Chapter 5
Status and Reform of International Arctic Fisheries Law

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Abstract Marine capture fisheries are among the maritime uses that are expected to expand and intensify in the marine Arctic. Fishing could intensify in existing fishing areas and expand into areas where marine capture fisheries have never taken place. This chapter assesses the adequacy of the current international legal and policy framework for Arctic fisheries conservation and management in light of the current and expected impacts of global climate change on the marine Arctic. It provides an overview of the international legal and policy framework as well as national regulation and policy, identifies the main gaps therein, and suggests options for addressing them. These options include increased efforts in the sphere of research and data gathering, national regulation aimed at avoiding unregulated fishing, fisheries arrangements between Arctic Ocean coastal states, and a new regional fisheries management organization (RFMO) or Arrangement for part of the (Central) Arctic Ocean. Separate attention is devoted to the potential for cooperation between the European Union and the United States in this regard.

Writing this chapter was facilitated by funding from the Netherlands Polar Programme. The author is grateful for comments by Ted McDorman and others on an earlier version of the chapter. This chapter builds on Molenaar EJ, Corell R (2009) Background Paper. Arctic Fisheries. Arctic TRANSFORM.

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E. Tedsen et al. (eds.), *Arctic Marine Governance*,
DOI: 10.1007/978-3-642-38595-7_5, © Springer-Verlag Berlin Heidelberg 2014

5.1 Introduction

Marine capture fisheries are among the maritime uses that are expected to expand and intensify in the marine Arctic. Fishing could intensify in existing fishing areas and expand into areas where marine capture fisheries have never taken place so far. This chapter assesses the adequacy of the current international legal framework for Arctic fisheries conservation and management in light of the current and expected impacts of global climate change on the marine Arctic. After providing some context and background information on Arctic fish stocks, fisheries, and climate change in Sect. 5.2, an overview of the international legal and policy framework for Arctic fisheries management is presented in Sect. 5.3. Section 5.4 then devotes attention to national regulation and policy. Gaps in the international legal and policy framework and national regulation and options for addressing them are covered succinctly in Sect. 5.5 and the potential for EU–US cooperation is examined in Sect. 5.6. Some conclusions are offered in Sect. 5.7.

This chapter relates to marine capture fisheries that target 'fishery resources', which are defined as fish, molluscs, crustaceans, and (other) sedentary species. Inland fisheries, aquaculture, and harvesting of marine mammals are thus excluded. For the purposes of this chapter, the term regional fisheries management organization (RFMO) includes a so-called 'Arrangement', which is understood to be a bilateral or (sub-)regional cooperative mechanism other than an intergovernmental organization, but otherwise has in principle the same characteristics as an RFMO.[1] Due to its predominantly sectoral perspective, the international component of this chapter will be restricted to instruments and bodies that relate to, or pursue, conservation as well as management of fishery resources. No attention will therefore be paid to those that focus exclusively on conservation of species and habitats by various means, including by the regulation of international trade.

As explained in Chap. 1, there are no generally accepted geographical definitions for the terms 'Arctic' and 'Arctic Ocean' and for the purposes of this book, the term 'Arctic' has an identical meaning as the term 'AMAP area' adopted by the Arctic Monitoring and Assessment Programme (AMAP) of the Arctic Council (AMAP 1997). The waters within the AMAP area are in this chapter referred to as the 'marine Arctic'. The 'Arctic Ocean' is defined here as the marine waters north of the Bering Strait, Greenland, Svalbard, and Franz Josef Land, excluding the Barents Sea. Canada, Denmark/Greenland, Norway, the Russian Federation, and the United States (US) are 'Arctic Ocean coastal states'. These five states and Finland, Iceland, and Sweden are 'Arctic states' by virtue of their membership of the Arctic Council. There are four high seas pockets in the marine Arctic, namely

[1] The term 'Arrangement' is derived from the term 'arrangement' as defined in Article 1(1)(d) of the Fish Stocks Agreement (1995). The main differences between an RFMO's constitutive instrument and an Arrangement are that the latter (a) does not establish an international organization, (b) does not have to be legally binding, and (c) can be bilateral.

the so-called 'Banana Hole' in the Norwegian Sea, the so-called 'Loophole' in the Barents Sea, the so-called 'Donut Hole' in the central Bering Sea, and the so-called 'Central Arctic Ocean'.

5.2 Arctic Fish Stocks, Fisheries, and Climate Change

There are a number of potentially significant commercial fish stocks in the marine Arctic. The ranges of distribution of some of these are confined to the North Pacific or the North Atlantic, while others have a circumpolar distribution. Important North Pacific fish stocks include Alaska pollock (*Theragra chalcogramma*), Pacific cod (*Gadus macrocephalus*), snow crab (*Chionoecetes opilio*), and various Pacific salmon species (*Oncorhynchus* sp.). As regards the North Atlantic, important fish stocks include North-East Arctic cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*), Norwegian spring-spawning (Atlanto-scandian (AS)) herring (*Clupea harengus*), Atlantic salmon (*Salmo salar*), and red king crab (*Paralithodes camtschaticus*). Significant circumpolar fish stocks include capelin (*Mallotus villosus*), Greenland halibut (*Reinhardtius hippoglossoides*), and northern shrimp (*Pandalus borealis*). Polar cod (*Boreogadus saida*) and Arctic char (*Salvelinus alpinus*) also have circumpolar distribution, but the former is only marginally targeted by commercial fisheries and the latter is predominantly fished for subsistence purposes (ACIA 2005; AOR 2011; Anchorage Science Meeting Report 2011; Zeller et al. 2011).[2]

While Arctic marine ecosystems have always been highly dynamic and variable (AOR 2011), both qualitatively and quantitatively, the impacts of climate change on the marine Arctic—e.g., increasing water temperature, reduced sea ice coverage and thickness, reduced salinity, and increasing acidification (Anchorage Science Meeting Report 2011)—are likely to make these changes more rapid, more profound, and probably also more difficult to predict. Some existing fish stocks may collapse and never recover, others may become more dominant, and new fish species may successfully invade the marine Arctic. The various assessments and projects currently undertaken within the Arctic Council, such as the Arctic Biodiversity Assessment, the Arctic Change Assessment, and the Arctic Resilience Report, are expected to shed more light on this.

