SEABED TRAWLING ON THE HIGH SEAS: LEGISLATING ENVIRONMENTALLY DAMAGING FISHING TECHNIQUES BEYOND NATIONAL JURISDICTION

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A. INTRODUCTION

Climate change has become an increasingly important issue in the domestic politics of nearly every country in the world, and accordingly, some states have passed legislation with the goal of protecting the environment and slowing climate change. The Arctic and the High Seas present two legally distinct areas outside the jurisdiction of states, and which both are environmentally exploited for that very reason. Lawlessness on the High Seas has become pervasive in the fishing industry. Many NGOs can only attempt to document the rates of Illegal, Unreported and Unregistered (IUU) fishing that takes place.[2] There have been numerous accounts of forced labour,[3] of targeted fishing of endangered species,[4] and of extremely environmentally degrading fishing practices,[5] specifically that of seabed trawling. This paper will focus

[1] Graduate LLB student at the University of Edinburgh
[2] Corey Norton, Stephanie Bradley and Ben Freitas "Illegal Fishing" (World Wildlife Fund) <https://www.worldwildlife.org/threats/illegal-fishing>.
[3] Sallie Yea, Christina Stringer "Caught in a vicious cycle: Connecting forced labour and environmental exploitation through a case study of Asia–Pacific" (2021) 134 Marine Policy.
[4] Ibid.
[5] Ibid.

on resource exploitation via seabed trawling in the High Seas, “the common heritage of mankind”.[6]

This paper will present an analysis of the current organisations and legislation surrounding the fisheries on the high seas in addition to a comparative analysis of the moratorium on driftnet fishing and the fur seal treaty of 1911 in an attempt to answer a broader question: With increased awareness of climate change in comparison to 1982, how can the world legislate against high seas fishing techniques, such as seabed trawling, which contribute significantly to the climate crisis? First, seabed trawling will be explained and analysed as a key contributor to resource decline and climate change in international waters, and arguments will be presented for it to be either banned or seriously changed to become more environmentally friendly. Secondly, the key provisions of the United Nations Convention on the Law of the Sea (UNCLOS) which apply to fishing on the high seas and sustainable fishing practices will be analysed individually and in detail, especially in relation to how they could apply to the issue of seabed trawling. Thirdly, Regional Fisheries Management Organizations (RFMO), their authority, and their capacity to manage seabed trawling will be analysed. Fourthly, United Nations General Assembly (UNGA) though non-binding, will be analysed within the context of the driftnet moratorium and how a potential seabed trawling moratorium could be conducted. Fifthly, the success of the driftnet moratorium, though it is less environmentally damaging than seabed trawling will be analysed. This will be done in conjunction with the success of the North Pacific Fur Seal Treaty since both represent successful cessation and multilateral cooperation against environmentally damaging fishing techniques. Finally, the upcoming Beyond Borders of National Jurisdiction (BBNJ) treaty will be analysed as a future tool to aid in promoting environmentally friendly fishing practices.

B. SEABED TRAWLING

Seabed trawling is a very common, but practically unheard of, method of fishing. It involves a boat attaching a (up to 200m long) net at its rear, which then essentially “scoops” the ground of the ocean in an effort to catch bottom dwelling fish.[7] In temperate waters this can include fish such as cod, plaice, clams, cockles, scallops and cold-water shrimp; in tropical waters this can include warm-water shrimp and other bottom dwelling fish.[8] In contrast to regular trawling, in which the net flows in the water behind the boat, seabed trawling involves disturbing the entire seabed in search for target species.[9]

This causes a number of problems related to sustainability. Firstly, there is a large rate of by-catch with this method of fishing.[10] Since the nets indiscriminately drag across the bottom of the seabed many species which are not the target species end up being caught and die, and their carcasses end up not being used for any purpose.[11] This can include female species in the midst of breeding, or juvenile male species which would not normally be sanctioned for fishing.[12] By-catch is an issue which

[6] United Nations Convention on the Law of the Sea, 1994, Article 136.
[7] *Effects of Trawling and Dredging on Seafloor Habitat* (National Academies Press; 2002).
[8] Daniel Steadman. “Report Highlights Urgent Need to End Bottom Trawling” (Fauna and Flora International, December 2021) https://phys.org/news/2021-12-highlights-urgent-bottom-trawling.html.
[9] *Effects of Trawling and Dredging on Seafloor Habitat* (n 7).
[10] Steadman (n 8).
[11] Ibid.
[12] Ibid.

affects nearly all methods of fishing, and though it is a prominent problem in seabed trawling, it is not the primary reason I would set forth that there be a moratorium and international management of this method.

The second major problem associated with seabed trawling is the habitat devastation that it causes.[13] While it sifts through the upper layer of sand, it also rips away any coral, sponge, weeds, or other natural pre-existing seabed habitat.[14] This causes immeasurable damage for species regeneration and population stabilisation.[15] In Scottish waters, seabed trawling has been used to fish for scallops and the earliest estimates state that if seabed trawling stops, some areas would take six years to fully regrow.[16] This aspect of seabed trawling has been argued to be the sea's equivalent of deforestation.[17] Many studies say they have found “footprints” associated with seabed trawling which constitute an unnatural deviation from the norm.[18] Though there is little data reported on the problems associated with seabed trawling on the high seas, it likely occurs at high rates, given the rates of other Illegal, Unreported or Unregulated (IUU) fishing.[19] In the European Union's Exclusive Economic Zone (EEZ), nearly 50% of the seabed was found to have been trawled.[20]

The third and perhaps most consequential problem associated with seabed trawling is that dredging up the seabed results in a large amount of carbon being released into the atmosphere.[21] Some studies estimate seabed trawling accounts for 1% of all global carbon emissions, this presents a very serious problem, unique to the fishing methods.[22] The leading science states that there are ways to mitigate the effects of seabed trawling on carbon disruption since not all areas of the seabed contain the same amount of carbon, however, the study notes there is not enough legal control over the industry to effectively regulate the sustainable use of seabed trawls on the high seas.[23] The environmental impacts for seabed trawling are devastating and clear yet there is no decisive international effort to stop this ecologically devastating practice. This is in contrast to the driftnet moratorium passed in UNGA resolution 46/215, and enforced by the NPAFC to be discussed in chapter 6.

