, *The Convention on Biological Diversity and High-Seas Bottom Trawling: The Means to an End*, 14 U. BALT. J. ENVTL. L. 135, 142 (2007) (citing Maxwell et al., *supra* note 39, at 6).

melanoma, colon, breast, and lung cancers.”⁵⁶ Scientists are investigating other deep-sea sponge compounds as possible treatments for arthritis and Alzheimer’s.⁵⁷ Deep-sea corals also have potential to yield huge medicinal benefits. Because many corals are composed of calcium carbonate, they have the potential to be used for bone substitution and bone grafting, the latter being the second most common medical transplant in the United States.⁵⁸ Considering the great potential of deep-sea organisms for use in novel medicines and treatments, the fast rate of their destruction strikes some people as madness. As Jean-Michel Cousteau, son of the famous ocean explorer Jacques-Yves Cousteau, once lamented about deep-sea bottom trawling, “[n]atural products locked in deep-sea habitats that could cure human illness are being lost forever.”⁵⁹

C. How Bottom Trawling Works

Bottom trawling is a method of fishing by which a boat drags a large net across the ocean floor to catch benthic organisms. The most common type of trawl is the “Otter Trawl,”⁶⁰ which consists of two heavy boards, commonly called “doors,” that open when pulled behind a vessel, thus exposing a large trawl net.⁶¹ This net can reach up to 40 meters wide.⁶² A footrope extends across the bottom of the net mouth to each door and helps to ground the trawl just above the seabed.⁶³ The footrope is weighed down with large rubber discs and heavy steel weights, known as “bobbins.”⁶⁴ The bobbins not only help weigh down the footrope, but can also act as “rockhoppers,”⁶⁵ rolling over rough, rocky areas of the seabed and “hopping” over previously inaccessible terrain.⁶⁶ As the trawl net passes over the sea floor, dangling “tickler chains,” which are positioned in front of the footrope, drag across the ocean floor. These chains frighten benthic fish up into the water column and into the mouth of the

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ Maxwell et al., *supra* note 39, at 8.

⁵⁹ *The Effects of Trawling*, DHARAN DIVE ASS’N NEWSLETTER, Feb./Mar. 2005, at 7, available at <http://www.dhahrandiving.com/documents/ClearwaterFebMarch2005.pdf>.

⁶⁰ See Mullen, *supra* note 56, at 138. See Appendix A for a visual depiction of an otter trawl.

⁶¹ *Id.* (citing Watling & Norse, *supra* note 16, at 1181-82).

⁶² *Id.* (citing The Deep Sea Conservation Coalition, Six Good Reasons for a Moratorium on High Seas Bottom Trawling, <http://www.savethehighseas.org/sixreasons.cfm> (last visited Oct. 15, 2010)).

⁶³ *Id.* (citing Watling & Norse, *supra* note 16).

⁶⁴ *Id.*

⁶⁵ THE OCEAN CONSERVANCY, BOTTOM TRAWLING AND DREDGING 2 (Aug. 2002), available at <http://www.oceanconservancy.org/site/DocServer/fsTrawling.pdf?docID=213>.

⁶⁶ MARINE CONSERVATION BIOLOGY INST., WHAT IS A BOTTOM TRAWL? (2005), available at http://www.mcbl.org/what/what_pdfs/What_%20is_a_Bottom_Trawl.pdf.

net.⁶⁷ A second type of trawl net is the “Beam Trawl.”⁶⁸ The Beam Trawl is essentially the same as the Otter Trawl, except that instead of two heavy boards, there is one heavy steel beam that keeps the mouth of the net open.⁶⁹ This beam can weigh up to thirteen tons.⁷⁰ As Otter Trawls and Beam Trawls plow across the sea floor scooping up fish, their footropes level everything in their paths.

Historically, fishermen trawled primarily in bays, estuaries, and continental shelf areas at depths of less than a few hundred meters.⁷¹ With the introduction of the diesel engine in the 1920s, trawling use greatly accelerated.⁷² As catch returns for bottom trawling vessels on the continental shelf dwindled due to overfishing, trawling vessels began venturing into deeper waters on the continental slope.⁷³ Over the past few decades, trawling vessels have ventured farther and farther into the world’s oceans in search of fish. New technology allows vessels to trawl at depths of up to 2000 meters,⁷⁴ and now bottom trawling is the most commonly deployed method of high seas bottom fishing, accounting for 80% of the bottom catch in the deep sea.⁷⁵ Remote deep-water seamounts, once thought to be impossible to trawl because of their isolation, inhospitable terrain, and craggy features, are no longer safe. Due to the prevalence of “rockhoppers,” global positioning systems, and fish-finding sonar, fishermen are now hitting these seamounts especially hard.⁷⁶

D. Which Nations Engage in Deep-Sea Bottom Trawling?

Deep-sea bottom trawling is a costly endeavor. Because of the expensive gear and high fuel costs, very few countries can actually afford to participate in the practice.⁷⁷ In 2006, an estimated 285 deep-sea bottom fishing vessels operated on the high seas.⁷⁸ Out of this number, 80% of these vessels were

⁶⁷ Watling & Norse, *supra* note 16, at 1182.

⁶⁸ See Appendix B for a visual depiction of a beam trawl.

⁶⁹ Watling & Norse, *supra* note 16, at 1182.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ Vinson, *supra* note 36, at 359 (citing DUNCAN CURRIE, PROTECTING THE DEEP SEA UNDER INTERNATIONAL LAW: LEGAL OPTIONS FOR ADDRESSING HIGH SEAS BOTTOM TRAWLING 4 (Greenpeace Oct. 4, 2004), available at <http://www.greenpeace.org/international/Global/international/planet-2/report/2005/10/protecting-the-deep-sea-under.pdf>).

⁷⁵ *Id.* (citing *Economics and Equity . . . The Deep Seas Parted*, DEEP SEA CONSERVATION COALITION POLICY PAPER, 2004, at 1, available at http://www.savethehighseas.org/publicdocs/DSCC_Economics_US.pdf [hereinafter DSCC POLICY PAPER: *Economics*]).

⁷⁶ Watling & Norse, *supra* note 16, at 1182–83.

⁷⁷ Press Release, *supra* note 3.

⁷⁸ Dr. Alex David Rogers & Matthew Gianni, The Implementation of U.N. Resolution 61/105 in the Management of Deep-Sea Fisheries on the High Seas. Provisional Report, North Atlantic: Status and Recommendations 7 (International Programme on the State of the Ocean, Nov. 2009), available at http://savethehighseas.org/publicdocs/Implementation_of_UN_GA_61_105_North_

flagged to only ten countries: Spain, Russia, New Zealand, Portugal, Estonia, Japan, Republic of Korea, Australia, France, and Belize.⁷⁹ Five other European countries—Latvia, Lithuania, Iceland, Norway, and Denmark/Faeroes Islands—are significant participants in the fishery and comprise the majority of the remaining 20%.⁸⁰ In 2001, deep-sea bottom trawling accounted for only 0.38–0.43% of the approximately US\$74 billion worldwide fisheries catch value.⁸¹ Of the roughly three million marine fishing vessels operating worldwide,⁸² the 285 deep-sea bottom trawling vessels make up an extremely small percentage. In fact, considering the minimal contribution this fishing practice makes to each country's overall fishing income, deep-sea bottom trawling only survives as an industry because of the massive government subsidies that cover fuel and other fishing vessel costs.⁸³

Some people support ecologically destructive fishing practices because of the valuable protein that fish provide to developing nations' coastal populations. In the case of deep-sea bottom trawling, however, this argument is without merit. Fish caught by deep-sea bottom trawlers tend to be luxury goods,⁸⁴ and the major markets for deep-sea bottom trawlers are Japan, the United States, and the European Union⁸⁵—hardly places where essential animal protein is in short supply. Considering the minimal value that deep-sea bottom trawling contributes to the overall value of global marine fisheries catches and the substantial subsidies needed to support it,⁸⁶ the industry is not economically sustainable from a global perspective. Further accounting for the vast ecological consequences, including the total devastation of unique, unexplored ecosystems and irreparable loss of biodiversity, leads to the conclusion that this practice must be stopped immediately.

III. INTERNATIONAL EFFORTS FOR A DEEP-SEA BOTTOM TRAWLING BAN

In the late 1980s, many Pacific island nations joined together with environmental non-governmental organizations (NGOs) to find a way to end

Atlantic_Nov2009.pdf [hereinafter Provisional Report].

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ Gianni, *High Seas Bottom Fisheries*, *supra* note 44, at 49.

⁸² *Id.* at 47.

⁸³ See Ussif Rashid Sumaila & Daniel Pauly, eds., *Catching More Bait: A Bottom-Up Re-Estimation of Global Fisheries Subsidies*, 14 FISHERIES CTR. RES. REP. (2006), available at [http://www.fisheries.ubc.ca/sites/default/files/FCRR-14-16\(2\).pdf](http://www.fisheries.ubc.ca/sites/default/files/FCRR-14-16(2).pdf); see also Daniel Pauly, *Aquacalypse Now: The End of Fish*, NEW REPUBLIC, Sept. 28, 2009, available at <http://www.tnr.com/article/environment-energy/aquacalypse-now>.

⁸⁴ Vinson, *supra* note 36, at 361.

⁸⁵ Antarctic & Southern Ocean Coalition, *Seamount Protection: Ending Bottom Trawling*, <http://www.asoc.org/AntarcticAdvocacy/CriticalIssues/SeamountsProtection/tabid/74/Default.aspx> (last visited Oct. 16, 2010).

⁸⁶ See Pauly, *Aquacalypse Now*, *supra* note 84.

large-scale pelagic driftnet fishing on the high seas.⁸⁷ They focused their efforts on drafting a United Nations General Assembly (UNGA) resolution to affect a moratorium on this fishing method. Their efforts were successful.⁸⁸ Now, in a similar vein, many nations and NGOs are combining forces to bring about an end to deep-sea bottom trawling. The following section provides a history of the efforts aimed at banning deep-sea bottom trawling, summarizes the latest UNGA resolution, Resolution 61/105, and critically analyzes a preliminary Provisional Report on the United Nation's efforts to further implement Resolution 61/105 ("Provisional Report").⁸⁹

A. *What Steps Has the United Nations General Assembly Taken to Combat Deep-Sea Bottom Trawling?*

1. The 59th United Nations General Assembly and Resolution 59/25

In the 1990s, as many fishing nations began to recognize the vulnerability of unique and valuable seamount ecosystems, they imposed restrictions on deep-sea bottom trawling within their own EEZs.⁹⁰ By 2004, however, it was clear that, despite some efforts to restrict bottom trawling in international waters,⁹¹ nations continued to engage in the destructive practice, unregulated and unimpeded, as a supposed freedom of the high seas.⁹² In February 2004, member states of the Convention on Biological Diversity, an important international wildlife treaty, challenged the General Assembly to articulate measures that would prohibit destructive bottom trawling practices, specifically those on the high seas.⁹³ NGOs and environmental groups also called upon the

⁸⁷ Prows, *supra* note 53, at 10–11.

⁸⁸ For a general overview of these successful efforts, see Prows, *supra* note 53. *But see* W.T. Burke et al., *United Nations Resolutions on Driftnet Fishing: An Unsustainable Precedent for High Seas and Coastal Management*, 25 OCEAN DEV. & INT'L L. 127 (1994) (criticizing the methods utilized by the United States in pushing its anti-driftnet fishing agenda).

⁸⁹ Provisional Report, *supra* note 79.

⁹⁰ For instance, in 1998, the European Union passed a blanket ban on large beam trawls throughout most of the North Sea. Norway is actively setting aside large areas within its EEZ for conservation, spurred by the discovery that extensive bottom trawling has destroyed up to half of its Lophelia cold-water reef, the largest reef of its kind in the world. In 2001, New Zealand, once one of the most active bottom trawling nations, closed nineteen seamounts in its EEZ to bottom trawling. *See* Prows, *supra* note 53, at 19–20. *See also* Deep Sea Conservation Coalition, Political Momentum Continues to Grow, <http://www.savethehighseas.org/political.cfm> (last visited Oct. 15, 2010) ("[T]he United States has taken a series of actions to protect deep-sea corals and other vulnerable habitats from deep-sea bottom trawling in its own waters, as have the EU, the Republic of Palau, Kiribati, and a number of other countries.").

⁹¹ *See, e.g.*, Oceans and the Law of the Sea, G.A. Res. 57/141, ¶ 56, U.N. Doc. A/RES/57/141 (Feb. 21, 2003) (recommending that international organizations try to improve seamount and deep-sea ecosystem biodiversity and health).

⁹² *See, e.g.*, Gianni, *High Seas Bottom Fisheries*, *supra* note 44, at 39.

⁹³ Vinson, *supra* note 36, at 363 (citing Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity, Kuala Lumpur, Feb. 9-20, 27, 2004, *Decision VII/5: Marine*

General Assembly to act on the issue.⁹⁴ They wanted the U.N. to enact a moratorium on high seas bottom trawling and thereby prohibit the fishing practice at least until scientists could obtain more information about its environmental impacts. Advocates of the moratorium modeled their strategy after the successful efforts of the Pacific-island states and the United States in persuading the U.N. to adopt a large-scale pelagic driftnet fishing ban in the early 1990s.⁹⁵

After many days of negotiations, a compromise text emerged that delayed a General Assembly moratorium for two years while member countries and NGOs assessed different options for more promising resolutions in the future.⁹⁶ This compromise text was Resolution 59/25.⁹⁷ This resolution:

Call[ed] upon States, either by themselves or through regional fisheries management organizations or arrangements, where these are competent to do so, to take action urgently, and consider on a case-by-case basis and on a scientific basis, including the application of the precautionary approach, *the interim prohibition of destructive fishing practices, including bottom trawling that has adverse impacts on vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals located beyond national jurisdiction*, until such time as appropriate conservation and management measures have been adopted in accordance with international law.⁹⁸

The resolution's emphasis on science and the "precautionary approach"⁹⁹ was encouraging, as was the recognition that deep-sea ecosystems are particularly vulnerable to bottom trawling. Still, Resolution 59/25 lacked a vehicle for forcing nations to change their behavior in any meaningful way. Under the resolution, states could still bottom trawl on the high seas on a "case-by-case basis."¹⁰⁰ Further, the resolution failed to declare the moratorium on the general

and Coastal Biological Diversity, UNEP/CBD/COP/7/21, available at <http://www.cbd.int/doc/meetings/cop/cop-07/official/cop-07-21-part2-en.pdf>.

