



SCHOOL OF LAW
TEXAS A&M UNIVERSITY

Texas A&M Law Review

Volume 6 | Issue 1

2018

Unilateral Steps to End High Seas Fishing

Katrina M. Wyman

New York University School of Law, wymank@exchange.law.nyu.edu

Follow this and additional works at: <https://scholarship.law.tamu.edu/lawreview>



Part of the [Agriculture Law Commons](#), [Comparative and Foreign Law Commons](#), and the [Environmental Law Commons](#)

Recommended Citation

Katrina M. Wyman, *Unilateral Steps to End High Seas Fishing*, 6 Tex. A&M L. Rev. 259 (2018).

Available at: <https://scholarship.law.tamu.edu/lawreview/vol6/iss1/11>

This Article is brought to you for free and open access by Texas A&M Law Scholarship. It has been accepted for inclusion in Texas A&M Law Review by an authorized editor of Texas A&M Law Scholarship. For more information, please contact aretteen@law.tamu.edu.

ARTICLE

UNILATERAL STEPS TO END HIGH SEAS FISHING

by: Katrina M. Wyman*

ABSTRACT

In discussions about the overexploitation of the vast oceans that lie beyond national jurisdiction, one bold proposal is to close fishing entirely on the high seas. Existing research suggests that converting the high seas into a giant reserve for fish might increase overall global fish catches by boosting fish catches within the adjoining areas of the oceans under national control. This conversion also might help to protect marine biological diversity, which is particularly important in an era of climate change. This Essay identifies the potential that the United States—a significant importer of high seas fish—might unilaterally take steps to end fishing on the high seas, using its market leverage. This Essay then analyzes the advantages and disadvantages of taking unilateral steps to end fishing on the high seas and the conditions under which the United States might take such steps.

TABLE OF CONTENTS

I. INTRODUCTION.....	260
II. THE IDEA OF A UNILATERAL IMPORT BAN AND PRECEDENTS FOR IT	264
A. <i>The Basic Idea</i>	264
B. <i>Precedents</i>	267
1. U.S. Precedents	268
a. <i>Authorities Targeting Private Actors</i>	268
i. The U.S. Seafood Import Monitoring Program	268
ii. U.S. Experience with Catch Documentation Schemes.....	271
b. <i>Authorities Targeting Flag States</i>	272
2. EU Precedents.....	274
III. ADVANTAGES AND DISADVANTAGES OF A UNILATERAL IMPORT BAN	276

* Sarah Herring Sorin Professor of Law, NYU School of Law. This Essay was sparked by a meeting on political options for closing the high seas hosted at NYU and supported by Jennifer Jacquet’s Pew Marine Conservation fellowship. The Essay also benefitted from many conversations at NYU with Jessica Green, Robert Howse, Jennifer Jacquet, and Bryce Rudyk; comments and suggestions from Duncan Currie, Rob Fischman, Matt Gianni, Yael Lifshitz, Molly Masterton, Zak Smith, Lisa Speer, Richard Stewart, and the editors of the Texas A&M Law Review; presentations at the Ostrom Workshop at Indiana University School of Law, Texas A&M University School of Law’s Symposium on “Environmental Protections: Carrots or Sticks?,” and the American Law and Economics Association Annual Meeting in 2018; and research assistance from Julia Kindlon and Alex St. Romain. All opinions and errors are mine.

- A. *Advantages*..... 276
- B. *Disadvantages*..... 278
 - 1. *Leakage* 278
 - 2. *Enforcement*..... 280
 - 3. *Legal Risks* 285
- IV. WHY THE UNITED STATES MIGHT ACT UNILATERALLY TO END HIGH SEAS FISHING..... 290
- V. CONCLUSION 296

I. INTRODUCTION

In 2014, a fisheries economist and a biologist published a thought experiment and a bioeconomic model about what would happen if fish were no longer caught on the high seas.¹ Roughly 40% of the oceans are within nationally-controlled Exclusive Economic Zones (“EEZs”), and most wild fish are caught within these EEZs. The high seas—defined as the waters beyond these EEZs—cover approximately 60% of the surface of the oceans and are the site of perhaps 12% of world fish catches.² However, that 12% understates the signifi-

1. Crow White & Christopher Costello, *Close the High Seas to Fishing?*, PLOS BIOLOGY, Mar. 2014, at 1, 1, <https://journals.plos.org/plosbiology/article/file?id=10.1371/journal.pbio.1001826&type=printable> [<https://perma.cc/AJ2N-P3EX>]. See also U. Rashid Sumaila et al., *Fisheries Subsidies and Potential Loss in SIDS Exclusive Economic Zones: Food Security Implications*, 18 ENV'T & DEV. ECON. 427 (2013), https://www.cambridge.org/core/services/aop-cambridge-core/content/view/E6C31D18CE6623F2966E9FE1F66432A0/S1355770X13000156a.pdf/fisheries_subsidies_and_potential_catch_loss_in_sids_exclusive_economic_zones_food_security_implications.pdf [<https://perma.cc/M8S6-VVR5>]; U. Rashid Sumaila et al., *Winners and Losers in a World Where the High Seas Is Closed to Fishing*, 5 SCI. REPS., Feb. 12, 2015, <https://www.nature.com/articles/srep08481> [<https://perma.cc/5GUN-WNU8>] [hereinafter Sumaila et al., *Winners*]; Louise S.L. Teh et al., *Impact of High Seas Closure on Food Security in Low Income Fish Dependent Countries*, PLOS ONE, Dec. 29, 2016, at 1, <http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0168529&type=printable> [<https://perma.cc/Q9FL-95F4>].

2. A.D. ROGERS ET AL., THE HIGH SEAS AND US: UNDERSTANDING THE VALUE OF HIGH-SEAS ECOSYSTEMS 4, 13 (2014), http://www.oceanunite.org/wp-content/uploads/2016/03/High-Seas-and-US.FINAL_FINAL_high_spreads.pdf [<https://perma.cc/X67P-CS6A>] (“We found that a total annual average of about 10 million [tons] of fish from highly migratory and straddling stocks were caught in the high seas, constituting just over 12% of the global annual average marine fisheries catch of 80 million [tons]. The landed value of this catch is estimated at about US\$16 billion annually, which makes up about 15% of total global marine landed value of about US\$109 billion. Tuna species account for the largest share of value and the second largest share of total catch.” (internal citations omitted)). See also Bloomberg Editors, *Opinion: Ban Fishing on the High Seas*, NAT’L FISHERMAN (Jan. 3, 2017), <https://www.nationalfisherman.com/viewpoints/national-international/opinion-ban-fishing-on-the-high-seas/> [<https://perma.cc/92WB-JLA4>], Enric Sala et al., *The Economics of Fishing the High Seas*, SCI. ADVANCES, June 6, 2018, at 1, 1, <http://advances.sciencemag.org/content/advances/4/6/eaat2504.full.pdf> [<https://perma.cc/799E-8J4J>] (“6% of global catch and 8% of global fishing revenue in 2014” came from the high seas); Laurence Schiller et al., *High Seas Fisheries Play a Negligible Role in Addressing Global Food Security*, 4 SCI. ADVANCES, Aug. 8, 2018, at 1, 2, <http://advances.sciencemag.org/content/advances/4/8/eaat8351.full.pdf> [<https://perma.cc/9B29-GRNZ>] (in 2009–2014,

cance of high seas fish populations. The health of high seas fisheries also affects fisheries within EEZs because very few fish exist only in the high seas; many fish swim between EEZs and the high seas.³

The idea of establishing a reserve for fish on the high seas arises from the frustration of many environmentalists with the existing international regime for managing high seas fisheries.⁴ This regime principally relies on just under twenty regional fisheries management organizations (“RFMOs”) to regulate fish catches and relies on flag and port states to enforce the RFMO regulations.⁵ Every ship must be registered by a state—its flag state—to enjoy the right to navigation; the port state controls the port where a vessel lands.⁶ In general, high seas fisheries under RFMO management are in poor shape. Roughly two-thirds of the fish stocks managed by RFMOs are “depleted or overexploited.”⁷

The proponents of ending fishing on the high seas point to a number of advantages. Models predict that ending this fishing will increase fish populations on the high seas and within the adjoining EEZs, and therefore, global fish catches will rise because of higher catch levels within EEZs.⁸ The end of high seas fishing also may protect marine biological diversity—an important consideration in an era of ocean acidification and climate change.⁹ In addition, ending high seas fishing might have a positive distributional impact. The vessels of ten countries now catch over 60% of fish harvested on the high seas.¹⁰ Model-

“4.2% of the annual marine catch . . . and 2.4% of all seafood production, including freshwater species and aquaculture . . .”).

3. GLOBAL OCEAN COMM’N, FROM DECLINE TO RECOVERY—A RESCUE PACKAGE FOR THE GLOBAL OCEAN 75 (2014) (“Only 3% of the main high seas fish species are caught exclusively in the high seas.”); ROGERS ET AL., *supra* note 2, at 13 (42% “of the global commercially important fish species we analy[z]ed are caught in both the high and coastal seas. Less than 1% are caught exclusively on the high seas. The highly migratory and ‘straddling’ stocks that occur in both the high seas and in EEZs account for 67% of the total global catch and 72% of the total landed value associated with global commercial fisheries.”).

4. See, e.g., Sarika Cullis-Suzuki & Daniel Pauly, *Failing the High Seas: A Global Evaluation of Regional Fisheries Management Organizations*, 34 MARINE POL’Y 1036, 1042 (2010); GLOBAL OCEAN COMM’N, *supra* note 3; Cassandra M. Brooks et al., *Challenging the ‘Right to Fish’ in a Fast-Changing Ocean*, 33 STAN. ENVTL. L.J. 289, 297–302, 316–20, 323–24 (2014); White & Costello, *supra* note 1.

5. GLOBAL OCEAN COMM’N, *supra* note 3, at 7–8.

6. NIVEDITA M. HOSANEE, A CRITICAL ANALYSIS OF FLAG STATE DUTIES AS LAID DOWN UNDER ARTICLE 94 OF THE 1982 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 8–9, 56 (2009), http://www.un.org/Depts/los/nippon/uniff_programme_home/fellows_pages/fellows_papers/hosanee_0910_mauritius.pdf [<https://perma.cc/5XNZ-4Y8Y>].

7. Cullis-Suzuki & Pauly, *supra* note 4, at 1036 (“two-thirds of stocks fished on the high seas and under RFMO management are either depleted or overexploited”).

8. White & Costello, *supra* note 1, at 2–3; Sumaila et al., *Winners*, *supra* note 1, at 3.

9. GLOBAL OCEAN COMM’N, *supra* note 3, at 19, 75.

10. *Id.* at 75. See also ROGERS ET AL., *supra* note 2, at 13 (“Focusing on the large pelagic species for which we have good data, we find that the [ten] leading high-seas

ing predicts that many more countries will benefit from higher fish catches if high seas fishing stops because of the predicted increase in EEZ fish catches.¹¹ Many developing countries could also benefit.¹² To be sure, there are potential risks in stopping fishing on the high seas. It could increase fishing pressure within EEZs, which consequently would require better management by many countries.¹³

The proposal to end fishing on the high seas is not as far-fetched as it might initially sound; partial precedents already exist. In 2017, “[n]ine nations and the European Union” agreed to keep the high seas area of the central Arctic Ocean closed to fishing for sixteen years.¹⁴ Fishing for anadromous stocks, such as salmon, is prohibited “in the high seas areas of the North Pacific Ocean” by the North Pacific Anadromous Fisheries Commission.¹⁵ As a result of a 2016 decision of the Commission for the Conservation of Antarctic Marine Living Resources (“CCAMLR”), fishing is prohibited in a vast area of the high seas in the Southern Ocean off the coast of Antarctica until 2052.¹⁶ In 2009, CCAMLR established “[t]he first fully high seas [marine protected area (“MPA”)] in the South Orkney Islands; this MPA does not have expiry date.¹⁷

fishing nations together land 63% of the high-seas catch and capture 70% of the landed values, respectively In other words, [ten] countries reap the largest commercial share of this common heritage of humankind.”). The ten countries are: Japan, South Korea, Taiwan, Spain, United States, Chile, China, Indonesia, Philippines, and France. *Id.* at 13 tbl.2. According to Sala et al., high seas fishing is concentrated in even fewer countries: “Only six countries (China, Taiwan, Japan, Indonesia, Spain, and South Korea) accounted for 77% of the global high-seas fishing fleet” in 2016, and in 2014, “[f]ive countries alone accounted for 64% of global high-seas fishing revenue: China (21%), Taiwan (13%), Japan (11%), South Korea (11%), and Spain (8%).” Sala et al., *supra* note 2, at 2 fig.1, 1–2. China has the largest number of vessels fishing on the high seas. *Id.* at 2 fig.1; *see also* Schiller et al., *supra* note 2, at 2.

11. White & Costello, *supra* note 1, at 1–2; Sumaila et al., *Winners*, *supra* note 1, at 2–3.

12. Teh et al., *supra* note 1, at 1, 9–10.

13. *See* ROGERS ET AL., *supra* note 2, at 13.

14. Hannah Hoag, *Nations Agree to Fishing Ban in the Arctic Ocean for at Least 16 Years*, SCI. (Dec. 1, 2017, 1:30 PM), <http://www.sciencemag.org/news/2017/12/nations-agree-ban-fishing-arctic-ocean-least-16-years> [<https://perma.cc/SE8L-JX9E>].

15. U.S. DEP’T OF COMMERCE, NOAA FISHERIES, IMPROVING INTERNATIONAL FISHERIES MANAGEMENT: JANUARY 2017 REPORT TO CONGRESS 54 (2017) [hereinafter NOAA FISHERIES]. This ban on high seas fishing is enforced by the U.S., working with “Canada, China, Japan, the Republic of Korea and the Russian Federation.” *Id.*

16. *Id.* at 66; Michelle Innis, *Coast of Antarctica Will Host World’s Largest Marine Reserve*, N.Y. TIMES (Oct. 27, 2016), <https://www.nytimes.com/2016/10/28/world/australia/antarctica-ross-sea-marine-park.html> [<https://perma.cc/5QAU-UD76>].

17. Brooks et al., *supra* note 4, at 310. The establishment of the South Orkney Islands MPA likely was facilitated by the fact that there was no ongoing fishing in the area when the MPA was established. *Id.* at 311. *See also* COMM’N FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RES., CONSERVATION MEASURE 91-03 (2009), <https://www.camlr.org/en/measure-91-03-2009> [<https://perma.cc/G67Q-DRY2>]. For a discussion of the small number of other marine protected areas on the high seas, *see* Brooks et al., *supra* note 4, at 309–16.

This Essay assumes that the idea of ending fishing on the high seas generally is worth considering. It focuses on the mechanism by which fishing might be stopped on the high seas.