While there are large-scale commercial fisheries in the more southerly waters of the marine Arctic—namely the Bering Sea, Barents Sea, Baffin Bay, and along the coast of east and west Greenland—in the Arctic Ocean there are currently mainly small-scale subsistence fisheries and no significant commercial fisheries, and in the Central Arctic Ocean no fisheries at all. It seems more likely that new fishing opportunities will occur within coastal state maritime zones before occurring on the high seas. According to some commentators, in the short term, it is

[2] See also information at <arcticportal.org/fishing-portlet>.

unlikely that abundance of fish stocks in the high seas portion of the Arctic Ocean will allow for commercially viable fisheries (Hoel 2011). Others disagree while pointing to Polar cod, which has a circumpolar distribution, both inshore and offshore, and may be highly abundant in view of the pivotal role it plays at the bottom of Arctic marine ecosystems.[3] Finally, as reduced ice coverage and thickness will also enable other human activities—most importantly shipping and offshore hydrocarbon activities—these activities may compete with fishing in a spatial sense or affect them by pollution—including noise—and other impacts.

The impact of current and future Arctic fisheries on the marine environment and marine biodiversity in the Arctic is not likely to be fundamentally different from fisheries impacts to the marine environment and biodiversity in other parts of the globe. Arctic fisheries could lead to over-exploitation of target species and a variety of impacts on non-target species, for instance on dependent species due to predator–prey relationships, on associated species due to bycatch, and on benthic species and habitats due to bottom fishing techniques. In view of the broad spatial scope of the marine Arctic, such undesirable effects are without doubt already occurring, even though not necessarily on a very serious scale.

5.3 International Legal and Policy Framework for Arctic Fisheries Management

5.3.1 Interests, Rights, Obligations, and Jurisdiction

The international legal and policy framework for fisheries conservation and management seeks to safeguard the different interests of the international community with those of states that have rights, obligations, or jurisdiction in their capacities as flag, coastal, port, or market states or with respect to their natural and legal persons. While the term ‘flag state’ is commonly defined as the state in which a vessel is registered and/or whose flag it flies (LOS Convention 1982, art. 91(1)), there are no generally accepted definitions for the terms ‘coastal state’, ‘port state’, or ‘market state’. For the purposes of this chapter, however, the term ‘coastal state’ refers to the rights, obligations, and jurisdiction of a state within its own maritime zones over foreign vessels.

The term ‘port state’ refers to the rights, obligations, and jurisdiction of a state over foreign vessels that are voluntarily in one of its ports. In order to avoid an overlap with jurisdiction by coastal states, this chapter regards port state jurisdiction as relating to fishing by foreign vessels beyond the coastal state’s maritime zones as well as over violations of conditions for entry into port (Molenaar 2007).

While there is no universally accepted definition for the term ‘market state’, this chapter uses a definition that was proposed during the negotiation of the SPRFMO

[3] For additional information see <www.arcodiv.org>.

Convention (2009), but did not make it to the final text. That definition reads "a State […] which imports, exports, re-exports or has a domestic market for fish or fish products derived from fishing in the Convention Area" (SPRFMO 2008, art. 1(m)).

Both flag and coastal states have, in principle, an interest in the long-term exercise of their entitlements over marine living resources in the various maritime zones. However, as coastal states have exclusive access to marine living resources within areas under their national jurisdiction, their commitment to that objective may often be stronger than that of flag states. A port state will commonly pursue socio-economic interests related to the port and its *hinterland*. States generally have interests, rights, obligations, and jurisdiction in more than one capacity. This commonly leads to a more balanced compromise position, but occasionally also to contradictory positions of the same state within different fora. There is no reason or indication to assume that Arctic states are different in this regard.

The interests of the international community—e.g., sustainable utilization, protection, and preservation of the marine environment and conservation of marine biodiversity—normally overlap with those of states within the various capacities in which they can act, but are usually broader and more general. The interests of some states, however, clearly undermine those of other states and the international community, for instance, by not ensuring that their ships comply with international minimum standards or by allowing foreign vessels in their ports to be non-compliant with international minimum standards. These states, vessels, and ports thereby have a competitive advantage over states, vessels, and ports that *do* comply with international minimum standards. Such 'free riders' clearly benefit from the consensual nature of international law—meaning that a state can only be bound to a rule of international law when it has in one way or another consented to that rule.

5.3.2 Substantive Fisheries Standards

Fisheries conservation and management authorities often make use of the following substantive fisheries standards:

1. Restrictions on catch and effort, for instance, by setting the total allowable catch (TAC) and allocating the TAC by means of national quotas;
2. Designated species for which targeted fishing is prohibited;
3. Minimum size limits for target species;
4. Maximum bycatch limits, for instance, in terms of the number of individuals (e.g., in relation to marine turtles and marine mammals) or as a percentage of the target catch;
5. Gear specifications, for instance, minimum mesh sizes, bycatch mitigation techniques (e.g., turtle excluder devices, bird-scaring lines); and
6. Temporal/seasonal or spatial measures (e.g., closed areas) aimed at avoiding catch of target species (e.g., nursing and spawning areas) or non-target species (e.g., important feedings areas) or avoiding impact on sensitive habitat (e.g., cold water coral reefs).

5.3.3 Global Bodies and Instruments

All the relevant global intergovernmental bodies and instruments discussed in this subsection also apply to the marine Arctic, however defined. The main intergovernmental bodies of relevance to this chapter are the United Nations General Assembly (UNGA) and the United Nations Food and Agriculture Organization (FAO). While the mandate of these bodies would not preclude them from dealing specifically with Arctic fisheries as such, most of the Arctic Ocean coastal states would oppose this (Molenaar 2012a).