⁹⁴ Prows, *supra* note 53, at 17. NGOs such as Greenpeace, the Natural Resources Defense Council (NRDC), the World Conservation Union (IUCN), and others joined together under the name "Deep Sea Conservation Coalition." For an extensive list of all NGOs involved with the "Deep Sea Conservation Coalition" see Deep Sea Conservation Coalition, <http://www.savethehighseas.org/about.cfm> (last visited Oct. 15, 2010).

⁹⁵ See Prows, *supra* note 53.

⁹⁶ Prows, *supra* note 53, at 22–24.

⁹⁷ G.A. Res. 59/25, U.N. Doc. A/RES/59/25 (Jan. 17, 2005).

⁹⁸ *Id.* at ¶ 66 (emphasis added).

⁹⁹ The "precautionary approach," also known as the "precautionary principle," is an environmental rule specifying that, where an action's effect on the environment is unclear, the burden of proving that the action will not harm the environment falls onto the entity wishing to take the action. See Jon Van Dyke, *The Evolution and International Acceptance of the Precautionary Principle*, in 47 BRINGING NEW LAW TO OCEAN WATERS 357, 358–60 (David D. Caron & Harry N. Scheiber eds., 2004).

¹⁰⁰ G.A. Res. 59/25, *supra* note 98, at ¶ 66.

practice of deep-sea bottom trawling that many nations and NGOs sought.¹⁰¹ Although Resolution 59/25 generally was a positive step, it also indicated an unfortunate trend in fisheries management: most enforcement measures are reactive rather than proactive in application.¹⁰² Parties come together to enact certain measures, such as moratoria, only after a fishery has already reached a state of crisis.¹⁰³

2. The 61st United Nations General Assembly and Resolution 61/105

Despite high hopes that many nations and Regional Fisheries Management Organizations (RFMOs) would take Resolution 59/25 to heart and change their behavior in a meaningful way, in reality Resolution 59/25 accomplished little. A 2006 U.N. Secretary-General report on the progress of the implementation of Resolution 59/25 stated that, despite the fact that “deep-sea habitats in these areas are extremely vulnerable and require protection,”¹⁰⁴ member countries have taken “little action . . . to protect deep-sea ecosystems on the high seas from the adverse impacts of [deep-sea] bottom fisheries.”¹⁰⁵ There were, of course, some encouraging signs. That some previously antagonistic nations manifested support for a moratorium was one such encouraging sign.¹⁰⁶ But many nations were obstinate and obstructionist in implementing the agreement.¹⁰⁷

In 2006, after the Secretary-General’s report, the 61st UNGA reached another compromise that resulted in Resolution 61/105.¹⁰⁸ This agreement was tougher than Resolution 59/25 in that it mandated the precautionary approach to deep-sea ecosystem management and compelled nations to take preventative action.¹⁰⁹ To reach a compromise and gain the support of previously hesitant nations, however, the agreement dropped any express reference to moratoria or prohibitions, again to the disappointment of many Resolution 61/105 supporters.¹¹⁰ Still, Resolution 61/105 was more progressive than its

¹⁰¹ Gianni, *High Seas Bottom Fisheries*, *supra* note 44, at 47–51, 80.

¹⁰² Sumaila & Pauly, *Catching More Bait*, *supra* note 84.

¹⁰³ *Id.*

¹⁰⁴ U.N. Secretary-General, *Report of the Secretary-General of the United Nations, Impacts of fishing on vulnerable marine ecosystems: actions taken by States and regional fisheries management organizations and arrangements to give effect to paragraphs 66 to 69 of General Assembly resolution 59/25 on sustainable fisheries, regarding the impacts of fishing on vulnerable marine ecosystems: Report of the Secretary-General*, ¶ 204, U.N. Doc. A/61/154 (July 14, 2006), available at <http://daccess-ods.un.org/TMP/228966.71667695.html>.

¹⁰⁵ Provisional Report, *supra* note 79, at 3.

¹⁰⁶ See Prows, *supra* note 53, at 13 (stating that Australia, Norway, and New Zealand started showing support and Japan did not oppose the proposals as strongly as expected).

¹⁰⁷ *Id.* (stating that Canada, Iceland, and Namibia were particularly obstructionist).

¹⁰⁸ UNGA Resolution 61/105, *supra* note 23.

¹⁰⁹ *Id.* at ¶¶ 80, 83.

¹¹⁰ See generally Prows, *supra* note 53 (discussing that many small Pacific island states were

predecessor. In December 2006, the UNGA adopted Resolution 61/105.¹¹¹ For nations that authorized high seas bottom trawling, Resolution 61/105 required the following four actions:

- Conduct impact assessments of individual high seas bottom fisheries to ensure that “significant” adverse impacts on vulnerable marine ecosystems (VMEs) would be prevented or else prohibit bottom fishing (not authorize bottom fishing to proceed),¹¹²
- Close areas of the high seas to bottom fishing where VMEs are known or *likely* to occur unless bottom fisheries can be managed in these areas to prevent significant adverse impacts on VMEs;¹¹³
- Ensure the long-term sustainability of deep-sea fish stocks by improving data collection and sharing information;¹¹⁴
- Require bottom fishing vessels to move out of an area of the high seas where unexpected encounters with VMEs occur.¹¹⁵

The Resolution also called for the Food and Agriculture Organization (FAO), a specialized agency of the U.N., to establish technical standards for the management of deep-sea fisheries and create a “global database of information on vulnerable marine ecosystems.”¹¹⁶ Accordingly, in 2008, the FAO created the “International Guidelines for the Management of Deep-Sea Fisheries in the High Seas”¹¹⁷ to identify VMEs, assess whether deep-sea fisheries would have “significant adverse impacts” on VMEs, and further define criteria for conducting impact assessments of high seas bottom fisheries.¹¹⁸ Finally, the Resolution required the Secretary-General to issue a report on state and RFMO compliance, describe what actions states and RFMOs took in response to the Resolution, and make a report available for General Assembly review in 2009.¹¹⁹ Although the Secretary-General has not yet released this report, a non-profit marine advocacy group, the International Programme on the State of the

particularly disappointed when the General Assembly decided to omit the moratorium language).

¹¹¹ Provisional Report, *supra* note 79, at 8.

¹¹² *Id.* (parenthetical in original) (citing UNGA Res 61/105, *supra* note 23, ¶ 83(a)).

¹¹³ *Id.* (emphasis in original) (citing UNGA Res 61/105, *supra* note 23, ¶ 83(c)).

¹¹⁴ *Id.* (citing UNGA Res 61/105, *supra* note 23, ¶ 83(b)).

¹¹⁵ *Id.* (citing UNGA Res 61/105, *supra* note 23, ¶ 83(d)).

¹¹⁶ *Id.* (citing UNGA Res 61/105, *supra* note 23, ¶¶ 89, 90).

¹¹⁷ See Food & Agriculture Organization of the U.N., *International Guidelines for the Management of Deep-sea Fisheries in the High Seas* ¶ 1, SPRFMO6-VI-SWG-INF01 (Sept. 2008), available at <http://www.southpacificrfmo.org/assets/6th-Meeting-October-2008-Canberra/DW-Subgroup-VI/SPRFMO6-SWG-INF01-FAO-Deepwater-Guidelines-Final-Sep20.pdf> [hereinafter *FAO Guidelines*].

¹¹⁸ *Id.* ¶¶ 17–20, 42, 47.

¹¹⁹ UNGA Resolution 61/105, *supra* note 23, ¶ 91.

Ocean (IPSO),¹²⁰ released a report of their own. The details of their comprehensive report are discussed below.

B. What Steps Have Nations and RFMOs Taken to Implement UNGA Resolution 61/105?

1. The findings of IPSO's first Provisional Report

The International Programme on the State of the Ocean released its first Provisional Report in November 2009 with the purpose of assessing state and RFMO compliance with the provisions of Resolution 61/105. The Provisional Report limited its focus and scope to actions taken by two RFMOs—the North-East Atlantic Fisheries Commission (NEAFC)¹²¹ and the Northwest Atlantic Fisheries Organization (NAFO).¹²² The Provisional Report targeted these particular RFMOs because: (1) the high seas bottom fisheries in the North Atlantic are the largest in the world as measured by volume of catch and the number of vessels involved; (2) most of the major high seas fishing nations whose vessels are involved in deep-water fisheries are members of one or both of the two RFMOs in the North Atlantic; and (3) the high seas bottom fishing fleet flagged to member states of the European Union is, collectively, the largest in the world, and the majority of the fishing conducted by this fleet takes place in the Atlantic Ocean.¹²³

The findings of the Provisional Report were less than encouraging. Regarding Resolution 61/105 paragraph 83(a), which required nations and RFMOs to assess the impacts of individual bottom fishing activities, the Provisional Report stated that “[n]one of the nations whose vessels engage in bottom fishing activities in the high seas areas managed by NEAFC and NAFO . . . have conducted impact assessments of their bottom fishing activities, despite the fact that these are required”¹²⁴ The RFMOs complied with paragraph 83(c) to some degree, but not fully. This paragraph required RFMOs to close areas of the high seas to bottom fishing where VMEs are known or

¹²⁰ The International Programme on the State of the Ocean (IPSO) is a marine science and policy organization that “brings together world experts in the science, socioeconomics and governance of marine ecosystems to identify how humankind is changing the capacity of the Global Ocean to support life and human societies on Earth.” See International Programme on the State of the Ocean, <http://stateoftheocean.org/> (last visited Oct. 16, 2010).

¹²¹ NEAFC's regulatory area encompasses a large area of the North Atlantic, including the Bering Sea, the North Sea, and parts of the Arctic Ocean. For a map of NEAFC's regulatory area, see North East Atlantic Fisheries Commission, Map of the NEAFC Regulatory Area, <http://www.neafc.org/page/27> (last visited Oct. 16, 2010).

¹²² For a detailed map of NAFO's regulatory area, see Northwest Atlantic Fisheries Organization, Satellite Image of the NAFO Area, <http://www.nafo.int/about/frames/about.html> (last visited Oct. 16, 2010).

¹²³ Provisional Report, *supra* note 79, at 8, 9.

¹²⁴ *Id.* at 4.

likely to occur. Although NEAFC did close some areas due to the presence or likely presence of cold-water coral reefs, it did not close them all.¹²⁵ Furthermore, NEAFC neglected to include sponges and coral garden habitats in its VME assessments.¹²⁶ It did not close any areas on account of these ecosystems but instead focused exclusively on cold-water coral reefs.¹²⁷ NAFO closed twelve areas along the slope of the Grand Banks, where “significant” coral and sponge concentrations occur, and temporarily closed most seamount areas to bottom trawling temporarily.¹²⁸ Although this is encouraging, the Provisional Report suggested that countries must intensify their efforts. If NAFO countries intend to comply with the requirements of paragraph 83(c), they should also assess the impacts of bottom trawling on—in addition to considering the closing of—VME areas with a lower concentration of organisms, where bottom trawling is still permitted.¹²⁹

Paragraph 83(b) of the Provisional Report also called on RFMOs to improve scientific research and data collection methods to better ensure the long-term sustainability of VMEs.¹³⁰ The Provisional Report indicated that NEAFC has also failed in this area. The Report stated that “[i]n the NEAFC area there has been extensive misreporting, under-reporting or non-reporting of catch, particularly of by-catch species”¹³¹ For most of the seventy deep-sea species caught in the area, “insufficient information of the biology, life history, fishing mortality, and/or geographic range of stocks of these species makes it currently difficult or impossible to ensure the long-term sustainability of these fish stocks.”¹³² Since 2004, the reported catch of deep-sea species in the NEAFC area has increased by over 350%, despite regulations mandating freezes and reductions in fishing efforts.¹³³ The Provisional Report then stated that “[m]ost of these fisheries can effectively be characterized as unregulated,” and “[t]he management of most of the deep-sea fisheries in the NEAFC area has consistently failed to follow the advice of the International Council for the Exploration of the Seas.”¹³⁴ According to the Provisional Report, NEAFC failed

¹²⁵ *Id.*

¹²⁶ The report distinguishes coral garden habitats from cold-water coral reefs. *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ UNGA Resolution 61/105, *supra* note 23, ¶ 83(b).

¹³¹ Provisional Report, *supra* note 79, at 4.

