Marine Biodiversity Conservation in Areas Beyond National Jurisdiction (BBNJ): The Commission for the Conservation of Antarctic Marine Living Resources and the United Nations BBNJ Initiative.

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Biodiversity in Areas Beyond National Jurisdiction (BBNJ): The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and the United Nations BBNJ Agreement

Abstract

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) has addressed the management of biodiversity in areas beyond national jurisdiction since its establishment under the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CAMLR Convention). The development of a draft 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 (BBNJ Agreement) reinforces the significance of conservation oriented, ecosystem-based management in areas beyond national jurisdiction pioneered by CCAMLR. This paper explores the potential interplay between CCAMLR and the BBNJ Agreement, noting that while the BBNJ Agreement commits not to "undermine relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies", it is likely to sharpen assessments of CCAMLR's performance.

Keywords: areas beyond national jurisdiction, biodiversity, conservation, ecosystem-based management, fisheries.

Introduction

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) established by the Convention on the Conservation of Antarctic Marine Living Resources[1] provided a pioneering approach to a precautionary, ecosystem-based approach to the conservation of marine living resources.[2] The Convention on the Conservation of Antarctic Marine Living Resources and its key institution, the Commission for the Conservation of Antarctic Marine Living Resources, both have the same acronym: CCAMLR. In this paper, except where original use differs, CCAMLR refers to the Commission and CAMLR Convention refers to the legal instrument.

CCAMLR faces a number of current challenges, including increased global attention to marine biodiversity conservation in areas beyond national jurisdiction, including the development of a draft Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological

[1] The Convention on the Conservation of Antarctic Marine Living Resources. Adopted 20 May 1980, entered into force 7 April 1981, 1329 UNTS 47.

[2] As a result, over the past forty years, CCAMLR has attracted a relatively voluminous literature; from the biological and marine science disciplines as well as from political science, law, and international relations. A "simple" search of CCAMLR as a key word in SCOPUS found 426 references from 1984 to 2020; 74 references on "CCAMLR and conservation"; 55 references on "CCAMLR and governance"; 15 references on "CCAMLR and rational use"; and two references on "CCAMLR and BBNJ" [Search on 1 March 2021].

Diversity of Areas Beyond National Jurisdiction[3] (what has been termed the BBNJ Agreement) under the auspices of the United Nations General Assembly.

Areas beyond national jurisdiction (ABNJ) are defined as the high seas and deep seabed beyond areas claimed by states under the provisions of the United Nations Convention on the Law of the Sea.[4] As Johnson notes the resolution establishing the BBNJ process[5], "uses but does not define the meaning of ABNJ as a term".[6] While the BBNJ Agreement includes a commitment that this "process and its result should not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies"[7], there is potential interplay between this new regime and

[3] "Revised Draft Text of an 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" A/ConF/232/2020/3. 18 November 2019.

[4] Warner, "Conserving Marine Biodiversity in Areas Beyond National Jurisdiction: co-Evolution and Interaction with the Law of the Sea".

[5] United Nations General Assembly (UNGA) Resolution A/RES/69/292. 19 June 2015.

[6] Johnson, "The relevance of the Southern Ocean": 714.

[7] UNGA Resolution "International Legally Binding Instrument 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" A/Res/72/249 19 January 2018. See also United Nations General Assembly (UNGA) Resolution A/RES/69/292. 19 June 2015: Paragraph 3; McDorman, "A Few Words on the 'Cross Cutting Issue" 281-282; Scanlon, "The Art of 'Not Undermining'…": 405.

the ATS in general, and CCAMLR in particular. While the BBNJ Agreement is yet to be concluded, interplay over key elements outlined in the agreement (area-based management, environmental impact assessment, marine genetic resources, and capacity building) is likely to shape both the Antarctic regime and the broader Southern Ocean regime complex.