C. UNCLOS

Understanding which state has jurisdiction at which time is key to understanding how to legislate against emerging environmentally unsafe techniques. Primarily, UNCLOS outlines under which conditions on the sea a state has sovereign rights. In the territorial

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[13] *Effects of Trawling and Dredging on Seafloor Habitat* (n 7).
[14] Ibid.
[15] Jan Geert Hiddink “Is sustainable seabed trawling possible? A look at the evidence” (The Conversation, 2022) https://theconversation.com/is-sustainable-seabed-trawling-possible-a-look-at-the-evidence-177671.
[16] Ibid.
[17] Ibid.
[18] Ole Eigaard, Francois Bastardi, Niels Hintzen, Lene Buhl-Mortenson et al. “The footprint of bottom trawling in European waters: distribution, intensity and seabed integrity” (2016) 74(3) ICES Journal of Marine Science https://academic.oup.com/icesjms/article/74/3/847/2631171.
[19] Yea and Stringer (n 3).
[20] Eigaard and others (n 18).
[21] Kirsty Black, Craig Smeaton, William Turrell, and William Austin, “Assessing the potential vulnerability of sedimentary carbon stores to bottom trawling disturbance within UK EEZ” (2022) 9 Frontiers in Marine Science, https://www.frontiersin.org/articles/10.3389/fmars.2022.892892/full.
[22] Michael Le Page, “Seabed Trawling is a Major Source of Global CO2 Emissions” (2024) New Scientist International Edition, https://go-gale-com.eux.idm.oclc.org/ps/i.do?p=ITOF&u=ed_itw&id=GALE|A780848210&v=2.1&it=r.
[23] Black and others (n 21).

sea, the state has sovereignty, yet similarly in the EEZ, the state has sovereign rights but is not exclusively sovereign since other states enjoy certain freedoms within the EEZ.[24] Within both the territorial sea and the EEZ, the state to which the area is connected to is the one who decides matters of law for that area.[25] For this paper particularly that includes matters of conservation and fishing techniques.

Outside these areas is what is known as the "High Seas" which has been referred to as "the common heritage of mankind" under article 136 of UNCLOS.[26] On the High Seas, there is no one state which has jurisdiction over the laws and regulations surrounding conservation efforts. In this sense, the law is mainly found in UNCLOS, RFMOs, and treaties. However, upcoming legislation (predicted to enter into force in 2025, once it has obtained enough signatures) will provide more structure on environmental impacts of resource exploitation on the High Seas.[27]

(1) Article 92

On the High Seas, all ships are bound by the laws of their flag state.[28] This is to say the state whose flag they fly. This means each state is bound by the national conservation laws and initiatives of the flag state, and often this can result in many ships flying the flag of countries with less stringent requirements, known colloquially as "flags of convenience".[29]

It is estimated that nearly 15% of the world's fishing fleet is flying "flags of convenience" to be met with less stringent regulations.[30] There are no strict universal requirements found in UNCLOS regarding fishing conservation on the high seas, aside from the need to maintain catch limits on harvestable stocks. The legislation which exists can be found in Articles 116-120 and will each be discussed individually.

(2) Article 116

Article 116 primarily sets out the right for all nations to fish on the high seas and the international parameters on living resource extraction in the area outside national jurisdiction. Article 116 states that all states have the right to fish on the high seas, subject to treaty obligations, the provision of Section 2 UNCLOS, and Articles 63(2), 64 and 67 of UNCLOS.[31] Notably there is no section of the treaty which deals with environmental damages associated with specific fishing techniques, and there are only provisions for catch quotas. Some states are parties to RFMOs, and will therefore be

[24] United Nations Convention on the Law of the Sea, 1994, Article 3; United Nations Convention on the Law of the Sea, 1994, Article 55.
[25] Ibid, Article 92.
[26] Ibid, Article 136.
[27] "United Nations Convention on the Law of the Sea Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction" (Oceans and Law of the Sea, United Nations, 2024) https://static.un.org/Depts/los/bbnj.html.
[28] United Nations Convention on the Law of the Sea, 1994, Article 92.
[29] Emily Benson, Catherine Puga, "Flagging the Issues: Maritime Governance, Forced Labor and Illegal Fishing," (Center for Strategic and International Studies, August 2021) https://www.csis.org/analysis/flagging-issues-maritime-governance-forced-labor-and-illegal-fishing.
[30] Matt Gianni and Walt Simpson, "How flags of convenience provide cover for illegal, unreported and unregulated fishing." (World Wildlife Fund, Australian Government Department of Agriculture, Forestry and Fisheries and International Transport Workers Federation, October 2005) https://assets.wwf.org.uk/downloads/flagsofconvenience.pdf.
[31] United Nations Convention on the Law of the Sea, 1994, Article 116.

bound by the rules and requirements of RFMOs or other treaties governing high seas fishing including the Agreement on Port State Measures (PSMA). The requirements states have to follow for fishing on the high seas under section 2 UNCLOS will be further analysed in sections 3.3-3.6. Article 116 also states that states must be in compliance with Articles 63(2), 64, and 67; each article will be analysed in turn.

(a) *Article 63(2)*

Article 63(2) requires that "where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area."[32] This provision provides further legitimacy to the RFMOs, and works in tandem with Article 118 UNCLOS which states that states must cooperate on matters of conservation.[33] Article 63(2) specifically provides that states have agency over conservation measures of stocks which are both in the EEZ and the High Seas, this could mean that states could create legislation against seabed trawling in specific areas of the High Seas for the purpose that it removes the habitats of designated harvestable species within the EEZ.[34] This provides a very narrow and limited basis for a state to propose such measures in the name of conservation and since it has yet to be invoked in the many years that seabed trawling has been used on the high seas, Article 63(2) will likely not be invoked on such measures in the future. This is especially unlikely since many states, especially coastal EU states and the UK, use seabed trawling within their EEZ's.[35]

(b) *Article 64*

Article 64 states that all states who fish for highly migratory species will cooperate with international institutions (typically RFMOs though this is not explicitly stated in the treaty), to "[ensure] conservation and [promote] the objective of optimum utilization of such species throughout the region, both within and beyond the [EEZ]."[36] Article 64 provides a legal basis for states to cooperate on conservation matters on the High Seas, similarly to Article 118.[37] However, Article 64 only requires this cooperation in regards to migratory species listed in Annex 1.[38] This is a short list and contains only seventeen species, eight of which are species of tuna, thereby limiting the basis for states to take action.[39] Article 64 further requires states to create international cooperation organisations for fisheries management of the listed migratory species if there is not one existing already.[40] This, again, similarly to Article 63(2) does not provide for an opportunity for fishing techniques or practices to be assessed according to their environmental impact but rather their impact only on the flow of migratory species which provide economic benefits to states. This article therefore does not aid in the overall protection of all species on the high seas.

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[32] United Nations Convention on the Law of the Sea, 1994, Article 63(2).
[33] United Nations Convention on the Law of the Sea, 1994, Article 118.
[34] United Nations Convention on the Law of the Sea, 1994, Article 63(2).
[35] Black and others (n 21).
[36] United Nations Convention on the Law of the Sea, 1994, Article 64.
[37] United Nations Convention on the Law of the Sea, 1994, Article 64; United Nations Convention on the Law of the Sea, 1994, Article 118.
[38] United Nations Convention on the Law of the Sea, 1994, Article 64.
[39] United Nations Convention on the Law of the Sea, 1994, Annex 1.
[40] United Nations Convention on the Law of the Sea, 1994, Article 64.