The following are the main global legally binding and non-legally binding fisheries instruments:

1. LOS Convention (1982);
2. Fish Stocks Agreement (1995);
3. Compliance Agreement (1993);
4. Port State Measures Agreement (2009);
5. Other FAO fisheries instruments, most importantly, the FAO Code of Conduct for Responsible Fisheries (FAO 1995)—including its Technical Guidelines and international plans of action [IPOAs; e.g., the IPOA-IUU (FAO 2001)], the International Guidelines on Deep-sea Fisheries in the High Seas (FAO 2008), and the International Guidelines on Bycatch Management and Reduction of Discards (FAO 2010); and
6. Certain (parts of) UNGA Resolutions, which have contributed to the phase-out of large-scale pelagic driftnet fishing and imposed innovative restrictions on bottom-fisheries on the high seas.[4] Both initiatives were predominantly aimed at the conservation of non-target species and vulnerable marine ecosystems.

The provisions on marine capture fisheries in the LOS Convention and the Fish Stocks Agreement have a so-called 'framework' character. They contain overall objectives and basic rights and obligations for states, but not the key substantive fisheries standards set out here. Actual fisheries regulation is carried out by states individually or collectively, including through RFMOs (see Sect. 5.3.4).

The key objectives of the LOS Convention are (a) avoidance of overexploitation by means of striving for the maximum sustainable yield (MSY) and setting TACs, and (b) optimum utilization, which obliges coastal states that cannot catch the entire TAC themselves to give other states access to the surplus. The LOS Convention acknowledges or grants rights to coastal states over marine living resources in their maritime zones and to other states on the high seas. These rights are subject to the key objectives just mentioned and many other related obligations, for instance, the obligation to take account of impacts on associated species (e.g., through bycatch) or dependent species (e.g., through predator–prey relationships) and to cooperate with relevant coastal and/or flag states on transboundary stocks/species and discrete high seas stocks (see Table 5.1). The objective of

[4] See, *inter alia*, UNGA Res. 46/215 (1991) and UNGA Res. 61/105 (2006), paras 80–89.

Table 5.1 Categories of fish stocks

Category	Definition
Discrete inshore stocks	Occur exclusively in the maritime zones of one single state
Joint or shared stocks	Occur within the maritime zones of two or more coastal states, but not on the high seas
Straddling stocks	Occur within the maritime zones of one or more coastal states and on the high seas
Highly migratory stocks	The fish species listed in Annex I to the LOS Convention (e.g., tuna)
Anadromous stocks	Spawn in rivers but otherwise occur mostly at sea (e.g., salmon)
Catadromous stocks	Spend greater part of life cycle in internal fresh waters but spawn at sea (e.g., eels)
Discrete high seas stocks	Occur exclusively on the high seas

optimum utilization does not apply to marine mammals and many obligations do not apply to sedentary species or to maritime zones under sovereignty (LOS Convention 1982, arts. 61–72 and 116–120). With respect to anadromous and catadromous stocks, the relevant coastal states have primary responsibility for conservation and management. For catadromous species, this specifically includes ensuring that inbound and outbound migration can take place (LOS Convention 1982, arts. 66–67).

The Fish Stocks Agreement only applies to straddling and highly migratory fish stocks. Its overarching objective is to implement the basic jurisdictional framework of the LOS Convention by means of a modernized and more elaborate and operational regulatory framework. The incorporation of an operationalised precautionary approach and a *de facto* ecosystem approach to fisheries (EAF), the clarification that RFMOs are the primary vehicles for the conservation and management of straddling and highly migratory fish stocks, and the intricate provisions on non-flag state high seas enforcement powers bear witness to that objective.

While the Fish Stocks Agreement retains MSY as a key objective, this is qualified by the need to apply the precautionary approach as operationalised in Article 6 and Annex II as well as a range of ecosystem considerations, which together constitute a *de facto* EAF. These ecosystem considerations require state parties to, among other things, minimize pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species—in particular endangered species—and more generally to protect biodiversity in the marine environment (Fish Stocks Agreement 1994, art. 5).

The Fish Stocks Agreement regards RFMOs as the preferred vehicles for fisheries regulation at the regional level and imposes an obligation on state parties to the Fish Stocks Agreement to cooperate with and through them (art. 8(3)). Of crucial importance in that regard is Article 8(4), which stipulates that access to fisheries is limited to members and cooperating states. New is also the right in Article 8(3) of states with a 'real interest' to become members. Arguably, the duty to cooperate with the relevant RFMO laid down in Article 8(3) is already part of customary international law and thereby entitles the relevant members to take measures

against (non-cooperating) non-members that would otherwise be in violation of international law, for instance, imposing trade-related measures. No practices of RFMOs on trade-related measures have at any rate been challenged by means of the establishment of a dispute settlement procedure under the World Trade Organization.

Article 8(5) of the Fish Stocks Agreement stipulates that RFMOs are to be established where these do not exist. This, however, only applies in the case of the presence of "a *particular* straddling fish stock or highly migratory fish stock" (emphasis added). While highly migratory fish stocks currently do not occur in the Central Arctic Ocean, this may be different for straddling fish stocks. Even though Sect. 5.3.4 below concludes that a gap in high seas coverage with RFMOs exists for most of the Central Arctic Ocean, this does not automatically mean that relevant states are obliged to ensure full coverage with RFMOs. There is nevertheless broad support in the international community to ensure that all high seas fisheries fall within the mandate of an RFMO. These developments have among other things led to the 'filling' of gaps for full high seas coverage in the Southern Indian Ocean, South Pacific, and, most recently, the Northern Pacific (Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean 2012). As the discussion in Sect. 5.4 will reveal, several states and entities also support full high seas coverage with RFMOs in the Arctic Ocean.

5.3.4 Regional and Bilateral Fisheries Bodies and Instruments

As regards the regional and bilateral level, the following are the main regional and bilateral fisheries bodies and instruments whose spatial scope overlaps at least to some extent with the marine Arctic:

1. The bilateral (Canada and the US) International Pacific Halibut Commission (IPHC), established by the IPHC Convention (1953);
2. The bilateral (Canada and the US) Yukon River Panel of the bilateral Pacific Salmon Commission (PSC), established by the Pacific Salmon Treaty (1985)[5];
3. The North Pacific Anadromous Fish Commission (NPAFC), established by the NPAFC Convention (1992);
4. The Western and Central Pacific Fisheries Commission (WCPFC), established by the WCPFC Convention (2000);
5. The Conference of Parties (COP) to the CBS Convention (1994);
6. The North Atlantic Salmon Conservation Organization (NASCO), established by the NASCO Convention (1982);

[5] The Yukon River Panel was established by means of the Yukon River Salmon Agreement of 4 Dec 2002, which added Chap. 8 to the Pacific Salmon Treaty.