Jessica Green and Bryce Rudyk have helpfully argued that there are three broad categories of mechanisms for ending fishing on the high seas.¹⁸ One is a set of multilateral options involving all, or most, countries. These options include negotiating a framework for closure through a United Nations (“UN”) process, such as the ongoing negotiations to establish a new implementation agreement under the auspices of the UN Convention on the Law of the Sea (“UNCLOS”) to protect biological diversity on the high seas.¹⁹ Plurilateral approaches involving small groups of countries are a second category of option. Green and Rudyk propose “a club approach,” under which groups of countries would “condition access” to a desirable good on countries banning high seas fishing.²⁰ For example, there are some areas of the high seas, called “donut holes,” that are entirely surrounded by EEZs of different countries.²¹ The countries bordering one of these holes could condition access to their EEZs on not fishing in the donut hole and in effect form a “donut hole club.”²² The U.S. and Russia have already excluded countries from fishing in an area of the Bering Sea surrounded by their EEZs.²³ Another option that Green and Rudyk identify is a “High Seas Ban Club.”²⁴ Under this option, a group of countries would prohibit fishing vessels that fly their flags from fishing on the high seas and would refuse to import fish from other countries whose vessels fish on the high seas—or accept fish from other vessels fishing on the high seas. The third mechanism for ending high seas fishing that Green and Rudyk mention is countries acting unilaterally to reduce high seas fishing by prohibiting high seas fish imports and prohibiting vessels that fly their flags from fishing on the high seas.

This Essay elaborates and analyzes the potential for the U.S. to act on its own to reduce fishing on the high seas through: (1) an import ban on fish caught on the high seas; and (2) a complementary ban on U.S.-flagged vessels fishing on the high seas. Unilateral action is important to consider because it might have beneficial consequences in and of itself, and it may be a first step toward plurilateral or multilat-

18. Jessica Green & Bryce Rudyk, *Closing the High Seas to Fishing: A Club Approach* (Dec. 14, 2017) (draft on file with Author).

19. Glen Wright et al., *Protect the Neglected Half of Our Blue Planet*, NATURE (Feb. 6, 2018), <https://www.nature.com/articles/d41586-018-01594-1> [<https://perma.cc/E7SN-XY9X>].

20. Green & Rudyk, *supra* note 18, at 2, 4.

21. *Donut Holes in International Waters*, DONUTHOLES.CH, <http://donutholes.ch/#> [<https://perma.cc/5WW6-54C7?type=image>].

22. Green & Rudyk, *supra* note 18, at 4.

23. *Id.* at 9–10.

24. *Id.* at 2.

eral action that ultimately could prove much more effective in ending high seas fishing.

This Essay describes the basic idea of a unilateral import ban and identifies precedents for the idea. It also identifies the advantages and the disadvantages of countries taking unilateral steps to end high seas fishing. Because a U.S. move to reduce fishing on the high seas would involve the U.S. unilaterally conferring a positive externality—leaving more fish on the high seas, it is reasonable to explore whether the U.S. might be willing to act unilaterally. This Essay, therefore, addresses the circumstances under which the U.S. might act unilaterally to ban high seas fish imports and prohibit its vessels from fishing on the high seas. The Essay briefly concludes by underscoring the value of the U.S. taking unilateral steps to end high seas fishing.

II. THE IDEA OF A UNILATERAL IMPORT BAN AND PRECEDENTS FOR IT

A. *The Basic Idea*

A relatively small, concentrated number of developed country jurisdictions, principally Japan, the European Union (“EU”), and the U.S., import fish caught on the high seas, which are a luxury product.²⁵ There are no published statistical data on the import markets for fish caught specifically on the high seas.²⁶ According to data about which countries import fish generally (not specifically high seas fish), in

25. See, e.g., MATTHEW GIANNI, HIGH SEAS BOTTOM TRAWL FISHERIES AND THEIR IMPACTS ON THE BIODIVERSITY OF VULNERABLE DEEP-SEA ECOSYSTEMS: OPTIONS FOR INTERNATIONAL ACTION ix (2004) (most catch from “high-seas bottom trawl fisheries . . . is sold on the European Union, U.S. and Japanese markets”); Charles R. Taylor, *Fishing with a Bulldozer: Options for Unilateral Action by the United States Under Domestic and International Law to Halt Destructive Bottom Trawling Practices in the High Seas*, 34 ENVIRONS ENVTL. L. POL’Y J. 121, 133 (2010) (“Fish caught by deep-sea bottom trawlers tend to be luxury goods, and the major markets for deep-sea bottom trawlers are Japan, the United States, and the European Union.”); Wilf Swartz et al., *Sourcing Seafood For the Three Major Markets: The EU, Japan and the USA*, 31 MARINE POL’Y 1,366, 1,369–71 (2010) (“in many regions, particularly in the high-seas, consumption by [the EU, Japan and the US] . . . accounts for over 2/3 of the fisheries catch”); Sala et al., *supra* note 2, at 8 (“[H]igh-seas fisheries mainly target catches of high-value species such as tuna, squid, and deep-sea fishes, which are primarily destined for markets in high-income countries.”); Schiller et al., *supra* note 2, at 6 (“the vast majority of the marine life caught on the high seas is destined for upscale markets in food-secure countries”).

26. Schiller et al. explain the difficulty of obtaining such data, as they point out that “[c]urrent traceability standards do not allow disaggregation of imported seafood into spatial jurisdictions (that is, caught on the high seas versus in an EEZ).” Schiller et al., *supra* note 2, at 2. Schiller et al. provide data on which countries import species of fish caught on the high seas. All of the species for which they provide data are caught on both the high seas and in EEZs, except for Antarctic toothfish, which is caught only on the high seas. *Id.* at 2. Due to data limitations, they do not break down which countries are importing fish caught only on the high seas (except for Antarctic toothfish, because, as just mentioned, it is caught only on the high seas). *Id.* at 6–7. Their data on import markets for fish caught on the high seas (as well as in EEZs)

2014, the EU, the U.S., and Japan “represented 63 percent by value and 59 percent by quantity of world imports of fish and fishery products.”²⁷ The EU “is, by far, the largest single market for fish imports.”²⁸ The U.S. is “the largest single importer of fish,” with Japan second, and China third; Chinese imports have been increasing.²⁹

Given the concentrated nature of the fish import market, it makes sense to consider whether one or more of the big importers, such as the U.S., could use their leverage as fish buyers to alter fishing behavior on the high seas. The basic idea proposed in this Essay is that the U.S. should act on its own to ban the import of fish caught on the high seas. The U.S. also would likely need to forbid U.S.-flagged vessels from fishing on the high seas to avoid running afoul of World Trade Organization (“WTO”) law.³⁰ As discussed in Section IV, the U.S. is likely better situated than the EU or Japan to act first to protect high seas fisheries through an import ban because the vast majority of the U.S. catch is caught within the U.S. EEZ. Thus, the U.S. has fewer flagged vessels fishing on the high seas than the EU or Japan.³¹

The U.S. could apply the ban to *all* fish caught on the high seas. Alternatively, the U.S. might selectively ban the import of some fish caught on the high seas—and simultaneously ban its vessels fishing the same species on the high seas. For example, the U.S. might ban the import of severely depleted fish species caught on the high seas, such as Pacific bluefin tuna,³² or fish caught using a particularly envi-

also suggests that Japan, the EU, and the U.S. are the major import markets for high seas fish. *Id.*

27. U.N. FOOD & AGRIC. ORG., THE STATE OF WORLD FISHERIES AND AQUACULTURE CONTRIBUTING TO FOOD SECURITY AND NUTRITION FOR ALL 54 (2016).

28. *Id.*

29. *Id.*

30. *See, e.g.*, General Agreement on Tariffs and Trade, Art. III:4, Art. XX(g), Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194. In holding that a U.S. ban on the import of certain shrimp products was provisionally justified under Article XX(g) of GATT 1994, the WTO Appellate Body carefully analyzed whether the U.S. was regulating its own shrimp fishers while regulating foreign fishers, as required by the text of Article XX(g). WTO Appellate Body Report, United States—Import Prohibition of Certain Shrimp and Shrimp Products, at paras. 143–45, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998), [hereinafter Shrimp-Turtle I].

31. *See, e.g.*, Swartz et al., *supra* note 25, at 1,369 (providing some evidence that high seas fishing is more important for the EU and Japan than the U.S.: stating that 10% of “fisheries landings by EU countries” came “from the high-seas” in 2001–2005 and implying that 20% of Japanese fish catches occur on the high seas). Under 7% of the U.S. catch is from the high seas. *See also infra* note 171 and accompanying text (indicating that under 7% of the U.S. catch is from the high seas). Sala et al. also provide some evidence that high seas fishing is less important for the US than for Japan, the EU and China. Sala et al., *supra* note 2, at 2 fig.1 (finding that under 200 U.S.-flagged vessels fished on the high seas in 2016, compared with just under 500 Japanese vessels, 200–300 Spanish vessels, and over 800 Chinese vessels).

32. Amanda Nickson, *Urgent Need for Cooperation to Help Severely Depleted Pacific Bluefin Tuna: Countries Responsible for Management of the Species Must Take Major Steps to Bring It Back from the Brink*, PEW CHARITABLE TRUSTS (Aug. 24,

ronmentally damaging fishing technique, such as fish that are bottom trawled on the high seas.³³ Since the early 2000s, the UN General Assembly has passed a number of resolutions calling on states and RFMOs to protect “vulnerable marine ecosystems” on the high seas from bottom trawling. These resolutions have been imperfectly implemented, “leaving vast areas of ocean unprotected” from bottom trawling.³⁴ An import ban of bottom trawled high seas fish, or an import ban on certain depleted fisheries, might be a first step toward banning all fish caught on the high seas.

In addition to banning its own vessels from high seas fishing and high seas fish imports, the U.S., or any other banning jurisdiction, presumably would stop subsidizing high seas fishing by the vessels that it flags. There would be no point in continuing to subsidize high seas fishing by the U.S.-flagged fleet if the fleet was banned from fishing on the high seas. Like agricultural subsidies, fishing subsidies are common, and there are ongoing efforts to eliminate them through international and regional trade negotiations, including in the Trans-Pacific Partnership Agreement (“TPP”).³⁵ By itself, curtailing subsidies for fishing on the high seas might lead to a significant reduction in high

2017), <http://www.pewtrusts.org/en/research-and-analysis/blogs/compass-points/2017/08/24/urgent-need-for-cooperation-to-help-severely-depleted-pacific-bluefin-tuna> [https://perma.cc/3LFF-JVAX] (contrasting the management of the Pacific and Atlantic bluefin tuna fisheries); Anna Fifield, *Tuna-fishing Nations Agree on Plan to Replenish Severely Depleted Pacific Bluefin Tuna Stocks*, WASH. POST (Sept. 1, 2017), https://www.washingtonpost.com/world/asia_pacific/tuna-fishing-nations-agree-on-plan-to-replenish-severely-depleted-bluefin-stocks/2017/09/01/7d83c314-8db0-11e7-91d5-ab4e4bb76a3a_story.html?utm_term=.98987c4ed1a8 [https://perma.cc/Q8QE-GUTK].

33. For an earlier argument that the U.S. should use unilateral trade measures to end bottom trawling on the high seas, see Taylor, *supra* note 25, at 125–26. “Bottom trawling is a fishing method by which fishing vessels drag large nets across the ocean floor and across the tops of seamounts”; it is compared to “clear-cutting an entire forest to catch a few deer.” *Id.* Taylor advocates that the U.S. impose trade sanctions against countries whose vessels bottom trawl on the high seas, using the Pelly Amendment and the Magnuson–Stevens Fishery Conservation and Management Reauthorization Act of 2006. *Id.* at 127, 143, 152. “[B]ottom trawling is the most commonly deployed method of high-seas bottom fishing, accounting for 80% of the bottom catch in the deep sea.” *Id.* at 132. This Essay suggests that the U.S. could prohibit *importers* from importing fish caught on the high seas into the U.S.

34. MATTHEW GIANNI ET AL., HOW MUCH LONGER WILL IT TAKE? A TEN-YEAR REVIEW OF THE IMPLEMENTATION OF UNITED NATIONS GENERAL ASSEMBLY RESOLUTIONS 61/105, 64/72 AND 66/68 ON THE MANAGEMENT OF BOTTOM FISHERIES IN AREAS BEYOND NATIONAL JURISDICTION 5 (Aug. 2016). See also *id.* at 5–7 (listing “shortcomings” in implementation of UN General Assembly resolutions on bottom trawling).

35. GLOBAL OCEAN COMM’N, *supra* note 3, at 45–46; Margaret Young, *Energy Transitions and Trade Law: Lessons From the Reform of Fisheries Subsidies*, 17 INT’L ENVTL. AGREEMENTS 371, 377–81 (2017). The Comprehensive and Progressive Agreement for Trans-Pacific Partnership includes “prohibitions on some of the most harmful fisheries subsidies, as well as enhanced transparency requirements for fisheries subsidy programs.” NOAA FISHERIES, *supra* note 15, at 51 (referring to an earlier version of TPP). See Comprehensive and Progressive Agreement for Trans-Pacific

seas fishing. There is evidence that the removal of government subsidies, such as those for vessel fuel costs, would render some fishing on the high seas unprofitable.³⁶

Japan provides the largest subsidies to high seas fishing specifically, followed by Spain, “China, South Korea, and the United States.”³⁷ So, there is an overlap between the major importers of high seas fish and the main subsidizers of high seas fishing; Japan, the U.S., and the EU are major importers and subsidizers.³⁸ The overlap suggests banning the import of high seas fishing could be an indirect means of curtailing subsidies for high seas fishing and of advancing the broader goal of reducing subsidies for fishing generally, not just on the high seas.³⁹

B. *Precedents*

The idea of countries using import bans to alter fishing behavior is not novel. There are precedents for using such bans to improve fishing behavior within EEZs and on the high seas.

There are three major elements to keep in mind while considering a unilateral ban by the U.S. on imports of fish caught on the high seas. First, the country would apply its own standard to protect fish. The U.S.—not a multilateral or plurilateral organization like an RFMO—would determine that fish should not be caught on the high seas. Second, the country would require that importers—not foreign states—have evidence that fish they are proposing to bring into the country were not caught on the high seas. So, the immediate burden of the ban would fall on private actors. However, the ban might have reverbera-

Partnership art. 20.16, Feb. 21, 2018; Young, *supra*, at 380–81 (analyzing provisions of the original TPP dealing with fishing subsidies).

36. Sala et al., *supra* note 2, at 3 (“without subsidies and/or low wage labor compensation, more than half of currently fished high seas fishing grounds would not be profitable at present exploitation rates”); *id.* (“We estimate that deep-sea bottom trawling would not be globally profitable at current rates without government subsidies, with maximum annual losses of \$230 million before subsidies.”); GLOBAL OCEAN COMM’N, *supra* note 3, at 45 (“[S]ubsidies for the high-seas bottom trawl fleets of the 12 top high-seas bottom trawling nations amount to US\$152 million per year, which represents 25% of the total landed value of the fleet. Typically, the profit achieved by this vessel group is not more than 10% of landed value, meaning that this industry effectively operates at a deficit.”); *id.* at 46 (“On the high-seas, it is largely only States that can afford to subsidi[z]e their fleets with public funds that have the opportunity to fish: high-seas fishing is carried out by [ten] nations that rely heavily on subsidies to remain profitable. Fuel subsidies account for the greatest share of these capacity-enhancing subsidies, representing up to 30% of government fishing spending.”); Taylor, *supra* note 25, at 133 (“deep-sea bottom trawling only survives as an industry because of massive government subsidies that cover fuel and other fishing vessel costs”).

37. Sala et al., *supra* note 2, at 3.

38. The EU is a major importer of high seas fish; Spain, a major subsidizer of high seas fishing, is an EU member.

39. Rob Fischman suggested to me another way of using a unilateral ban to protect fisheries: a nation-state might curtail its own subsidies for fishing and then unilaterally ban the import of fish caught using subsidies.

tions back to flag states; importers might seek confirmation from flag states that their vessels are complying with the requisite standards. Third, the sanctions for violating these standards must include an import prohibition.