(c) *Article 67*

Article 67 is dedicated to the protection of catadromous species.[41] Catadromous species are a species of fish which begin their life cycle in freshwater usually within national borders, and then migrate to saltwater as they mature. Article 67(1) states that the coastal state in which catadromous species spend the majority of their life cycle has responsibility for the management of the species.[42] Furthermore, article 67(2) states that catadromous species shall only be harvested "in waters landward of the outer limits of exclusive economic zones".[43] This is to say that catadromous species may only be harvested within the EEZs of the particular country where the freshwater that the catadromous species begins its life cycle is.[44] Under article 67(2) catadromous species should not be harvested from the High Seas.[45] Again, though this relates to fisheries management, it only relates so far as to conclude where potential catches may be harvested. This does not provide a space for review of pre-existing or new fishing methods in relation to their environmental impact on catadromous or other types of species.

(d) *Conclusions of Article 116*

Articles 64 and 63(2) discuss effective fisheries management in the form of catch quotas, in relation to specific species whereas article 67 discusses where catadromous species may be caught.[46] These provisions, though relevant to High Seas fisheries management, do not adequately provide the legislative ability for states to adapt to the climate crisis' new and ever-changing problems. Moreover, they do not provide a universal overview of sustainable fishing techniques in relation to migratory species and instead rely on RFMOs to create regulations surrounding sustainable fishing techniques.[47] This has resulted in diverse standards across the High Seas. Though some may argue that these diverse practices reflect the diversity of the states who are party to the RFMOs, and the regions which they serve, in actuality, they are oftentimes unable to properly present and enforce minimum standards of sustainability efforts which should be equally present (with some deviations depending on the ecological makeup of the region) across the High Seas. This can be directly attributed to the lack of a clear minimum standard set out by UNCLOS. A116 also states that states are bound by the other provisions in section 2: Articles 117 through to 120.[48]

(3) Article 117

Article 117 requires through multilateral cooperation and domestic law that states take measures to ensure conservation efforts from their nationals.[49] This provision is targeted to "living resources of the high seas", and the use of the word "resource" implies that efforts should be targeted towards fish who would act as living resources,

[41] United Nations Convention on the Law of the Sea, 1994, Article 67.
[42] United Nations Convention on the Law of the Sea, 1994, Article 67(1).
[43] Ibid.
[44] Ibid.
[45] United Nations Convention on the Law of the Sea, 1994, Article 67(2).
[46] United Nations Convention on the Law of the Sea, 1994, Article 63(2); United Nations Convention on the Law of the Sea, 1994, Article 64; United Nations Convention on the Law of the Sea, 1994, Article 67.
[47] United Nations Convention on the Law of the Sea, 1994, Article 116.
[48] Ibid.
[49] United Nations Convention on the Law of the Sea, 1994, Article 117.

fish who can be harvested.[50] If the intention was for this provision to provide recourse for all flag states to act in accordance with conservation efforts, drafters would have used the phrasing “marine environment” as was used in article 145.[51] Nevertheless, article 117 places on the flag state a responsibility, via multilateral cooperation and domestic law, to comply with conservation efforts, specifically against IUU fishing.[52] Therefore though states always have legitimacy to take action against seabed trawling occurring on flag ships in accordance with their sovereignty and lawmaking processes, they would only be mandated to under article 117 when a harvestable fish stock is threatened by that practice in particular.[53] Similarly RFMOs have the capacity under article 117 to ensure states party to the RFMO take action but only when a harvestable fish stock is threatened.[54]

(4) Article 118

Article 118 requires cooperation amongst states on areas of conservation and management of living resources on the High Seas, yet, its focus is also on conservation of marine resources that can be harvested.[55] Article 118 also gives authority to RFMOs on matters of conservancy and could theoretically result in a ban on seabed trawling, however, it would only occur if a harvestable fish stock was suffering.[56] This provision requires states cooperate but only under the situation when fishing stocks on the high seas are threatened, not for the overall protection of the marine environment which would, in turn, ensure the health of all fish stocks.[57] Therefore Article 118 provides limited grounds for RFMOs to create substantial regulations for the health of the overall ecosystem in relation to damaging fishing techniques.

(5) Article 119

Article 119(1) relates to sustainable catch limits of fish on the high seas and sets out the recording requirements of fisheries.[58] 119(1)(a) states that states are required to use science to keep fish at their “maximum sustainable yield”, taking into account “relevant environmental and economic factors”.[59] This is another instance of UNCLOS legislation targeting only the direct sustainability of harvestable fish. 119(1)(b) uses soft law to bring the first mention of ecological dependencies of the marine environment in this section.[60] 119(1)(b) states that states will “take into consideration” environmental risks associated with dependent or associated species of the target species in determining the allowable catch of the target fish.[61] Unfortunately, the language of this legislation suggests a soft law approach in that states must “take into

[50] Ibid.
[51] United Nations Convention on the Law of the Sea, 1994, Article 145.
[52] United Nations Convention on the Law of the Sea, 1994, Article 117.
[53] Ibid.
[54] Ibid.
[55] United Nations Convention on the Law of the Sea, 1994, Article 118.
[56] Ibid.
[57] Stephen Palumbi, Paul Sandifer, David Allan, Michael Beck, et al. “Managing for ocean biodiversity to sustain marine ecosystem services” 2009 7(4) Frontiers in Ecology and the Environment.
[58] United Nations Convention on the Law of the Sea, 1994, Article 119(1).
[59] United Nations Convention on the Law of the Sea, 1994, Article 119(1)(a).
[60] United Nations Convention on the Law of the Sea, 1994, Article 119(1)(b).
[61] Ibid.

consideration" associated or dependent species, rather than making their success in conjunction with the target species a mandated requirement.[62] With present science, it is clear that the health of an ecosystem overall requires all species within it, from plankton to whales, to be at healthy levels, and this must be prioritised rather than "[taken] into consideration".[63] 119(2) provides further legitimacy towards RFMOs and states that scientific data regarding catch allowances must be shared through the relevant RFMO.[64] Though this is an important step in ensuring sustainable harvest of target fish, it does not provide any mechanisms for addressing what may be causing a decline in the fish population aside from overfishing. If a fish population is struggling due to a lack of habitats caused by seabed trawling, or rising sea temperatures, contributed to by carbon emissions from seabed trawling, then there is no mechanism in this article to address the root of the issue aside from managing allowable catch and responding to unreported fishing. 119(3) finally states that there will be no discrimination against fishermen of any state based on measures to ensure allowable catch limits.[65]

(6) Article 120

The last provision in the series governing fishing on the high seas states that article 65 also applies to the conservation of marine mammals in the high seas.[66] Article 65 provides states and RFMOs the option to legislate more strictly than what UNCLOS set out as the minimum in EEZs.[67] Furthermore, article 120 requires states to cooperate through RFMOs to conserve, manage and study marine mammals.[68] This is the first direct mention of non-target species conservation in high-seas fishing governed under UNCLOS. Mammals were particularly affected by bycatch in driftnet fishing and therefore, though this article was not cited when the UNGA resolution was pursued, it provides additional legal basis and legitimacy to state action during that time period.