7. The International Commission for the Conservation of Atlantic Tunas (ICCAT), established by the ICCAT Convention (1966);
8. The Northwest Atlantic Fisheries Organization (NAFO), established by the NAFO Convention (1978);
9. The North East Atlantic Fisheries Commission (NEAFC), established by the NEAFC Convention (1980); and
10. The Joint Norwegian-Russian Fisheries Commission (Joint Commission), established by the bilateral Framework Agreement (1975).

This list can be categorized in several ways. An important distinction exists between NEAFC and the Joint Commission (Nos. 9–10) and all the other bodies, because only the spatial mandates of NEAFC and the Joint Commission indisputably extend to (part of) the Arctic Ocean. Moreover, while the bodies under Nos. 1–5 apply to certain more southerly waters of the marine Arctic in the Pacific, the bodies under Nos. 6–8 apply to certain more southerly waters of the marine Arctic in the Atlantic. The spatial mandates of ICCAT and NASCO do not clearly extend to (part of) the Arctic Ocean, even though some room for interpretation exists. Significant occurrence of tuna and tuna-like species in the Arctic Ocean is not expected in the short- or medium-term, but this may well be different for anadromous species.

As only NEAFC and the Joint Commission have clear mandates in the Arctic Ocean, this warrants some closer attention to them. While Article 1(a) of the NEAFC Convention restricts NEAFC's competence to the North-East Atlantic sector of the Arctic Ocean, the Joint Commission's constitutive instrument does not specify its spatial mandate. Fisheries for species whose distributional range extends into the (Central) Arctic Ocean therefore fall in principle within the Joint Commission's mandate, and this has also been asserted by the Joint Commission on several occasions. It is submitted, however, that this assertion relates first of all to areas of the Arctic Ocean adjacent to the Barents Sea that are part of the maritime zones of Norway and the Russian Federation. If the Joint Commission would actually exercise competence over the Central Arctic Ocean in a similar manner as with regard to the Loophole, this would not be acceptable to the other Arctic Ocean coastal states and other members of NEAFC. With respect to the Loophole, Norway and the Russian Federation have encouraged third states and entities to discontinue, or not to commence, fishing for particular species and thereby not to exercise their entitlements under international law to fish in the high seas and to be involved in high seas fisheries management. In return, they have granted fisheries access to their maritime zones and discontinued withholding benefits such as access to ports (Molenaar 2012a).

Based on the foregoing analysis, it can be concluded that, except for the area covered by NEAFC, the Central Arctic Ocean is a gap in high seas coverage with RFMOs. While Norway and the Russian Federation may not necessarily share this conclusion, other Arctic Ocean coastal states and non-Arctic states and entities do (see Sect. 5.4).

While there is a significant competence-overlap—both spatially and on species—between the two bodies, there seems to be no, or hardly any, actual conflict

between their conservation and management measures. Their current relationship can therefore be regarded as complementary. As Norway and the Russian Federation form two-fifths of NEAFC's membership,[6] they are also well-positioned to withstand challenges from the three other members of NEAFC to downsize the role of the Joint Commission and enhance that of NEAFC.[7] Norway and the Russian Federation are also highly unlikely to support broader participation in the Joint Commission, as this would fundamentally alter its nature.

The following list contains other relevant regional, trilateral, and bilateral fisheries arrangements:

1. The meetings of Arctic Ocean coastal states. In addition to the two ministerial meetings held in Ilulissat in May 2008 and in Chelsea in March 2010, dedicated fisheries meetings have taken place at the level of senior officials[8] and at least one meeting of scientific experts (Anchorage Science Meeting Report 2011);
2. The trilateral Loophole Agreement between Iceland, Norway, and the Russian Federation (1999)[9];
3. Bilateral cooperation between Greenland and Norway, pursuant to an Agreement on Mutual Fishery Relations (1992), which is, *inter alia*, implemented through annual bilateral consultations;
4. Bilateral cooperation between Greenland and the Russian Federation pursuant to an Agreement on Mutual Fishery Relations (1992), presumably also implemented through annual bilateral consultations;
5. Bilateral cooperation between the Russian Federation and the US pursuant, *inter alia*, to the bilateral Intergovernmental Consultative Committee, established by an Agreement on Mutual Fisheries Relations (1988);
6. Bilateral cooperation between Canada and Greenland, which is not formalized, even though meetings are held on an annual basis (Molenaar 2012a); and
7. The numerous bilateral and multilateral agreements and arrangements establishing TACs, allocations of fishing opportunities, and mutual access to maritime zones between coastal states (including the European Union (EU)) in the North-East Atlantic (Churchill 2001; Molenaar 2012b).

It is clear from the sheer number of these regional, sub-regional, and bilateral bodies and instruments that they cannot possibly be discussed in a meaningful way in this chapter. More in-depth analyses of some of them are contained in other

[6] The other three are Denmark (in respect of the Faroe Islands and Greenland), the EU, and Iceland.

[7] These ratios would change if, for instance, Iceland becomes an EU Member State or Greenland becomes fully independent.

[8] One took place in June 2010, in Oslo, Norway (see the Chair's summary at <www.regjeringen.no/upload/UD/Vedlegg/Folkerett/chair_summary100622.pdf>. Accessed 27 Nov 2012).

[9] This Agreement is complemented by two Protocols between Iceland and Norway and Iceland and the Russian Federation respectively, which are currently in force.

literature (e.g., Barnes 2011; Molenaar 2012a). It is nevertheless important to highlight that many of these bodies adopt conservation and management measures that contain the types of substantive fisheries standards listed in Sect. 5.3.2.

Several of the above-mentioned bodies rely for scientific advice on other bodies, most notably the International Council for the Exploration of the Sea (ICES) and the North Pacific Marine Science Organization (PICES) (Takei 2013).