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.* The International Council for the Exploration of the Seas, or ICES, is a scientific organization that provides non-biased, non-political scientific advice to member nation governments and international regulatory commissions in the North Atlantic. Its principle functions are to develop and coordinate marine research and to publish and disseminate the results to member nations. See International Council for the Exploration of the Seas, <http://www.ices.dk/aboutus/aboutus.asp> (last visited Oct. 16, 2010).

in its responsibility to implement fishery management plans consistent with the FAO Guidelines.¹³⁵

NAFO, in slight contrast, attempted to undertake more systematic efforts to manage the target fisheries for deep-sea stocks, but overall its efforts were not much better than those of NEAFC. According to the Provisional Report, many stocks are depleted and their levels “are at a fraction of historic abundance and biomass”¹³⁶ For many deep-sea fish stocks, there are no management measures in place, and the catch is “essentially unregulated.”¹³⁷ As with NEAFC, NAFO failed to adopt the protective measures that the FAO Guidelines required.¹³⁸

The final major requirement of Resolution 61/105 is that RFMOs implement a “move-on” rule, under which deep-sea fishing vessels, first, must leave areas where unexpected encounters with VMEs occur and, second, must report the encounters so that RFMOs can take protective measures.¹³⁹ The Provisional Report was highly critical of both NEAFC and NAFO regarding this requirement. The Report revealed that the by-catch threshold levels that RFMOs establish for VME encounters apply only to sponges and corals, despite the fact that scientists have identified other VME habitats within the regulatory areas of both RFMOs.¹⁴⁰ Also, for other deep-water species in most areas of the North Atlantic, the RFMO-established by-catch levels are set too high to be effective in their purpose.¹⁴¹ With such high by-catch levels in place, fishing operations would rarely trigger the paragraph 83(d) “move-on” rule.¹⁴² Furthermore, the Provisional Report determined that the RFMOs’ use of the same threshold levels for different species of corals was inappropriate given the disparity in sizes and concentrations.¹⁴³ Lastly, the Provisional Report revealed that the two nautical-mile “move-on” rules “[are] impractical as it is impossible to identify where a VME encounter occurs along a tow using commercial bottom trawl gear.”¹⁴⁴

¹³⁵ Provisional Report, *supra* note 79, at 5.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ UNGA Resolution 61/105, *supra* note 23, ¶ 83(d). The “move-on” rule, promulgated by the NEAFC, requires a vessel that catches over 100 kilograms of live coral or 1000 kilograms of live sponge as by-catch to move 2 nautical miles from where the “best guess encounter position” is. NAFO had an identical “move-on” rule, but in 2009 the threshold decreased from 100 to 60 kilograms for coral by-catch and from 1000 to 800 kilograms for sponge by-catch. Provisional Report, *supra* note 82, at 30, 49.

¹⁴⁰ Other VME habitats include, for instance, coral garden habitats. *Id.* at 5.

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.* at 5 (noting that commercial trawl tows are up to 20 nautical miles long).

2. An analysis of the Provisional Report's eight recommendations

Overall, the 2009 Provisional Report found that the two RFMOs' compliance with Resolution 61/105 was inadequate. The Report suggested eight recommendations for further action to improve implementation of the Resolution. The eight recommendations include:

- Requiring states involved with high seas bottom trawling to perform impact assessments as required by FAO Guidelines, paragraphs 17-20, 42, and 47, as a *precondition* to further authorizing fishing activities in the RFMO area ("Recommendation 1");
- Prohibiting bottom trawling in areas where impact assessments cannot lead to a clear determination of whether the bottom fishing activities will produce significant adverse impacts on VMEs ("Recommendation 2");
- Closing all areas to bottom fishing where VMEs occur or are likely to occur until an assessment is produced that shows no significant adverse impacts on the VMEs ("Recommendation 3");
- Not limiting the identification of VMEs to sponge and corals only, but rather including the full range of benthic habitat-forming species that are vulnerable to bottom fishing ("Recommendation 4");
- Encouraging states to implement VME protective measures even if the competent RFMO has not ("Recommendation 5");
- Closing overfished areas so that the degraded areas can recover ("Recommendation 6");
- Immediately closing an area to bottom fishing when a fishing vessel encounters a VME indicator species. This closure should continue until an assessment is conducted to determine that no adverse impacts to VMEs will occur ("Recommendation 7"); and
- Phasing out the targeting, or taking as by-catch, of low productivity species where the long-term sustainability of the species cannot be ensured ("Recommendation 8").¹⁴⁵

Although these recommendations contained noble goals, the vast majority repeats similar measures embodied two years earlier in Resolution 61/105 and do not address enforcement problems. For instance, Recommendation 1 is very similar to paragraph 83(a). However, instead of preventing bottom fishing activities that impact assessments have shown to have significant adverse impacts, it prevents countries from proceeding in bottom fishing activities if they have not conducted an impact assessment at all. Although this might seem to be a significant difference, there is still no enforcement mechanism and no

¹⁴⁵ *Id.* at 6 (emphasis in original).

penalty for non-compliance. Resolution 61/105, in paragraph 83(a), already called upon states and RFMOs to conduct impact assessments, but none of them did so. The Provisional Report gave no indication of why insubordinate states and RFMOs would now change their actions. The Report's Recommendation 2 reinforces the principle of the "precautionary approach," but the "precautionary approach" was already a requirement of Resolution 61/105, paragraph 83. Further, Recommendation 3 is substantively the same as paragraph 83(c) of Resolution 61/105.

Recommendation 4, however, is significantly different in that it changes the criteria for VME indicator species that trigger the "move-on" rule. Resolution 61/105 specified cold-water coral as the sole VME indicator species whereas Recommendation 4 enlarged the scope of VME-indicating criteria to "include the full range of benthic habitat forming species that are vulnerable to bottom fishing."¹⁴⁶ This is logical because deep-sea ecosystems are complex and do not exist only in the presence of cold-water corals.¹⁴⁷ This recommendation, however, fails to indicate what species do qualify as indicator species. Until it specifies this key information, the recommendation provides a loophole through which countries and RFMOs can continue to exploit VME resources by claiming ignorance of which species trigger the "move on" rule.

Recommendation 5 also seems unlikely to succeed. The recommendation encourages nations to implement VME protective measures even where the competent RFMO has not. Although some states have made significant efforts to reduce the impacts of bottom trawling in their own EEZs,¹⁴⁸ they have no incentive to comply with self-imposed rules in international waters if other RFMO-member countries have not done the same. Unfortunately, with no enforcement mechanism in place, this "Tragedy of the Commons"¹⁴⁹ mentality dooms Recommendation 5 to failure.

Recommendation 6, which closes degraded areas for recovery, is a noble and logical goal. As mentioned in Part II, trawling on a seamount can decimate a VME, destroying up to 98% of its organisms, and fishermen trawl seamounts repeatedly. These creatures are slow growing, have a low fecundity, and become sexually mature late in life. Some of these coral communities can take 200–400 years to recover.¹⁵⁰ Closure of all areas where VMEs occur (or occurred) is desirable. Still, many think the priority should be to prevent the destruction of pristine, intact VMEs first.

¹⁴⁶ *Id.* at 6.

¹⁴⁷ *Id.* at 4.

¹⁴⁸ For examples, see note 92, *supra*.

¹⁴⁹ The "Tragedy of the Commons" refers to a situation that occurs when many people, acting individually, deplete a common, shared resource to the point of exhaustion, even though they know the resource is on the verge of depletion and it is in no one's long term interest for this to happen. See generally Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

¹⁵⁰ See *supra* Part II.A.

Recommendation 7 of the Provisional Report is substantively identical to paragraph 83(d) of Resolution 61/105. Both require vessels to cease fishing operations in areas where they encounter VMEs until states and RFMOs take measures to ensure no additional significant adverse impacts will occur. Recommendation 8, however, is definitely a step in the right direction. Recommendation 8 requires states involved with high seas bottom trawling to phase out the “targeting or taking as by-catch of low-productivity species” whose long-term survival rates are not clear.¹⁵¹ If RFMOs and individual nations implemented Recommendation 8, it would represent an improvement over Resolution 61/105 because it seeks to identify and ban the taking of already stressed populations of marine life.

None of the recommendations are ill intentioned or misguided, but they still fail to address the underlying problem of enforcement and member compliance. Because UNGA Resolutions are non-binding and generally not enforceable, fishing nations and RFMOs have no incentive to make these controversial but environmentally necessary choices. Another solution—as of yet unaddressed by UNGA Resolutions—entails the imposition of unilateral trade sanctions by economically powerful countries to influence other countries’ deleterious fishing practices. This option must now be considered.

IV. OPTIONS FOR U.S. UNILATERAL ACTION UNDER DOMESTIC LAW AS A METHOD OF ENCOURAGING ENVIRONMENTAL COMPLIANCE

Due to the fragile nature of seamount ecosystems and the decimating effect bottom trawling causes to them, swift action is imperative. If U.N. action does not solve the problem quickly enough, the United States should step in and enact trade measures, such as trade sanctions and import restrictions, against offending countries in a display of global environmental responsibility. The following section discusses the possible avenues for use of unilateral action to enforce international environmental treaties and agreements. It first frames the issue within the context of whether trade measures against nations that violate environmental agreements are effective. Next, this section analyzes and critiques the Pelly Amendment (“Pelly”),¹⁵² the strongest U.S. law that allows for imposing trade measures on other nations as a punishment for their environmental violations. This section continues by exploring different international fisheries conservation programs, such as RFMOs, the United Nations Convention for the Law of the Sea (UNCLOS),¹⁵³ and the 1995 Straddling and Migratory Fish Stocks Agreement (FSA).¹⁵⁴ The section also

¹⁵¹ Provisional Report, *supra* note 79, at 6.

¹⁵² Pelly Amendment to the Fishermen’s Protective Act of 1967, 22 U.S.C. § 1978 (2006) (amending 22 U.S.C. § 1978 (1971)).

¹⁵³ See UNCLOS, *supra* note 19.

¹⁵⁴ Agreement for the Implementation of the Provisions of the United Nations Convention on the

assesses whether the actions of nations engaged in deep-sea bottom trawling violate these treaties and whether these potential violations trigger Pelly trade measures. Part IV concludes with an assessment of the Magnuson-Stevens Reauthorization Act of 2006 (MSRA) and describes how the Act strengthens U.S. options for unilateral action under domestic law.

A. Are Unilateral Trade Measures Against Nations that Engage in Environmentally Destructive Actions Effective?

International consensus and cooperation on environmental issues is a difficult task for many reasons. The value of environmental protection varies from country to country. Many nations, especially those that are poor and developing, place other priorities higher on their political agendas. Also, many non-democratic countries adopt stances on environmental issues that might not accurately reflect the view of the public.¹⁵⁵ Geography can also play a role. For instance, land-locked Bolivia might not be as concerned with international fisheries agreements as coastal Indonesia. Another major barrier to international environmental cooperation results when wealthy nations that are party to an environmental agreement coerce poor, developing member nations into siding with them on issues in return for financial assistance. This is allegedly happening with respect to Japan and the International Whaling Convention.¹⁵⁶

These kinds of longstanding barriers to international cooperation can be overcome using the military, politics, and economics.¹⁵⁷ This paper discusses only methods of economic coercion, such as trade restrictions. The two main types of trade restrictions are import prohibitions and sanctions. Import prohibitions are bans a government places on imported products that have a direct nexus to an environmental harm; this includes, for example, restricting fish imports because of fisheries violations. Alternatively, sanctions are trade bans on unrelated products for the purpose of influencing a foreign country's policies or actions.¹⁵⁸

Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Sept. 8, 1995, U.N. Doc. A/CONF.164/37, 34 I.L.M. 1542 (1995) [hereinafter Fish Stocks Agreement].

¹⁵⁵ Steve Charnovitz, *Environmental Trade Sanctions and the GATT: An Analysis of the Pelly Amendment on Foreign Environmental Practices*, 9 AM. U.J. INT'L L. & POL'Y 751, 755 (1994).

¹⁵⁶ See, e.g., Justin McCurry, *Japan Accused of Vote Buying Ahead of Whaling Meeting*, GUARDIAN, (Mar. 6, 2008), available at <http://www.guardian.co.uk/environment/2008/mar/06/whaling.japan> (stating that "Japan was accused of vote buying after it hosted a seminar . . . on the sustainable use of whales that was attended by 12 African and Asian countries – including landlocked Laos – that have recently joined the [International Whaling Commission (IWC)] or are considering doing so. . . . Critics said Japan used the Tokyo seminar to offer aid packages to countries that had little or no history of whaling in return for their support" for overturning the IWC's moratorium on commercial whaling. Japan denied the vote buying charge.).

¹⁵⁷ Charnovitz, *supra* note 155, at 756.

¹⁵⁸ *Id.*

Threats of import prohibitions and sanctions by the United States have played a role in enforcing environmental agreements in the past.¹⁵⁹ In 1989 and 1991, the United States threatened sanctions against Japan, Taiwan, and South Korea for using large-scale pelagic driftnets on the high seas in violation of the High Seas Driftnet Fisheries Enforcement Act, a U.S. fishery law. These threats helped equip unenforceable UN General Assembly Resolution 44/225¹⁶⁰ with economic teeth and coerce those nations into abandoning the practice. In 1991, after the United States threatened import prohibitions on Japanese products in response to Japan's trade in endangered sea turtles,¹⁶¹ Japan agreed to limit its imports of the turtles in 1991 and end all trade by the end of 1992.¹⁶² In the realm of responding to violations of international environmental agreements, the United States has often threatened to use sanctions in the past but has rarely imposed them. The United States can do so, however, under American law through the Pelly Amendment, discussed in more detail below. Some commentators, however, argue that unilateral trade measures are ineffective and even counterproductive at promoting multilateral cooperation on environmental issues.¹⁶³ Many proponents of unilateral trade measures would prefer to utilize international means such as treaties to achieve environmental goals. It is difficult to reach international consensus on environmental and economic issues, however, and some environmentalists see the ends justifying the means.¹⁶⁴

B. What is the Pelly Amendment and How Does it Allow for Unilateral Trade Measures?

Congress enacted the Pelly Amendment of 1971 to revise the Fishermen's Protection Act of 1967 and give the Act more strength.¹⁶⁵ Congress originally passed Pelly to persuade Denmark, Norway, and West Germany to comply with a ban on high seas salmon fishing promulgated by the International Commission for the Northwest Atlantic Fisheries,¹⁶⁶ but, more generally, it can be used to

¹⁵⁹ See Charnovitz, *supra* note 155.

¹⁶⁰ G.A. Res. 44/225, U.N. Doc. A/RES/44/225 (Dec. 22, 1989).