(7) Article 145

Article 145 does not directly address fishing on the high seas, but provides measures for protection of the marine environment generally on the high seas from "activities in the Area".[69] Article 145(a) gives the International Seabed Authority (ISA) the authority to adopt measures for "the prevention, reduction and control of pollution and other hazards to the marine environment… [and] interference with the ecological balance of the marine environment".[70] Perhaps a flaw in the drafting of this article is that it next specifies areas requiring "particular attention" including "protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities".[71] This way this legislation is worded indicates there are

[62] Ibid.
[63] Palumbi and others (n 57).
[64] United Nations Convention on the Law of the Sea, 1994, Article 119(2).
[65] United Nations Convention on the Law of the Sea, 1994, Article 119(3).
[66] United Nations Convention on the Law of the Sea, 1994, Article 120.
[67] United Nations Convention on the Law of the Sea, 1994, Article 65.
[68] United Nations Convention on the Law of the Sea, 1994, Article 120.
[69] United Nations Convention on the Law of the Sea, 1994, Article 145.
[70] United Nations Convention on the Law of the Sea, 1994, Article 145(a).
[71] Ibid.

areas which require more attention on matters of conservation relating to those surrounding deep-sea mining. Since 1994 when UNCLOS entered into force, the ISA has consistently produced legislation, creating regional management plans, protected areas where no mining can occur, and has required environmental impact assessments on nearly all proposed mining sites.[72] Even on its own website the ISA discusses article 145 as the article which gives it the mandate to legislate on seabed mining, when, in actuality it provides the ISA the ability to legislate on nearly all matters of conservation, with only a focus on issues of deep-sea mining.[73] However, since the ISA has only taken its mandate to be related to deep-sea mining, it is unlikely they will pursue a wider scope of legislative power. The ISA could require Environmental Impact Assessments (EIA) on a number of different fishing techniques, as they do with mining, but their focus has been solely applied to mining and until or unless that changes they will not be able to effectively manage the pollution caused by seabed trawling.[74] Furthermore, 145(b) specifically notes that the ISA will have authority to adopt appropriate rules to assist in the "prevention of damage to the flora and fauna of the marine environment".[75] Damage to flora and fauna is a key feature and problem of seabed trawling which would therefore put itself within the ISA's mandate. However, as mentioned above, the ISA is unlikely to legislate on such issues since such a focus is placed on issues related to deep-sea mining and no direct fishing measures have been taken to date.

(8) UNCLOS Conclusions

Based on the above articles, UNCLOS has taken a lax approach to protection of the overall marine ecology and places the majority of the legislative focus on issues surrounding harvestable fish rather than protection of the overall environment. The most important legal mechanism, article 145, in relation to climate governance on the high seas, has been interpreted to have less authority than that which the treaty prescribed it with.[76] This presents a problematic situation as there is currently no mechanism within the treaty which can appropriately respond to the complex effects of climate change that have significantly evolved since the treaty was signed in 1994. Moreover, since so many conservation initiatives and catch allowances have been devolved to RFMOs, there is no ability, within the treaty, unless an amendment was made, to stop new environmentally degrading fishing techniques such as seabed trawling.

D. RFMOs

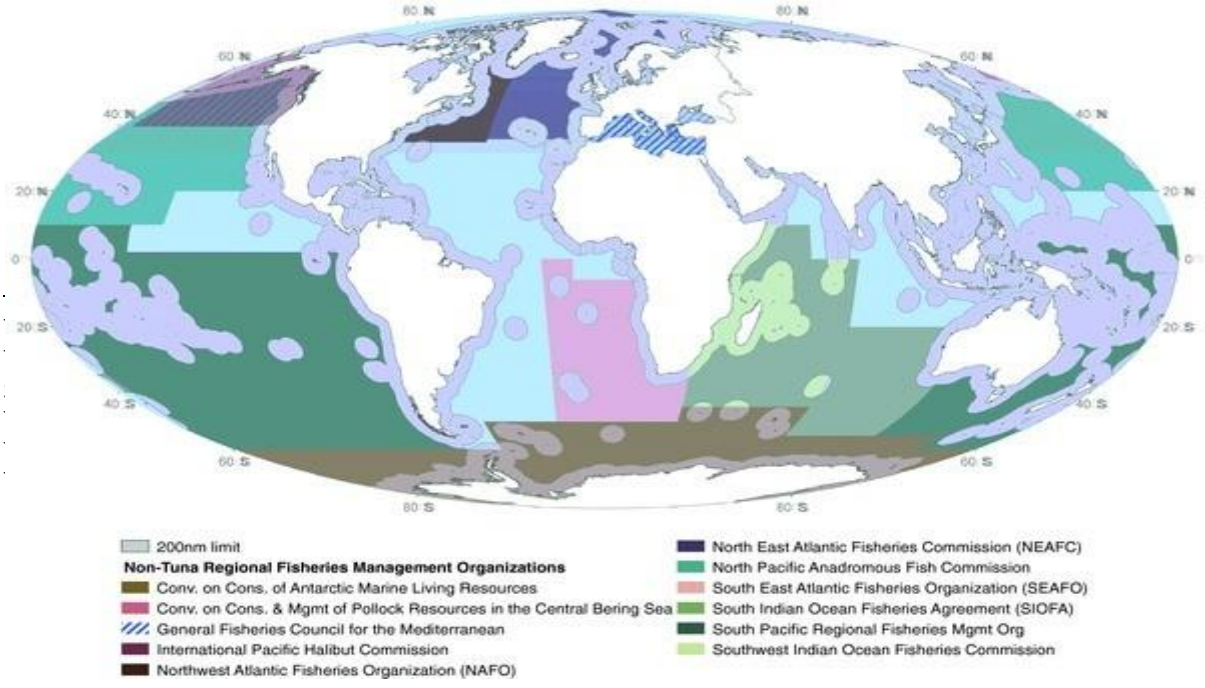

Figure 4.1
N.B. This map is from 2013 and not exhaustive, however it should provide the reader with further context surrounding the boundaries of RFMOs.[77]