The following sub-section identifies U.S. and EU precedents for an import ban on high seas fish, highlighting the elements that the precedents have in common with the proposal.⁴⁰

1. U.S. Precedents

For clarity, U.S. precedents that place burdens on private actors are discussed first. Then, the Essay turns to U.S. measures targeted at foreign governments.

a. Authorities Targeting Private Actors

i. The U.S. Seafood Import Monitoring Program

U.S. law prohibits importing or selling fish taken contrary to the fishing laws of another country or RFMO regulations.⁴¹ The Seafood Import Monitoring Program (“SIMP”) is a new program that took effect on January 1, 2018, that attempts to ensure that fish imported into the U.S.—like fish harvested by U.S.-flagged vessels—are caught in compliance with fisheries regulations established by RFMOs and

40. For an overview of trade measures used by RFMOs, the EU and the U.S. to address Illegal, Unreported and Unregulated (“IUU”) fishing, see GILLES HOSCH, *TRADE MEASURES TO COMBAT IUU FISHING: COMPARATIVE ANALYSIS OF UNILATERAL AND MULTILATERAL APPROACHES* 27 (2016). While this Essay discusses many of the same trade measures as Hosch, this Essay categorizes them slightly differently. Hosch separately discusses multilateral and unilateral measures. In discussing multilateral measures, he focuses on catch documentation systems implemented by RFMOs. In discussing unilateral measures, he distinguishes catch documentation schemes and regimes for identifying and certifying countries that may impose trade sanctions based on failures to counter IUU fishing. *Id.*

41. 16 U.S.C. § 1857(1)(Q) (2012) (“It is unlawful . . . to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any fish taken, possessed, transported, or sold in violation of any foreign law or regulation or any treaty or in contravention of any binding conservation measure adopted by an international agreement or organization to which the United States is a party.”); 50 CFR § 600.725(a) (“It is unlawful for any person to . . . (a) Possess, have custody or control of, ship, transport, offer for sale, sell, purchase, land, import, export or re-export, any fish or parts thereof taken or retained in violation of the Magnuson–Stevens Act or any other statute administered by NOAA or any regulation or permit issued thereunder, or import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any fish taken, possessed, transported, or sold in violation of any foreign law or regulation, or any treaty or in contravention of a binding conservation measure adopted by an international agreement or organization to which the United States is a party.”); 16 U.S.C. § 3372(a)(1) (2012) (“It is unlawful for any person . . . to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported, or sold in violation of any law, treaty, or regulation of the United States or in violation of any Indian tribal law.”).

other countries, and are not mislabeled.⁴² The SIMP was established by the National Marine Fisheries Service (“NMFS”) following a recommendation from the Obama-era Presidential Task Force on Combating [illegal, unreported, and unregulated (“IUU”)] Fishing and Seafood Fraud.⁴³ NMFS and Customs and Border Protection in the Department of Homeland Security are implementing the SIMP.⁴⁴

The program requires approximately 2,000 importers “to collect information about each stage of the supply chain for certain types of seafood imported into the United States, starting from the catch’s point of origin.”⁴⁵ The requirements currently apply to only a list of priority species, which appear to have been selected based on a number of factors, including: the risk that they are caught in violation of RFMO and other countries’ fisheries regulations, the potential for the fish to be mislabeled (“seafood fraud”), and the existence of comparable reporting requirements for U.S. fishers of these species.⁴⁶ The “priority species represents 39% of edible seafood imports by volume in 2014 and, because of the high value of several of the priority spe-

42. The SIMP was established by rule-making, relying on 16 U.S.C. § 1857(1)(Q). See *Alfa Int’l Seafood v. Ross*, 264 F. Supp. 3d 23, 34, 49–53 (D.D.C. 2017).

43. PRESIDENTIAL TASK FORCE ON COMBATING IUU FISHING AND SEAFOOD FRAUD, ACTION PLAN FOR IMPLEMENTING THE TASK FORCE RECOMMENDATIONS 36–39 (2015) [hereinafter PRESIDENTIAL TASK FORCE].

44. See National Oceanic and Atmospheric Administration, Magnuson–Stevens Fishery Conservation and Management Act: Seafood Import Monitoring Program, Final Rule, 81 Fed. Reg. 88,975 (Dec. 9, 2016) [hereinafter NOAA 2016 Final Rule]. The program was challenged by seafood importers, and upheld, in *Alfa Int’l Seafood*, 264 F. Supp. 3d at 68.

45. *Alfa Int’l Seafood*, 264 F. Supp. 3d at 30. See also Final Rule to Implement U.S. Seafood Import Monitoring Program RIN 0648-BF09, Final Regulatory Impact Review and Final Regulatory Flexibility Analysis at 3, 6 (referring to “[a]pproximately 2,000 importers”) [hereinafter Final Regulatory Impact Review].

46. Presidential Task Force on Combating Illegal Unreported and Unregulated (IUU) Fishing and Seafood Fraud, Action Plan, 80 Fed. Reg. 66,867 (Oct. 30, 2015); NOAA 2016 Final Rule, *supra* note 44, at 88,989 (explaining stay of rule as to shrimp and abalone); *Alfa Int’l Seafood*, 264 F. Supp. 3d at 54–55. The species are “abalone, Atlantic cod, blue crab, dolphinfish, grouper, king crab (red), Pacific cod, red snapper, sea cucumber, sharks, shrimp, swordfish, albacore tuna, bluefin tuna, bigeye tuna, skipjack tuna, and yellowfin tuna.” NOAA FISHERIES, *supra* note 15, at 14. According to NMFS, comparable reporting requirements are already imposed on domestic U.S. fishers for these priority species. Magnuson–Stevens Fishery Conservation and Management Act; Seafood Import Monitoring Program, 81 Fed. Reg. 6,210, 6,212 (proposed Feb. 5, 2016) [hereinafter NOAA Proposed Rule]. This is presumably important in reducing the legal risk that the program violates WTO law prohibitions on discriminating against like imported products. China has already objected that comparable reporting requirements are not imposed on U.S. fishers. WORLD TRADE ORG., SANITARY & PHYTOSANITARY INFO. MGMT. SYS. (2018), <http://spsims.wto.org/en/SpecificTradeConcerns/View/415> [<https://perma.cc/MSN2-UH7N>]; Chris Loew, *WWF Report Urges Japan to Adopt Monitoring Program*, IUU WATCH (Oct. 9, 2017), <http://www.iuuwatch.eu/2017/10/wwf-report-urges-japan-adopt-monitoring-program/> [<https://perma.cc/J7GF-5QSV>].

cies, about 46% of imports by value.”⁴⁷ NMFS plans to selectively audit the information that importers provide.⁴⁸ If NMFS cannot confirm that the fish were “lawfully acquired and non-fraudulent” based on the information that the importers provide, then the fish could be excluded from the U.S. and subject to forfeiture. The importer could also face “enforcement action.”⁴⁹

The SIMP is an important precedent for a ban on the import of high seas fish in two respects. First, like such a ban, the program imposes a burden on importers to know their product back to the point of harvest. Naturally, the ability to identify which fish were caught on the high seas would be essential to implementing an import ban on high seas fish. Second, the penalties for non-compliance include the exclusion of the fish, as would be the case with a ban.

Still, a ban on importing fish caught on the high seas would push the envelope compared with the SIMP in two other respects. First, while the SIMP requires that importers acquire location information on where the fish was caught, it is unclear whether the SIMP requires knowing this location with the specificity needed to implement a ban on importing high seas fish.⁵⁰ Second, the SIMP involves the U.S. im-

47. Final Regulatory Impact Review, *supra* note 45, at 3. *See also id.* at 7 (“The commodities subject to documentation requirements under the initial phase of the program amounted to about 50% of 2014 import value.”). In April 2018, NMFS announced that shrimp and abalone will be subject to SIMP by the end of 2018, in compliance with Congressional requirements. NOAA FISHERIES, *U.S. Seafood Import Monitoring Program to Include Shrimp and Abalone by December 31* (Apr. 23, 2018), <https://www.fisheries.noaa.gov/feature-story/us-seafood-import-monitoring-program-include-shrimp-and-abalone-december-31> [https://perma.cc/S6JK-X7JX].

48. NOAA 2016 Final Rule, *supra* note 44, at 88,992.

49. *Id.*

50. Implementing an import ban on fish caught on the high seas likely would require fine-grained information on the location of the harvest, as the U.S. would allow importing fish caught in EEZs (provided it was caught in compliance with national laws) while the same fish caught on the high seas would be excluded. NOAA’s Final Rule for the SIMP states that the harvest location of fish caught on the high seas should be identified using FAO Major Fishing Area codes. NOAA 2016 Final Rule, *supra* note 44, at 88,980 (“For fishing beyond national jurisdiction, the United Nations Food and Agriculture Organization Major Fishing Area codes (<http://www.fao.org/fishery/cwp/handbook/H/en>) should be used. Specific instructions for reporting fishing area are provided in the NMFS Implementation Guide.”). *See Coordinating Working Party on Fishery Statistics (“CWP”)*, U.N. FOOD & AGRIC. ORG., <http://www.fao.org/cwp-on-fishery-statistics/handbook/general-concepts/major-fishing-areas-general/en/> (last visited Aug. 20, 2018) [https://perma.cc/MDW6-AYRW]. According to Anastasia Telesetsky, using these codes will not provide detailed information about the harvest location. Anastasia Telesetsky, *U.S. Seafood Traceability as Food Law and the Future of Marine Fisheries*, 47 ENVTL. L. 765, 779–80, 789 (2017). However, when I asked NMFS about the choice to require catch area identification in terms of FAO Fishing Areas, NMFS indicated that they actually may be requiring a more specific description of catch area than Telesetsky implies. NMFS responded as follows: “NMFS regulations and the import reporting system allow for specification of fishing area as established by the competent authority and/or the applicable RFMO. In cases where there are no specific fishing areas identified/required by a competent authority, the fishing vessel should report landings by FAO area, and . . . indicate whether the fish-

plementing standards determined by international bodies—like RFMOs—and other countries. By contrast, a ban to protect high seas fish would involve the U.S. enforcing a U.S. policy of ending fishing on the high seas.

ii. U.S. Experience with Catch Documentation Schemes

The new SIMP builds on pre-existing RFMO catch documentation programs implemented by the U.S., other U.S. documentation requirements for fisheries, and the EU catch certification scheme discussed below.⁵¹

The U.S. is one of thirty countries implementing CCAMLR's toothfish catch documentation scheme.⁵² CCAMLR regulates catches of

ing occurred within a nation's EEZ for that FAO area." Email from Kerry Turner, Comms. Specialist, NOAA Fisheries Office of Int'l Affairs and Seafood Inspection, to Author (Jan. 19, 2018, 18:20 CST) (on file with Author).

It should be possible to provide highly specific information on the location of the harvest. The EU's catch certification scheme apparently requires that the harvest location be described using GPS coordinates. NOAA 2016 Final Rule, *supra* note 44, at 88,980. However, the EU regulation, while requiring that the location of the catch be identified, does not state on the form included in the regulation how the location should be defined. Council Regulation 1005/2008, 2008 O.J. (L 286) 27 (EC) (Annex II, Item 3 of the European Community Catch Certificate and Re-export Certificate requires "catch area(s) and dates"). *See also* EURO. COMM'N DIRECTORATE-GENERAL FOR MARITIME AFFAIRS & FISHERIES, HANDBOOK ON THE PRACTICAL APPLICATION OF COUNCIL REGULATION (EC) No. 1005/2008 OF 29 SEPTEMBER 2008 ESTABLISHING A COMMUNITY SYSTEM TO PREVENT, DETER, AND ELIMINATE ILLEGAL, UNREPORTED AND UNREGULATED FISHING (THE IUU REGULATION) 39 (2009), http://www.jfa.maff.go.jp/j/kakou/eu/pdf/handbook_01.pdf [<https://perma.cc/5P8W-NJVF>]. GPS coordinates will be used to identify the location of "any transshipment at sea" in CCAMLR's catch documentation scheme. NOAA FISHERIES, *supra* note 15, at 52.

51. For an overview of pre-existing catch documentation programs implemented by NMFS, see NOAA Proposed Rule, *supra* note 46, at 6219. Hosch reports that there are three RFMOs that have catch documentation schemes, and that collectively they "cover substantially less than 0.1 percent of world catch by volume": CCAMLR for Patagonian and Antarctic toothfish, the International Commission for the Conservation of Atlantic Tunas for "[w]estern and eastern stocks of Atlantic bluefin tuna," and the Commission for the Conservation of Southern Bluefin Tuna ("CCSBT") for one stock of "southern bluefin tuna." Hosch, *supra* note 40, at 10–11. CCAMLR's toothfish catch documentation scheme is the only one of the three RFMO catch documentation schemes that is electronic. *Id.* at 11. The FAO defines a Catch Documentation Scheme as "a system with the primary purpose of helping determine throughout the supply chain whether fish originate from catches taken consistent with the applicable national, regional and international conservation and management measures, established in accordance with relevant international obligations." U.N. FOOD & AGRIC. ORG., VOLUNTARY GUIDELINES FOR CATCH DOCUMENTATION SCHEMES 2 (2017), <http://www.fao.org/publications/card/en/c/a6abc11e-414a-491b-888a-7819dabdac1d> [<https://perma.cc/5S43-45KA>].

52. *Importing and Exporting Antarctic Marine Living Resources and Obtaining Permits*, NOAA FISHERIES (Oct. 16, 2017), <http://www.nmfs.noaa.gov/ia/permits/amlr.html> [<https://perma.cc/F3T7-4PGJ>]; 50 C.F.R. §§ 300.100–119 (2016). For background, see Henrik Osterblom & Ussif Rashid Sumaila, *Toothfish Crises, Actor Diversity, and the Emergence of Compliance Mechanisms in the Southern Ocean*, 21

Antarctic and Patagonia toothfish, which are commonly called Chilean sea bass.⁵³ To promote compliance with CCAMLR's toothfish regulations, every shipment of toothfish imported into the U.S. must include a "*Dissostichus* [toothfish] catch document" ("DCD") that is validated by the harvesting vessel's flag state.⁵⁴ In validating the document, the flag state must satisfy itself "through the use of [Vessel Monitoring System] . . . data . . . that the [Food and Agriculture Organization ("FAO")] . . . area(s) or CCAMLR subarea(s) or division(s) where the [toothfish] . . . were taken was accurately reported by the vessel on the DCD."⁵⁵ So, the toothfish scheme is an example of a regime where an entity—in this case, the flag state—is required to know the location where fish was caught; this information would be essential to implementing an import ban on high seas fish.

The U.S. also has implemented a catch documentation scheme developed by the International Commission for the Conservation of Atlantic Tunas ("ICCAT") that is similar to the CCAMLR scheme.⁵⁶ In addition, the U.S. has a domestically developed regime that regulates the use of the "dolphin-safe" label on tuna sold in the U.S. For the label to be applied to tuna, the captain of the harvesting vessel—and an independent observer in some fisheries—must make certifications about the circumstances in which the tuna was caught, and the vessel must keep tuna caught in ways that harmed dolphins separate from the dolphin-safe tuna.⁵⁷ This regime is different from those mentioned above because it indirectly imposes substantive standards on tuna fishing by regulating the ability to apply a dolphin-safe label on tuna sold in the U.S.

b. Authorities Targeting Flag States

Several statutory provisions authorize the NMFS, or another federal actor, to restrict fish imports from countries that fail to ensure

GLOBAL ENVTL. CHANGE 972 (2011). For a positive assessment of the impact of the toothfish documentation scheme, see HOSCH, *supra* note 40, at 21–26.