¹⁶¹ The turtles at issue were hawksbill and olive ridley sea turtles, both of which are listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Charnovitz, *supra* note 155, at 767. Appendix I lists species "threatened with extinction" and "CITES prohibits international trade in specimens of these species" except for non-commercial use. See Convention on International Trade in Endangered Species of Wild Fauna and Flora, The CITES Appendices, <http://www.cites.org/eng/app/index.shtml> (last visited Oct. 16, 2010).

¹⁶² *Id.* (citing David E. Sanger, *Japan, Backing Down, Plans Ban on Rare Turtle Import*, NY TIMES, June 20, 1991, at D6).

¹⁶³ Charnovitz, *supra* note 155, at 758.

¹⁶⁴ Interview with Jon Van Dyke, Professor of Law, W.S. Richardson Sch. of Law, in Honolulu, Haw. (Mar. 14, 2010).

¹⁶⁵ Pelly Amendment to the Fishermen's Protective Act of 1967, 22 U.S.C. § 1978 (2006) (amending 22 U.S.C. § 1978 (1971)).

¹⁶⁶ Charnovitz, *supra* note 155, at 758 (citing Gene S. Martin Jr. & James W. Brennan, *Enforcing the International Convention for the Regulation of Whaling: The Pelly and Packwood-*

enforce compliance with RFMOs. The current relevant text of the Pelly Amendment is as follows:

(a) Certification to President.

(1) When the Secretary of Commerce determines that nationals of a foreign country, directly or indirectly, are conducting fishing operations in a manner or under circumstances which *diminish the effectiveness of an international fishery conservation program*, the Secretary of Commerce shall certify such fact to the President.

(2) When the Secretary of Commerce or the Secretary of the Interior finds that nationals of a foreign country, directly or indirectly, are *engaging in trade or taking* which *diminishes the effectiveness of any international program for endangered or threatened species*, the Secretary making such finding shall certify such fact to the President.¹⁶⁷

Section (a)(3) of the Pelly Amendment¹⁶⁸ continues by requiring the Secretaries of Commerce and the Interior to “periodically monitor the activities of foreign nationals that may affect the international programs”¹⁶⁹ mentioned in the previous paragraphs. Section (a)(3) further requires the Secretaries to investigate the activity that may be the cause for certification and “promptly conclude”¹⁷⁰ what actions need to be taken. The next section, (a)(4), provides:

Upon receipt of any certification made under paragraph (1) or (2), the President may direct the Secretary of Treasury to prohibit the bringing or the importation into the United States of any products from the offending country for any duration as the President determines appropriate and to the extent such prohibition is sanctioned by the World Trade Organization . . . or the multilateral trade agreements¹⁷¹

The President must then report to Congress within sixty days regarding the action he takes and, if he chooses to take no action, the reasons why an embargo of the offending country’s products was not ordered.¹⁷² The original text of the Pelly Amendment provided only for import restrictions, and the only products the President could prohibit from importation were fish products and wildlife products. A 1992 congressional revision to the Amendment¹⁷³ expanded the

Magnuson Amendments, 17 DENV. J. OF INT’L L. & POL’Y 293, 294–95 (1989).

¹⁶⁷ 22 U.S.C. § 1978(a)(1)–(2) (emphasis added).

¹⁶⁸ *Id.* § 1978 (a)(3).

¹⁶⁹ *Id.* § 1978 (a)(3)(A)–(B).

¹⁷⁰ *Id.* § 1978 (a)(3)(C).

¹⁷¹ *Id.* § 1978(a)(4).

¹⁷² Charnovitz, *supra* note 155 (Charnovitz discussed the requirements of 22 U.S.C. § 1978(b) but erroneously cited 22 U.S.C. § 1978(h) instead of § 1978(b)).

¹⁷³ This Congressional revision is codified at 22 U.S.C. § 1978(a)(4).

President's range of economic options, thereby enabling him to enact sanctions covering a broader array of products.¹⁷⁴

Sections (a)(1) and (a)(2) of the Pelly Amendment differ in application and provide distinct avenues for pursuing trade measures against offending countries.¹⁷⁵ Under (a)(1), a country that “diminish[es] the effectiveness of an international fishery conservation program,” engenders the risk that the United States will enact import prohibitions against its fish products or general sanctions against any of its products.¹⁷⁶ Under (a)(2), however, if a country engages in taking or trade that “diminishes the effectiveness of any international program for endangered or threatened species,” the result could be import prohibitions against its wildlife products or even general sanctions.¹⁷⁷

C. What “International Fishery Conservation Programs” Could Trigger Pelly Amendment Trade Measures?

The salient question is what “international fishery conservation program” or “international program for endangered or threatened species” are deep-sea bottom trawling nations violating? RFMOs are certainly “international fishery conservation programs” within the plain meaning of the text,¹⁷⁸ so nations that violate RFMO regulations should be subject to sanctions under section (a)(1) of Pelly. As mentioned earlier, Congress enacted the Pelly Amendment with the purpose of enforcing international compliance with an RFMO-imposed salmon fishing ban.¹⁷⁹ Out of the forty-four regional fisheries bodies worldwide, twenty operate under a mandate to manage certain fish in their area; those twenty fisheries bodies are considered RFMOs.¹⁸⁰ The other twenty-four are advisory bodies that counsel RFMOs on matters of science and policy and do not have a management mandate.¹⁸¹

The Northwest Atlantic Fisheries Organization (NAFO), the successor to the International Commission for the Northwest Atlantic Fisheries,¹⁸² is an excellent example of an “international fishery conservation program.” NAFO consists of twelve member states and covers a large area of the Northwest Atlantic Ocean.¹⁸³ The NAFO Convention on Future and Multilateral Cooperation in the

¹⁷⁴ Charnovitz, *supra* note 155, at 761.

¹⁷⁵ *Id.*

¹⁷⁶ 22 U.S.C. § 1978(a)(1).

¹⁷⁷ *Id.* § 1978(a)(2).

¹⁷⁸ Interview with Jon Van Dyke, *supra* note 165.

¹⁷⁹ *See supra* Part IV.B.

¹⁸⁰ Food & Agriculture Organization of the U.N., Fisheries and Aquaculture Department, Regional Fishery Bodies, <http://www.fao.org/fishery/topic/16800/en> (last visited Oct. 16, 2010).

¹⁸¹ *See id.*

¹⁸² Northwest Atlantic Fisheries Organization, <http://www.nafo.int/about/frames/about.html> (last visited Oct. 16, 2010).

¹⁸³ *Id.* *See also* Northwest Atlantic Fisheries Organization, NAFO Members,

Northwest Atlantic Fisheries¹⁸⁴ gives NAFO a mandate to regulate all fishery resources within the NAFO area, excluding salmon, tuna, marlins, whales, and sedentary species (e.g. shellfish).¹⁸⁵ NAFO regulates only eleven species of fish, however.¹⁸⁶ Of these eleven species, several exist in deep waters and get caught in the high seas portion of NAFO's regulatory area.¹⁸⁷ If a deep-sea bottom trawling nation engages in conduct that "diminish[es] the effectiveness" of NAFO, like exceeding its quota of redfish or engaging in bottom trawling on seamounts that are closed to fishing, then the United States can certify that nation under Pelly.¹⁸⁸ Although this certification is discretionary, if the Secretary of Commerce does not certify a nation, she must at least take some sort of proactive steps in solving the problem.¹⁸⁹

In many respects, and on a broad level, the United Nations Convention on the Law of the Sea (UNCLOS) is an international fishery conservation program and could provide the United States with another path for imposing Pelly trade measures.¹⁹⁰ Although the United States is not currently a party to UNCLOS, it still recognizes the laws promulgated by the Convention as customary

<http://www.nafo.int/contact/frames/members.html> (last visited Oct. 16, 2010). The twelve members are: Canada, Cuba, Denmark (in respect to the Faeroe Islands and Greenland), the European Union, France (in respect of St. Pierre et Miquelon), Iceland, Japan, The Republic of Korea, Norway, Russia, Ukraine, and the United States of America.

¹⁸⁴ Northwest Atlantic Fisheries Organization, *supra* note 183.

¹⁸⁵ *Id.*

¹⁸⁶ The eleven regulated fish are cod, redfish, American plaice, yellowtail flounder, witch flounder, white hake, capelin, skates, Greenland halibut, squid, and shrimp. Provisional Report, *supra* note 79, at 35.

¹⁸⁷ *Id.* The four regulated bottom fish are redfish, white hake, skates, and Greenland halibut.

¹⁸⁸ Although the term "diminish[es] the effectiveness" is vague, other factors besides directly violating a quota or rule could trigger Pelly sanctions. For instance, "non-ratification of a treaty, non-observance of a treaty, or even actions unrelated to a treaty such as domestic sales of an endangered species" could all diminish the effectiveness of an international fisheries conservation program and warrant Pelly certification. Charnovitz, *supra* note 155, at 760.

¹⁸⁹ *See* Japan Whaling Ass'n v. Am. Cetacean Soc'y, 478 U.S. 221, 240-41 (1986). In this case, the Supreme Court held in a 5-4 decision that the Pelly Amendment did not require the Secretary of Commerce to certify Japan, even though Japan was commercially whaling in violation of the International Whaling Convention (IWC). Although Japan's activity clearly diminished the effectiveness of the IWC's efforts to conserve depleted whale populations, the Court determined the Secretary's efforts to negotiate an agreement with Japan, whereby Japan agreed to phase out its commercial whaling activities and to withdraw its objection to the IWC commercial whaling moratorium, were sufficient and "a reasonable construction" of the Pelly Amendment. The Court determined that it was appropriate for Executive Branch officials to exercise discretion. The Court did not say that the Secretary could do nothing, however, but instead held that the Secretary's bilateral negotiations with Japan were consistent with the spirit and intent of Pelly.

¹⁹⁰ *See, e.g.*, Secretary of State Warren Christopher, Letter of Submittal to President Bill Clinton (Sept. 23, 1994), *in* Message from the President of the United States and Commentary Accompanying the Nations Convention on the Law of the Sea and the Agreement Relating to the Implementation of Part XI upon their Transmittal to the United States Senate for its Advice and Consent, reprinted in 7 GEO. INT'L ENVTL. L. REV. 77, 81 (1994) (UNCLOS is the "strongest comprehensive environmental treaty now in existence or likely to emerge for quite some time.").

international law.¹⁹¹ Because many commentators believe that the United States will soon ratify UNCLOS,¹⁹² the following analysis justifies applying Pelly sanctions on nations that violate UNCLOS fishery obligations.

Some articles in UNCLOS pertain directly to responsible fishing on international waters and to the conservation of marine resources.¹⁹³ For instance, Article 192 requires states to “protect and preserve the marine environment,”¹⁹⁴ and Article 197 furthers this goal by requiring states to participate in regional and global efforts geared toward sustainable management of high seas fisheries.¹⁹⁵ Although Article 116 proclaims that nations are generally free to fish on the high seas,¹⁹⁶ this freedom is not unlimited. Rather, Article 116 obliges high seas fishing nations to comply with treaty obligations and Articles 63 through 67. For our purposes, Articles 63 and 64 are the most relevant. Those articles demand that nations must cooperate with each other, through either direct, bilateral agreements or RFMOs for the conservation of highly migratory species and fish stocks that straddle two or more EEZs or an EEZ and the high seas.¹⁹⁷

Articles 117, 118, and 119 apply specifically to nations engaged in high seas fishing, such as deep-sea bottom trawlers. Article 117 states that nations must “take . . . measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.”¹⁹⁸ Article 118 further states that nations “shall cooperate with each other in the conservation and

¹⁹¹ Initially, the Reagan Administration was hesitant to ratify UNCLOS due to concerns over UNCLOS Part XI, a series of Articles pertaining to deep-sea mining and mineral extraction on the high seas. To allay U.S. concerns, UNCLOS parties and non-parties (including the United States) engaged in consultations that resulted in the 1994 Agreement of Implementation, a binding international convention that repealed the Part XI Articles. Still, despite the changes, the United States has not ratified UNCLOS. There is increasing support among U.S. political and military leaders to ratify UNCLOS, however, and some observers believe the United States would have ratified UNCLOS in 2009 if it were not for the time-consuming Health Care debates in the Senate. See, e.g., President George W. Bush, Statement on Advancing U.S. Interests in the World’s Oceans, May 15, 2007 (“I urge the Senate to act favorably on U.S. accession to the United Nations Convention on the Law of the Sea during this session of Congress. Joining will serve the national security interests of the United States, including the maritime mobility of our armed forces worldwide.”), available at <http://georgewbush-whitehouse.archives.gov/news/releases/2007/05/20070515-2.html>. See also Secretary of State Hilary Clinton, Remarks at her Confirmation Hearing, Jan. 13, 2009 (stating that ratification of UNCLOS would be a priority for her), available at http://www.cfr.org/publication/18225/transcript_of_hillary_clintons_confirmation_hearing.html.

¹⁹² Interview with Jon Van Dyke, *supra* note 165.

¹⁹³ See Jon Van Dyke, *Allocating Fish Across Jurisdictions*, in *LAW OF THE SEA, ENVIRONMENTAL LAW AND SETTLEMENT OF DISPUTES* 821 (Tafsir Malick Ndiaye & Rudiger Wolfrum eds., 2007).

¹⁹⁴ UNCLOS, *supra* note 19, art. 192.

¹⁹⁵ Vinson, *supra* note 36, at 375 (citing UNCLOS, *supra* note 19, art. 197).

¹⁹⁶ UNCLOS, *supra* note 19, art. 116.

¹⁹⁷ *Id.* arts. 63–64.