(1) RFMO Introduction

RFMOs are an extremely important mechanism in fisheries law on the high seas. UNCLOS has delegated a measure of authority to RFMOs as vehicles of collaboration and sharing between states, particularly in relation to harvestable fish.[78] There are currently twenty-two RFMOs acting across the high seas.[79] Some have specific mandate to a particular type of fish such as the NPAFC (North Pacific Anadromous Fishing Commission) and others work towards the management of the fishing region as a whole such as NAFO (the Northwest Atlantic Fisheries Organization).[80] States can choose to be party to RFMOs, which would give them a stake in the decision making of the organisation.[81] This is particularly relevant for coastal states and states which often fish in the region. For example, Canada, Russia, Japan and the USA are all signatories of NPAFC due to the importance of salmon fishing in their economies.[82] However, if a state does not sign or ratify the agreement, they are not legally bound to cooperate with the RFMO and the organisation and member states can take diplomatic or economic action to encourage compliance.[83] These actions can include a ban on fish imported to RFMO member states from non-compliant sources, international arbitration, or negotiations among other things.[84]

There are a number of regions which are not currently covered by RFMOs. Despite the UNCLOS requirement that states work together to create and maintain RFMOs for conservation, there are a number of regions where no RFMOs are present and fishermen are bound by the diverse laws of the flag state and the laws of UNCLOS only.[85] Though these are usually areas where fishing is not as present, it still occurs, and therefore leaves a space open for environmentally degrading measures to occur since there is no universal instrument to oversee fishing practices. This also likely opens up the regions to higher rates of IUU since there is no organised body to

[77] Natalie Ban, Nicholas Bax, Kristina Gjerde, Patrick Halpin, "Systematic Conservation Planning: A Better Recipe for Managing the High Seas for Biodiversity Conservation and Sustainable Use" (2013) 7(1) Conservation Letters.
[78] United Nations Convention on the Law of the Sea, 1994, Article 117; United Nations Convention on the Law of the Sea, 1994, Article 118.
[79] Terje Lobach, Matilda Petersson, Eliana Haberkon and Piero Manini, "Regional fisheries management organizations and advisory bodies Activities and developments, 2000–2017." (2020) 651 FAO Fisheries and Aquaculture Technical Paper.
[80] Ibid.
[81] Eric Molenaar "Participation, Allocation, and Unregulated Fishing: The Practice of Regional Fisheries Management Organizations," (2003) 18(4) International Journal of Marine and Coastal Law.
[82] Rosemary Rayfuse, *Non-Flag State Enforcement in High Seas Fisheries,* (Leiden 2004).
[83] Ibid.
[84] Ibid.
[85] United Nations Convention on the Law of the Sea, 1994, Article 118.

manage catch ratios and legal techniques.[86]

The current system of RFMOs presents a glaring hole in marine protection globally. There are regions in which no protection from RFMOs occurs, within RFMO regions some states refuse to abide by conservation measures and there is no effective international body tackling the large amount of IUU fishing on the high seas, harmful fishing by non-compliant states. The ISA has not fully fulfilled its mandate in protecting the high seas from environmentally damaging activities and therefore there is no efficient mechanism to enforce state cooperation unless states pressure other states to comply, or a case is brought through the ICJ or ITLOS. However, if a case is brought before the ICJ or ITLOS it does not necessarily indicate states will stop the illegal actions since states are the sovereign actors in international law.

(2) RFMO Action on Seabed Trawling

A few RFMOs have taken action already in response to environmental and economic concerns (loss of harvestable fish habitats) caused by seabed trawling. The Northwest Atlantic Fisheries Organization (NAFO) is responsible for the areas past the EEZ of Eastern Canada and Greenland and is represented by the black shading in Figure 4.1.[87] NAFO, in response to seabed trawling, has created zones in which no seabed trawling can occur in order to protect the ecosystems existing there.[88] Similarly, the Northeast Atlantic Fisheries Commision (NEAFC) (dark blue on Figure 4.1) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (brown on Figure 4.1) have also passed regulations creating protected areas where seabed trawling is prohibited.[89] The South Pacific Regional Fisheries Management Organization (SPRFMO) (dark green on Figure 4.1) and the Southeast Atlantic Fisheries Organization (SEAFO) (pink on the map) have also created protected areas within their jurisdictions but have taken the prerogative further to also include the requirement that states participating in bottom trawling use specific types of gear to minimise damage to the seabed.[90]

Though these are important steps forward, the diversity in legislation presents a problem since, as article 136 states, the high seas are the heritage of mankind, and yet that heritage is receiving different levels of protection across the world, with no minimum requirement.[91] Even within those regions where seabed trawling has been taken seriously, some RFMOs have created protected areas where others have mandated a change in the equipment used to minimise environmental damage.[92] If the effort is to preserve the common heritage of mankind and protect economic resources for future generations it seems most logical that all states should use the gear which preserves the overall marine environment and therefore the economic interests of the world economy. Furthermore, even where there are protected areas,

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[86] Yea and Stringer (n 3).
[87] Ban and others (n 77).
[88] Vulnerable Marine Ecosystems" (NAFO, 2024) https://www.nafo.int/Fisheries/VME.
[89] Map of NEAFC Regulatory Area Showing Existing Fishing Areas and All Closures" (NEAFC, 2011) https://www.neafc.org/page/closures; "CCAMLR Conservation Measures," (CCAMLR, 2017) https://cm.ccamlr.org/en/measure-22-06-2019.
[90] "Bottom Fishing Science," (SPRFMO, 2024) https://sprfmo.int/science/bottom-fishing/; "VME Protection" (SEAFO, 2024) http://www.seafo.org/Management/VME-Protection
[91] United Nations Convention on the Law of the Sea, 1994, Article 136.
[92] "Map of NEAFC Regulatory Area Showing Existing Fishing Areas and All Closures" (NEAFC, 2011) https://www.neafc.org/page/closures; "Bottom Fishing Science," (SPRFMO, 2024) https://sprfmo.int/science/bottom-fishing/.

states which are not party to the RFMOs can still seabed trawl. The only consequence appears to be diplomatic.[93] Practically, states are much more concerned with matters of economic security than that of climate change, even though the two are inextricably linked, and therefore states are not very likely to take significant diplomatic action to prevent non-compliant states from fishing in protected areas.

Perhaps the most stringent deterrent is the ban of fish not fished legally to be imported into RFMO member states.[94] Problematically though, there are not many states party to RFMOs, on average there are 16.6 states per RFMO and many states are party to multiple RFMOs.[95] This means that of the 193 states which are UN members, only 8% are, on average, represented in RFMOs, though all have the right to fish on the high seas.[96] This means 92% of states, on average, are not bound to RFMO regulations. The importance of RFMOs cannot be understated, they are working in areas where there would be no significant fishing legislation otherwise, however, in order to preserve the high seas for all future generations, and to preserve fisheries and the fishing economy, significant changes must be made in the law of the sea. Especially since IUU fishing is so rampant on the high seas.[97]

(3) IUU Fishing, PSMA and UNFSA

IUU fishing is largely governed by UNCLOS, and the Agreement on Port State Measures (PSMA) under the Food and Agriculture Organization (FAO) of the UN. Though seabed trawling is legal on the high seas, it may be considered IUU if the catch is above the limit and/or endangered species were caught. There are currently 78 parties to the PSMA, which are required to implement measures to prevent and deter IUU fishing, such as vessel inspections and information exchange.[98] The PSMA does not directly enforce the driftnet moratorium, however it does help to deter illegal fishing methods which driftnet fishing has now been designated as.[99] If seabed trawling were to receive the same treatment perhaps the PSMA could aid in its enforcement on a universal scale. Under UNCLOS and RFMOs, regulated fishing consists of being registered with a flag state, and adhering to their requirements on gear and catch limits, participating in conservation efforts under A118 UNCLOS, and cooperating with monitoring and surveillance efforts.[100] Problematically, there is currently no requirement to assess the environmental impacts of different types of fishing before doing so. So long as a vessel is in compliance with its flag state and the relevant RFMO (if you are a party to it), the state may choose to use whatever fishing method it prefers (except driftnet fishing or other illegal techniques).