In considering the potential interplay between CCAMLR and the BBNJ Agreement, the first part of the paper briefly outlines the development of CCAMLR (and its convention), the concept of regime interplay and a development of a typology of interplay, and the development of the BBNJ Agreement. The second part of the paper exploring the interactions between CCAMLR and other instruments, institutions and regimes in terms of the typology introduced earlier. The final sections of the paper reflect on the useful learnings for the management of marine biodiversity conservation in areas beyond national jurisdiction from CCAMLR's experience and considers how how the BBNJ Agreement may influence its future.

CCAMLR: Management of Southern Ocean Marine Living Resources

The CAMLR Convention was developed in response to concerns over an unregulated fishery for Antarctic Krill (*Euphausia superba*) in the early 1970s.[8] The Antarctic Treaty Consultative Parties (ATCPs) began discussion over the management of this

[8] Antarctic Krill was recognised as a keystone species in the Southern Ocean food web, see El-Sayed, "The Contribution of the BIOMASS Program": 132. A Krill catch of 448, 266 tonnes was recorded in 1980-1981, see Chittleborough, "Nature, Extent and Management of Antarctic Living Resources": 147.

fishery in 1977 and, following three special meetings in the period 1978-80, the CAMLR Convention[9] was concluded, and seen as an "integral part of the Antarctic Treaty System" (ATS).[10] The ATS, defined as "the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and the measures in effect under those instruments";[11] includes, in addition to the CAMLR Convention, the Convention for the Conservation of Antarctic Seals (1972);[12] and the Protocol on Environmental Protection to the Antarctic Treaty, also known as the Madrid Protocol, (1991).[13] The ATS also includes decision-making institutions, including the Antarctic Treaty Consultative Meetings (ATCM), the Committee for Environment Protection (CEP), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Secretariat and the Antarctic Treaty Secretariat.[14]

[9] Note 1.

[10] ATCM Resolution 1 (2006) "CCAMLR in the Antarctic Treaty System" See also Scully, "The Antarctic Treaty as a System": 95; Barrett, "The Antarctic Treaty System": 47.

[11] Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol) (adopted 4 October 1991, entered into force 14 January 1998, 30 ILM 1455 (1991)): Article 1 (e).

[12] Convention for the Conservation of Antarctic Seals (adopted 1 June 1972, entered into force 11 March 1978, 1080 UNTS 175).

[13] Note 11.

[14] Zhang, Haward and McGee, "Marine Plastic Pollution in the Polar South": 1.

CCAMLR is "explicitly embedded" within the ATS,[15] through direct references to the Antarctic Treaty in the CAMLR Convention's Articles III, IV, and V. It is also "free standing"[16] as its decision-making procedures and actions are independent from the ATCM, and its area of application extends northwards from the Antarctic Treaty Area (set at Latitude 60° South[17]) to a boundary approximating the location of the Antarctic Convergence.[18] The Antarctic Convergence, now more commonly known as the Antarctic Polar Front, is a boundary between colder, less saline waters closest to Antarctica, and warmer, more saline waters found north of this front.[19]

CCAMLR's prime objective is elaborated in Article II of the CAMLR Convention.[20] Article II states "the objective of this convention is the conservation of

[15] Stokke, "The Effectiveness of CCAMLR": 121. See, also, Molenaar, "CCAMLR and Southern Ocean Fisheries": 473.

[16] Herr, "CCAMLR and the Environmental Protocol: Relationships and Interactions": 274.

[17] The Antarctic Treaty, adopted 1 December 1959, entered into force June 23, 1961, 402 U.N.T.S. 71, Article VI.

[18] CAMLR Convention, Article 1 (4) states that the Antarctic Convergence "shall be deemed to be a line joining the following points along parallels of latitude and meridians of longitude: 50°S, 0°; 50°S, 30°E; 45°S, 30°E; 45°S, 80°E; 55°S, 80°E; 55°S, 150°E; 60°S, 150°E; 60°S, 50°W; 50°S, 50°W; 50°S, 0°."

[19] Grid-Arendal, "The Antarctic Convergence".

[20] Press, Hodgson-Johnston and Constable, "The Principles of the Convention on the Conservation of Antarctic Marine Living Resources: 9.