¹⁹⁸ *Id.* art. 117.

management of living resources in the areas of the high seas.”¹⁹⁹ Article 119 might be the most important, however. Article 119 states that

“In . . . establishing other conservation measures for the living resources in the high seas, *States shall*:

(a) take measures which are designed . . . to *maintain or restore populations* of harvested species at levels which can produce the maximum sustainable yield . . . ;

(b) take into consideration the effects on species associated with or dependent upon harvested species with a view to *maintaining or restoring populations* (of these species) *above levels at which their reproduction may become seriously threatened.*”²⁰⁰

This Article mandates that nations take action to ensure that their conservation measures are working and their fishing efforts are not seriously depleting fish stocks. As discussed previously in Part II, many fishing nations target deep-water fish that have extremely slow reproductive rates, and deep-sea bottom trawling has proven to be seriously threatening to their reproductive success. Accounting for these slow reproductive rates might very well result in a forced, temporary closure of the fishery. States failing to do so, however, would be violating Article 119. If UNCLOS qualifies as an “international fishery conservation program,” then parties to UNCLOS are subject to certification under the Pelly Amendment.

The 1995 Straddling and Migratory Fish Stocks Agreement (FSA),²⁰¹ borne out of UNCLOS,²⁰² is an even stronger example of an “international fishery conservation program.”²⁰³ The FSA contains many useful provisions relating to the management of migratory fish stocks and fish stocks that straddle a nation’s EEZ and the high seas. It lays out stronger and clearer obligations than those in UNCLOS.²⁰⁴ Although the FSA does not directly address fish stocks found on seamounts, many seamount ecosystems on which bottom trawling nations fish straddle EEZs and the high seas.²⁰⁵ Also, because scientists know so little about seamount ecosystems, these seamounts might harbor highly migratory benthic species; this claim, however, might be difficult to verify. Furthermore, the

¹⁹⁹ *Id.* art. 118.

²⁰⁰ *Id.* art. 119 (emphasis added).

²⁰¹ Fish Stocks Agreement, *supra* note 155.

²⁰² See UNCLOS, *supra* note 19, arts. 63–64.

²⁰³ Zachary Tyler, *Saving Fisheries on the High Seas: The Use of Trade Sanctions to Force Compliance with Multilateral Fisheries Agreements*, 20 TUL. ENVTL. L.J. 43, 54 (2006) (stating that the FSA is “[t]he most important international agreement addressing fisheries on the high seas”).

²⁰⁴ *Id.* at 55.

²⁰⁵ For instance, New Zealand’s EEZ, the fourth largest in the world, straddles numerous seamounts. For a map of New Zealand’s EEZ, see TerraNature, New Zealand Exclusive Economic Zone, http://www.terrannature.org/NZ_EEZ.htm (last visited Oct. 18, 2010).

FSA's definition of "highly migratory species" is limited to species of fish that are covered by UNCLOS Annex I.²⁰⁶ The restrictive definition thus limits the type of species the United States can claim as "highly migratory" under the FSA. Therefore, it might be more effective from a legal standpoint to instead focus on fish stocks on seamounts that straddle a nation's EEZ and the high seas.

The FSA espouses many important principles, such as the duty to cooperate between coastal and distant-water fishing nations²⁰⁷ and the duty to work through existing or new fisheries organizations.²⁰⁸ Perhaps the most important of the FSA's principles is the emphasis on the precautionary approach.²⁰⁹ Under the FSA, the precautionary approach requires fishing nations to exercise caution by conducting relevant research and to avoid activities that present uncertain risks to the marine environment.²¹⁰ As mentioned in Part II, bottom trawling certainly presents uncertain risks to the marine environment. Specifically, Article 6 of the FSA requires states to share their data with other nations, and when "information is uncertain, unreliable, or inadequate," states must be "more cautious"²¹¹ and must take specified "uncertainties"²¹² into account when establishing management goals.²¹³ Also, species thought to be under stress shall be subjected to "enhanced monitoring in order to review their status and the efficacy of conservation and management measures."²¹⁴

As of October 19, 2010, only seventy-seven countries ratified the FSA,²¹⁵ far less than the 161 countries that ratified UNCLOS.²¹⁶ However, all of the fifteen

²⁰⁶ UNCLOS Annex I lists the following as highly migratory species: albacore tuna, bluefin tuna, bigeye tuna, skipjack tuna, yellowfin tuna, blackfin tuna, little tuna, southern bluefin tuna, frigate mackerel, pomfrets, marlins, sailfishes, swordfish, sauries, dolphin (fish), and numerous species of marine mammals. For a full list of species, including scientific names, see U.N. Convention on the Law of the Sea, *Agreement Relating to the Implementation of Part XI of the Convention*, Annex I: Highly Migratory Species, http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm (last visited Oct. 21, 2010).

²⁰⁷ Fish Stocks Agreement, *supra* note 155, art. 7(2).

²⁰⁸ *Id.* art. 8(3).

²⁰⁹ *Id.* art. 5(c). See also Jon Van Dyke, *supra* note 100.

²¹⁰ Jon Van Dyke, *supra* note 100.

²¹¹ Fish Stocks Agreement, *supra* note 155, art. 6(2).

²¹² *Id.* art. 6(3)(c) (stating that such uncertainties include those "relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distribution of fishing mortality and the impact of fishing activities on non-target and associated or dependent species, as well as existing and predicted oceanic, environmental and socio-economic conditions").

²¹³ *Id.*

²¹⁴ *Id.* art. 6(5).

²¹⁵ United Nations, Chronological lists of ratifications of, accessions and successions to the Convention and the related Agreements as at (sic) 19 October 2010, http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm (last visited Oct. 19, 2010) (see "Agreement for the implementation of the provisions of the Convention of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks").

²¹⁶ *Id.*

major deep-sea bottom trawling nations mentioned in Part II—Spain, Russia, New Zealand, Portugal, Estonia, Japan, Republic of Korea, Australia, France, Belize, Latvia, Lithuania, Iceland, Norway, and Denmark/Faeroes Islands—ratified the FSA.²¹⁷ Because the FSA is an international treaty, it is binding international law. The United States, also a party to the FSA, might find that some or all of these fifteen nations are violating the precautionary approach with regards to deep-sea bottom trawling, especially in light of the evidence presented in the Provisional Report, discussed in Part III. If this is the case, the United States may pursue Pelly sanctions against nations violating the FSA, clearly an “international fishery conservation program.”²¹⁸

D. How Does the Magnuson-Stevens Reauthorization Act of 2006 Allow For Unilateral Trade Measures Against Deep-Sea Bottom Trawling Nations?

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (MSRA)²¹⁹ provides another avenue for using the Pelly Amendment to impose trade sanctions and import prohibitions against deep-sea bottom trawling nations. The MSRA authorizes certification under the Pelly Amendment for nations that allow their vessels to engage in “illegal, unreported, or unregulated” (IUU) fishing and do not change their behavior.

Under the MSRA, the Secretary of Commerce must “identify each nation whose nationals or vessels are conducting . . . [IUU] fishing beyond the exclusive economic zone of any nation . . .”²²⁰ and notify the President of this identification.²²¹ Within thirty days of this identification, the President must “enter consultations with the government of that nation for the purpose of obtaining an agreement that will effect the *immediate termination* . . . of [IUU] fishing by the nationals or vessels of that nation. . .” upon the high seas.²²² If these negotiations do not conclude satisfactorily, the President shall direct the Secretary of Treasury to impose import prohibitions on those nations for fish, fish products, and sport fishing equipment²²³ within forty-five days of the President’s directive.²²⁴ After six months of import prohibitions, the Secretary of Commerce must determine whether the import prohibitions were effective in altering the identified nation’s IUU fishing behavior.²²⁵ If the prohibitions were not effective, the Secretary of Commerce may certify that nation to the President

²¹⁷ *Id.*

²¹⁸ Interview with Jon Van Dyke, *supra* note 165.

²¹⁹ Magnuson-Stevens Fishery Conservation and Management Reauthorization Act, 16 U.S.C. §§ 1801 et. seq. (2006).

²²⁰ 16 U.S.C. § 1826a(b)(1)(A)(i).

²²¹ *Id.* § 1826a(b)(1)(A)(ii).

²²² *Id.* § 1826a(b)(2) (emphasis added).

²²³ *Id.* § 1826a(b)(3)(A)(i)–(ii).

²²⁴ *Id.* § 1826a(b)(3)(B).

²²⁵ *Id.* § 1826a(b)(4)(A)(i)–(ii).

under the Pelly Amendment.²²⁶

The MSRA differs from the original MSA in many respects. Perhaps the most important difference, especially for deep-sea seamount protection, is the new definition of IUU fishing. The expanded definition of IUU fishing is significant because it includes “fishing activity that has an *adverse impact on seamounts, hydrothermal vents, and cold water corals located beyond national jurisdiction*, for which there are no *applicable* conservation or management measures or in areas with no *applicable* international fishery management organization or agreement.”²²⁷ As described in Part II, deep-sea bottom trawling on seamounts clearly has an “adverse impact on seamounts. . .and cold-water corals located beyond national jurisdiction.”²²⁸

Given that bottom trawling satisfies the MSRA’s “adverse impact” requirement, the next issue is whether seamount bottom trawling occurs in areas where “no *applicable* conservation or management measures [are in place] or in areas with no *applicable* international fishery management organization or agreement.”²²⁹ To identify the meaning of “applicable” in this context, it is helpful to look further into the MSRA. Section 1826(j) provides guidance; it states that the Secretary of Commerce must “identify” a nation engaged in IUU fishing where “the relevant [RFMO] has failed to implement effective measures to end the IUU activity by vessels of that nation,^[230] . . . or where no [RFMO] exists *with a mandate to regulate the fishing activity in question*.”²³¹

The central Atlantic Ocean is a prime example of an area of the ocean with questionable RFMO applicability. Although numerous RFMOs cover the Atlantic Ocean,²³² one RFMO in particular, the International Commission for the Conservation of Atlantic Tuna (ICCAT), exclusively covers large areas of the central Atlantic. ICCAT governs a vast swath of ocean stretching from the Strait of Gibraltar to Liberia on the east and from the U.S. state of Virginia to Argentina on the west.²³³ The only species of marine organisms ICCAT regulates are pelagic fish such as tunas, billfish, swordfish, and mackerels²³⁴ —

²²⁶ *Id.* § 1826a(b)(4)(B)–(C).

²²⁷ *Id.* § 1826j(e)(3)(C) (emphasis added).

²²⁸ See *id.*

²²⁹ *Id.* (emphasis added).

²³⁰ *Id.* § 1826j(a)(1).

²³¹ *Id.* § 1826j(a)(2) (emphasis added).

²³² *E.g.*, NAFO, NEAFC, South-East Atlantic Fisheries Organization (SEAFO), etc.

²³³ The central Atlantic is not a defined area. Depending on the interpretation of varying RFMO maps, the eastern border of the central Atlantic could either start from the end of Liberia’s EEZ or from the equator, on the border of Gabon and Equatorial Guinea. The western boundary of ICCAT in the Central Atlantic is vastly larger than its eastern counterpart because the South East Atlantic Fisheries Organization (SEAFO) exists in the east, whereas there is no equivalent RFMO in the southwest Atlantic. For a map, see Fisheries and Oceans Canada, The 200-Mile Limit, <http://www.dfo-mpo.gc.ca/international/images/200-mill.jpg> (last visited Oct. 19, 2010).

²³⁴ See International Commission for the Conservation of Atlantic Tunas, Introduction, <http://www.iccat.int/en/introduction.htm> (last visited Oct. 8, 2010).

species that deep-sea bottom trawlers do not normally target.²³⁵ This indicates, according to the plain language of the statute, that deep-sea bottom trawlers fishing on seamounts in the central Atlantic participate in IUU fishing because ICCAT does not have a “mandate to regulate the fishing activity in question.”²³⁶ In fact, most RFMOs do not cover any benthic fish species; instead, they focus on specific species that the participating nations choose to manage.²³⁷ Currently, high seas bottom trawling activity on seamounts in the central Atlantic is limited.²³⁸ In the future, however, if nations authorize vessels to bottom trawl on seamounts in the central Atlantic, their actions would qualify as IUU fishing, thereby subjecting the offending nations to import prohibitions and possibly Pelly sanctions.

The Provisional Report, detailed previously in Part III, explained that a large number of deep-sea bottom trawling vessels operate in the North Atlantic, an area that is under the jurisdiction of NAFO and NEAFC.²³⁹ These RFMOs regulate the fishing of certain benthic fish that exist on seamounts. Therefore, it seems that deep-sea bottom trawlers operating in this area and following RFMO guidelines are not engaged in IUU fishing according to the definition.²⁴⁰ Many other deep-water species, however, live within NAFO’s and NEAFC’s jurisdiction and are unregulated.²⁴¹ As mentioned above, the MSRA’s new

²³⁵ Although some species of tuna will aggregate around the tops of seamounts, they are not usually targeted.

²³⁶ 16 U.S.C. § 1826j(a)(2). This view is supported unofficially by certain legal advisors to the National Oceanic and Atmospheric Administration (NOAA). During the week of June 28 – July 2, 2010, the author conducted three interviews with NOAA employees from the Office of the General Counsel and the Office of International Affairs in Washington, D.C. They all believed this assessment was correct, but spoke on the condition of anonymity due to sensitive diplomatic concerns. Interviews with anonymous legal advisors, NOAA (June 28–July 2, 2010) [hereinafter Interviews with anonymous NOAA employees].

²³⁷ Of the twenty operating RFMOs currently in existence, ten do not directly regulate bottom fish found on seamounts. For a comprehensive list of FAO-recognized RFMOs and the species they regulate, see Food & Agricultural Organization of the U.N., Fisheries & Aquaculture, Fishery Governance Fact Sheets, <http://www.fao.org/fishery/rfb/search/en> (last visited Oct. 8, 2010).

²³⁸ Interview with Les Watling, Professor, Dept. of Zoology, Univ. of Hawaii, in Honolulu, Haw. (Apr. 15, 2010). However, there have been recent reports that Spain is bottom trawling on seamounts off the coast of Argentina, just outside of Argentina’s EEZ but still within Argentina’s extended continental shelf. Interviews with anonymous NOAA employees, *supra* note 237.