The United Nations Fish Stocks Agreement (UNFSA) is another agreement

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[93] Rayfuse (n 82).
[94] CCAMLR Conservation Measures," (CCAMLR, 2017) https://cm.ccamlr.org/en/measure-22-06-2019; "Vulnerable Marine Ecosystems" (NAFO, 2024) https://www.nafo.int/Fisheries/VME.
[95] These statistics were compiled by adding all the member states listed as parties on each website of the RFMOs. Once all the member states were added, the total was then divided to obtain the average.
[96] United Nations Convention on the Law of the Sea, 1994, Article 116.
[97] Yea and Stringer (n 3).
[98] Agreement on Port State Measures" (Food and Agriculture Organization of the United Nations, 2024) https://www.fao.org/port-state-measures/background/history/en/.
[99] Ibid.
[100] United Nations Convention on the Law of the Sea, 1994, Article 118; "VME Protection" (SEAFO, 2024) http://www.seafo.org/Management/VME-Protection.

which further promotes the need for RFMOs where they do not already exist.[101] It further pushes for sustainable fishing methods with limited ecological damage to be used, however this agreement entered into force in 2001, and nearly 25 years later there are still areas of the High Seas ungoverned by RFMOs.[102]

(4) RFMO Conclusions

RFMOs, though an important actor in regulating the high seas, do not provide adequate coverage to ensure equal protection for marine life. There are some areas where RFMOs do not exist, and some areas where measures against seabed trawling include protected areas and equipment requirements to minimise damage.[103] Most importantly, RFMOs place an overly heavy focus on harvestable stocks rather than the marine environment as a whole when the protection of the latter would result in the sustainability of the former.[104] Moreover, the authority of RFMOs is case dependent and requires diplomatic pressure to enforce sustainability efforts which would disincentive countries to subject themselves to the limits of RFMOs if they are able to catch more and increase their economic power outside the RFMO jurisdiction. Therefore, significant adaptation to UNCLOS and the legal mechanisms providing RFMOs with more authority should be made to provide adequate environmental protections across the high seas while maintaining sustainable catch rates.

E. UNGA RESOLUTIONS

Another mechanism which could be triggered to change the law across the whole of the High Seas instead of amending UNCLOS could be passing a resolution through the United Nations General Assembly (UNGA). This would require a state or group of states to draft the resolution including an outline of the issue and recommendations to address the issue.[105] The proposed resolution must then be submitted to the President General of the Assembly, and then referred to the appropriate committee.[106] The driftnet fishing moratorium, (to be discussed in further detail in chapter 6), but which would be materially similar to a moratorium on seabed trawling, was sent to be heard by both the second committee which handles economic matters, and the sixth committee which handles legal issues.[107] If the committee is satisfied with the proposal it will be forwarded to the general assembly for further consideration, and then, a vote.[108] Typically, for a resolution to pass, it must obtain a majority of the member states present votes, this is what occurred in the driftnet moratorium and is likely what would happen if a resolution on seabed trawling was presented.[109] If the resolution achieves a majority vote, it will be passed.[110] However, as with all UNGA resolutions, they will never be legally binding and states have no legal obligation to follow the terms of the resolution.[111]

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[101] United Nations Fish Stocks Agreement, 1995, Part 1 Article 7(b).
[102] Ban and others (n 77).
[103] Ibid.
[104] Palumbi and others (n 57).
[105] United Nations Charter, 1945, Article 10.
[106] United Nations Charter, 1945, Article 22.
[107] Grant Hewison, "The Legally Binding Nature of the Moratorium on Driftnet Fishing," 1994 25(4) Journal of Maritime Law and Commerce.
[108] United Nations Charter, 1945, Article 18(3).
[109] Ibid.
[110] Ibid.
[111] D Johnson, "The Effects of Resolutions on the General Assembly of the United Nations," (1995) 32

UNGA resolutions, though not legally binding, can carry significant political weight.[112] In the case of the driftnet moratorium, the UNGA resolution was pushed by two United Nations Security Council members, the United States and Russia, in conjunction with two other politically powerful countries in the region; Canada and Japan.[113] The proposal was also backed by a number of countries in the South Pacific sea including New Zealand and Australia.[114] During this time period driftnet fishing and its rates of bycatch were presumed to be the cause for a number of harvestable fish species dwindling in numbers which is what prompted many Pacific coastal states to act.[115] The combined political pressure and urgency of all these nations in protecting their harvestable stocks is what resulted in the success of the driftnet moratorium across both the High Seas and EEZs.[116] To create a universal ban on seabed trawling on the high seas, states must push for an amendment to UNCLOS, a new treaty to govern environmentally damaging techniques on the high seas, or they must treat seabed trawling with the severity it deserves and work towards a moratorium as was done with driftnet fishing when harvestable stocks were threatened.

F. THE DRIFTNET MORATORIUM

(1) Introduction

The NPAFC is a RFMO designed to ensure the protection of anadromous fish across the Pacific, specifically salmon.[117] It was this RFMO which spearheaded the implementation of the Driftnet Moratorium across the high seas. In the 1990s, many nations began to notice a significant depletion in fish stocks, specifically those of salmon and migratory fish.[118] Salmon fisheries are an important part of the economies of pacific coastal communities in Japan, Russia, Canada and the United States, so as their supplies began to dwindle, states became motivated to act.[119] Driftnets were presumed to be the cause of this diminished supply.[120] Driftnets are a type of fishing which involves buoys to hold nets which are set vertically just underneath the surface of the water.[121] This fishing is designed to have fish get caught via their fins or gills in the material of the net.[122] Driftnet fishing does not cause the same carbon or habitat destruction as seabed trawling, however it was presumed to have a high bycatch rate.[123] Driftnet fishing was primarily used on the high seas by Japanese fishermen which saw a boom in the early 1990s, they were used to hunt for squid, however this would often result in the capture of other species and seabirds, but particularly