53. CCAMLR has a broader mandate than other RFMOs. Brooks et al., *supra* note 4, at 303–06, 317–18, 321.

54. COMM'N FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RES., CONSERVATION MEASURE 10-05, CATCH DOCUMENTATION SCHEME FOR DISSOSTICHUS SPP. para. 1(i) (2017); 50 C.F.R. § 300.106(a) (2016).

55. COMM'N FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RES., CONSERVATION MEASURE 10-05, CATCH DOCUMENTATION SCHEME FOR DISSOSTICHUS SPP. para. 5 (2017); *see also id.* ("The Flag State's CDS Contact Officer shall not issue a Flag State Confirmation Number on a DCD if there is reason to believe that the information submitted by the vessel is inaccurate or that the *Dissostichus* spp. were taken in a manner inconsistent with CCAMLR conservation measures if fishing occurred in the CAMLR Convention Area.").

56. NOAA FISHERIES, *supra* note 15, at 52; Telesetsky, *supra* note 50, at 777–78.

57. For a description of the requirements for tuna to be labelled dolphin-safe, see WORLD TRADE ORG., ART. 21.5, UNITED STATES – MEASURES CONCERNING THE IMPORTATION, MARKETING AND SALE OF TUNA AND TUNA PRODUCTS, paras. 7.48–71 (Oct. 2017) [hereinafter Tuna-Dolphin Panels].

that vessels flying their flag comply with U.S. standards or international law.⁵⁸ These authorities differ from the proposed import ban on high seas fish because the authorities penalize countries—rather than private actors such as importers—by putting the burden on flag states to enforce fisheries regulations against vessels. In other respects, the authorities set helpful precedents for using trade measures to alter fishing practices. Also, some of these precedents can be used to enforce U.S.—rather than international—fishing standards against foreign-flagged vessels, including: the Moratorium Protection Act § 1826k (equivalent conservation measures); Marine Mammal Protection Act;⁵⁹ International Dolphin Conservation Program Act;⁶⁰ and Shrimp Turtle Law.⁶¹

For example, under the High Seas Driftnet Fishing Moratorium Protection Act (the “Moratorium Protection Act”), NMFS is required “to identify countries whose fishing vessels were engaged in IUU fishing or certain other activities,” such as illegally fishing in U.S. waters.⁶² If an identified country does not address the activities resulting in its identification after consultations, the U.S. may ban fish imports from that country and deny port privileges to the country’s vessels. In

58. For useful summaries of the statutory provisions authorizing trade-related measures to alter fishing practices abroad, see NOAA FISHERIES, *supra* note 15, at 86–88 (Annex 2: United States Laws Addressing IUU Fishing, PLMR Bycatch, and Shark Conservation, including Summaries of Recent Enforcement Cases); NOAA Proposed Rule, *supra* note 46, at 6219.

59. NOAA FISHERIES, *supra* note 15, at 5, 12–13, 69; Fish and Fish Product Import Provisions of the Marine Mammal Protection Act, 81 Fed. Reg. 54,389, 54,390 (Aug. 15, 2016); Rob Williams et al., *U.S. Seafood Import Restriction Presents Opportunity and Risk*, 354 SCI. 1,372, 1,373 (Dec. 16, 2016).

60. NOAA FISHERIES, *supra* note 15, at 13; *see also* 50 C.F.R. § 216.24(f)(8) (2018).

61. NOAA FISHERIES, *supra* note 15, at 67, 87; 16 U.S.C. § 1537 (2012); Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, Pub. L. No. 101–62, § 609 (1989).

There are other provisions allowing for the penalization of states. The High Seas Driftnet Fisheries Enforcement Act allows “identification of nations whose vessels are engaging in high seas fishing with large-scale driftnets; such identification may lead to limitations on port entry and on the importation of certain products from those nations.” NOAA FISHERIES, *supra* note 15, at 86–87. “The Pelly Amendment to the Fishermen’s Protective Act provides for the possibility of trade-restrictive measures when the Secretary of Commerce certifies to the President that nationals of a foreign country are” fishing in ways that undermine international fisheries regulations. *Id.* at 13. The President can order the Treasury Secretary “to prohibit the importation of products from the certified country.” *Id.* at 13. The Pelly Amendment was passed to enforce the ban on fishing salmon in the high seas in the Northwest Atlantic. 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, 758 (1994).

62. NOAA FISHERIES, *supra* note 15, at 3; *see also* PRESIDENTIAL TASK FORCE, *supra* note 43, at 7; 16 U.S.C. §§ 1826j–k (2012). The process for identifying a country under the Moratorium Protection Act is described in NOAA FISHERIES, *supra* note 15, at 17–45. For a critical analysis of the implementation of the Moratorium Protection Act, see HOSCH, *supra* note 40, at 38–43.

its 2017 report to Congress, NMFS identified “Ecuador and the Russian Federation, as having been engaged in IUU fishing based on reported violations of international conservation and management measures during 2014, 2015 or 2016.”⁶³ It also identified “Mexico and the Russian Federation, as having vessels that fished without authorization in waters of the United States.”⁶⁴ In addition, Mexico was identified “for overfishing stocks shared with the United States.”⁶⁵ NMFS did not prohibit the importation of fish from any of these countries, although Mexico “was subject to denial of port privileges and import restrictions on certain fish and fish products.”⁶⁶ The U.S. has never banned the import of fish from a country even though it has identified many countries under the Moratorium Protection Act.⁶⁷

2. EU Precedents

The U.S. is not the only major seafood importer to use import bans, and the threat of them, to alter fishing practices abroad. The EU has a catch certification scheme under which it imposes obligations on flag state governments to ensure compliance with international fisheries regulations, such as RFMO regulations, and the domestic laws of the countries where fish are harvested.⁶⁸ The EU adopted the certification scheme regulation in 2008 and implemented it in 2010.⁶⁹ All fish imported into the EU—not just priority seafood as under the U.S. SIMP program—must include a “catch certificate which certifies compliance with fisheries laws and conservation measures.”⁷⁰ This catch certificate must include a certification from the harvesting vessel’s flag state attesting “to the origin and legality of the fish.”⁷¹ In other words, the

63. NOAA FISHERIES, *supra* note 15, at 4.

64. *Id.* at 4; *see also id.* at 29–30, 32.

65. *Id.* at 4.

66. NAT’L OCEANIC AND ATMOSPHERIC ADMIN., DEP’T OF COMMERCE, IMPROVING INTERNATIONAL FISHERIES MANAGEMENT: HIGHLIGHTS OF THE 2017 IUU BIENNIAL REPORT TO CONGRESS (2017), <https://www.fisheries.noaa.gov/feature-story/improving-international-fisheries-management-highlights-2017-iuu-biennial-report> [<https://perma.cc/T83N-SUZC>]. In light of Mexico’s subsequent corrective actions, NMFS has now positively certified Mexico. U.S. DEP’T OF COMMERCE, ADDENDUM TO THE BIENNIAL REPORT TO CONGRESS PURSUANT TO SECTION 403(A) OF THE MAGNUSON–STEVENS FISHERY CONSERVATION AND MANAGEMENT REAUTHORIZATION ACT OF 2006: POSITIVE CERTIFICATION DETERMINATION FOR MEXICO’S 2015 IUU FISHING IDENTIFICATION (2018), <https://www.fisheries.noaa.gov/foreign/international-affairs/identification-iuu-fishing-activities> [<https://perma.cc/Q723-2KFV>].

67. HOSCH, *supra* note 40, at 43.

68. ENVTL. JUSTICE FOUND. ET AL., THE EU IUU REGULATION: BUILDING ON SUCCESS, EU PROGRESS IN THE GLOBAL FIGHT AGAINST ILLEGAL FISHING 7 (2016). For a critical analysis of the EU catch certification scheme, see HOSCH, *supra* note 40, at 28–31. The EU catch certification scheme is equivalent to a catch documentation scheme. *Id.* at 27 n.33.

69. ENVTL. JUSTICE FOUND. ET AL., *supra* note 68, at 6.

70. *Id.*

71. *Id.* at 7; *see also* Council Regulation 1005/2008, Community system to prevent, deter and eliminate IUU fishing, 2008 O.J. (L. 286) 1, 2 (EC).

location where the fish was harvested must be identified, and the flag state must certify that it was caught in compliance with domestic and international fisheries regulations.⁷² EU countries selectively audit the accuracy of the catch certificates received with fish imports.⁷³ Fish caught in violation of applicable law are denied “entry into the EU.”⁷⁴

In addition to the catch certification scheme administered by EU countries, the European Commission administers a “carding process” that is similar to the Moratorium Protection Act.⁷⁵ The Commission investigates whether countries are implementing their obligations as “flag, coastal, port or market states under international law.”⁷⁶ If the Commission determines that a country is “non-cooperating” it may “yellow-card” the country.⁷⁷ To have the yellow card removed, and be “green-carded,” the country must improve its compliance with international fisheries regulations.⁷⁸ If the country does not introduce reforms, it may be “red-carded,” which results in the EU banning its seafood imports.⁷⁹ The catch certification and carding processes are distinct; countries can be carded for failing to comply with the catch certification scheme or failing to comply with international fisheries regulations.⁸⁰ According to a 2016 NGO report, the EU has interacted “with almost 50 third countries seeking improvements in measures to combat IUU fishing.”⁸¹ The EU has yellow-carded twenty countries; nine of these twenty have “been delisted.”⁸² Four countries have been red-carded.⁸³ The EU is identifying very different countries under the carding regime than the U.S. is under its equivalent Moratorium Protection Act.⁸⁴ While the U.S. tends to identify countries that are known to engage in IUU fishing, including EU countries,⁸⁵ almost half of the countries that the EU has carded were not exporting seafood to the EU when they were carded, which seemingly may not cause a country to alter its fishing behavior.⁸⁶ Nonetheless, the EU carding regime may be more effective in inducing countries to reduce IUU

72. Council Regulation No. 1005/2008, Preamble (15), art. 12 & Annex II (EC).

73. ENVTL. JUSTICE FOUND. ET AL., *supra* note 68, at 7.

74. *Id.*

75. *Id.* at 8. See EU IUU Regulation, art. 31; HOSCH, *supra* note 40, at 32–38.

76. ENVTL. JUSTICE FOUND. ET AL., *supra* note 68, at 8. See also HOSCH, *supra* note 40, at 33.

77. ENVTL. JUSTICE FOUND. ET AL., *supra* note 68, at 19 n.15 (citing EU IUU Regulation, art. 31(2)).

78. *Id.* at 9.

79. *Id.*

80. HOSCH, *supra* note 40, at 32.

81. ENVTL. JUSTICE FOUND. ET AL., *supra* note 68, at 8.

82. *Id.*

83. *Id.*

84. HOSCH, *supra* note 40, at 42 (only three countries have been identified by the U.S. and the EU: “Panama, Ghana, and Korea”).

85. *Id.* at 42, 56.

86. *Id.* at 35 (“over 43 percent of the identified countries (10/23) . . . had no established seafood trade to the EU market”).

fishing because the EU, unlike the U.S., has imposed trade sanctions as a result of country identifications.⁸⁷

All of the programs highlighted above suggest that there are precedents for the three key elements of a unilateral import ban on fish caught on the high seas, although there is no single existing program that combines all three elements. First, there are precedents for a country acting unilaterally to enforce substantive fishing standards that it has established on its own, not as a member of an RFMO: the Moratorium Protection Act § 1826k (equivalent conservation measures), Marine Mammal Protection Act, International Dolphin Conservation Program Act, and Shrimp Turtle Law. Second, there is a precedent for putting the burden on importers to know the location where their product is harvested—the U.S. SIMP. There are more precedents for requiring flag states to know the locations where their vessels are harvesting: the CCAMLR, ICCAT, and CCSBT catch documentation schemes and the EU catch certification regime. Third, there are precedents for using import bans to penalize countries for non-compliance with fisheries regulations: the U.S. SIMP, CCAMLR catch documentation scheme, Moratorium Protection Act § 1826k, Marine Mammal Protection Act, International Dolphin Conservation Program Act, Shrimp Turtle Law, Pelly Amendment, EU catch certification system, and EU carding process. Some precedents provide for import bans on specific fish shipments because they do not comply with fishing standards, while other precedents allow for import bans on fish generally from a country whose flagged vessels are deemed non-compliant.⁸⁸

With these precedents demonstrating the potential for an import ban on high seas fish, the Essay turns to the advantages and disadvantages of unilateral trade bans to end high seas fishing.

III. ADVANTAGES AND DISADVANTAGES OF A UNILATERAL IMPORT BAN

A. *Advantages*

Because the high seas are not under the control of nation states and everyone has a “conditional” right to fish on the high seas, it is natural to think that ending fishing on the high seas will require the multilateral agreement of all countries through a UN-led process.⁸⁹ However, trying to negotiate the end of high seas fishing through a UN process

87. *Id.* at 38, 43, 46, 48. For another analysis of the impacts of the EU’s catch certification system and carding regime, see ENVTL. JUSTICE FOUND. ET AL., *THE IMPACT OF THE EU IUU REGULATION ON SEAFOOD TRADE FLOWS* (2018).

88. For a critique of the breadth of the import prohibitions under the EU carding regime, see HOSCH, *supra* note 40, at 52.

89. Brooks et al. aptly emphasize that there is no absolute right to fish on the high seas; under UNCLOS, the right to fish on the high seas is “conditional” on conserving “the marine environment.” Brooks et al., *supra* note 4, at 293; see also *id.* at 295–96.

is likely to be cumbersome and time-consuming and, ultimately, may not succeed. As an example, in 2017, the UN General Assembly agreed to negotiate a new implementing agreement under UNCLOS to protect biological diversity on the high seas. The process of persuading the General Assembly to proceed with a new agreement addressing Biodiversity Beyond National Jurisdictions (“BBNJ”) actually started in 2004.⁹⁰

A single jurisdiction taking unilateral steps likely would be able to proceed much faster than a multilateral UN-led process like the BBNJ negotiations. Also, the BBNJ negotiations might be given further impetus by a country taking unilateral steps to ban high seas fishing. The negotiation of UNCLOS proceeded in tandem with countries, including the U.S., unilaterally expanding their claims to ocean fisheries.⁹¹

One jurisdiction taking unilateral steps also might be a first step toward plurilateral efforts like the “High Seas Ban Club” that Green and Rudyk propose, or toward a multilateral effort to negotiate a high seas fish reserve. Such plurilateral and multilateral efforts require at least one national champion to make headway, and a first mover could become that champion. To create momentum, the first mover could expressly invite other countries to implement similar bans and establish a regime that is open to other countries to join.⁹²

One jurisdiction’s experience implementing an import ban, and banning its own vessels from fishing on the high seas, also might provide lessons for other countries. For example, the U.S. decision to implement its SIMP “was informed by the early success of the European Union’s Catch Documentation Program in reducing IUU fishing and seafood fraud in the European Union.”⁹³

With a ban in place in one jurisdiction, it likely would be cheaper and easier for other jurisdictions to implement similar bans. As mentioned above, the EU implemented its catch certification scheme for all imports in 2010, eight years before the U.S. implemented its SIMP in 2018. The final regulatory impact review for the SIMP suggested that fishing entities in countries exporting to both the U.S. and EU countries would be able to comply with the SIMP at minimal cost be-

90. *Id.* at 314.