Antarctic marine living resources".[21] This includes a commitment to the "prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades".[22] A key is that CCAMLR supports a science-focused approach to ecosystem-based management. Commitments to 'the best available scientific advice' and for data to drive decisions in CCAMLR was evocatively termed by John Heap (one of the CAMLR Convention's key negotiators) as "no data no fish";[23] The current level of commitment to science-based management in CCAMLR has, however, been criticised.[24]

The development of the CCAMLR, and the ATS has increased interplay between the within the ATS and externally with other instruments such as the Law of the Sea Convention. This interplay has been the focus of past research, generally focused on questions of competence and potential overlap, suggests an emerging regime complex in Antarctica and the Southern Ocean.[25]

Regimes, regime complexes, and the concept of regime interplay

International environmental governance centres interactions between between a range of state and non-sate actors within increasing complex institutional settings or

[21] CAMLR Convention, Art II (1).

[22] CAMLR Convention, Art II (3)(c).

[23] Walton, D. (2006), 'John Heap – Obituary', *The Guardian,* 4 April 2006.

[24] Brooks, et al. "Science-Based Management in Decline in the Southern Ocean": 185.

[25] Herr, *Antarctica Offshore*; Haward, "The Law of the Sea Convention and the Antarctic Treaty System".

architectures forming what are commonly termed regimes. As Biermann et al. recognise "many policy domains are … marked by patchwork of international institutions that are different in character (organizations, regimes, and implicit norms) their constituencies (public and private) their spatial scope (from bilateral to global and their subject matters from specific policy field to universal concerns)".[26]

This "patchwork" is also influenced the range of actors' interests and (often competing) objectives,[27] with the "assemblage of rights, rules and decision-making procedures that influence the course of human interactions"[28] underpinning institutional arrangements. It is this interaction that gives rise to institutional interplay between regimes. A regime complex can be defined "as a loosely coupled set of specific regimes"[29], "that pertain to the same issue domain or spatially defined area … and interact with one another in the sense that the operation of each affects the performance of the others".[30]

Regimes and regime complexes develop and change in response to both internal and external forces on a particular regime.[31] Internal forces can include formation of decision rules and processes, or work towards emergent issues of concern within the

[26] Biermann, et al. "The Fragmentation of Global Governance Architectures": 16.

[27] Stokke, "Interplay Management": 209.

[28] Young, *Institutional Dynamics: Emergent Patterns in International Environmental Governance*: 1.

[29] Raustiala and Victor, "The Regime Complex for Plant Genetic Resources": 279.

[30] Young, "Building an International Regime Complex for the Arctic…": 394.

[31] Young, note 28: 13.

regime. External forces may include responses and issues raised in other forums including, for example, in the United Nations General Assembly, that address the regime's core concerns. Both internal external forces contribute to the dynamics of institutional change.[32]

As noted by Stokke and Oberthür, institutional interplay requires consideration of "actual interinstitutional influence", recognised with their "third level of interplay"; "unilateral management by individual institutions" are actions "without any coordination between" institutions. [33] with interplay management 'the conscious efforts by any relevant actor or group of actors, in whatever form or forum, to address and improve institutional interaction and effects".[34] This is an important insight and has direct relevance in the context of the BBNJ Agreement's commitment "not to undermine" existing frameworks and bodies. This commitment has been identified as a key element in the BBNJ negotiations and and Draft Agreement. [35]

While concurring with the general focus of Stokke and Oberthür's framing of the concept, interplay management also includes processes that narrow or constrain institutional interaction.[36] This latter circumstance arises when an institution asserts its

[32] Ibid.

[33] Stokke and Oberthür, "Introduction: Institutional Interaction in Global Environmental Change": 4.

[34] Ibid: 6.

[35] Scanlon, Note 7: 405.

[36] Stokke and Oberthür, Note 33: 9.

competence and/or primacy over other instruments or institutions. This provides useful insights into possible patterns of interaction or interplay; the extent to which claims of primacy shape responses[37].