Brit YB Int'l L 97.
[112] Rayfuse (n 82).
[113] Ibid.
[114] Andrew Richards, “Problems of Drift-net Fisheries in the South Pacific.” 1994, 29(1) Marine Pollution Bulletin.
[115] Ibid.
[116] William Burke, Mark Freeberg, Edward Miles. “United Nations Resolutions on Driftnet Fishing: An Unsustainable Precedent for High Seas and Coastal Fisheries Management.” 1994 25(2) Ocean Development and International Law.
[117] Yvonne Dereynier “Evolving Principles of International Fisheries Law and the North Pacific Anadromous Fishing Commission” 1998 29(2) Ocean Development and International Law.
[118] Burke, Freeberg and Miles (n 116).
[119] Ibid.
[120] Ibid.
[121] Ibid.
[122] Ibid.
[123] Ibid.

salmon.[124] In 1989 political pressure began to ramp up for an international moratorium of driftnet fishing, with the North Pacific Driftnet Conference between Pacific coastal Canadian provinces and American states on the grounds that it was harming the environment and damaging the salmon stocks.[125] This idea was, however, flawed.[126] Many scientists have subsequently stated that the high seas bycatch rates of squid fisheries were the lowest despite the equipment used, and that this was a case where politics and public fear trumped science.[127] The international pressure and fear of the decline of salmon stocks became so strong that Japan even subjected itself to the Japanese Soviet Fishing Convention (JFSC) which essentially stated that Japan was subject to soviet jurisdiction for the amount of salmon it was allowed to catch on the high seas.[128]

The United States (and Russia) too, faced internal pressure, so much so that it used its strong political position as a member of the security council to push for a driftnet moratorium.[129] Canada, and Japan also pushed for this, along with many South Pacific nations who were dealing with similar issues in their seas.[130] This was eventually supported and passed in the UNGA resolution 46/215 which created a driftnet moratorium.[131] The moratorium made large-scale driftnet fishing illegal in both international waters and countries' EEZs.[132] UNGA resolutions are non-binding on the member states of the UN, and there is no positive obligation on any member state to abide by the resolutions, however, after the resolution was passed, the United States, Canada, Japan and Russia created the NPAFC, whose goal was to conserve migratory fisheries between the four countries, particularly that of salmon in the North Pacific.[133] In doing so, they created Operation DRIFTNET which is still active to this day.[134] This resolution was taken so seriously that NPAFC ships would engage military technology to find ships participating in illegal driftnet fishing on the high seas and take disciplinary measures.[135] This could result in a seizure of the catch, fines or penalties (on ship owners, operators or flag state vessels), denial of entry into NPAFC ports, or diplomatic pressures on the flag state.[136] IUU fishing still remains rampant on the high seas, and driftnet fishing is still used, although is much less common due to Operation DRIFTNET.[137] Yet after this moratorium and the clear internal political pressure, a UNGA resolution was passed and treated as law.[138] The driftnet moratorium and military action by Canada and the United States is still active to this day and represents a success in collective environmental protection on the High Seas, even if it was not completely in accordance with science.[139]

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[124] Ibid.
[125] Ibid.
[126] Ibid.
[127] Ibid.
[128] Dereynier (n 117).
[129] Ibid.
[130] Richards (n 114).
[131] Resolution 46/215, 1991.
[132] Ibid.
[133] Dereynier (n 117).
[134] "Operation DRIFTNET." (The Government of Canada, April 2018) https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-driftnet.html.
[135] Ibid.
[136] Rayfuse (n 82).
[137] "Operation DRIFTNET." (n 134).
[138] Rayfuse (n 82).
[139] Burke, Freeberg and Miles (n 116).

(2) Driftnet Fishing and Seabed Trawling Comparison

As mentioned in chapter two, there are three main environmental problems associated with seabed trawling: bycatch rates, underwater habitat destruction, and significant carbon emissions.[140] Driftnet fishing is much less environmentally destructive than seabed trawling, with there being only one main environmental problem associated with it: bycatch rates.[141] In fact, many scientists have since stated that there is no need for there to have been a moratorium since the bycatch rates for driftnet fishing were some of the lowest reported out of all fishing types, and in fact the fishing technique could have remained and been even more sustainable had a few measures been taken.[142] For example, only using seabed trawling in areas with less carbon stores, creating areas protected from seabed trawling where carbon emissions are high.[143] As Burke, Freeberg and Miles puts it, this is a situation where politics trumped science.[144] Since the political pressure from Northern Pacific coastal communities and economies became so adamant on a ban on driftnet fishing, due to salmon bycatch, states were domestically motivated to act.[145]

(3) The North Pacific Fur Seal Treaty

Another important case in international law relating to non-sovereign areas and resource protection and management dates back to 1911 with the signing of the North Pacific Fur Seal Convention of 1911.[146] This case did not concern a specific type of fishing technique like the driftnets, or seabed trawling, however it does present an example of multilateral cooperation in an effort to conserve and protect natural resources.[147] Similarly to salmon, the fur seals were important pillars of pacific communities economies, especially as they boomed in fashion and they became ever more rare.[148] The seals were hunted to near extinction by a number of different groups, until it became clear that the only viable course of action to preserve the resource would be to restrict the hunting of seals to a level that would be sustainable.[149] This included targeting only “extra” males, and not hunting females.[150] This treaty had a resounding success and resulted in the number of fur seals returning to pre-overhunting levels.[151]

(4) Concluding Remarks on the Case Study

It can be noted that in both these cases of successful living resource management, the target species; salmon and fur seals, were both migratory beyond the economic

[140] Geert Hiddink (n 15); Steadman (n 8); *Effects of Trawling and Dredging on Seafloor Habitat* (n 7).
[141] Burke, Freeberg and Miles (n 116).
[142] Ibid.
[143] Black and others (n 21).
[144] Burke, Freeberg and Miles (n 116).
[145] Dereynier (n 117).
[146] Scott Barrett, *Environment and Statecraft: the Strategy of Environmental Treaty Making* (Oxford Scholarship Online 2005).
[147] Ibid.
[148] Ibid.
[149] Ibid.
[150] Ibid.
[151] Ibid.

and natural borders prescribed to states and thereby had a transnational effect on all pacific coastal economies. This presented an urgency for action to protect all who had a stake in the success of the industry, and thereby invited cooperation from all states to ensure economic stability, and in the case of the NPAFC, calming of the political landscape.[152] With both the fur seal industry and the use of driftnet fishing, the methods of fishing were detrimental to specific species, but certainly are not as impactful on a global scale as seabed trawling. It becomes clear that the states in this case have responded to, and created international law when their direct short-term economic needs were affected.

Seabed trawling persists on the high seas since it does not affect harvestable migratory species who support many economies, and instead affects sedentary species. The underwater "deforestation" and carbon release does not present a short-term economic need and therefore there is no significant international pressure nor legislation on the high seas to prevent and protect marine life from fishing methods which are completely unsustainable as they are currently being conducted.