91. In 1976, “the U.S. Congress established a 200-mile fishery conservation and management zone.” ANN L. HOLLICK, U.S. FOREIGN POLICY AND THE LAW OF THE SEA 314, 353 (1981).

92. See HOSCH, *supra* note 40, at ix (proposing that catch documentation schemes implemented unilaterally by the EU and the U.S. might be linked, to form multilateral schemes that Hosch believes would be more effective in combatting IUU fishing); *id.* at 59 (merged unilateral catch documentation systems “could then be opened up for expanded end-market state membership”).

93. *Alfa Int’l Seafood v. Ross*, 264 F. Supp. 3d 23, 59 (D.D.C. 2017).

cause these countries are already complying with the EU catch certification scheme.⁹⁴

B. Disadvantages

On the other hand, downsides exist to trying to end high seas fishing through a unilateral import ban.⁹⁵

1. Leakage

One disadvantage is the potential for displacement—or leakage—of high seas fish and fishing vessels.⁹⁶

First, vessels might continue high seas fishing, and merely sell their product to countries without a ban. The U.S. and the EU seem like the best candidates for introducing an import ban on fish caught on the high seas, given their significance as markets for imported high seas fish and their track records in establishing unilateral programs to promote respect for fisheries regulations. But even if one or both of them acted unilaterally, there still would be other markets that might be able to absorb the fish that the U.S. and the EU would no longer allow to enter their markets.⁹⁷ To be sure, there may be limits to where high seas fish will be displaced. Many high seas fish, such as bluefin tuna, are luxury products that are unlikely to be affordable to many people in developing countries.⁹⁸ But there are emerging mar-

94. Final Regulatory Impact Review, *supra* note 45, at 7. *See also id.* at 9–10 (“The data required to be provided by the harvester to the U.S. importer aligns very closely with the data requirements of the European Union catch certification program and several RFMO schemes. Providing this information to buyers for the U.S. program should be no more costly or burdensome.”); *Alfa Int’l Seafood*, 264 F. Supp. 3d at 64–65.

95. The three risks that this Essay identifies are similar to the three risks that Green & Rudyk identify with the high seas ban club option. Green & Rudyk, *supra* note 18, at 6 (“There are three issues that may limit the effectiveness of a high-seas ban club: sufficient monitoring/transparency, preventing leakage, and concordance with existing international law.”).

96. Green & Rudyk use the term “leakage.” Green & Rudyk, *supra* note 18, at 6.

97. Leakage is a concern with unilateral measures to address global environmental problems in general. Although he does not use the term leakage, Hosch similarly warns that unilateral catch documentation schemes are more effective if the jurisdiction has a dominant market share, because market dominance reduces the scope for diverting the fish covered by the scheme to other countries without comparable regulatory requirements. Hosch, *supra* note 40, at 21–22, 27, 48–49, 54, 58. However, multilateral as well as unilateral catch documentation schemes may have greater impact if there is a dominant end-market state for the fish. Hosch partially attributes the success of the multilateral catch documentation schemes implemented by CCAMLR for toothfish, and ICCAT and the CCSBT for tuna, to the fact that there are states that purchase a dominant share of the covered fish (Japan for tuna, and the U.S. for toothfish). *Id.* at 19, 21.

98. Schiller et al., *supra* note 2; *see also* Fifield, *supra* note 32 (describing Japan as “by far the world’s biggest consumer of bluefin, eating about 80 percent of the global haul in the \$42 billion tuna industry,” and noting that “Pacific bluefin is particularly prized in Japan for its fatty underbelly, called “otoro,” which sells for as much as \$23 per piece at Michelin-starred sushi restaurants in Tokyo”).

kets to which such fish might be diverted if it is not allowed to be sold in the U.S. or the EU. Furthermore, the price of high seas fish might decline in the face of bans that reduce demand, making the fish more affordable. For example, China might increase its high seas fish imports. China is already the third biggest national importer of seafood generally—not specifically high seas fish—and its seafood imports are increasing as a result of its rapid economic growth.⁹⁹ China also has the largest number of vessels fishing on the high seas¹⁰⁰ and is one of the countries spending the most on subsidies for high seas fishing.¹⁰¹

A second form of displacement might involve fishing vessels, rather than fish. Vessels flying the flag of the jurisdiction implementing the ban might seek to re-flag with another country that still allows high seas fishing. If the new flag state is more lenient than the banning country, prior to implementing the ban, in enforcing RFMO regulations, then the vessel displacement could have deleterious consequences for high seas fish. The new flag state might not only allow the vessels to fish on the high seas but also be less punctilious than the original flag state in enforcing RMFO regulations like catch, gear, and area restrictions. Vessel migration to laxer flag states might then further undermine the effectiveness of RFMO regulations. However, the need for subsidies to make high seas fishing economical might limit vessels from re-flagging with laxer flag states. If high seas fishing is unprofitable absent government subsidies, then vessels wanting to continue high seas fishing would be limited to re-flagging with countries willing to subsidize vessels that had not previously flown their flags.

Although fish and vessel displacement may erode some of the environmental benefits, there still may be a case for acting unilaterally. Unilateral action by a major seafood importer might be an initial step toward developing a norm favoring the protection of the high seas as a fish bank.¹⁰² There are precedents for unilateral action by the U.S. leading to improvements in fishing behavior. U.S. unilateral action in the 1980s and 1990s preceded the development of international regimes that reduced dolphin mortality from tuna fishing in the Eastern Tropical Pacific Ocean.¹⁰³

99. U.N. FOOD & AGRIC. ORG., *supra* note 27, at 54.

100. Sala et al., *supra* note 2, at 1.

101. *Id.* at 3.

102. Green & Rudyk, *supra* note 18.

103. Richard W. Parker, *The Use and Abuse of Trade Leverage to Protect the Global Commons: What We Can Learn from the Tuna-Dolphin Conflict*, 12 GEO. INT'L ENVTL. L. REV. 1, 9 (1999) (The history of U.S. efforts to regulate tuna fishing in the Eastern Tropical Pacific Ocean “demonstrates how trade leverage can mobilize discourse, contribute to learning, empower creation of a regime, and shape perceptions of legitimacy.”); Jennifer Ramach, Note, *Dolphin-safe Tuna Labelling: Are the Dolphins Finally Safe?*, 15 VA. ENVTL. L.J. 743, 756 (1996). For other examples where U.S. threats of import prohibitions prompted changes in fishing behavior by other countries, see Taylor, *supra* note 25, at 145.

2. Enforcement

Another concern is whether a single jurisdiction could actually exclude all high seas fish from its domestic market. Keeping out fish caught on the high seas would require knowing where fish was caught, and in particular, knowing that it was not caught on the high seas. This information is not easy to determine, however. The supply chain for seafood is complex. Fish may be caught on the high seas, transhipped—meaning transferred—at sea, landed at port, exported to another jurisdiction for processing, and then exported to another country for sale to end-consumers.¹⁰⁴ Along the way, there are many opportunities to commingle fish caught from one vessel with fish caught by others: a ship receiving fish at sea might be receiving fish from several vessels, and so might a processor.

The complexity of the supply chain has made it possible for fish caught illegally—in contravention of RFMO and national fishing regulations—to be exported to countries around the world. Perhaps “one in three” of the fish traded internationally could have been caught in IUU fishing.¹⁰⁵ “[I]llegal and unreported catches represented 20–32% by weight of wild-caught seafood imported to the USA in 2011.”¹⁰⁶ The precedents for a ban on high seas fish described above are intended to reduce IUU fishing by curtailing access to U.S. and EU markets for fish that is illegally caught in violation of RFMO and national regulations. The U.S. SIMP, the EU catch certification scheme, and the tuna and toothfish catch documentation schemes are especially relevant because they require that fish arriving at a nation’s borders come with documentation about where it was caught, which is exactly the information that would be needed to enforce a ban on high seas fish imports. There are indications that the tuna and toothfish schemes have succeeded in curtailing IUU fishing, even if there are doubts about the effectiveness of the EU catch certification scheme.¹⁰⁷

A ban on high seas fishing might be easier to implement than the variety of international fisheries regulations that the U.S., the EU, and other countries are currently struggling to enforce. These existing reg-

104. See, e.g., *Alfa Int’l Seafood v. Ross*, 264 F. Supp. 3d 23, 30 (D.D.C. 2017); HOSCH, *supra* note 40, at 12.

105. HOSCH, *supra* note 40, at 3.

106. Ganapathiraju Pramod et al., *Estimates of Illegal and Unreported Seafood Imported Into the USA*, 48 MARINE POL’Y 102, 102 (2014).

107. Hosch insightfully analyzes the impacts of the CCAMLR, ICCAT, CCSBT and EU catch documentation schemes. HOSCH, *supra* note 40, at 18–26, 28–31. Hosch refers to anecdotal evidence of a “price premium” for certified toothfish, and a price penalty for illegally caught tuna that cannot be certified; this evidence is consistent with the tuna and toothfish catch documentation schemes deterring IUU fishing. *Id.* at 23. He also argues that the implementation of the tuna catch documentation schemes is correlated with “the beginning of stock recovery, which suggests the measures could be contributing to improved stock protection.” *Id.* at 22–23. For a recent analysis of the impacts of the EU’s catch certification scheme and carding regime, see ENVTL. JUSTICE FOUND. ET AL., *supra* note 87.

ulations permit fishing on the high seas subject to various limitations such as overall catch limits and restrictions on when, where, and how fish are taken.¹⁰⁸ An outright ban would require verifying only the location of the harvest, not when the fish was caught or what kind of gear was used. The key to effectively implementing a ban would be the ability to know, for every shipment of fish that might have come from the high seas, where the fish were caught with a high degree of confidence, so as to be able to exclude fish caught on the high seas. Because few fish are caught exclusively on the high seas, only 1–3% of fish species, the species of the fish could not be used as a proxy for high seas fish.¹⁰⁹ However, it might be the case that certain species of fish are more likely to be caught on the high seas than in EEZs. If this is true, then the species type might be used as a basis for selectively auditing the information about the origins of the fish. As in the U.S. SIMP and the EU catch certification scheme, a jurisdiction imposing a ban likely would not verify the accuracy of information provided about the origin of every shipment of fish entering the country but rather selectively audit the information based on the risk of inaccuracy—or, more specifically, the risk that the fish was caught on the high seas.

As under the SIMP, the jurisdiction could require importers to obtain and retain information about the location where fish was harvested. This would put the burden on importers to know the origins of their product, just as the SIMP does. Alternatively, similar to the EU catch certification scheme and the toothfish and tuna catch documentation schemes, importers could be required to provide a harvest location certificate validated by the harvesting vessel’s flag state. This approach puts the major burden on the flag state; the importer is merely a conduit for the information about harvest location.

Regardless of whether importers or flag states have the burden of validating the harvest location, the burdened entity must be able to verify the information. Under the toothfish catch documentation scheme discussed earlier, the ability to verify the location of the catch ultimately derives from requiring all vessels fishing in the Convention on Antarctic Marine Living Resources area to have satellite-based Vessel Monitoring Systems (“VMS”) relaying in “real-time” their locations to their flag state and/or CCAMLR.¹¹⁰ VMS units send infor-

108. See, e.g., COMM’N FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RES., BROWSE CONSERVATION MEASURES, <https://www.ccamlr.org/en/conservation-and-management/browse-conservation-measures> [<https://perma.cc/58RH-6HQM>].

109. See GLOBAL OCEAN COMM’N, *supra* note 3, at 75; ROGERS ET AL., *supra* note 2, at 13. Schiller et al. “found that only one species, Antarctic toothfish, is caught on the high seas and nowhere else” Schiller et al., *supra* note 2, at 2.

110. For U.S. requirements that vessels fishing in CCAMLR have VMS, see 50 C.F.R. § 300.219 (2017). The U.S. appears to require that all vessels that it licenses to fish on the high seas have some kind of VMS that reports at least hourly on the vessel’s location to NOAA’s Office of Law Enforcement. 50 C.F.R. § 300.337(d). For

mation to a satellite that can be used to determine vessel location, speed, and direction. VMS is useful for identifying whether a vessel is fishing in an area closed to fishing—as the high seas would be under a ban—because the pattern of communications from the vessel can be used to determine if the vessel is stationed, and thus likely fishing, in an area or merely transiting through it.¹¹¹ So, if all vessels that could fish on the high seas had VMS, then their harvesting locations could be tracked and known. Small fishing vessels participating in near-shore fisheries would not need to be equipped with VMS because they would not be able to harvest fish on the high seas.

It is not currently clear how prevalent VMS use is worldwide. However, VMS is an important component of U.S. fisheries management. The U.S. claims to have “the largest national VMS fleet in the world,” monitoring over 4,000 fishing vessels using VMS.¹¹² The U.S. uses VMS to monitor U.S. vessels fishing in the U.S. EEZ;¹¹³ in addition, all U.S.-flagged vessels permitted to fish on the high seas are required to have VMS.¹¹⁴

VMS might become the norm among large fishing vessels worldwide. Installing VMS on fishing vessels might initially be costly, but once VMS is operating it seems reasonably cheap to maintain and use to track vessels.¹¹⁵ In 2015, NMFS estimated that it costs “[u]p to \$3,100” to purchase a VMS unit for a vessel and \$50–\$400 to install.¹¹⁶ However, another source suggests that a VMS unit might cost less

CCAMLR’s requirements that vessels have VMS, see COMM’N FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RES., CONSERVATION MEASURE 10-04, AUTOMATED SATELLITE-LINKED VESSEL MONITORING SYSTEMS (VMS) (2015), at paras. 2, 11–12.

111. NAT. RES. DEFENSE COUNCIL & CLEARY GOTTlieb STEEN & HAMILTON, LLP, THE MAGNUSON STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT: LESSONS FROM U.S. FISHERIES MANAGEMENT 33-26 (Mar. 2016) [hereinafter NRDC & CLEARY]; In the Matter of Jason Robinson, SW 1002974, *9 (NOAA 2013) (cited in NRDC & CLEARY, *supra*, at 33).

112. NOAA Law Enforcement, NOAA FISHERIES (June 19, 2017), http://www.nmfs.noaa.gov/ole/about/our_programs/vessel_monitoring.html [https://perma.cc/EB4G-DPME]. According to NOAA, over twenty-two fisheries in which U.S. vessels participate (domestic and high seas) use VMS. *VMS Program Codifies Requirements, Prepares for Larger Vessel Monitoring Workload*, NOAA FISHERIES (June 3, 2015), http://www.nmfs.noaa.gov/ole/slider_stories/2015/3june15_vms_program_codifies_requirements.html [https://perma.cc/KRF4-KLY3]. For information on the U.S. VMS program, see also PRESIDENTIAL TASK FORCE, *supra* note 43, at 7.

113. *Enforcement*, NOAA FISHERIES, http://www.nmfs.noaa.gov/ole/about/our_programs/vessel_monitoring.html (last visited Aug. 23, 2018) [https://perma.cc/T6G9-X66E]; In the Matter of Jason Robinson, SW 1002974, *6 (NOAA 2013) (Pacific groundfish fishery).

114. NOAA Permitting and Monitoring of U.S. High Seas Fishing Vessels, 80 Fed. Reg. 62,488, 62,492 (Oct. 16, 2015) (to be codified at 50 C.F.R. § 300 (2017)) [hereinafter NOAA 2015 Final Rule].