Interaction between international resource and environmental governance regimes forms distinct patterns and provides a typology of four major forms of interplay distinguished in, essence, by the extent to which institutions manage cooperation or conflict over issues of environmental governance. This typology provides a framework through which to consider interplay between CCAMLR, other elements of the ATS, and other instruments that cover the the Southern Ocean, including the emergent BBNJ Agreement. The four-part typology is:

- *Competence* – A regime may assert its primacy within its spatial area of competence (as defined by foundation documents and treaty) and address emergent issues within its own decision–making forums.
- *Competition* – Different regimes may assert competing interests, jurisdiction and norms, such that different regimes directly challenge or are in potential conflict.[38]
- *Complementarity* – A regime may specifically refer to the competence of another body and defer to it or support its work.

[37] Haward, "Contemporary Challenges to the Antarctic Treaty and Antarctic Treaty System".

[38] Ibid: 22. See Haward, "The Antarctic Treaty System: Challenges, Coordination and Congruity": 22-23.

- *Congruence* – A regime may incorporate measures from another competent regime into its management framework.

Competence and competition are often the dominant forms of interplay with respect to CCAMLR (and the ATS) interactions. Attempts to link initiatives within the United Nations Environment Program related to marine biological prospecting have not been supported. Early attempts within the Committee on Environmental Protection and the ATCM to establish marine protected areas under Annex V of the Madrid Protocol saw CCAMLR assert is competence in this area, and a process developed ensuring that CCAMLR became the key decision-making body within the ATCM with respect to marine protected areas.[39]

The CAMLR Convention reflects complementarity with specific references to the competence of the International Convention for the Regulation of Whaling (and the International Whaling Commission (IWC)) over whales and whaling, and the Convention for the Conservation of Antarctic Seals.[40] The Antarctic Treaty, too, provides specific references to a party's high seas rights. Interestingly the IWC Scientific Committee's work on ecosystem-based management has become more greatly integrated with the work of CCAMLR's Scientific Committee.[41]

[39] Gardiner**,** "Marine Protected Areas in the Southern Ocean".

[40] CAMLR Convention, Article VI.

[41] Bestley, et al. "Marine Ecosystem Assessment for the Southern Ocean …": 26.

Examples of other other interactions are also evident. The ATCM has, however, also acted in a more congruent manner. This is most clearly shown in the case of the regulation of Antarctic shipping. In the early 2010s the ATCPs adopted the International Maritime Organization's (IMO) standards for shipping and its mandatory International Code of Safety for Ships Operating in Polar Waters, (known in shorthand as the Polar Code).[42]

The relationship between the ATS (particularly CCAMLR) and the Convention on Migratory Species[43] (CMS or the Bonn Convention) regime provides a further example of complementarity and congruent interplay. CMS provides the legal base for the Agreement on the Conservation of Albatrosses and Petrels (ACAP), which was developed from concern over the depletion of populations of these species through impacts of fishing, that were first recorded in the CCAMLR Area. It became the focus of concerted action and Conservation Measures under CCAMLR.[44] ACAP is an outcome, and an example, of positive interplay between regimes.

The formal response of CCAMLR and the ATCM to the BBNJ negotiations saw the ATCM stridently assert the competence of the ATS with respect to marine biodiversity conservation in the 'Antarctic region'. The ATCPs agreed that in response to an invitation from the United Nations on the issue of marine biodiversity

[42] Jabour, "Progress Towards the Mandatory Code for Polar Shipping".

[43] The Convention on Migratory Species 23 June 1979, 19 ILM 15 (1980).

[44] Hall, "Saving Seabirds": 120-126.

conservation, the Executive Secretary would respond: "… I take this opportunity to recall that the Antarctic Treaty System is the competent framework within which to address the conservation and sustainable use of biodiversity in the Antarctic region". [45]

The BBNJ Negotiations

Due to CCAMLR's embeddedness in the ATS and the latter's lack of engagement with UN processes,[46] it has remained relatively disconnected to the process under UNGA Resolution 69/292 to develop an "international legally binding instrument 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".[47] The UNGA also "decided to establish, prior to holding an intergovernmental conference, a Preparatory Committee, to make substantive recommendations to the General Assembly on the elements of a draft text".[48]

[45] *Antarctic Treaty Consultative Meeting (ATCM) XL 2017, Beijing. Meeting Report* para 173, 53.