²³⁹ A third RFMO, the North Atlantic Salmon Conservation Organization (NASCO), also covers the North Atlantic. NASCO covers only salmon, however, and is not included in this discussion.

²⁴⁰ Part IV.D. of this paper focuses solely on the definition of IUU espoused in the MSRA. These nations may be engaged in IUU fishing under an alternate IUU fishing definition, however.

²⁴¹ Provisional Report, *supra* note 79, at 35. Many non-regulated species “occur within NAFO’s regulatory area and are almost certainly targeted or taken as by-catch on the high seas.” These species include, but are not limited to: blue antimora, rough head grenadier, roundnose grenadier, marlin spike grenadier, three-bearded rockling, silver rockling, long fin hake, stripped wolfish, spotted wolfish, northern wolfish, Arctic eelpout, Esmark’s eelpout, spiny eel, alfonsino, slickheads, black scabbardfish, wreckfish, black cardinal fish, barrelfish, Mediterranean roughy, orange roughy, Cornish blackfish, hagfish, large-eyed rabbitfish, narrownose chimaera, spiny dogfish, black dogfish, deep-sea catshark, great lantern shark, bluntnose sixgill shark, and Portuguese dogfish.

definition of IUU fishing signaled that nations that target any of the non-regulated, bottom-dwelling fish on seamounts might possibly be engaged in IUU fishing.

On January 13, 2009, in accordance with the MSRA, the Secretary of Commerce submitted the first Biennial Report to Congress identifying nations whose fishing vessels were engaged in IUU fishing in 2007 or 2008.²⁴² Of all major deep-sea bottom trawling nations listed in Part II, however, the Biennial Report identified only France.²⁴³ The Secretary identified France for violations of ICCAT rules regarding bluefin tuna catches and neglected to mention IUU bottom trawling activity.²⁴⁴ There are many possible reasons why the Biennial Report failed to identify any of the major deep-sea bottom trawling nations for IUU fishing violations. The most plausible explanation is timing. Because Congress did not enact the MSRA—which expanded the definition of IUU fishing to include deep-sea seamount bottom trawling—until late 2006, the Secretary might not have had enough time to develop a comprehensive and accurate list of violators before the 2008 deadline.²⁴⁵ Also, the effects of Resolution 61/105 on bottom trawling nations were unclear. Some speculate that certain Commerce Department members thought that it would be better to wait and later assess whether any of the nations party to Resolution 61/105 had changed their behaviors.²⁴⁶

Another reason for the absence of identified bottom trawling nations in the Biennial Report might be that those nations trawl predominantly on seamounts located within the boundaries NAFO and NEAFC, applicable RFMOs. If an RFMO is applicable, there is no direct violation of Pelly by trawling in its waters. If bottom trawling nations trawled in the central Atlantic, an area without an applicable RFMO, they would be in direct violation of Pelly. Regardless of the reasons for the lack of identification of bottom trawling nations in the Biennial Report, the MSRA still sets up the framework for pursuing trade restrictions against bottom trawling nations that venture into non-regulated deep-sea areas in the future.

²⁴² U.S. DEP'T OF COMMERCE, IMPLEMENTATION OF TITLE IV OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT REAUTHORIZATION ACT OF 2006, REPORT TO CONGRESS PURSUANT TO SECTION 403(A) OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT REAUTHORIZATION ACT OF 2006 89 (2009), available at http://www.nmfs.noaa.gov/msa2007/docs/msra_biennial_report_011309.pdf.

²⁴³ *Id.* Identified nations included France, Italy, Libya, Panama, the People's Republic of China, and Tunisia.

²⁴⁴ *Id.*

²⁴⁵ Interviews with anonymous NOAA employees, *supra* note 237.

²⁴⁶ *Id.*

V. AN ANALYSIS OF THE WTO APPELLATE BODY'S HOLDING IN THE *SHRIMP-TURTLE* DISPUTE AND ITS IMPLICATIONS FOR UNILATERAL TRADE MEASURES

Many consider the *Shrimp-Turtle* dispute, two highly charged World Trade Organization (WTO) Appellate Body ("Appellate Body") cases in 1998²⁴⁷ and 2001,²⁴⁸ to be the most important development in WTO policy regarding trade restrictions for fisheries violations.²⁴⁹ This trade dispute featured the United States, on the one hand, and India, Malaysia, Pakistan, and Thailand, on the other. The Appellate Body ruled that international trade law, specifically Article XX of the General Agreement on Tariffs and Trade ("Article XX"),²⁵⁰ allowed nations to utilize unilateral trade measures to conserve "exhaustible natural resources"²⁵¹ if the trade measures follow certain guidelines. The following section discusses those guidelines and presents an overview of the history and purpose of the WTO and the General Agreement on Tariffs and Trade (GATT). The section examines Article XX of GATT, an article that condones unilateral trade measures aimed at preventing environmental harm. It also analyzes the Appellate Body's holdings in both *Shrimp-Turtle* cases and examines the implications of those holdings. This section concludes by discussing how the United States should proceed if it chooses to impose Pelly or MSRA trade measures on other countries without violating WTO trade law.

A. *The History and Purpose of the WTO and GATT*

On January 1, 1948, twenty-three countries signed GATT,²⁵² an agreement intended to prohibit trade discrimination among member states.²⁵³ On January 1, 1995, after nearly fifty years of existence, the last and largest GATT round of trade negotiations—the Uruguay Round²⁵⁴—led to the creation of the World Trade Organization (WTO).²⁵⁵ The WTO adopted the articles of GATT and incorporated GATT's 128 members into the WTO.²⁵⁶

²⁴⁷ Appellate Body Report 1998, *supra* note 26.

²⁴⁸ Appellate Body Report 2001, *supra* note 26.

²⁴⁹ Tyler, *supra* note 204, at 84–85. See also Robert Howse, *The Appellate Body Rulings in the Shrimp-Turtle Case: A New Legal Baseline for the Trade and Environmental Debate*, 27 COLUM. J. ENVTL. L. 491, 494–95 (2002).

²⁵⁰ General Agreement on Tariffs and Trade, Apr. 15, 1994, 1867 U.N.T.S. 187, art. XX [hereinafter GATT art. XX].

²⁵¹ Appellate Body Report 1998, *supra* note 26, ¶ 135 (citing GATT art. XX, *supra* note 251, § (g)).

²⁵² General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194.

²⁵³ WORLD TRADE ORGANIZATION, UNDERSTANDING THE WTO 10 (5th ed. 2010), available at http://www.wto.org/english/thewto_e/whatis_e/tif_e/utw_chap1_e.pdf [hereinafter UNDERSTANDING THE WTO].

²⁵⁴ Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, 33 I.L.M. 1125 (1994). The Uruguay Round was negotiated between 1986 and 1994.

²⁵⁵ UNDERSTANDING THE WTO, *supra* note 254.

²⁵⁶ Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867

The WTO serves essentially as a forum for member governments to sort out the trade problems they face with one another.²⁵⁷ The WTO aims to reduce and eliminate barriers to international trade, such as tariffs, quotas, and other trade restrictions that prohibit the free flow of goods and services.²⁵⁸ Unilateral trade sanctions and import restrictions are generally antithetical to its purpose. However, sections (b) and (g) of GATT Article XX provide exceptions, relating to international environmental issues, to the general rule against unilateral trade restrictions. The relevant text of Article XX is as follows:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of *arbitrary or unjustifiable discrimination* between countries where the same conditions prevail, or a *disguised restriction on international trade*, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

(b) necessary to protect human, *animal or plant life* or health; . . .

(g) relating to the *conservation of exhaustible natural resources* if such measures are made effective in conjunction with restrictions on domestic production or consumption. . . .²⁵⁹

Generally, most commentators view Article XX(b) as a tool to enforce sanitary or quarantine laws.²⁶⁰ Some commentators see Article XX(b) as too limited to cover environmental trade measures²⁶¹ whereas others construe the text to be so broad that it could cover almost anything that affects the health of a living organism.²⁶² In the highly influential *Shrimp-Turtle* cases, the Appellate Body decided that Article XX(b) did not apply to the issues but that Article XX(g) did.²⁶³ The Appellate Body spent considerable time discussing the applications of Article XX to environmentally-motivated trade restrictions. The Appellate Body's interpretation of Article XX(g)'s environmental exceptions

U.N.T.S. 154, 33 I.L.M. 1144, annex 1A, ¶ 1(a). As of October 19, 2010, there are 153 members.

²⁵⁷ UNDERSTANDING THE WTO, *supra* note 254.

²⁵⁸ Tyler, *supra* note 204, at 83 (citing UNDERSTANDING THE WTO, *supra* note 254).

²⁵⁹ GATT art. XX, *supra* note 251, §§ (b), (g) (emphasis added).

²⁶⁰ Charnovitz, *supra* note 155, at 775–76 (citing *Panel Report, United States - Restrictions on Imports of Tuna*, ¶¶ 4.18, 5.26, WT/DS29/R (June 16, 1994)). *See also id.* at 780 (quoting Statement by Senator Lloyd Bentsen, 136 Cong. Rec. S3002 (daily ed. Mar. 22, 1990) (“Article XX really refers to trying to protect against contaminated meat, against rabid dogs, and against infected plant life.”)).

²⁶¹ Charnovitz, *supra* note 155, at 780 (citing CAROLINE LONDON, *ENVIRONMENT ET GATT*, ECO-DECISION 37 (1993)).

²⁶² Charnovitz, *supra* note 155, at 781 (citing Michael Prieur, *Environmental Regulations and Foreign Trade Aspects*, 3 FLA. INT'L L. J. 85, 85–86 (1987)).

²⁶³ Although GATT Article XX(b) may be useful as a way to enforce trade measures against nations for environmental non-compliance in the future, this paper does not discuss Article XX(b) in depth but instead models its argument around the rulings in the *Shrimp-Turtle* cases.

promoted the argument that nations may utilize unilateral trade measures to prevent certain environmental harms. The details of that argument are discussed below.

B. The Shrimp-Turtle Dispute

The roots of the *Shrimp-Turtle* dispute began in 1987. Acting under the authority of the Endangered Species Act,²⁶⁴ the Department of Commerce promulgated regulations that required U.S. shrimp trawling vessels to use Turtle Excluder Devices (TEDs)²⁶⁵ to prevent the by-catch of highly endangered sea turtles.²⁶⁶ Those involved in the shrimp industry worried that other shrimp-fishing nations—not bound by the U.S. law requiring use of TEDs—would realize an economic advantage over domestic shrimp trawlers.²⁶⁷ Environmentalists were equally worried, but for a different reason. Environmentalists voiced concern that, given the highly migratory nature of sea turtles, U.S. efforts alone would not be sufficient to protect sea turtle populations worldwide.²⁶⁸

In 1989, this unlikely coalition of shrimp trawlers and environmentalists pressured Congress to address their concerns.²⁶⁹ On November 21, 1989, Congress enacted section 609 of Public Law 101-162 (“Section 609”).²⁷⁰ Section 609 required all foreign shrimp-fishing nations wishing to export shrimp or shrimp products to the United States to use TEDs or similar methods to achieve a comparable level of sea turtle protection.²⁷¹ To avoid a trade embargo,

²⁶⁴ Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq. (2006).

²⁶⁵ TEDs function as a trapdoor inside the mouth of a trawl net, allowing shrimp to pass into the back of the net while directing turtles and other large objects out of the net. See Appendix C. See also Panel Report, *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 2.5, WT/DS58/R (May 15, 1998) [hereinafter Panel Report 1998]. The use of TEDs has been shown to “reduce sea turtle mortality from shrimp fishing operations by ninety-seven percent.” Susan L. Sakmar, *Free Trade and Sea Turtles: The International and Domestic Implications of the Shrimp-Turtle Case*, 10 COLO. J. INT’L ENVTL. L. & POL’Y 345, 348 (1999) (quoting Paul Stanton Kibel, *Justice for the Sea Turtle: Marine Conservation and the Court of International Trade*, 15 UCLA J. ENVTL. L. & POL’Y 57, 61 (1996–97)).

²⁶⁶ Kibel, *supra* note 266, at 60 (“[T]here are currently at least four species of sea turtles that now face possible extinction: the loggerhead, the green leatherback, the hawksbill, and the Kemp’s ridley.”).

²⁶⁷ Takako Morita, *Marine Sea Turtles and Shrimp Trawling: Interplay Between the U.S. Courts and the WTO Panels and Its Effect on the World Shrimping Industry*, 10 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 209, 213 n.31 (2004) (citing Deborah Crouse, Guest Editorial, *The WTO Shrimp/Turtle Case*, MARINE TURTLE NEWSLETTER NO. 83, Jan. 1999, at 1, available at <http://www.seaturtle.org/mtn/PDF/MTN83.pdf>).

²⁶⁸ *Id.* at 214.

²⁶⁹ *Id.*

²⁷⁰ Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1990, Pub. L. No. 101-162, § 609, 103 Stat. 988, 1037–38 (1990) (codified as a note to 16 U.S.C. § 1537 (1990)).

²⁷¹ *Id.* at (b)(1)–(2) (“The importation of shrimp or products from shrimp which have been

shrimp-exporting nations needed to obtain certification from the Department of State either reflecting the nation's adoption of a program for reducing sea turtle by-catch comparable to the U.S. program or showing that their shrimp-fishing methods did not pose a threat to sea turtles.²⁷² Section 609 also required the U.S. State Department to negotiate bilateral and multilateral agreements with other nations to adopt TEDs.²⁷³ This last requirement ultimately proved critical and led to the United States' position in *Shrimp-Turtle I*.