115. NRDC & CLEARY, *supra* note 111, at 26.

116. NOAA 2015 Final Rule, *supra* note 114, at 62,492.

than \$1,000.¹¹⁷ The cost of sending reports from a VMS is small—\$0.06 per report—as is the cost of maintaining the VMS—\$50–\$100 annually.¹¹⁸ NMFS estimated that in subsequent years, after the VMS is installed, the VMS would cost a vessel \$625 per year.¹¹⁹ The entity monitoring the VMS data—the flag state, for example—will also face costs, such as the cost of receiving the data and the costs of paying people to review it.¹²⁰ A country banning the import of high seas fish might subsidize the other countries’ VMS costs.¹²¹ The question is how would an exporting country value the cost of installing VMS on its fishing vessels to ensure continued access to the market of the country banning the import of high seas fish, relative to giving up that market for its products and diverting them to states with more lenient regulations.

There also are other newer technologies available to track the location of fishing vessels worldwide, and technology could further evolve to reduce the cost of identifying the location of fish catches.¹²² Automatic ship identification systems (“AISs”) provide “publicly accessible” data “about a ship’s identity, position, and course,”¹²³ while VMS systems generally are “closed-access.”¹²⁴ AIS was originally developed to prevent ships from getting into accidents; and as with VMS, a ship has a device onboard that relays information to a satellite about its location. In contrast to VMS, however, AIS sends continuous signals, enabling regulators enforcing fisheries regulations to know with greater precision the location of a vessel at all times. McCauley et al. argue that if fishing vessels were required to have transponders, satel-

117. BRETT WIEDOFF, PAC. FISHERY MGMT. COUNCIL, VESSEL MOVEMENT MONITORING – SCOPING AND STRAWMEN ALTERNATIVES 11 (2015), http://www.pcouncil.org/wp-content/uploads/2015/04/I1_SupStaffPPTOverview_Wiedoff_APR2015BB.pdf [<https://perma.cc/D6RF-LFQB>].

118. NOAA 2015 Final Rule, *supra* note 114, at 62,492–93.

119. *Id.*

120. NRDC & CLEARY, *supra* note 111, at 33.

121. *VMS Program Codified Requirements, Prepares for Larger Vessel Monitoring Workload*, NOAA FISHERIES (June 3, 2015), http://www.nmfs.noaa.gov/ole/slider_stories/2015/3june15_vms_program_codifies_requirements.html [<https://perma.cc/BG49-UF34>] (explaining that when NMFS mandated that all U.S.-flagged high seas vessels install VMS, it reimbursed part of the cost that vessels incurred in purchasing VMS); NOAA 2015 Final Rule, *supra* note 114, at 62,489.

122. *See, e.g.*, Mallory Pickett, *Is Mass Surveillance the Future of Conservation?*, SLATE (Sept. 17, 2018), <https://slate.com/technology/2018/09/overfishing-surveillance-birds-cameras-drones.html> [<https://perma.cc/A4U5-YMF8>].

123. Douglas J. McCauley et al., *Ending Hide and Seek at Sea*, 351 SCI. 1,148, 1,148 (2016).

124. *Id.* Indonesia is “the only flag state that publicly provides VMS data.” Sala et al., *supra* note 2, at 5. Indonesia has shared its VMS data with a Google-designed platform, Global Fishing Watch; the data sharing is making it much easier for the country to monitor ocean fishing. *Google Is Indonesia’s New Weapon in War on Illegal Fishing*, THE GULF TIME: EMIRATES BUS. (Apr. 22, 2018), <http://emirates-business.ae/google-is-indonesias-new-weapon-in-war-on-illegal-fishing/> [<https://perma.cc/3XT6-8UMU>].

lites would make it “possible to use AIS to observe vessel activity anywhere.”¹²⁵ Currently, only a small number of fishing vessels worldwide are equipped with such units.¹²⁶ Because AIS information is public, it can be used by NGOs to help states enforce fishing regulations, including prohibitions on fishing in protected areas of the oceans.¹²⁷ For example, the Pew Charitable Trusts have funded the development of Project Eyes on the Seas, which uses AIS and other data for this purpose.¹²⁸ Eyes on the Seas will be used to help the country of Palau prevent fishing within its marine sanctuary.¹²⁹

There also are older methods of enforcing fishing regulations that might be used to verify the location of fish catches including requiring the presence of human observers on fishing vessels and vessel trip reports.¹³⁰ However, it can be expensive to place human observers on fishing vessels, and trip reports need to be validated, presumably by VMS.¹³¹

As mentioned above, a ban on the importation of high seas fish likely would be accompanied by the banning jurisdiction prohibiting its fishing vessels from fishing on the high seas. It would be administratively straightforward for the U.S. to prohibit its vessels from fishing on the high seas, although perhaps not politically easy. The U.S. requires that vessels have a special permit to fish on the high seas, and there currently are 467 U.S.-flagged vessels permitted to do so.¹³²

125. McCauley et al., *supra* note 123, at 1,148.

126. *Id.* at 1,148–49.

127. *Id.* at 1,148.

128. PEW CHARITABLE TRUSTS, PROJECT EYES ON THE SEAS 1 (2015), http://www.pewtrusts.org/~media/assets/2015/03/eyes-on-the-seas-brief_web.pdf [<https://perma.cc/MT8K-K6VR>].

129. PEW UNVEILS PIONEERING TECHNOLOGY TO HELP END ILLEGAL FISHING, PEW CHARITABLE TRUSTS (Jan. 21, 2015), <http://www.pewtrusts.org/en/about/news-room/press-releases/2015/01/21/pew-unveils-pioneering-technology-to-help-end-illegal-fishing> [<https://perma.cc/D468-UM38>]. A recent research paper uses AIS data from fishing vessels to determine the spatial impact of fishing on the oceans, concluding that “73% of the ocean was fished in 2016.” David A. Kroodsma et al., *Tracking the Global Footprint for Fisheries*, 359 *Sci.* 904, 905 (2018). It mentions that “AIS captures the majority of fishing effort in the high seas.” *Id.*

NOAA also has “new Boat Detection products” that use satellite data to detect “vessels that are lit or use lights, including fishing vessels using lights to attract fish.” NOAA FISHERIES, *supra* note 15, at 59. These apparently “can detect human activity in marine protected areas.” *Id.*

130. See NRDC & CLEARY, *supra* note 111, at 7–8.

131. *Id.* at 34; NOAA 2015 Final Rule, *supra* note 114, at 62,493. NMFS reports that “[m]ost high seas fishing vessels are already subject to requirements for carrying an observer.” *Id.*

132. Turner, *supra* note 50; 50 C.F.R. § 300.333(b) (2017); NOAA 2015 Final Rule, *supra* note 114, at 62,492. These permits last for five years, and the U.S. can revoke them on certain grounds. 50 C.F.R. § 300.333. It is difficult to bring a successful takings claim for the revocation of a fishing permit. See *Am. Pelagic Fishing Co. v. United States*, 379 F.3d 1363 (Fed. Cir. 2004).

3. Legal Risks

Banning the importation of fish caught on the high seas would be a major departure from existing U.S. policy. The U.S. has attempted to improve the status of high seas fisheries by strengthening the RFMOs and invested significant efforts in improving their capacity and operations. The SIMP is one example of these efforts, as it is intended to help enforce RFMO fisheries regulations. Because of the executive branch's and Congress's commitment to strengthening RFMOs, Congressional legislation may be necessary to ban the import of high seas fish and prohibit U.S.-flagged vessels from high seas fishing.¹³³ A careful review would be necessary of NFMS's authority under existing legislation to determine if the agency could by regulation ban high seas fishing by U.S.-flagged vessels, and the import of some or all fish caught on the high seas, or if Congressional legislation would be necessary.

In addition to requiring statutory authorization, any ban must also conform with WTO law. Past U.S. efforts to unilaterally alter fishing practices by foreign vessels to protect sea turtles and dolphins have given rise to celebrated WTO cases.¹³⁴ According to Robert Howse, a prominent international trade law scholar, the WTO Appellate Body has generally interpreted the General Agreement on Tariffs and Trade ("GATT") and the Agreement on Technical Barriers to Trade ("TBT") so as to provide nation states with considerable scope to address environmental issues.¹³⁵ Howse highlights the Appellate Body's approach to the shrimp-turtle dispute as an important turning point in WTO jurisprudence toward affirming the ability of nation states to use trade measures to protect the environment.¹³⁶ The Appellate Body eventually upheld a U.S. import ban to protect endangered sea turtles from shrimp fishing.¹³⁷ However, before doing so, the Appellate Body held that the ban was inconsistent with the chapeau to Article XX of GATT because the U.S. had discriminated between countries in implementing the ban.¹³⁸ The ultimate decision to uphold the import ban

133. For evidence of NOAA's commitments to strengthening the RFMOs, see NOAA FISHERIES, *supra* note 15. For evidence of Congress's commitment, see 16 U.S.C. § 1826i (2012) (directing "[t]he Secretary, in consultation with the Secretary of State" to "take actions to improve the effectiveness of international fishery management organizations").

134. For a recent decision upholding the latest version of the U.S. rules governing the use of dolphin-safe labelling, see Tuna-Dolphin Panels, *supra* note 57.

135. Robert Howse, *The World Trade Organization 20 Years on: Global Governance by Judiciary*, 27 EUR. J. INT'L L. 9 (2016).

136. *Id.* at 36–42; Shrimp-Turtle I, *supra* note 30; Appellate Body, *United States – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia*, WTO Doc. WT/DS58/AB/RW (Oct. 22, 2001) [hereinafter Shrimp-Turtle II].

137. Shrimp-Turtle II, *supra* note 136.

138. Shrimp-Turtle I, *supra* note 30, paras. 149–50, at 56–57.

in Shrimp-Turtle bodes well for the ability of the U.S. to impose import prohibitions to protect some or all high seas fisheries.¹³⁹

Nonetheless, Shrimp-Turtle and subsequent case law emphasizes that the U.S. would need to be careful in designing and implementing trade measures to avoid differentially treating fisheries in ways that could not be rationally justified given the objective of protecting high seas fisheries.¹⁴⁰ Howse explains that the Appellate Body strictly scrutinizes for discrimination impugned national regulations in determining whether they comply with the chapeau to Article XX, and the equivalent requirement for a “legitimate regulatory distinction” that the Appellate Body “has read into” Article 2.1 of the TBT.¹⁴¹ The Appellate Body has found national regulatory schemes to be discriminatory because they are under-inclusive given national objectives.¹⁴² For example, the U.S. regulates the use of the dolphin-safe label on tuna to protect dolphins from being killed or hurt by tuna fishers.¹⁴³ In Tuna Dolphin II, the Appellate Body found the U.S. regulatory regime of the dolphin-safe label violated Article 2.1 of the TBT Agreement because tuna caught in the Eastern Tropical Pacific Ocean using purse seine vessels had to meet stringent requirements to be labeled dolphin-safe, while tuna caught elsewhere using other fishing methods

139. Others have also concluded that a ban on the import of all or some high seas fish could be implemented consistent with WTO law. Green & Rudyk indicate that a “High Seas Ban Club” could be implemented in compliance with international trade law. Green & Rudyk, *supra* note 18, at 6 (“Any ban on imports is a *prima facie* violation of WTO rules on limits on quantitative restrictions, but could reasonably be allowed through the general exception ‘relating to the conservation of exhaustible natural resources’ in Article XX of the GATT. Such an exception would require demonstrating that the proposed fish trading club was not a disguised restriction on trade and a tailored response to the problem of IUU fishing on the high seas.”). In 2010, Taylor concluded that the U.S. could use the Pelly Amendment and the Magnuson-Stevens Act to implement WTO-compliant prohibitions on the importation of fish and other products from countries that allow their flagged-vessels to bottom trawl on the high seas. Taylor, *supra* note 25, at 168.

140. To be clear, there are a host of provisions in WTO law that the U.S. would need to be mindful of in designing and implementing an import ban on high seas fish. This Essay focuses on the risk of the ban being deemed discriminatory because of the prominence of concerns about discrimination in the Appellate Body case law in two disputes in which the U.S. was called upon to defend environmental measures, Tuna-Dolphin and Shrimp-Turtle.

141. Howse, *supra* note 135, at 46, *id.* at 51–53.

142. *Id.* at 52.

143. See, e.g., Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, paras. 20, 302, WTO Doc. WT/DS381/AB/R (May 16, 2012) [hereinafter Tuna-Dolphin II]. In the second compliance proceeding following Tuna-Dolphin II, the Panels recognized that while the U.S. dolphin-safe labelling is often described as having two objectives (protecting dolphins and avoiding consumers being deceived about whether the tuna they are buying was harvested in a way that harmed dolphins), the regime can be understood as having the single objective of protecting dolphins by disseminating information to consumers about the dolphin-friendliness of the method through which the tuna was caught. Tuna-Dolphin Panels, *supra* note 57, at para. 7.705.

generally did not.¹⁴⁴ The Appellate Body acknowledged that the risks to dolphins from tuna fishing might be greater in the Eastern Tropical Pacific Ocean than elsewhere. However, recognizing that other fishing methods used elsewhere also posed risks to dolphins, the Appellate Body insisted that additional requirements for the dolphin-safe label must be placed upon these other fisheries as well for the labeling requirements to be non-discriminatory and to be consistent with Article 2.1 of the TBT.¹⁴⁵ After this decision, the U.S. revised its dolphin-safe labeling regime in an effort to make it consistent with WTO law. Nonetheless, in the first compliance proceeding on whether the U.S. changes were sufficient, the Appellate Body held that the amended labeling regime violated Article 2.1 of the TBT and the chapeau of Article XX of GATT 1994 because it was under-inclusive. The Appellate Body identified scenarios where tuna caught outside the Eastern Tropical Pacific Ocean would qualify more easily for the dolphin-safe label, despite the fact that dolphins faced similar risks from tuna fishing inside and outside the Eastern Tropical Pacific Ocean large purse seine fishery.¹⁴⁶ The U.S. once again amended its labeling regime after this decision. In the fall of 2017, WTO panels held that the U.S. had finally succeeded in crafting a regime that is WTO compliant.¹⁴⁷ Mexico appealed to the Appellate Body, and as of this writing, its decision has not yet been released.¹⁴⁸

144. Tuna-Dolphin II, *supra* note 143, at paras. 297–98. There were some limits on the use of the dolphin-safe label for tuna caught outside the Eastern Tropical Pacific Ocean. To be labelled dolphin-safe, tuna caught outside the Eastern Tropical Pacific Ocean using purse seine vessels had “to provide a certification by the captain that no purse seine net was intentionally deployed on or used to encircle dolphins during the fishing trip.” *Id.* at para. 292. (In contrast, tuna caught in the Eastern Tropical Pacific Ocean using purse seine vessels had to get certifications from the captain and an independent observer “that no dolphins were killed or seriously injured during the sets in which the tuna were caught and that no purse seine net was intentionally deployed on or used to encircle dolphins during the same fishing trip.” *Id.* at para. 176 (excerpting Panel decision) (italics and underlining omitted)). Also, “tuna caught using driftnets on the high seas” could not be labelled dolphin-safe (whereas tuna caught within EEZs using driftnets could be labelled dolphin-safe). *Id.* at para. 270.

145. Tuna-Dolphin II, *supra* note 143, at para. 297–98. The Appellate Body did not insist that tuna caught outside the Eastern Tropical Pacific Ocean had to meet the same requirements as the tuna caught there to be labelled dolphin-safe. *Id.* at para. 296.

146. Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Recourse to Article 21.5 of the DSU by Mexico*, paras. 7.265–266, WTO Doc. WT.DS381/AB/RW (adopted Dec. 3, 2015) (the determination, tracking and verification requirements are under-inclusive, and so the differential regulatory treatment of different fisheries is not due to a legitimate regulatory distinction); *id.* at paras. 7.355–360 (same requirements mean that the U.S. “has not demonstrated” that there is no “arbitrary or unjustifiable discrimination within the meaning of the chapeau of Article XX”).

147. Tuna-Dolphin Panels, *supra* note 57, at paras. 7.717, 7.739.

148. Vicki Needham, *US Wins Trade Case Over ‘Dolphin Safe’ Tuna Labeling*, THE HILL (Oct. 26, 2017, 7:28 PM), <http://thehill.com/policy/finance/357437-us-wins-trade-case-over-dolphin-safe-tuna-labeling> [<https://perma.cc/29L4-L3U2>]; WORLD TRADE

The Tuna-Dolphin saga is worth keeping in mind when contemplating an outright—and especially for a partial—import ban to protect high seas fisheries. Politically, a partial import ban, such as an import ban on fish that are caught through bottom trawling on the high seas, might be an attractive option because it might be possible to construct a partial ban that does not burden American fishers. For example, an import ban on bottom-trawled high seas fish would not harm U.S. fishers because U.S.-flagged vessels do not bottom trawl on the high seas, although there is bottom trawling in the U.S. EEZ.¹⁴⁹ Part of the backdrop to Tuna-Dolphin II was that the U.S. dolphin-safe regulations did not really burden U.S.-flagged tuna vessels because few U.S.-flagged vessels were catching tuna in the Eastern Tropical Pacific Ocean using purse seine vessels by the mid-1990s.¹⁵⁰ The burden of the labeling requirements fell on Mexican tuna harvesters who were still catching tuna in the Eastern Tropical Pacific Ocean using purse seine vessels; thus, Mexico was the complainant in Tuna-Dolphin II.¹⁵¹ An import ban on bottom-trawled high seas fish might be challenged as under-inclusive, just as the labeling regulations were in Tuna-Dolphin II, because the U.S. allows bottom trawling in its own EEZ, although it has taken steps to curtail the practice.¹⁵² Such a ban might

ORG., UNITED STATES – MEASURES CONCERNING THE IMPORTATION, MARKETING AND SALE OF TUNA AND TUNA PRODUCTS (2018), https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds381_e.htm [<https://perma.cc/GZL9-WG3R>].

149. Taylor, *supra* note 25, at 164 (“American vessels do not engage in bottom trawling on high seas seamounts anywhere in the world.”). Not many vessels bottom trawl on the high seas, and the vessels that do are flagged to a small number of developed countries. According to a 2008 report by the Food and Agriculture Organization, “in 2006, approximately 285 vessels were involved in high seas bottom fisheries.” U.N. FOOD & AGRIC. ORG., DEEP-SEA FISHERIES IN THE HIGH SEAS 3 (2009), <http://www.fao.org/docrep/014/i1064e/i1064e00.pdf> [<https://perma.cc/S8W8-ZZ3B>] [hereinafter DEEP-SEA FISHERIES IN THE HIGH SEAS]. “The majority of vessels currently authorized to bottom fish on the high seas are flagged to a relatively small number of States, including several EU Member States (e.g., Spain and Portugal); New Zealand; Japan; Russian Federation; South Korea; Australia; and the Cook Islands.” GIANNI ET AL., *supra* note 34, at 6. *See also* GIANNI, *supra* note 25, at viii (“Fishing vessels flagged to only 11 countries – Spain, Russia, Portugal, Norway, Estonia, Denmark/Faros Islands, Japan, Lithuania, Iceland, New Zealand and Latvia, took approximately 95% of the reported high seas bottom trawl catch in 2001. . . . European Union countries (including Latvia, Lithuania, and Estonia but excluding the Faroe Islands) took approximately 60% of the high seas bottom trawl catch in 2001. Spain accounted for approximately two-thirds of the European Union catch and some 40% of the overall global high seas bottom trawl catch.”).

150. Parker, *supra* note 103, at 29, 38–39; Ramach, *supra* note 103, at 751. *See also* Tuna-Dolphin II, *supra* note 143, at paras. 206, 234. The U.S. had started regulating its own tuna fishing vessels to protect dolphins in the Eastern Tropical Pacific Ocean much earlier, in the 1970s. Parker, *supra* note 103, at 18–19.

151. Tuna-Dolphin II, *supra* note 143, at paras. 206, 234.

152. *See, e.g.*, DEEP SEA CONSERVATION COALITION, MOMENTUM IN SUPPORT OF A MORATORIUM ON HIGH SEAS BOTTOM TRAWLING CONTINUES TO GROW 1–2 (2006), http://www.savethehighseas.org/wp-content/uploads/2006/06/Political_Momentum_Adendum.pdf [<https://perma.cc/X32S-9KK9>]; THOMAS F. HOURIGAN ET AL., NAT’L OCEANIC & ATMOSPHERIC ADMIN., THE STATE OF DEEP-SEA CORAL AND SPONGE

be considered under-inclusive if the U.S. objective is defined as protecting marine biodiversity because eliminating bottom trawling on both the high seas and EEZs would more comprehensively protect marine biodiversity than a ban on bottom trawling on the high seas alone. On the one hand, the objective behind restricting the import of bottom-trawled high seas fish could be defined as protecting marine biodiversity on the high seas specifically.¹⁵³ The international community has sought to protect deep sea areas on the high seas, in particular, from bottom trawling since the early 2000s through a series of UN General Assembly resolutions because of the environmental characteristics and the limited governance of the deep sea within the high seas.¹⁵⁴ Thus, an import ban on bottom-trawled high seas fish might be defensible because of the biodiversity, the history of international efforts to protect that biodiversity, and the absence of bottom trawling by U.S.-flagged vessels.

ECOSYSTEMS OF THE UNITED STATES vi, 95 (2017), https://deepseacoraldata.noaa.gov/library/2015-state-of-dsc-report-folder/NOAA_State-of-DSC-Ecosystems_2017_OHC-TM04.pdf [<https://perma.cc/2NJS-J3BU>]. Some well-known examples of U.S. measures to protect deep sea ecosystems in its EEZ are President Obama's designation of the Northeast Canyons and Seamounts Marine National Monument in the Atlantic and in the Pacific, his expansion of the Papahānaumokuākea and Pacific Remote Islands Marine National Monuments. Interior Secretary Zinke has recommended allowing fishing within the Northeast Canyons and Seamounts, Pacific Remote Islands, and the Rose Atoll (also in the Pacific) marine monuments and changing the boundaries of the Pacific Remote Islands and Rose Atoll monuments. RYAN K. ZINKE, SEC'Y OF THE INTERIOR, U.S. DEP'T OF INTERIOR, FINAL REVIEW OF DESIGNATIONS UNDER THE ANTIQUITIES ACT, MEMORANDUM FOR THE PRESIDENT 15, 16–18 (2017), https://www.eenews.net/assets/2017/12/05/document_pm_01.pdf [<https://perma.cc/NR4W-2U6S>].

153. Under Appellate Body jurisprudence, adjudicators may reject a nation state's framing of its objective and reframe the objective of the nation state's regulation. *Tuna-Dolphin II*, *supra* note 143, at para. 303.

154. There are deep sea areas within EEZs and the high seas. *See DEEP-SEA FISHERIES IN THE HIGH SEAS*, *supra* note 149, at 2, <http://www.fao.org/docrep/014/i1064e/i1064e00.pdf> [<https://perma.cc/5285-R8SB>]; GIANNI, *supra* note 25, at 2. Deep sea areas are rich in biodiversity, and feature seamounts and corals. GIANNI ET AL., *supra* note 34, at 3 (“The report of the UNGA’s First Global Integrated Marine Assessment, published in 2015, states that the deep-sea constitutes the largest source of species and ecosystem diversity on Earth.”) (citing JEROEN INGELS ET AL., *FIRST GLOBAL INTEGRATED MARINE ASSESSMENT* Ch. 36F, 1 (2016)).

On the distinct governance challenges for protecting the deep sea on the high seas, *see DEEP-SEA FISHERIES IN THE HIGH SEAS*, *supra* note 149, at 7 (“Deep-sea fisheries in the high seas are not only unique because of the nature of the resources fishers exploit and the potential vulnerability of some of the ecosystems in which they occur. There are governance challenges specific to managing fisheries in areas beyond national jurisdiction.”); *see also* GIANNI ET AL., *supra* note 34, at 74 (detailing the history of UN General Assembly resolutions).

IV. WHY THE UNITED STATES MIGHT ACT UNILATERALLY TO END HIGH SEAS FISHING

A country that bans the import of high seas fish to protect these fisheries would be conferring a positive externality on other countries. Moreover, as discussed above, there is no guarantee that one country's actions to protect high seas fish would not be undermined by the actions of other countries' fishing vessels. The other countries' fishing vessels could harvest and sell the fish that the banning jurisdiction's vessels would otherwise have taken. So, is there any reason to think that the U.S. might take it upon itself to unilaterally ban the importation of fish caught on the high seas?

As the precedents outlined in Section II(B) suggest, the U.S. and the EU have already taken measures intended to protect high seas fish that impose costs, without any guarantee of a corresponding benefit to the U.S. and the EU. The high seas fisheries may not benefit either because other importing countries may continue to disregard RFMO and national regulations. Measures such as the SIMP, the Shrimp Turtle Law, and the dolphin-safe tuna labeling regime suggest that there might be some circumstances under which the U.S. might ban high seas fish imports in the future.

Three conditions are likely conducive to the U.S. taking unilateral action to protect high seas fisheries. The first condition is clear evidence of the harms of high seas fishing that resonates with the U.S. public and elected officials. The U.S. began regulating tuna fishing to protect dolphins starting in the 1970s, after evidence emerged in the late 1960s of tuna vessels harming dolphins in the Eastern Tropical Pacific Ocean.¹⁵⁵ Initially, the U.S. focused on regulating tuna fishing by U.S.-flagged vessels in the area; the U.S. fleet then re-flagged or migrated to fishing in the Western Pacific Ocean—where dolphins and tunas do not travel together and so tuna fishing is less likely to harm dolphins. In the late 1980s, the U.S. began focusing on regulating tuna fishing by foreign-flagged vessels harming dolphins.¹⁵⁶ Vivid images in the 1980s of tuna fishers harming dolphins provided an impetus for U.S. regulation of foreign tuna fishing in the Eastern Tropical Pacific Ocean.¹⁵⁷

No high seas fish is as charismatic as dolphins. However, the terrible working conditions of fishing crews on the high seas might generate

155. Parker, *supra* note 103, at 17; Ramach, *supra* note 103, at 747.

156. Parker, *supra* note 103, at 18–19, 29–30, 38.

157. *Id.* at 11–12 (describing video of “dolphins dying in fishing nets designed to catch the tuna that swam beneath” played before Senate Committee in 1988 in the lead up to “the 1988 Marine Mammal Protection Act”); Denis A. O’Connell, *Tuna, Dolphins, and Purse Seine Fishing in the Eastern Tropical Pacific: The Controversy Continues*, 23 UCLA J. ENVTL. L. & POL’Y 77, 78 (2005) (describing the video as “the catalyst for a shifting debate regarding dolphins and the [Eastern Tropical Pacific] purse seine tuna fishing industry”); Ramach, *supra* note 103, at 751–52 (1988 video).

public outrage. In 2015, the New York Times published a series of six articles on “lawlessness on the high seas.”¹⁵⁸ The series emphasizes that high seas fishing is not only environmentally destructive but also entails massive violations of human rights because fishing crews are sexually and physically abused, denied pay, and killed.¹⁵⁹ Recently, the Monterey Bay Aquarium introduced a “Seafood Slavery Risk Tool” “to help corporate seafood buyers assess the risk of forced labor, human trafficking and hazardous child labor in the seafood they purchase.”¹⁶⁰ These developments suggest that public concern with the use of slavery in fishing is building and that environmentalists may be able to ally with labor and human rights activists to campaign against high seas fishing. However, environmentalists work in different fora from labor and human rights activists and alliances might be hard to form.¹⁶¹

A second condition that might prompt the U.S. to take unilateral action is concerted pressure from the U.S. environmental community to protect high seas fish. Environmental and animal rights groups played a role in lobbying for legislative changes to bolster U.S. regulation of foreign tuna fleets to protect dolphins, organizing boycotts of tuna caught through setting on dolphins, and pushing and defending standards governing the use of dolphin-safe labels on canned tuna.¹⁶²

It appears that environmental groups that take an interest in high seas fishing are still focusing on protecting the high seas through RFMOs and the BBNJ process at the UN. If these groups grow sufficiently frustrated with the BBNJ process and the RFMOs, they may switch to favoring an outright ban on high seas fishing. The Pew-

158. See, e.g., Ian Urbina, *A Renegade Trawler, Hunted for 10,000 Miles by Vigilantes*, N.Y. TIMES (July 28, 2015), <http://www.nytimes.com/2015/07/28/world/a-renegade-trawler-hunted-for-10000-miles-by-vigilantes.html> [https://perma.cc/6TC4-J2L3].

159. See e.g., Ian Urbina, ‘Sea Slaves’: The Human Misery That Feeds Pets and Live-stock, N.Y. TIMES (July 27, 2015), <http://mobile.nytimes.com/2015/07/27/world/outlaw-ocean-thailand-fishing-sea-slaves-pets.html?referer=http://www.nytimes.com/interactive/2015/07/12/world/100000003785574.embedded.html> [https://perma.cc/MZ3M-LP M3]; Ian Urbina, *Tricked and Indebted on Land, Abused or Abandoned at Sea*, N.Y. TIMES (Nov. 9, 2015), <http://www.nytimes.com/2015/11/09/world/asia/philippines-fishing-ships-illegal-manning-agencies.html> [https://perma.cc/R6U8-HGAA].

Relatedly, the Associated Press won a Pulitzer Prize in 2016 for an investigation into the use of slavery in fisheries—mainly EEZ fisheries—in Southeast Asia. *An AP Investigation Helps Free Slaves in the 21st Century*, ASSOCIATED PRESS, <https://www.ap.org/explore/seafood-from-slaves/> [https://perma.cc/R7J2-EUUS].

160. Clare Leschin-Hoar, *Was Your Seafood Caught With Slave Labor? New Database Helps Retailers Combat Abuse*, NPR (Feb. 1, 2018, 6:01 AM), <https://www.npr.org/sections/thesalt/2018/02/01/582214032/was-your-seafood-caught-with-slave-labor-new-database-helps-retailers-combat-abu> [https://perma.cc/4QPC-X8BR].

161. Human rights violations in the high seas fishing industry are an economic as well as a human rights issue. Illegally low levels of compensation for workers reduces the cost of high seas fishing, helping to transform what might otherwise be an unprofitable activity into a profitable one. Sala et al., *supra* note 2, at 7–8.