[46] Beck, "Antarctica and the United Nations"; see also Haward and Mason, "Australia, The United Nations, and the Question of Antarctica".

[47] See Note 5.

[48] Preparatory Committee Established by General Assembly Resolution 69/292, <https://www.un.org/depts/los/biodiversity/prepcom.htm>. The Preparatory Committee met four times between March 2016 and July 2017; PREPCOM 1, 28 March – 8 April 2016; PREPCOM 2, 28 August – 9 September 2016; PREPCOM 3, 27 March – 7 April 2017; PREPCOM 4, 10–21 July 2017.

The first meeting of the intergovernmental conference held in September 2018 centered on 'four thematic focus areas … marine genetic resources (including benefit sharing), area-based management tools (including marine protected areas), environmental impact assessments, and capacity building and technology transfer'.[49] No substantive text was produced at this meeting, but the President of the Conference was to prepare a document to facilitate discussion at the second meeting of the intergovernmental conference.

The second and third meetings of the intergovernmental conference were held, respectively, in March and August 2019. Delegations were able to work on an informal President's draft text but discussion addressed key issue areas. The fourth, and what was scheduled as the final, meeting of the intergovernmental conference was mandated for March -April 2020, and was expected to lead to agreement on the text of the instrument. This meeting was cancelled as a result of the COVID-19 pandemic. A proposal to reschedule this meeting to August 2021 saw a further postponement "to the earliest possible available date in 2022, preferably in the first half of the year, at a date to be determined by the Secretary-General, in consultation with [the President of the BBNJ intergovernmental conference]."[50] In the interim a series of online meetings to continue discussions were held in 2020.[51]

[49] Tiller, De Santo, Mendenhall, and Nyman. "The once and future treaty...": 1

[50] President of the BBNJ Intergovernmental Conference. *Letter to Delegations.* 4 June 2021.

[51] United Nations Division of Oceans Affairs and the Law of the Sea "Virtual intersessional work of the Intergovernmental Conference on an international

A key issue affecting the implementation of any agreement on BBNJ is its relationship with existing instruments, institutions and regimes, particularly related to area-based management and its potential impact on fisheries management.[52] While there is potential for interactions between the BBNJ Agreement and other instruments it is also important to recognize that the BBNJ Agreement does not directly address fisheries as one of its subjects. [53] This is clearly significant for CCAMLR and its management of the Southern Ocean,[54] but is impossible to assess with any certainty how the proposed BBNJ Agreement will influence existing regional bodies, recognizing that these bodies have had limited formal engagement in the process to date, despite the experiences of CCAMLR in the Southern Ocean and OSPAR, in the North East Atlantic, that has been recognised in the work of the Intergovernmental Conference.[55]

CCAMLR and the BBNJ Agreement

legally binding instrument 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" www.un.org/bbnj/content/Intersessional-work.

[52] Haward, "Southern Ocean Fisheries": 196. Haas, Haward, McGee and Fleming, "Regional Fisheries Organizations and the new Biodiversity Agreement: Challenge or Opportunity?": 229.

[53] Barnes, "The Proposed LOSC Implementation Agreement on Areas beyond National Jurisdiction and Its Impact on International Fisheries Law": 585.

[54] Haas, Haward, McGee and Fleming, note 52: 230.

[55] Johnson, note 6: 709. See also Gardiner, Note 39.