Finally, reference should be made to the fundamental disagreement that exists between Norway and most other parties to the Spitsbergen Treaty (1920) on the treaty's applicability to the maritime zones of Svalbard. As a consequence, Norway has not established an Exclusive Economic Zone (EEZ) but a Fisheries Protection Zone (FPZ) around Svalbard. Several states enjoy fisheries access to the FPZ and territorial waters of Svalbard as a result of the provisions of equal access laid down in the Spitsbergen Treaty (Molenaar 2012b).

5.3.5 Arctic Council and Arctic Council System

The Arctic Council is a high-level forum established by means of the Ottawa Declaration (1996). The choice for a non-legally binding instrument is a clear indication that the Council was not intended to be an international organization and implies that the Council cannot adopt legally binding decisions or instruments. The Arctic SAR Agreement (2011) was therefore not adopted by the Council, even though it was negotiated under its auspices and the Council's May 2011 Ministerial Meeting was also used as the occasion for its signature.

So far, the Arctic Council has not explicitly involved itself in fisheries management issues; not as the Arctic Council *per se* and not through the Arctic Council System (ACS; see further below). There is nevertheless no juridical obstacle for this; not for the Arctic Council *per se* and also not for the ACS. The mandate of the Arctic Council is very broad and relates to "common Arctic issues" with special reference to "issues of sustainable development and environmental protection in the Arctic" (Ottawa Declaration 1996, art. 1). A footnote nevertheless specifies that the Council "should not deal with matters related to military security".

In spite of this very broad mandate, however, the Council has so far avoided involvement in certain marine mammal issues (Bloom 1999) and at the November 2007 Meeting of the Senior Arctic Officials (SAOs), decided not to become involved in fisheries management issues either. The matter came up because the US drew the meeting's attention to Senate joint resolution No. 17 of 2007 (S.J. Res. 17 2007)[10] "directing the United States to initiate international discussions and take necessary steps with other Nations to negotiate an agreement for managing migratory and transboundary fish stocks in the Arctic Ocean". The ensuing

[10] Passed by the Senate on 4 Oct 2007. The House of Representatives voted in favor of S.J. Res. No. 17 in May 2008 and President George W. Bush signed it on 4 June 2008.

discussion at the SAO's meeting was summarized as follows: "There was strong support for building on and considering this issue within the context of existing mechanisms" (SAO 2007).

Even though the Council has not explicitly reversed its view since then, the issue of international fisheries management has come up in the context of the Arctic Ocean Review (AOR) project that is currently carried out within the Council's Protection of the Arctic Marine Environment (PAME) working group. Phase II of this project is intended to culminate in a final report adopted at the Council's May 2013 Kiruna Ministerial Meeting that will:

> summarize potential weaknesses and/or impediments in the global and regional instruments and measures for [the] management of the Arctic marine environment; outline options to address these weaknesses and/or impediments; and, make agreed recommendations to help ensure a healthy and productive Arctic marine environment in light of current and emerging trends (AOR 2011).

The AOR Phase II draft Report contains a Chap. 4 on 'Marine Living Resources', with Sect. 4.1 (Part A) on 'Fishery Resources'. Its last subsection entitled 'Opportunities' offers various proposals for policy recommendations at its very end, which are copied verbatim into Chap. 9 entitled 'Conclusions and Recommendations' and will be presented to SAOs for negotiation. These proposals consistently use either "Arctic Council States" or "Arctic Council States with coasts on the central Arctic Ocean"—and do not explicitly recommend a role for the Arctic Council as such, but do not rule that out either. Among the options mentioned in the subsection 'Opportunities' that are not specifically retained at the end—and therefore also not in Chap. 9—are a Ministerial Declaration or a statement (AOR 2013).

As alluded to above, the Council could also pursue certain options through the ACS. The concept of the ACS has been introduced by the present author (Molenaar 2012c) to clarify that legally binding instruments such as the Arctic SAR Agreement—and their institutional components—can be part of the Council's output even though they are not—and in fact could not be—formally adopted by it.

The ACS concept consists of two basic components. The first component is made up of the Council's constitutive instrument—the Ottawa Declaration, other Ministerial Declarations, other instruments adopted by the Arctic Council—for instance its Arctic Offshore Oil and Gas Guidelines (PAME 2009), and the Council's institutional structure. The second component consists of instruments 'merely' negotiated under the Council's auspices and their institutional components. The Arctic SAR Agreement and the Meetings of the Parties envisaged under its Article 10 belong to this category. Expansion of this category will occur at the 2013 Kiruna Ministerial Meeting, which will also be used as the occasion for the signature of the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic.

While the section 'Opportunities' in Sect. 4.1 (Part A), Chap. 4 of the AOR Phase II draft Report highlights that the Arctic Council "has been the catalyst" for the adoption of the abovementioned two treaties, it does not explicitly identify this among

the various 'modes of delivery' further down that could be used for a treaty on Arctic fisheries (AOR 2013). But in light of the objections by at least one Arctic Council member to the text relating to the catalyst-role of the Arctic Council—and many other parts of Sect. 4.1—it is not even certain if it will be included in the final report.[11]

5.4 National Regulation and Policy

Within the context of this chapter it is not possible to give a comprehensive overview of national regulation and policy by Arctic and non-Arctic states and entities (most notably the EU, but also Taiwan) on the conservation and management of target species and the regulation of the impacts of fishing on non-target species within the marine Arctic. A choice has therefore been made to focus on Arctic Ocean coastal states—in particular the US—and the EU.

In some parts of the marine Arctic, for instance, the North Atlantic, national regulation and policy is expected to be extensive, tailor-made, and related to all or most of the relevant capacities in which states can exercise jurisdiction, namely as flag, coastal, port, and market states and with regard to their natural and legal persons. For other parts of the marine Arctic, however, the presence of ice for most of the year may have rendered tailor-made national fisheries regulation and policy unnecessary. But as diminishing ice-coverage will attract fishing vessels looking for possible new fishing opportunities, all relevant states and entities must ensure that new Arctic fisheries in their own maritime zones and/or by their vessels, comply with applicable global and regional fisheries standards or, where these do not exist, are not conducted in such an unregulated manner that this would be "inconsistent with State responsibilities for the conservation of living marine resources under international law" (FAO 2001, para. 3.3.2).