Prior to the initiation of dispute proceedings in the WTO, the United States successfully concluded negotiations only with Caribbean and western-Atlantic nations, despite its mandate to negotiate with all nations that wished to import shrimp products.²⁷⁴ Similarly, the United States applied Section 609's TED requirements only to these same Caribbean and western-Atlantic nations.²⁷⁵ Environmental groups challenged the State Department's selective application of Section 609, and, after a series of litigation,²⁷⁶ the Court of International Trade (CIT) forced the State Department to expand Section 609's scope of application. The CIT concluded that the State Department must prohibit "the importation of shrimp or products of shrimp *wherever harvested in the wild with commercial fishing technology* which may affect adversely those species of sea turtle [that fall under Section 609]"²⁷⁷

Although the CIT's ruling was a great victory for environmentalists, fears of inciting an international trade dispute materialized as the United States struggled

harvested with commercial fishing technology which may affect adversely such species of sea turtles shall be prohibited not later than May 1, 1991, except" those shrimp or products that are certified by the President.)

²⁷² See Appellate Body Report, *supra* note 27, ¶¶ 3-4; Tyler, *supra* note 215, at 85.

²⁷³ Tyler, *supra* note 204, at 85 (citing Pub. L. No. 101-162, § 609 (a)(1)-(4)).

²⁷⁴ Originally, the State Department focused only on Caribbean/western-Atlantic shrimp-fishing nations because this area hosts most of the U.S. shrimp industry. By focusing only on these nations, however, the State Department limited the TED requirement to fifteen of the more than eighty-five nations that exported shrimp to the United States. Of the top seven shrimp exporters to the United States, only Mexico fell within the State Department's scope. Although theories abound, it appears the reason for this disparate treatment of shrimp exporting nations had little to do with the U.S. domestic shrimp industry or the migratory patterns of turtles but instead with the Bush and Clinton Administrations' concern with sparking a high-profile international trade dispute, especially as the United States was trying to rally support for the implementation of GATT and NAFTA. See Sakmar, *supra* note 266, at 350-52.

²⁷⁵ *Id.* at 350.

²⁷⁶ For an in depth analysis of Section 609's journey through the U.S. court system, see Sakmar, *supra* note 266, at 351-54. The Earth Island Institute originally brought suit in the U.S. District Court for the Northern District of California. *Earth Island Inst. v. Baker*, No. C 92-0832 JPV, 1992 WL 565222 (N.D. Cal. Aug. 6, 1992). The district court, however, determined it lacked subject matter jurisdiction to adjudicate a claim brought under Section 609 because the claim raised a political question. *Id.* Earth Island Institute subsequently brought suit in the Court of International Trade (CIT). *Earth Island Inst. v. Christopher*, 913 F.Supp. 559 (Ct. Int'l Trade 1995) (determining that the State Department must expand its Section 609 coverage to all nations exporting shrimp to the United States).

²⁷⁷ *Earth Island Inst.*, 913 F. Supp. at 580. (emphasis added).

to apply Section 609.²⁷⁸ Impelled by the CIT ruling “require[ing] the federal government to enforce the statute, the United States placed a ban on shrimp imports from countries not requiring their fishing fleets to utilize TEDs.”²⁷⁹ Consequently, on October 6, 1996, India, Malaysia, Pakistan, and Thailand (“Complainants”) requested negotiations with the United States under Article IV of the “Understanding on Rules and Procedures Governing the Settlement of Disputes” (DSU) and Article XXII(1) of GATT.²⁸⁰ The parties to the negotiations sought to settle their dispute over Section 609’s import ban. After the settlement proceedings proved unsuccessful, the Complainants requested that the Dispute Settlement Body (DSB) examine their complaint.²⁸¹ In a 370-page opinion, the DSB ruled against the United States on many grounds, discussed in detail below.²⁸² Generally, the DSB decided that the Section 609 sanctions the United States imposed against the Complainants violated GATT’s prohibition against unilateral trade measures.

On July 13, 1998, the United States appealed to the WTO Appellate Body, claiming the DSB erred in finding that Section 609 fell outside the scope of Article XX’s environmental exceptions.²⁸³ Although the Appellate Body ultimately ruled against the United States (in its first opinion of the *Shrimp-Turtle* dispute), it overruled many of the DSB’s conclusions. It also established a clear framework to guide nations like the United States in utilizing Article XX’s environmental exceptions while simultaneously complying with GATT’s policy against unilateral trade restrictions.

In its opinion, the Appellate Body first held that Section 609’s import ban is a “measure concerned with the conservation of ‘exhaustible living resources’ within the meaning of Article XX(g).”²⁸⁴ “With this ruling, the Appellate Body validated the use of unilateral trade measures for environmental purposes under the WTO.”²⁸⁵ This momentous ruling rejected the Complainants argument that the term “exhaustible living resources” found in Article XX(g) applied only to finite resources such as minerals and petroleum and not to living, reproducing resources.²⁸⁶ The Appellate Body further concluded that the United States complied with Article XX(g)’s requirement that Section 609 be a “measure[] . . . made effective in conjunction with restrictions on domestic production or

²⁷⁸ Sakmar, *supra* note 266, at 357.

²⁷⁹ Tyler, *supra* note 204, at 85.

²⁸⁰ *Id.*

²⁸¹ *Id.*

²⁸² See Panel Report 1998, *supra* note 266. For an in depth look at the DSB decision, see Sakmar, *supra* note 266, 357–71.

²⁸³ World Trade Organization, United States – Import Prohibition of Certain Shrimp and Shrimp Products, http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm (last visited Nov. 8, 2010).

²⁸⁴ Appellate Body Report 1998, *supra* note 26, ¶ 127.

²⁸⁵ Tyler, *supra* note 204, at 86.

²⁸⁶ *Id.*

consumption”²⁸⁷ on the grounds that U.S. domestic laws required the use of TEDs and contained penalties for enforcement.

The Appellate Body then moved to the more complicated issue of whether Section 609 violated the preamble, or Chapeau, of Article XX. The DSB had focused solely on what it judged to be violations of the Chapeau.²⁸⁸ It failed even to address the question of whether Section 609 was otherwise applicable under Article XX(g).²⁸⁹ The Appellate Body rejected this “Chapeau-down” approach.²⁹⁰ It reasoned that the appropriate analysis is “two-tiered: first, provisional justification by reason of characterization of the measure under XX(g); second, further appraisal of the same measure under the introductory clauses of Article XX, [the Chapeau].”²⁹¹

The Chapeau states that nations cannot impose trade measures that arbitrarily or unjustifiably discriminate between countries where the same conditions prevail or impose trade measures that are really a “disguised restriction on international trade.”²⁹² The Appellate Body found that the United States indeed acted on a legitimate environmental concern in enacting Section 609 and that Section 609 was, therefore, not a “disguised restriction on international trade.”²⁹³ It held, however, that Section 609 did constitute “arbitrary [and] unjustifiable discrimination”²⁹⁴ against other countries. The Appellate Body reasoned that the State Department’s guidelines for interpreting Section 609, the “U.S. 1996 Guidelines for Determining Comparability of Foreign Programs for the Protection of Turtles in Shrimp Trawl Fishing Operations” (“Guidelines”),²⁹⁵ contained mandatory language that, in practice,²⁹⁶ did not allow for consideration of other countries’ alternative turtle-protecting measures.²⁹⁷ The Appellate Body determined that the implied purpose of Section 609 was to “establish a rigid and unbending standard” for the United States to determine a

²⁸⁷ GATT art. XX, *supra* note 251, § (g).

²⁸⁸ Appellate Body Report 1998, *supra* note 26, ¶ 117.

²⁸⁹ *Id.*

²⁹⁰ *Id.*, ¶ 119.

²⁹¹ *Id.*, ¶ 118.

²⁹² GATT art. XX, *supra* note 251.

²⁹³ Appellate Body Report 1998, *supra* note 26, ¶ 120.

²⁹⁴ *Id.* at ¶ 112.

²⁹⁵ Revised Notice of Guidelines for Determining Comparability of Foreign Programs for the Protection of Turtles in Shrimp Trawl Fishing Operations, 61 Fed. Reg. 17,342 (Apr. 19, 1996).

²⁹⁶ The Appellate Body distinguished between the language of Section 609 and the *application* of Section 609. It noted that, “[a]lthough the 1996 Guidelines state that, in making a comparability determination, the Department of State ‘shall also take into account other measures the harvesting nation undertakes to protect sea turtles’ in practice, the competent government officials only look to see whether there is a regulatory program requiring the use of TEDs” Appellate Body Report 1998, *supra* note 26, ¶ 162–63.

²⁹⁷ *See id.*; *see also* Morita, *supra* note 268, at 221 (explaining the Appellate Body’s reasoning that the Guidelines use mandatory language, such as “certification *shall* be made,” and specify “the *only* way a that a harvesting can be certified under Section 609(b)(2)(A) and (B)”) (emphasis added).

grant or denial of certification without considering any turtle-protection efforts that were not “*essentially the same*” as those applied to the domestic shrimp industry.²⁹⁸ By forcing other nations to adopt its conservation measures without accounting for the “appropriateness of the regulatory program for the conditions prevailing in those exporting countries,” the Appellate Body found the United States to be engaged in “unjustifiable discrimination.”²⁹⁹

The Appellate Body also determined that the United States engaged in unjustifiable discrimination by failing to negotiate bilateral and multilateral treaties with other nations, like Complainants, prior to imposing unilateral trade measures.³⁰⁰ As mentioned previously, the CIT’s 1995 ruling on Section 609 required the United States to negotiate bilateral and multilateral treaties with all nations wishing to export shrimp to the United States. But the United States previously had only entered into negotiations with Caribbean and western-Atlantic nations.³⁰¹ The Appellate Body found this to be particularly troublesome and indicative of unjustifiable discrimination.³⁰² Furthermore, the Appellate Body found unjustifiable discrimination because the United States did not give the same length of “phase-in” time for shrimp exporters to come into compliance with Section 609’s requirements.³⁰³ The Caribbean and western-Atlantic nations had a three-year phase-in period to adjust to the new TED requirements. However, the United States gave other shrimp exporters, including Complainants, only four months to adjust to the changes.³⁰⁴

Finally, the Appellate Body found that the United States spent considerably more effort in helping Caribbean and western-Atlantic nations implement the TED technology than other shrimp-exporting nations. The Appellate Body determined that the United States made “observable . . . differences in the levels of effort” to transfer TED technology to other countries and this constituted unjustifiable discrimination.³⁰⁵ Also, the Appellate Body believed that Section 609’s certification process was too informal and that it impeded transparency and accountability.³⁰⁶

Despite the adverse ruling, the United States did not abandon the law but

²⁹⁸ Appellate Body Report 1998, *supra* note 26, ¶ 163 (emphasis in original); Morita, *supra* note 268, at 221.

²⁹⁹ Tyler, *supra* note 204, at 86 & n.265 (citing Appellate Body Report 1998, *supra* note 26, ¶ 165). The Appellate Body stated that “discrimination results not only when countries in which the same conditions prevail are differently treated, but also when the application of the measure at issue does not allow for any inquiry into the appropriateness of the regulatory program for the conditions prevailing in those exporting countries.”

³⁰⁰ *Id.* at 86 & n.266 (citing Appellate Body Report 1998, *supra* note 26, ¶ 170).

³⁰¹ *Id.* at 86.

³⁰² *Id.*

³⁰³ Morita, *supra* note 268, at 221.

³⁰⁴ *Id.*

³⁰⁵ *Id.*

³⁰⁶ Tyler, *supra* note 204, at 87 (citing Appellate Body Report 1998, *supra* note 26, ¶ 187).

instead focused on ways to amend its application of Section 609 to conform to the Appellate Body's criticisms. Rather than amending Section 609 itself, the United States issued "Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations" to provide shrimp-exporting nations more flexibility to determine which methods they wanted to implement to ensure adequate protection of sea turtles.³⁰⁷ "The United States also engaged in negotiations with Indian Ocean and Southeast Asian nations."³⁰⁸ Despite these efforts, Malaysia once again brought claims in 2000, arguing that the United States had not appropriately implemented the recommendations of the DSB.³⁰⁹ Malaysia specifically claimed that, by not lifting its import prohibition and not taking the necessary measures to allow the importation of shrimp in an unrestrictive manner, the United States did not comply with the DSB.³¹⁰ In this second case, however, *Shrimp-Turtle II*, the Appellate Body concluded that the Revised Guidelines amending the Section 609 certification process contained a sufficient "degree of flexibility" to survive Malaysia's discrimination challenge and bring the United States into compliance with the recommendations and rulings of *Shrimp-Turtle I*.³¹¹ The Appellate Body also concluded that the "ongoing serious, good faith efforts [by the United States] to reach a multilateral agreement [through multilateral environmental negotiations]"³¹² demonstrated compliance with the Chapeau.³¹³

With these rulings, the WTO set a significant precedent. The WTO's decisions illustrate how a nation can successfully utilize international trade measures to protect the environment. As long as the nation carries out the measures in a multilateral setting that does not unjustifiably discriminate against other nations, the measures are valid.³¹⁴ The *Shrimp-Turtle* dispute clarified that, under WTO law, living marine resources, such as plants and animals, can qualify as "exhaustible natural resources" under Article XX(g).³¹⁵ Also, the dispute made it clear that unilateral trade measures are appropriate when all of Article XX's requirements are met. Further, the cases illustrated that, in achieving conservation goals, multilateral negotiations are necessary, require good faith of the parties involved, and must be flexible.³¹⁶

³⁰⁷ See Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations, 64 Fed. Reg. 36,946 (July 8, 1999); see also Appellate Body Report 2001, *supra* note 26, ¶ 3.

³⁰⁸ Tyler, *supra* note 204, at 87.

³⁰⁹ *Id.*

³¹⁰ Appellate Body Report 2001, *supra* note 26, ¶¶ 12-26.

³¹¹ Appellate Body Report 2001, *supra* note 26, ¶¶ 145, 148, 153(a).

³¹² *Id.* ¶ 152.

³¹³ Tyler, *supra* note 204, at 87-88.

³¹⁴ Tyler, *supra* note 204, at 88 (citing Charnovitz, *supra* note 155, at 96).