The different types of regime interaction or interplay (competence, complementarity, congruence, competition) introduced above provides a way to consider the potential influence of the BBNJ Agreement on CCAMLR. An initial assessment strongly suggests that this interaction will be shaped by CCAMLR's assertion of its competence over marine biological diversity conservation in the Southern Ocean, reflecting broader issues in the interplay between the ATS and other regimes.[56] As noted above competence is likely to be the dominant form of interplay between CCAMLR and the BBNJ Agreement. The latter's focus, however, on area-based management, environmental impact assessment, marine genetic resources, and capacity building [57], may impact on CCAMLR through greater attention to, and assessment of, CCAMLR's performance in these issue areas.

Area-based management

CCAMLR has given increased attention to area-based management. It is important to recognise that similar developments have been undertaken in the North-East Atlantic under OSPAR.[58] CCAMLR's conservation objective has encouraged management of vulnerable marine ecosystems (VMEs), species, communities and habitats that are vulnerable to damage from fishing activities.[59] CCAMLR has provided ongoing

[56] Haward, note 37: 21-24

[57] Johnson, note 6: 709.

[58] De Santo, "Implementation Challenges of Area-based Management Tools".

[59] Thompson, et. al., *Vulnerable Marine Ecosystems: Processes and Practices in the High Seas*.

scientific efforts to identify VMEs and established rules for fishing in these areas.[60] This includes the provision of 100 per cent scientific observer coverage on fishing vessels.[61] A 'move on rule' has been introduced where vessels must move on, and the areas is area is closed, when gear types catch a designated level of bycatch indicator species. A catch of "5 kg or 5 VME units … in a segment of longline or pot lines (1200 m in length or 100 hooks) requires notification, while a catch of 10 kg or 10 VME units on a gear segment requires notification and moving on with a subsequent closure of 1 nautical mile around the encounter point."[62] These practical measures may be of utility in the implementation of area-based management under the BBNJ Agreement

The entry into force of the Madrid Protocol provided an opportunity to revisit protected area management under the ATS, reinforced by increased global attention on, and commitment to, marine protected areas following the World Summit of Sustainable

[60] CCAMLR CM 22-07 (2013) "Interim Measure for Bottom Fishing Activities Subject to Conservation Measure 22-06 Encountering Potential Vulnerable Marine Ecosystems in the Convention Area".

[61] These rules and approaches are mandated in CCAMR CM 22-06 (2019) "Bottom fishing in the Convention Area"; CM 22-09 (2012) "Protection of registered vulnerable marine ecosystems in subareas, divisions, small-scale research units, or management areas open to bottom fishing"; and CM 33-03 (2019) "Limitation of by-catch in new and exploratory fisheries in the 2019/2020 season".

[62] Auster, et, al. "Definition and detection of vulnerable marine ecosystems on the High Seas": 258. One VME unit equals one litre in a 10-litre container of one kilogram in weight.

Development in 2002.[63] Establishing a process on marine protected area designation, after some early tensions *vis. a vis.* the respective roles of the Committee on Environmental Protection and CCAMLR, saw the ATS, though CCAMLR, establish the world's first high seas MPA in 2009 with the South Orkney Islands Southern Shelf MPA.[64]

In 2011, CCAMLR adopted Conservation Measure 91-04 (CM 91-04): "General Framework for the Establishment of CCAMLR Marine Protected Areas". CM 91-04 states that "CCAMLR MPAs shall be established on the basis of the best available scientific evidence and shall contribute, taking full consideration of Article II of the CAMLR Convention where conservation includes rational use, to the achievement of the objectives specified".[65]

[63] United Nations, *Report of the World Summit on Sustainable Development*, Johannesburg, South Africa, 26 August-4 September 2002. A/CONF.199/20. Plan of Implementation of the World Summit on Sustainable Development. 32 (c): 25.

[64] CCAMLR CM 91-03 (2009) "Protection of the South Orkney Islands Southern Shelf". See also CCAMLR, *Report of the Commission for the Convention on the Conservation of Antarctic Marine Living Resources*, CCAMLR-XXVIII (Hobart, 26 October–6 November 2009): 21, [7.2].

[65] CCAMLR CM 91-04 (2011) "General Framework for the Establishment of CCAMLR Marine Protected Areas".