US action with respect to its EEZ off Alaska in the Arctic Ocean clearly precludes this because it prohibits commercial fishing in the EEZ "until information improves so that fishing can be conducted sustainably and with due concern to other ecosystem components" (NPFMC 2009, sec. E.S.1.2). This proactive and precautionary action by the US is consistent with its Senate joint resolution No. 17 of 2007 mentioned earlier. The 2009 Arctic Region Policy of the US (NSPD-66 2009) contains a few paragraphs on fisheries but not a separate section (secs. III(H)(4) and (6)(b) and (c)).

Norway's laws and regulations relating to fisheries in Svalbard's maritime zones allow 'unregulated fisheries'—but not necessarily in the sense discussed above—to continue or develop, unless explicitly prohibited (Molenaar 2012b). Canada's 2001 'New and Emerging Fisheries Policy'[12] differs from both

[11] These written comments on Sect. 4.1 are on file with the author.

[12] The New and Emerging Fisheries Policy is one of Canada's Fisheries Management Policies and is available at <www.dfo-mpo.gc.ca>. Accessed 8 Jan 2013.

approaches as it neither freezes expansion nor allows unregulated fisheries to develop, but requires licenses for each of its three stages (feasibility, exploratory, and commercial) (Ridgeway 2010).[13] Other Canadian policies would apply to new Arctic fisheries as well.[14]

The precautionary approach as such is probably contained in the legal and policy frameworks of most Arctic Ocean coastal states and other key states and entities, even though not necessarily directly in relation to (new) Arctic fisheries. The approaches of Canada and the US are both precautionary and proactive, even though in different ways. The Kingdom of Denmark's 'Strategy for the Arctic' acknowledges that illegal, unreported, and unregulated fishing is a serious threat, that the lack of knowledge of fish stocks and fishing opportunities calls for the application of the precautionary approach, and that fisheries should not commence where a conservation and management system is not available, while explicitly mentioning the Central Arctic Ocean in this regard (Kingdom of Denmark 2011). Conversely, while Norway's 'The High North. Visions and Strategies' (Norway 2011) emphasizes the need for sustainable and science-based fisheries management and the application of the precautionary approach in a general sense, no attention is devoted to new fisheries.

As regards the EU, several of its policy statements in recent years devote specific attention to Arctic fisheries. Sect. 3.2 of the European Commission's Arctic Communication (European Commission 2008) is specifically devoted to 'Fisheries' and is among other things supportive of a temporary ban on new fisheries. Both the Council of the European Union's conclusions on Arctic issues (Council of the European Union 2009) and a 2011 European Parliament resolution (European Parliament 2011) stressed the need to avoid unregulated fishing as well.

The European Commission's 2008 Arctic Communication still viewed extension of the spatial mandate of NEAFC as the preferred option for addressing the gap in high seas coverage with RFMOs in the Central Arctic Ocean. However, the Council conclusions on Arctic issues do not contain a preferred option, but mention the possibility of extending the mandate of existing RFMOs "or any other proposal to that effect agreed by the relevant parties". The most recent EU policy document (European Commission and High Representative 2012) mentions that RFMOs "could in principle extend their geographical scope". While Iceland may prefer extending the spatial scope of NEAFC, none of the Arctic Ocean coastal states seem supportive of this option or the extension of the spatial scope of other existing RFMOs (Molenaar 2009; IAFS 2010).

[13] Note also the May 2010 Report of Canada's Standing Senate Committee on Fisheries and Oceans on 'The Management of Fisheries and Oceans in Canada's Western Arctic' (available at <www.parl.gc.ca>), which recommends Canada to adopt an approach for the Canadian part of the Beaufort Sea that is similar to the United States' Arctic FMP (Recommendation No. 12).

[14] Particularly relevant seem to be the 'Policy for Managing the Impacts of Fishing on Sensitive Benthic Areas' and the 'Policy on New Fisheries for Forage Species' (both available at <www.dfo-mpo.gc.ca>, accessed 8 Jan 2013).

It is not clear if other key high seas fishing states and entities such as China, Iceland, Japan, South Korea, or Taiwan have policies on (new) Arctic fisheries.

These practices and policy statements will function as points of departure in ongoing and future international discussions on the international regime for Arctic Ocean fisheries. The contrast between many of these policy statements—even the more explicit ones—and the US action with respect to its EEZ off Alaska in the Arctic Ocean is nevertheless obvious. Whereas US action already actually constrains fisheries by its nationals, most of the policy statements by other states or entities merely advocate or envisage similar action.

The action by the US is also noteworthy in light of the consensual nature of international law. Rather than awaiting agreement at the international level, the US proactively adopted more stringent domestic regulation unilaterally and thereby essentially created a competitive disadvantage for itself. As some of the fish stocks that occur in the EEZ off Alaska in the Arctic Ocean may be transboundary and in view of a more general preference for a level playing field, the US must have hoped, and must continue to do so, that other states and entities follow with similar actions or actions with similar effectiveness; both for the maritime zones of Arctic Ocean coastal states as well as for the Central Arctic Ocean (IAFS 2010). All states and entities must at any rate ensure that new Arctic Ocean fisheries are conducted in compliance with applicable international law. When policy statements are inadequate for this purpose—which is often the case—they must implement them into domestic regulation, acting in all relevant capacities; for instance, as coastal states, flag states, port states, market states, or with regard to their natural or juridical persons.

5.5 Gaps in the International Legal and Policy Framework and National Regulation and Options for Addressing Them

The existing international legal and policy framework and national regulation for Arctic fisheries contains the following main gaps:

1. Science-based and ecosystem-based fisheries management cannot be ensured due to lack of data;
2. Regulation by Arctic Ocean coastal states and other states and entities may not be adequate;
3. Gaps in Arctic Ocean coastal state fora and instruments; and
4. Gap in high seas coverage with RFMOs.