162. Parker, *supra* note 103, at 32–33; O’Connell, *supra* note 157, at 85; Ramach, *supra* note 103, at 753, 765, 768.

funded Global Ocean Commission report from 2014 argued that if environmental conditions in the oceans continue to decline, then the high seas should be turned into a “regeneration zone”—a protected area, where fishing would be banned—until regulatory measures were introduced to protect them.¹⁶³ Pew has been a leading funder of work to protect the oceans; this recommendation could signal an openness to considering the more radical option of ending high seas fishing if existing multilateral and plurilateral processes fail.¹⁶⁴

Even if Pew and other environmental groups were to shift to supporting the end of fishing on the high seas, they still might favor plurilateral and multilateral approaches because of concerns that unilateral steps ultimately would not yield much environmental protection given the global phenomenon of high seas fishing. There is precedent for U.S. environmental groups favoring internationalism over unilateralism in the realm of fisheries. In the 1990s, the environmental community was split over whether U.S. law should continue to deny dolphin-safe label use to all tuna caught through setting on dolphins in the Eastern Tropical Pacific Ocean.¹⁶⁵ Groups such as Greenpeace, Environmental Defense Fund, World Wildlife Fund, and the National Wildlife Federation backed off from this position and supported the U.S. implementing an international agreement, negotiated with Mexico and other major harvesters of Eastern Tropical Pacific tuna, that would have capped dolphin mortality but not prohibited setting on dolphins.¹⁶⁶ These environmental groups apparently believed that unilateral U.S. action was inadequate and international action was necessary to address the harms to dolphins.¹⁶⁷ Other environmental groups, such as Earth Island Institute, and animal rights groups insisted on using a strict definition of dolphin-safe that would preclude the label

163. GLOBAL OCEAN COMM'N, *supra* note 3, at 74–76.

164. *Oceans*, PEW CHARITABLE TRUSTS, <http://www.pewtrusts.org/en/topics/oceans> (last visited Aug. 26, 2018) [<https://perma.cc/SH2T-LT6W>]. An organization like Greenpeace might be even more inclined to support ending high seas fishing than Pew. Katarina Zimmer, *How Seafood's "Dark Web" Obscures Fraud, Fish Laundering, and Slavery on the High Seas*, NEW FOOD ECONOMY (Aug. 15, 2017), <https://newfoodeconomy.org/seafood-dark-web-fish-fraud-transshipment/> [<https://perma.cc/5CRA-EHNU>].

165. Parker, *supra* note 103, at 43–46; O'Connell, *supra* note 157, at 88–89, 93; Ramach, *supra* note 103, at 758–59, 764, 768, 772–75, 784.

166. Parker, *supra* note 103, at 45, 53–54.

167. *Id.* at 45; Ramach, *supra* note 103, at 772–73, 775. There were concerns in the 1990s that the U.S.'s declining share of the market for tuna from the purse seine fishery in the Eastern Tropical Pacific Ocean would reduce the U.S.'s ability to influence the fishing behavior of tuna fishers in the area. In the 1980s, foreign tuna fleets had a major incentive to satisfy U.S. standards because the U.S. was “the largest canned tuna market.” However, by 1992, the U.S. “was only [10%]” of the market for tuna from the purse seine Eastern Tropical Pacific Ocean, and Europe had become the dominant market, with Latin America developing as a market. Ramach, *supra* note 103, at 750 n.51.

from being applied to tuna caught by setting on dolphins.¹⁶⁸ Going forward, environmental groups might support unilateral U.S. steps to safeguard the high seas if groups perceive these steps as progress towards the plurilateral or multilateral measures necessary to more fully protect the high seas. As mentioned, the tuna-dolphin saga supports the notion that unilateral U.S. trade measures can lead to international conservation efforts, as U.S. regulatory actions spurred the creation of other regimes for protecting dolphins.¹⁶⁹

A third condition conducive to unilateral action would be a lack of opposition to an import ban from the domestic fishing industry. Active support from the domestic fishing industry would be even more helpful politically.

There are some reasons for thinking that large portions of the U.S. fishing industry might not oppose a unilateral ban on high seas fishing by U.S.-flagged vessels and high seas fish imports. Few U.S. fishers would suffer if the U.S. banned vessels flying its flag from fishing on the high seas. “The U.S. EEZ is the largest in the world,”¹⁷⁰ and most of the U.S. catch is caught within the U.S. EEZ. Only 5.6% (by weight) or 6.5% (by value) of the U.S. landed catch is caught in the high seas.¹⁷¹ The U.S. has permitted only 467 vessels to fish on the high seas, and the number actually fishing on the high seas appears lower.¹⁷²

Moreover, a ban might benefit the U.S. fishers that largely harvest within the U.S. EEZ. Considering over 90% of the seafood consumed in the U.S. is imported,¹⁷³ a ban on high seas fish might increase the demand for some of the fish harvested by vessels fishing in the U.S. EEZ if consumers substitute domestic for imported fish. A ban also might be attractive to the U.S. industry as a way of leveling the playing field between the U.S. fishing industry and harvesters on the high seas. The U.S. fishing industry harvesting in the U.S. EEZ is currently

168. O’Connell, *supra* note 157, at 88–89; Parker, *supra* note 103, at 46, 55.

169. Parker, *supra* note 103, at 9. *See also* Ramach, *supra* note 103, at 756, 784 (U.S. regulation led to reductions in dolphin mortality in the purse seine tuna fishery in the Eastern Tropical Pacific Ocean although setting on dolphins still continued).

170. *The United States Is an Ocean Nation*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., http://www.gc.noaa.gov/documents/2011/012711_gcil_maritime_eez_map.pdf (last visited Sept. 15, 2018) [<https://perma.cc/58P8-HYSS>].

171. Percentages are my own calculations based on commercial landings data. DAVID VAN VOORHEES, NAT’L MARINE FISHERIES SERV., FISHERIES OF THE UNITED STATES 2015 14, 17 (Alan Lowther & Michael Liddel eds., 2016) [hereinafter NMFS] (Commercial Landings of Fish and Shellfish by U.S. Fishing Craft: By Species, by Distance Caught off U.S. Shores, and in International Waters, 2015) (572,819,000/10,265,735,000 lbs., and \$356,783,000/5,487,101,000).

172. Turner, *supra* note 50; Sala et al., *supra* note 2, at 2 fig.1 (reporting that less than 200 U.S.-flagged vessels fished on the high seas according to 2016 Global Fishing Watch data).

173. Final Regulatory Impact Review, *supra* note 45, at 4.

stringently regulated under the federal Magnuson–Stevens Act,¹⁷⁴ a ban on fish caught on the high seas would deny access to the U.S. market to fish historically caught under less stringent regulatory regimes.¹⁷⁵

Nonetheless, there is a politically powerful group of U.S. fishers that would suffer from a ban on U.S.-flagged vessels fishing on the high seas: tuna fishers. Tuna is by far the most important species that U.S.-flagged vessels catch on the high seas and land in the U.S. Tuna accounts for 98% (by weight) and 95% (by value) of the U.S. high seas catch;¹⁷⁶ most of the U.S. high seas tuna catch comes from the Pacific.¹⁷⁷ The U.S. should expect tuna fishers to oppose any effort to ban U.S. vessels from high seas fishing, and these fishers likely have the resources to mount an opposition campaign. Tuna fishing is highly profitable, even without subsidies.¹⁷⁸ Options might be devised for compensating U.S. tuna fishers for their losses, for example by redirecting them to harvest in the U.S. EEZ, or by buying out their permits to fish on the high seas. The U.S. has previously bought out fishing permit holders, including during the process of establishing protected areas. For example, the U.S. compensated the small number of commercial fishing permit holders displaced by the creation of the Papahānaumokuākea Marine National Monument in the EEZ off the coast of Hawaii.¹⁷⁹ While tuna fishers might not be satisfied with compensation offers, they have not always prevailed in the political arena.

174. Katrina M. Wyman, *The Recovery in U.S. Fisheries*, 31 J. LAND USE & ENVTL. L. 149, 162 (2016).

175. For arguments for imposing more regulations on foreign-caught fish under the SIMP to level the playing field for the domestic U.S. fishing industry, see NOAA Proposed Rule, *supra* note 46, at 6,216 (“The domestic fishing community also expressed the desire for importers to be held to the same documentation standards that apply to U.S. fisheries because they feel that they ‘already provide a staggering amount of information and demonstrate a high degree of traceability.’”); *see also id.* at 6,218; Final Regulatory Impact Review, *supra* note 45, at 2 (“IUU fishing in other parts of the world can cause problems in places where there are strong rules managing fisheries, such as the United States. . . . IUU fishers gain an unfair advantage in the marketplace over law-abiding fishing operations as they do not pay the true cost of sustainable production.”).

176. Percentages are my own calculations based on commercial landings data in NMFS, *supra* note 171, at 14, 17 (562,704,000/572,819,000 lbs. and \$338,784,000/356,783,000). Skipjack tuna is the main type of tuna caught by U.S. vessels on the high seas and landed in the U.S. *Id.* at 14.

177. Swartz et al., *supra* note 25, at 1,369.

178. Sala et al., *supra* note 2, at 3 (“We find that drifting longliners and purse seiners, targeting mainly large mobile, high-value fishes such as tuna and sharks, are the most profitable high-seas fisheries. . . . All other fisheries are either barely profitable or unprofitable.”). Sala et al. are not referring specifically to U.S. high seas tuna fisheries in the Pacific.

179. Fisheries in the Western Pacific; Compensation to Federal Commercial Bottomfish and Lobster Fishermen Due to Fishery Closures in the Papahānaumokuākea Marine National Monument, Northwestern Hawaiian Islands, Final Rule, 74 Fed. Reg. 47,119 (Sept. 15, 2009) (to be codified at 50 C.F.R. pt. 665). For analysis of other U.S. permit and vessel buyouts, see Daniel S. Holland, *Can Vessel Buybacks Pay Off*:

At the end of his presidency, President Obama expanded marine national monuments in the Pacific, despite opposition from tuna fishing interests.¹⁸⁰ Presumably more in line with the interests of the tuna fishing industry, the current Secretary of the Interior, Ryan Zinke, has recommended that commercial fishing be allowed within two Pacific marine national monuments.¹⁸¹

Because of the likely opposition from the U.S. tuna fishing fleet, a narrower, more targeted ban that does not implicate the U.S. tuna fishing fleet might be a more politically viable option in the U.S. An import ban on fish that are bottom trawled on the high seas, alongside a ban on U.S.-flagged fishing vessels bottom trawling on the high seas, might be an especially attractive option politically. U.S.-flagged vessels do not bottom trawl on the high seas; thus, a ban on high seas bottom trawling matched by an import ban on bottom-trawled high seas fish would not harm U.S. vessels.¹⁸² Environmentalists and others have been seeking a moratorium on high seas bottom trawling since the 2000s.¹⁸³ The UN General Assembly has passed resolutions to curtail bottom trawling on the high seas, but these resolutions have been imperfectly implemented. The U.S. might argue that the imperfect implementation, and the need to protect the high seas, justifies either an outright import ban on bottom-trawled high seas fish or a more

An Evaluation of an Industry Funded Fishing Vessel Buyback, 82 MARINE POL'Y 8 (2017).

180. See, e.g., Juliet Eilperin, *Obama Creates the Largest Protected Place on the Planet, in Hawaii*, WASH. POST (Aug. 26, 2016), https://www.washingtonpost.com/politics/obama-to-create-the-largest-protected-place-on-the-planet-off-hawaii/2016/08/25/54ecb632-6aec-11e6-99bf-f0cf3a6449a6_story.html?utm_term=.af5a42cc39da [<https://perma.cc/5ABH-7XRN>]; *Marine Reserve Expansion Shuts out Commercial Fisheries*, FISHERMAN'S NEWS (Oct. 1, 2016), <http://www.fishermensnews.com/story/2016/10/01/features/marine-reserve-expansion-shuts-out-commercial-fisheries/423.html> [<https://perma.cc/8YV8-5HZ9>]; Fili Sagapolutele, *American Samoa Cannery Wants Fishing Rights in Marine National Monument Restored*, PAC. ISLANDS REP. (July 12, 2017), <http://www.pireport.org/articles/2017/07/12/american-samoa-cannery-wants-fishing-rights-marine-monument-restored> [<https://perma.cc/5T8T-2ZC4>]; Craig Welch, *Fishery Managers Seek to Gut Pacific Marine Monuments*, NAT'L GEOGRAPHIC (Dec. 15, 2017), <https://news.nationalgeographic.com/2017/12/Pacific-marine-monuments-fishing-Trump-environment> [<https://perma.cc/CT3U-ZEP5>]; Ashley Nagaoka, *Commercial Fishermen Aim to Ease Fishing Restrictions at National Monument*, HAW. NEWS NOW (Mar. 22, 2017), <http://www.hawaiiinewsnow.com/story/34968917/commercial-fishing-industry-hopes-trump-administration-eases-restrictions-in-papahanaumokuakea> [<https://perma.cc/S9DF-BUQ4>].

181. ZINKE, *supra* note 152, at 15–18; Laura Parker, *See the Wild Places That May Lose Protections as National Monuments*, NAT'L GEOGRAPHIC (Sept. 18, 2017), <https://news.nationalgeographic.com/2017/09/national-monuments-shrink-trump/> [<https://perma.cc/GH87-YBVH>]. In addition to U.S. tuna fishers, U.S. importers of high seas fish would seem likely to oppose an import ban on fish caught on the high seas. Importers unsuccessfully sued to block the implementation of the Seafood Import Monitoring Program. *Alfa Int'l Seafood v. Ross*, 264 F. Supp. 3d 23 (D.D.C. 2017).

182. See, e.g., Taylor, *supra* note 25, at 132–33 (285 vessels engaged in “deep-sea bottom fishing” in 2006; the U.S. is not among the countries listed as flagging most of these vessels).

183. Taylor, *supra* note 25, at 133; GIANNI ET AL., *supra* note 34, at 73.

targeted import ban on high seas fish caught in specific areas that are not being protected in accordance with the UN General Assembly resolutions on bottom trawling.¹⁸⁴ While politically attractive because no U.S. fisher stands to lose, this option might carry some legal risk under WTO law because the U.S. allows bottom trawling within its own EEZ, although it has taken some efforts to regulate this activity. However, the U.S. could emphasize that its ban on bottom-trawled, or a subset of bottom-trawled, fish from the high seas is intended to protect biodiversity on the high seas. The U.S. could also highlight that unilateral action is necessary because of limited high seas governance and inadequate implementation of the General Assembly resolutions.

The question remains whether a combination of a solid brief for protecting the high seas, environmentalist advocacy for a ban, and silence or tacit support from the large portion of the U.S. fishing industry might be sufficient to induce the U.S. to be a first mover in ending high seas fishing. However, a confluence of factors could lead the U.S. to unilaterally ban the import of some, and maybe all, high seas fish.¹⁸⁵

V. CONCLUSION

The bold proposal to end fishing on the high seas is worth considering because of its potential for significant environmental benefit. While the proposal remains a fringe idea at the moment, supported perhaps only by a few conservationist-minded academics, it is possible to imagine ways that it might be implemented. This Essay has sought to emphasize the potential for unilateral steps to implement a ban by a leading seafood importer such as the U.S. Given the risk of leakage, a unilateral import ban is probably best regarded as a stepping stone toward plurilateral or multilateral action, but someone always needs to take the first step.

184. See, e.g., Taylor, *supra* note 25, at 143 (arguing that the U.S. should impose unilateral trade sanctions on countries that are not protecting deep sea areas on the high seas from bottom trawling). I thank Matt Gianni for the idea for the more targeted ban on a subset of bottom-trawled fish. GIANNI ET AL., *supra* note 34, at 3.

185. In contrast, it is harder to imagine a confluence of interests that would lead Japan or the EU to be the first to ban high seas fishing and imports of fish caught on the high seas. High seas fishing seems to be a more economically-important activity for both the Japanese fleet, and for some fishing industries in EU-member states, than for the U.S. fishing fleet. See Swartz et al., *supra* note 25, at 1,369; GIANNI ET AL., *supra* note 34, at 6.