Gaining agreement among CCAMLR members on MPA proposals in addition to the South Orkney Islands Southern Shelf MPA has been difficult, despite agreement of CCAMLR member states on the provisions of CM 91-04. An MPA in the Ross Sea was eventually adopted by CCAMLR members in 2016 after five years of debate.[66] Agreement has yet to be reached on research and monitoring plans for either the South Orkney Islands Southern Shelf MPA or the Ross Sea MPA. Proposals for a network of marine protected areas off east Antarctica, and in the Weddell Sea off the Antarctic Peninsula, have yet to gain consensus.[67] While CCAMLR is unlikely to move away from its claims for competence with respect to area-based management, the BBNJ agreement may re-open opportunities for further development of MPAs under CCAMLR.

Environmental impact assessment

As noted above one of the thematic areas discussed within the BBJ discussions has been the use of environmental impact assessment (EIA) tools and approaches. The use of EIA within the ATS was identified in the BBNJ Intergovernmental Conference in the context of the Madrid Protocol separating 'minor or transitory impact' from more

[66] Brooks, et al. "Reaching Consensus for Conserving the Global Commons: The Case of the Ross Sea, Antarctica".

[67] CCAMLR, *Report of the Commission for the Convention on the Conservation of Antarctic Marine Living Resources*, CCAMLR-39, Virtual Meeting 27-30 October 2020: 43 [8.31]. See also Sylvester and Brooks, "Protecting Antarctica Through Co-production of Actionable Science".

serious and long terms effects.[68] The terms "minor" and "transitory" are not clearly defined in the context of the Madrid Protocol. The Draft BBNJ Agreement has drawn on these terms in Article 24 "Thresholds and criteria for environmental impact assessments.[69] The BBNJ Agreement, Article 24 [1 Alt. 1] and [1 Alt. 2] include triggers for environmental assessments when activities "are likely to more than a minor or transitory effect on the marine environment".

CCAMLR's use of EIA in its new and exploratory fisheries framework is an important example here,[70] reflecting a focus on a precautionary approach to harvesting, linked back to CCAMLR's key objective. It is likely, given the use of EIA in CCAMLR fisheries assessments that interplay with the BBNJ Agreement will be more congruent and complementary, while CCAMLR retains its competence.

Marine Genetic Resources

[68] IISD Reporting Services, *Earth Negotiation Bulletin: Summary of the First Session of the Intergovernmental Conference on an International Legally Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 4-17 September 2018 Thursday, 20 September 2018*. 25, 179:10. http://enb.iisd.org/oceans/bbnj/igc1/

[69] BBNJ Agreement, note 3. Article 24. These parts of Article 24 are square bracketed text indicating agreement on wording is yet to be reached.

[70] Warner, "Principles of Environmental Protection at the Poles": 343.

The BBNJ Agreement may also refocus ATS, and CCAMLR's attention to marine biological prospecting (bioprospecting) through its attention on marine genetic resources.[71] While the ATCM concluded Resolution 6 (2013) at the thirty-sixth ATCM in 2013,[72] giving the activity recognition, "it is noteworthy that the different instruments of the ATS do not mention, let alone define, bioprospecting or genetic material/resources".[73] The commitment within the Antarctic Treaty for the free exchange of scientific information (Article III: "Scientific observations and results from Antarctica shall be exchanged and made freely available") has not prohibited patents being developed, and commercial products produced from this research.[74]

The BBNJ Agreement may lead to increased interplay and potential interplay management with CCAMLR with respect to marine biological prospecting. As noted above previous attempts to engage the ATCM with initiatives from within United Nations bodies on biological prospecting was not successful. It is likely that CCAMLR (and the ATCM) will continue to maintain competence for the management of marine genetic resources. As with other elements of the BBNJ Agreement, however, it is likely that such actions will receive greater scrutiny.

[71] Jabour and Nicol, "Bioprospecting in Areas Outside National Jurisdiction: Antarctica and the Southern Ocean,": 83.