G. THE BBNJ

(1) BBNJ Introduction

As mentioned, there is currently no blanket ban nor mitigation efforts on fishing techniques which are scientifically proven to be environmentally degrading. The ISA currently has the authority, however the relevant UNCLOS provision has been interpreted to allow legislation only on underwater mining related issues.[153] The ISA has been working to create the new BBNJ treaty which is predicted to provide increased protections to marine animals on the high seas, and is predicted to come into force in 2025.[154] In 2023 the BBNJ treaty was created.[155] While its primary goal was to decide resource distribution across the high seas, from those more affected by climate change to those causing it, it also contributed a number of important clauses to environmentally damaging practices taking place across the high seas. Though this treaty was drafted by the ISA, whose focus is on environmental protection from deep sea mining, the new legislation states that EIAs must occur for all activities on the high seas which may affect the environment negatively.[156] The process of the EIA under the new system is outlined in article 31(1) and most importantly, it states in 31(1)(d)(i) that if there are adverse environmental effects the party is not mandated to not go forward with the action.[157] The party is required to analyse and mitigate measures,

[152] Burke, Freeberg and Miles (n 116).
[153] "Our Work" (n 72).
[154] "United Nations Convention on the Law of the Sea Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction" (Oceans and Law of the Sea, United Nations, 2024) https://static.un.org/Depts/los/bbnj.html.
[155] Ibid.
[156] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 31.
[157] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 31(1)(d)(i).

however there is no obligation to stop the unsustainable act.[158] Most important, is that article 31(1)(e) mandates that states must share the EIA with the public along with all states and stakeholders in the EIA process.[159] This is a huge development and, as was demonstrated in the driftnet moratorium and fur seal treaty, public pressure is very important in state cooperation on legislating the high seas. Climate change is becoming a much more prominent issue in domestic politics around the globe and by increasing public knowledge of environmentally damaging processes, it will likely spark further calls to action. Moreover, it will create transparency between states, and could result in diplomatic pressure.

(2) The BBNJ and RFMOs

The BBNJ also addresses the legal status of RFMOs and attempts to address the issue of state non-compliance.[160] In article 22(2) it states that all states party to the BBNJ "shall respect the competences of, and not undermine," relevant bodies such as RFMOs, in respect to the provisions under article 22.[161] Article 22(1) requires states, in conjunction with article 22, respect all marine protected areas, presumably from all RFMOs, and decisions adopted by RFMOs.[162] Though there will still be states who are outliers to the agreement, this would make all states party to the BBNJ respect the competencies of relevant RFMOs across the high seas.[163]

The BBNJ advocates for area-based management, however the universal EIAs are very important in providing a minimum standard across the high seas. Though a negative result will not stop the activity from occurring, as mentioned above, it can provide more awareness of the activity in the first place.[164] Article 28(1) mandates that an EIA must occur before the activity is authorised to occur, thereby creating a new minimum requirement, unseen thus far in international law, of awareness of environmentally degrading practices.[165] Seabed trawling as it is commonly done, would most certainly present as causing major harm to the environment and this would require states to consider mitigation efforts, when perhaps mitigation efforts had not been considered before.[166] If the seabed trawling goes ahead, the public would learn about it and it could cause outrage and domestic pressure. Seabed trawling can

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[158] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 31(1)(d).

[159] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 31(1)(e).

[160] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 22(2).

[161] Ibid.

[162] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 22(1).

[163] Ibid.

[164] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 31(1)(d)(i).

[165] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 28(1).

[166] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 29(4)(b)(ii).

become more sustainable, as was done in the SEAFO and SPRFMO with the mandated equipment change, or by only trawling in areas where the carbon percentage under the seabed is low, it's just a matter of encouraging states to do so.[167] Contemporarily, seabed trawling is a little known issue on the climate crisis in comparison to the discourse surrounding plastic waste in the ocean and therefore the EIAs will provide the public with knowledge and access to how different practices affect the biodiversity and health of the High Seas, and therefore a motivation to pressure local governments to act in a way consistent with the science.[168]

Similarly, with the driftnet moratorium, there was scientifically not a need to outright ban the practice, since the bycatch rates were relatively low.[169] Likely if the controversy over driftnets had occurred while the BBNJ was signed, states would have implemented mitigating measures, as is the first step of an EIA, rather than completely ban the practice if its effects are not comparatively harmful to warrant a ban under A34(2) BBNJ.[170]

The BBNJ, while a very revolutionary treaty, is yet to enter into force. It is awaiting 60 states to become parties to the agreement at which point it will enter into force.[171] Its effects are difficult to fully determine until relevant case law is heard, EIAs are conducted, and the effects of the BBNJ on RFMOs authority can be fully determined.

H. CONCLUSION

This paper set out to understand how the High Seas could be legislated to prevent environmentally damaging fishing techniques such as seabed trawling. It reviewed relevant UNCLOS articles, the legal authority of RMFOs, the implementation of a UNGA resolution similar to Resolution 46/215 except with respect to seabed trawling. It provided analysis and comparison of the successes of the North Pacific Fur Seal Treaty of 1911 and more in depth, the driftnet moratorium, to gain understanding of which factors aided in the success of the law in those instances. Finally, this paper set out to understand how the upcoming BBNJ treaty will affect governance of environmentally damaging fishing techniques on the High Seas.

At this stage of High Seas conservation governance, there is only one way for a blanket ban or conservation efforts to occur for Seabed Trawling, and that is to follow the same path as the Driftnet Moratorium; to receive a ban from the UNGA, and to have that ban upheld through RFMOs, pressured domestically. Of course, states may, have banned seabed trawling in their own EEZ's and from their own flag ships on the high seas, but so long as there is not a complete universal ban, states wishing to continue the practice may, and fisherman wishing to continue the practice may take

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[167] Black and others (n 21).
[168] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 31(1)(e).
[169] Burke, Freeberg and Miles (n 116).
[170] 2023 Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 2023, Article 34(2).
[171] "United Nations Convention on the Law of the Sea Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction" (Oceans and Law of the Sea, United Nations, 2024) https://static.un.org/Depts/los/bbnj.html.

up flags of convenience. The other way states can be proactive is to add a clause into UNCLOS under A313, specifically targeting seabed trawling, or, targeting more stringent environmental protections for the high sea.[172] Though states may be more unwilling to do so, since the BBNJ has been signed.

Seabed trawling continues to be one of the most damaging fishing techniques on the High Seas due to its release of carbon and significant disruption and destruction of underwater ecosystems, and is therefore a significant contributor to climate change as a whole and unsustainable fishing techniques. Given the science on the issue, action should be taken, and if/until the BBNJ comes into force, the onus falls on individual people to create a discourse and pressure government action to be taken against seabed trawling both domestically and on the high seas.

[172] United Nations Convention on the Law of the Sea, 1994, Article 313.