As a comprehensive discussion of all potential options for addressing these gaps is not possible in this chapter, only some comments and observations are offered here. As regards the lack of data identified in gap No. 1, some progress has already been made among Arctic Ocean coastal states (Anchorage Science Meeting Report 2011) and within ICES and PICES, among other factors due

to a joint request to ICES by Norway and the Russian Federation (Molenaar 2012a; Takei 2013). Potential future options include a one-off assessment on Arctic fisheries—within or outside the Arctic Council—or the establishment of a new permanent scientific assessment and advisory body on Arctic fisheries, either self-standing, within the Arctic Council, ICES, or the International Arctic Science Committee (IASC), or established jointly by ICES/PICES. If an assessment will indeed be undertaken, it should as a minimum include plausible future scenarios and take account of the impacts of fisheries intensification and expansion on Arctic indigenous peoples. ICES might be the most likely forum for such initiatives to take place, judging by the fact that, at its 100th Meeting in October 2012, the ICES Council agreed to give its Science Committee a mandate to promote science activities in Arctic waters related to various issues, including expansion of distribution/migration of ranges of commercial fish species (ICES 2012).

As regards the regulatory gap identified in No. 2, reference is made to Sect. 5.4, which contains various options to address gaps. Gaps in Arctic coastal state fora and instruments identified in No. 3 could be addressed by formalizing existing informal cooperation, for instance that between Canada and Greenland (see Sect. 5.3.4). New fora and instruments could relate to the conservation and management of shared, straddling, or anadromous fish stocks or provide a framework for mutual fisheries access and exchange of fishing opportunities. Such fora and instruments could be bilateral, trilateral, or involve all Arctic Ocean coastal states.

The gap in RFMO coverage of the high seas identified in No. 4 has undoubtedly generated the most debate, some of which is already covered in Sect. 5.4. As noted there, insufficient support exists for extending the spatial mandate of NEAFC. A full-fledged RFMO does not seem the most likely option either, due to considerations of cost-effectiveness in light of the fact that significant commercially viable fisheries are not expected in the short term. The negotiation-process on the CBS Convention eventually decided not to push for a full-fledged RFMO for similar reasons (Balton 2001). An Arrangement[15]—whether legally binding or non-legally binding—is therefore a more likely option.

As noted in Sect. 5.3.5, there is no obstacle for such an Arrangement to be adopted by the Arctic Council—in case of a non-legally binding instrument—or through the ACS approach as previously described. If the instrument also related to the Central Arctic Ocean—where the freedom of fishing applies—its effectiveness would benefit from support by key non-Arctic states and entities. Such support could be ensured through a format or mechanism that allows them to participate in the instrument's negotiation as well as to express their consent to be bound. Involving only the current non-Arctic state observers would not work. This group consists of six EU Member States[16]—which have transferred

[15] See *supra* note 1.

[16] Namely France, Germany, the Netherlands, Poland, Spain, and the United Kingdom.

most of their competence on marine capture fisheries to the EU—and therefore does not include any key high seas fishing states and entities such as China, the EU, Japan, South Korea, and Taiwan. While all these except Taiwan have applied for observer status, it is by no means clear when and if these applications will be approved (Molenaar 2012c).[17] If all applications *are* approved, however, involving observers could be an important component of the aforementioned format or mechanism.

An alternative to proceeding through the Arctic Council or the ACS would be to adopt the Arrangement as a stand-alone instrument. If the instrument's spatial scope, and thereby the measures it contains, were limited to the Central Arctic Ocean—as advocated by some[18] -, similar measures or measures with similar effectiveness need to be adopted by Arctic Ocean coastal states for their own maritime zones. The need for compatibility is particularly evident as it is likely that new fishing opportunities will arise in coastal state maritime zones before arising in the high seas. An exception may nevertheless be granted in furtherance of the rights and interests of Arctic indigenous peoples.

While the assumption is that other states and entities besides the Arctic five would be allowed to participate in the negotiation of a stand-alone fisheries instrument on the Arctic Ocean or the Central Arctic Ocean, and eventually become parties thereto, this assumption could of course be proven wrong. A coastal states-only *inter se* approach would not necessarily be inconsistent with international law. This would only occur if the exercise of the right to engage in high seas fishing by other states and entities was interfered with in ways that were not consistent with international law. At-sea high seas enforcement would be an obvious example. Presumably, however, the Arctic five prefer to avoid these issues as well as the lack of legitimacy that is associated with coastal states-only approaches.[19] In a worst-case scenario, such lack of legitimacy might even prompt high seas fishing states or entities to engage in high seas fishing in the Central Arctic Ocean in order to assert their right as such, even if such fishing was not commercially viable. Fortunately, the clear commitment to peace, order, and cooperation that underlies the Ilulissat Declaration implies also a commitment by the Arctic Ocean coastal states to avoid such a scenario.

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[17] Other non-Arctic state applicants are India (application submitted on 6 Nov 2012; information provided by N. Buvang to the author by email on 7 Feb 2013), Italy, and Singapore.

[18] For instance the Pew Environment Group's 'Oceans North' campaign, which also led to the submission of a letter signed by a large number of scientists to the International Polar Year Conference in Montréal, Canada (22–27 Apr 2012) (info at <oceansnorth.org/international>).

[19] Reference can in this context be made to the controversial 'Galapagos Agreement' (Framework Agreement for the Conservation of the Living Marine Resources on the High Seas of the Southeast Pacific, Santiago, 14 Aug 2000. Not in force, *Law of the Sea Bulletin*, 70–78, No. 45 (2001)), which never entered into force and has now essentially been replaced by the SPRFMO Convention (2009).

5.6 Potential for EU–US Cooperation

A discussion on the potential for EU–US cooperation on Arctic fisheries must acknowledge at the outset that whereas the US is an Arctic Ocean coastal state, the EU cannot rely on such a *de facto* capacity. Whereas Denmark is an Arctic Ocean coastal state with respect to Greenland and an Arctic coastal state with respect to the Faroe Islands, Denmark's EU Membership does not extend to Greenland or the Faroe Islands (TFEU 2008, arts. 204 and 355(5)(a)). But the EU can still act in various other *de facto* capacities; for instance as a flag state—including pursuant to the freedom of fishing on the high seas -, port state, market state, or with respect to the natural and legal persons of its Member States.