³¹⁵ *Id.*

³¹⁶ *Id.*

C. The Shrimp-Turtle Dispute and its Implications for Future Pelly and MSRA Trade Measures

If the United States chooses to enact trade measures against deep-sea bottom trawling nations under the Pelly Amendment or the MSRA, it needs to do so under the framework that the Appellate Body laid out in the *Shrimp-Turtle* dispute. The Appellate Body held that Section 609's requirement—that foreign and domestic shrimp-fishing fleets must utilize TEDs—is a “measure concerned with the conservation of ‘exhaustible living resources’ within the meaning of Article XX(g).”³¹⁷ It should be easy to argue that Pelly and the MSRA conform to this definition. Congress originally enacted Pelly to protect anadromous salmon, an “exhaustible living resource,” in the North Atlantic. The language “international fishery conservation program” in Pelly at least means RFMOs, and most RFMOs are charged with both the management and conservation of fish stocks.³¹⁸ The MSRA is similarly concerned with the conservation of “exhaustible living resources.”³¹⁹ The MSRA's new definition of IUU fishing also falls within the scope of the Appellate Body's “exhaustible living resources” definition.³²⁰ IUU fishing includes the illegal taking of fish, and the Appellate Body declared that fish, along with all living organisms, are considered “exhaustible living resources” under Article XX(g).

Next, the Appellate Body found in *Shrimp-Turtle I* that the United States complied with the Article XX(g) requirement that Section 609 be a “measure made effective in conjunction with restrictions on domestic production or consumption”³²¹ because U.S. law requires the use of TEDs and inflicts penalties for enforcement. The United States should be able to argue that the MSRA passes the Article XX(g) hurdle as well. American vessels do not engage in bottom trawling on high seas seamounts anywhere in the world.³²² The new definition of IUU fishing in MSRA further precludes U.S. vessels from engaging in seamount bottom trawling because the United States cannot legally engage in something it declares to be illegal. Because the United States

³¹⁷ Appellate Body Report 1998, *supra* note 26, ¶ 127.

³¹⁸ For a list of RFMOs and links to their websites, see Food & Agriculture Organization of the U.N., Fisheries and Aquaculture Department, Fishery Governance Fact Sheets, Regional Fishery Bodies, <http://www.fao.org/fishery/rfb/search/en> (last visited Oct. 19, 2010).

³¹⁹ *See, e.g.*, 16 U.S.C. § 1801(c)(2) (2006) (“It is further declared to be the policy of the Congress in this chapter . . . to authorize no impediment to, or interference with, recognized legitimate uses of the high seas, *except as necessary for the conservation and management of fishery resources . . .*”) (emphasis added). *See also* 16 U.S.C. § 1802(13) (2006) (defining “fishery” as “one or more stocks of fish which can be treated as a unit for purposes of *conservation* and management and which are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics” and “any fishing for such stocks.”) (emphasis added).

³²⁰ 16 U.S.C. § 1826j(e)(3)(C) (2006).

³²¹ GATT article XX, *supra* note 251, § (g).

³²² Interview with Les Watling, Professor, Dept. of Zoology, Univ. of Hawaii, in Honolulu, Haw. (Apr. 15, 2010).

effectively banned itself from trawling on deep-sea seamounts, any trade restrictions it imposes on other nations are “measure[s] made effective in conjunction with restrictions on domestic production or consumption.” To maintain compliance with the Chapeau of Article XX, the United States must also ensure that Pelly and MSRA trade measures are not a “disguised restriction on international trade”³²³ and do not constitute “arbitrary [and] unjustifiable discrimination.”³²⁴ The United States had legitimate environmental concerns when it enacted the MSRA, so it should have no problem with that hurdle. For instance, on the Senate floor while encouraging passage of the MSRA, Senator Ted Stevens delivered this speech:

Industrial foreign fleets continue to expand and fish in remote and deep parts of the oceans, *where there is little or no conservation and management of the resource*. Some areas in international waters are not subject to fishery management agreements. This lack of oversight has enabled destructive fishing practices to take place, a problem compounded by the lack of sound scientific research in these areas. To address this threat, the Stevens/ Inouye bill includes provisions that promote international cooperation and regional action . . . If those nations [engaged in IUU fishing on the high seas] fail to stop this practice, our government can prohibit imports of fish that have been harvested by their vessels.³²⁵

In the *Shrimp-Turtle* dispute, the Appellate Body held that the United States acted with unjustifiable and arbitrary discrimination in its application of Section 609 because the 1996 Guidelines did not allow for exceptions for other nations that undertook alternative turtle-protecting measures.³²⁶ The Appellate Body determined that the implied purpose of Section 609 was to “establish a rigid and unbending standard”³²⁷ for the United States to determine a grant or denial of certification, without considering other nations’ turtle protection efforts.³²⁸ In the case of the MSRA, this could be a potential pitfall for the United States as it tries to move forward with unilateral trade measures. The MSRA defines IUU fishing as including “fishing activity that has an adverse impact on seamounts [on the high seas] for which there are no applicable conservation or management measures in place or in areas with no applicable international fishery management organization or agreement.”³²⁹ A deep-sea bottom trawling nation

³²³ GATT art. XX, *supra* note 251.

³²⁴ *Id.*

³²⁵ Deep Sea Conservation Coalition, Save the High Seas, Political Momentum Continues to Grow, <http://www.savethehighseas.org/political.cfm> (last visited Oct. 21, 2010) (quoting Senator Ted Stevens, Chairman of the U.S. Senate Committee on Commerce, Science and Transportation) (emphasis added).

³²⁶ *See supra* note 300 and accompanying text.

³²⁷ Appellate Body Report 1998, *supra* note 26, ¶ 163.

³²⁸ Morita, *supra* note 268, at 221.

³²⁹ 16 U.S.C. § 1826j(e)(3)(C) (2006).

could argue, however, that even though it permits its vessels to trawl on high seas seamounts, it is also taking alternate conservation measures by closing other high seas seamounts to bottom trawling by its nationals. For instance, a nation may authorize its vessels to trawl on a high seas seamount that has already been trawled repeatedly. The nation could insist that the environmental damage has already occurred and that their new pledge to end high seas bottom trawling on new, untrawled seamounts is an acceptable alternative to a total halt on all deep-sea trawling activity. If the United States does not take these alternative measures into account, it is likely establishing the “rigid and unbending standard” that the Appellate Body held to be a violation of WTO trade law. This argument is bolstered by the fact that certain sections of the MSRA specifically call for the Secretary of Commerce to take alternative conservation measures into account before identifying a nation whereas the IUU identification section does not.³³⁰

The MSRA contains mandatory language for identifying nations engaged in IUU fishing,³³¹ and this identification can lead to import restrictions³³² and Pelly sanctions.³³³ The statutory language in the MSRA indicates the President must impose import prohibitions on fish, fish products, and sports fishing equipment if consultations with the foreign fishing nation are not satisfactorily concluded within ninety days.³³⁴ The Supreme Court in *Japan Whalers Association*, however, held that the President has discretion in enacting Pelly sanctions and can use alternate means of achieving conservation goals.³³⁵ Ironically, because *Japan Whalers Association* granted discretion to the President in certifying a nation under the Pelly Amendment, the Court actually strengthened the potential international legal status of Pelly. The Appellate Body’s concerns in the *Shrimp-Turtle* dispute regarding “rigid and unbending standard[s]”³³⁶ for determining a grant or denial of certification are non-existent in Pelly. *Japan Whalers Association* held that the President may consider a nation’s alternative environmental-protection measures in his decision whether to impose Pelly trade restrictions.³³⁷

³³⁰ See, e.g., 16 U.S.C. § 1826k(c)(1) (stating that after identifying a nation engaging in fishing on the high seas that results in by-catch of a protected living marine resource, the Secretary “shall establish a procedure . . . for determining whether the government of an [identified] harvesting nation (a) has provided documentary evidence of the adoption of a regulatory program governing the conservation of the protected living marine resource that is comparable to that of the United States, taking into account different conditions . . .”). Alternately, 16 U.S.C. § 1826j, the section of the MSRA allowing for identification of IUU vessels, makes no mention of considering alternate conservation measures.

³³¹ *Id.* § 1826a(b)(1)(A).

³³² *Id.* § 1826a(b)(3)(A)(i)–(ii).

³³³ *Id.* § 1826a(b)(4)(B)–(C).

³³⁴ *Id.* § 1826a(b)(3)(A).

³³⁵ See generally *Japan Whalers Ass’n v. Am. Cetacean Soc’y*, 478 U.S. 221 (1986).

³³⁶ Appellate Body Report 1998, *supra* note 26, ¶ 163.

³³⁷ See generally *Japan Whalers Ass’n v. Am. Cetacean Soc’y*, 478 U.S. 221 (1986).

The Appellate Body also determined that the United States engaged in unjustifiable discrimination by failing to negotiate bilateral and multilateral treaties with other countries prior to its decision to impose unilateral trade measures against those countries.³³⁸ The MSRA, however, should be able to avoid this challenge because the MSRA directly calls for multilateral cooperation and negotiation between the United States and relevant RFMOs.³³⁹

Also, although the Appellate Body found unjustifiable discrimination in regards to the United States' use of different "phase-in" times for different shrimp exporters,³⁴⁰ this should not be a problem under the MSRA. The United States has not given any disparate "phase-out" times for nations to come into compliance with its IUU-fishing rules. Rather, the United States requires under the MSRA that all nations immediately halt all IUU fishing activity. Similarly, the Appellate Body's findings in *Shrimp-Turtle* regarding the U.S. efforts to implement TED technology only in Caribbean and western-Atlantic nations are not relevant. Terminating a destructive IUU fishery requires no new technology. Also, the Appellate Body believed that Section 609's certification process was too casual and informal and that it denied transparency and accountability. In the case of the MSRA and the Pelly Amendment, the opposite is true. Both statutes provide for a detailed and formal certification process. These processes are transparent and promote accountability. The MSRA's requirement of a Biennial Report for identified nations³⁴¹ and the Pelly Amendment's requirement that the President disclose the reasons for his decision on whether to certify a nation show accountability.³⁴²

VI. CONCLUSION

Because of the vulnerability of seamount ecosystems and the decimating effect bottom trawling causes them, time is of the essence. Each trawling pass destroys 95–98% of all coral life on seamounts, and these corals take an extremely long time to recover, if they are able to recover at all. Other deep-sea animals, like fish and invertebrates, are directly threatened as well, largely due to their slow growth and reproductive rates. Considering that scientists have explored less than 1% of all seamounts in the deep ocean and that many organisms on seamounts may only exist in that one place, bottom trawling nations are pushing species to the brink of extinction without even knowing that these species exist. A U.N. moratorium on deep-sea bottom trawling activities is a worthy goal. However, without a binding and enforceable treaty or resolution, U.N. action is not enough. Trade measures, however, are effective.

³³⁸ Tyler, *supra* note 204, at 86 (citing Appellate Body Report 1998, *supra* note 26, ¶ 170).

³³⁹ 16 U.S.C. § 1826i(1)–(3).

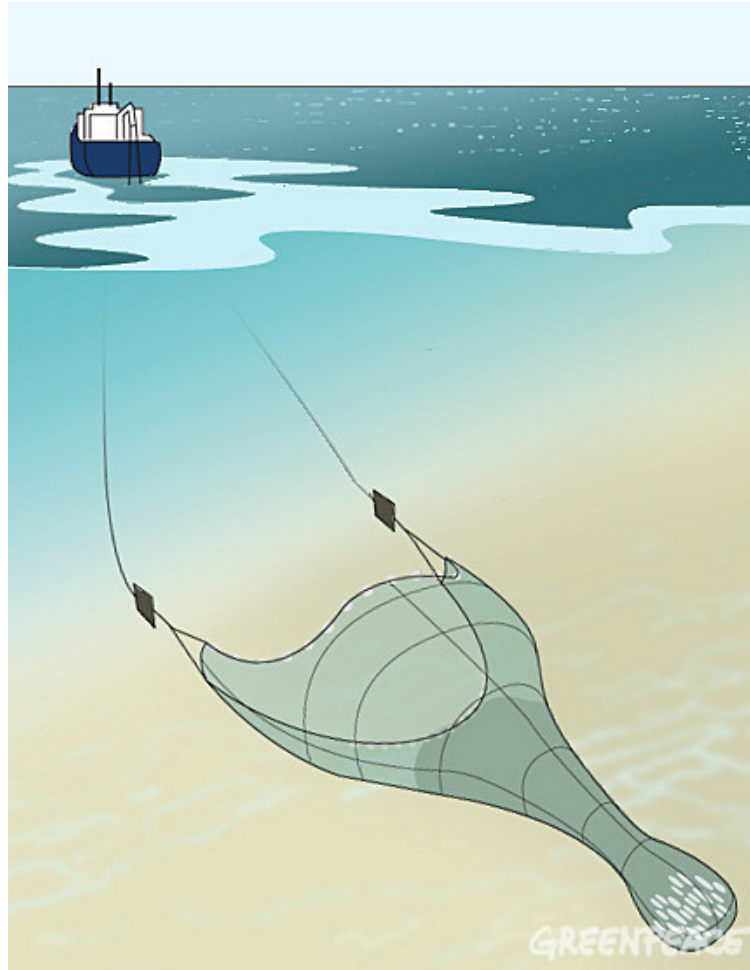
³⁴⁰ Morita, *supra* note 268, at 221.

³⁴¹ 16 U.S.C. § 1826h.

³⁴² 22 U.S.C. § 1978(b) (2006).

Using Pelly and MSRA to apply unilateral trade measures against bottom trawling nations should be legal under international trade law if nations apply them within the framework of the *Shrimp-Turtle* dispute. The United States should step in and boldly enact import restrictions and trade sanctions on deep-sea bottom trawling nations as a display of global environmental responsibility.

Appendix A: Depiction of Otter Trawl



Appendix B: Depiction of Beam Trawl



Appendix C: Depiction of Turtle Excluder Device