The "conservation of marine biological resources under the common fisheries policy" is one of the five areas listed in Article 3(1) of the TFEU (2008) in which the EU has exclusive competence, subject to some exceptions (Churchill and Owen 2010). The consequential external competence of the EU in the sphere of fisheries implies that the EU represents its Member States, for instance in negotiations with non-EU Member States and in RFMOs. In some cases, however, EU Member States can still become members to RFMOs alongside the EU. One of these exceptions relates to 'overseas countries and territories' and enables for instance Denmark to become a member of RFMOs alongside the EU in respect of the Faroe Islands, Greenland, or both; for instance, in relation to NEAFC (for both).

The differences between the EU and the US as regards their involvement in marine capture fisheries worldwide must be acknowledged as well. It is widely known that—compared to US fishing vessels—fishing vessels flying flags of EU Member States operate to a much larger extent on the high seas and within maritime zones of third states (non-EU Member States) in not only the Atlantic Ocean and adjacent seas, but also the Indian Ocean, Pacific Ocean, and Southern Ocean. The fishing fleet of the EU Member States is therefore much more a distant water fishing fleet compared to the US fishing fleet. Furthermore, it is also widely known that natural and legal persons with the nationality of EU Member States—in particular Spain—are more extensively involved as beneficial owners of fishing vessels flying the flag of third states (i.e., non-EU Member States), compared to natural and legal persons with US nationality. For these reasons, the international community views the EU in the domain of marine capture fisheries primarily as a flag state and the US primarily as a coastal state. In view of the widespread tendency to hold flag states responsible—even though not necessarily always justifiably—for failures in regional fisheries management, the US may well be quite critical of the track-record and ability of the EU and its Member States in ensuring a high standard of flag state performance.

These observations should not be interpreted as suggesting that there is no potential for cooperation between the EU and the US on Arctic fisheries. Despite their different entitlements to fisheries resources in the marine Arctic, the EU and the US share common interests in avoiding over-exploitation of target species and

undesirable impacts of fisheries on non-target species, including marine mammals. Moreover, as noted in Sect. 5.4, both the EU and the US take the view that unregulated fishing in the Central Arctic Ocean must be avoided.

A suitable domain for cooperation between the EU and the US is research on the marine Arctic in general and Arctic ecosystems, commercial fish species, and fisheries in particular. Such cooperation could take place within the context of existing bodies like ICES, PICES, and the Arctic Council. As regards the Arctic Council, it seems that the success of US–EU cooperation would benefit from US support for EU observer status. The US could also consider advocating that Arctic Ocean coastal states expand participation in their fisheries science meetings with representatives of the EU.

In light of their shared concerns and positions on unregulated fishing in the Central Arctic Ocean, cooperation in that regard could be considered as well. The fact that the EU is not an Arctic Ocean coastal state and incapable of acting in such a *de facto* capacity, requires the US and the EU to proceed carefully in order not to antagonize Arctic Ocean coastal states that feel strongly about the lead role they should have in any intergovernmental consultations on international regulation of Arctic Ocean fisheries. Joint EU–US initiatives therefore run the risk of being counterproductive. Individual action in support of shared concerns and positions could avoid this. The EU could express public support for a position aligned with that of the US, for instance as laid down in the latter's Senate joint resolution No. 17 of 2007. Moreover, both the EU and the US could take individual proactive steps, for example by adopting regulations that impose a temporary ban on fishing by their vessels in the Central Arctic Ocean until such time as fishing would be permitted pursuant to an international instrument.

Even though the US and the EU should proceed carefully, their cooperation on unregulated fishing in the Central Arctic Ocean offers clear opportunities as well. The effectiveness of a future international instrument on Central Arctic Ocean fisheries would benefit from support by key non-Arctic Ocean coastal states and entities (see Sect. 5.5), and early EU support would be crucial for fostering support among them. The US could make an important contribution in this regard by advocating the inclusion of the notion of compatibility—between fisheries regulation on the high seas and fisheries regulation in coastal state maritime zones—in the future instrument. While the future instrument could also be made applicable to the Arctic Ocean as a whole, there is no indication that the US or even the EU would find this desirable; even though not necessarily for similar reasons.

Support by the EU and other key non-Arctic Ocean coastal states and entities for a future international instrument on Central Arctic Ocean fisheries also depends on their ability to participate in a meaningful way in the instrument's negotiation. Such participation would enhance the legitimacy and credibility of the negotiation-process and thereby also the instrument adopted by it. The US could contribute to these ends by undertaking efforts to ensure that preparatory consultations among Arctic Ocean coastal states have not advanced to such an extent that key non-Arctic Ocean coastal states and entities are essentially presented with a *fait accompli*. Improvements in the EU's and its Member States' performance as

de facto flag states and coastal states in fisheries management and conservation more broadly, would also help to secure support for broader participation in negotiations. If it is decided to conduct such negotiations within the Arctic Council or by means of the ACS approach, the success of US-EU cooperation would also benefit from US support for EU observer status.

5.7 Conclusions

The unprecedented pace of change that the Arctic is currently experiencing makes it very difficult to argue that the current international legal and policy framework for Arctic fisheries conservation and management is adequate for responding to the huge challenges that lie ahead. This chapter identifies a number of gaps in the international framework as well as in national regulation and policy, and suggests various options for addressing these gaps.

Most of the suggested options to address identified gaps also offer opportunities for cooperation between the EU and the US. Cooperative initiatives could be undertaken to strengthen scientific research, 'domestic' fisheries regulation and the international regime for Arctic Ocean fisheries. The fact that the US is an Arctic Ocean coastal state and the EU is not, and is also incapable of acting in such a *de facto* capacity, requires them to proceed carefully but offers clear opportunities as well. Joint EU–US initiatives could antagonize Arctic Ocean coastal states who feel strongly about the lead role they should have in any intergovernmental consultations on international regulation of Arctic Ocean fisheries. Individual action in support of shared concerns and positions could avoid this.

Early EU support for a future international instrument on Central Arctic Ocean fisheries would be crucial for fostering support among other key non-Arctic states and entities and could thereby contribute to the future instrument's effectiveness, legitimacy, and credibility. The US could play a crucial role in this regard by advocating the inclusion of the notion of compatibility in the future instrument and by undertaking efforts to ensure that the EU and key other non-Arctic Ocean coastal states and entities can participate in a meaningful way in the instrument's negotiation.

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