[72] ATCM Resolution 6 (2013), "Biological Prospecting in Antarctica" (ATCM XXXVI—CEP XVI, Brussels).

[73] Nickels, "Revisiting Bioprospecting in the Southern Ocean in the Context of the BBNJ Negotiations": 198.

[74] Jabour and Nicol, note 71: 78.

Capacity building

While Australia as Depository State for the CAMLR Convention[75], and the CCAMLR Secretariat, have supported new members acceding to the convention, CCAMLR has paid greater attention to capacity building initiatives over the past five years. A General Capacity Building Fund was established in 2019. The Fund was "to support specific projects, activities or travel support, or to address special needs of Members if the Commission so decides, aimed at enhancing Members' capacity to better achieve the objective of the CAMLR Convention. The Fund may also be used for assisting the Secretariat or Members to provide capacity building activities/opportunities to other Members"[76].

In terms of ongoing interplay, the BBNJ agreement is likely to increase critical appraisal of CCAMLR's role in the conservation of marine living resources in areas beyond national jurisdiction, particular in relation to area-based management. This is likely to be driven initially by actors external to the system including environmental non-governmental groups, but is also insider groups such as the Antarctic and Southern Oceans Coalition.[77] CCAMLR members may use opportunities to link the BBNJ agenda

[75] CAMLR Convention, Article XXVII (2).

[76] CCAMLR "The General Capacity Building Fund (GCBF)' www.ccamlr.org/en/organisation/general-capacity-building-fund-gcbf <accessed 16 September 2021>.

[77] The Antarctic and Southern Oceans Coalition (ASOC) has been an observer at, and therefore or a formal actor within, ATS forums since 1991.

to CCAMLR performance. The use of the formal Performance Review Process may provide a mechanism to evaluate CCAMLR's performance against the BBNJ agenda. CCAMLR has been seen as a leader through its precautionary, science focused, ecosystem-based approach to management,[78] but this assessment is now more problematic,[79] given the challenges it has faced in implementing its commitment to marine protected areas.[80]

Further challenges include managing increasing utilisation of the krill fishery and biophysical impacts directly related to climate change,[81] the latter is likely to enhance range shifts of key species in the Southern Ocean. As McBride et al. argue convincingly, "changing environmental conditions and prospects for future increases in the the krill catch make it even more pressing to overcome the long-standing impasse among CCAMLR Members on the development of an adaptive management system for

[78] Willock and Lack, *Follow the Leader: Learning from Experience and Best Practice in Regional Fisheries Management Organizations*: 6-8.

[79] Brooks, et al. "Science-based Management in Decline in the Southern Ocean".

[80] De Santo, "Implementation Challenges of Areas-based Management Tools": 37; see also Wendebourg, "Southern Ocean Fisheries Management – Is CCAMLR Addressing the Challenges Posed by a Changing Climate?"

[81] McBride, et al. "Antarctic krill *Euphausia superba*: Spatial Distribution, Abundance, and Management of Fisheries in a Changing Climate", see also Constable et al. "Climate Change and Southern Ocean Ecosystems …": 3005; Goldsworthy and Brennan, "Climate Change in the Southern Ocean…"

the krill fishery".[82] The BBNJ Agreement may also provide the opportunity for CCAMLR to achieve consensus over addressing impacts of climate change, and in relation to further declaration of marine protected areas; issues that have been subject to objection by a small number of members. Such action would to support the claim made by the ATCPs at the ATCM in 2017 that the "Antarctic Treaty System is the competent framework within which to address the conservation and sustainable use of biodiversity in the Antarctic region".[83]

Conclusion

The development of an "an international legally binding instrument" to address the conservation of marine biodiversity in areas beyond national jurisdiction is a significant initiative in global ocean governance. With the BBNJ agreement yet to be concluded any comments on its impact are at this stage obviously hypothetical. Despite the ATS's position of maintaining its competence over marine biodiversity conservation in the Southern Ocean, it is likely, however, that there will be – at the very least – increased indirect interplay over issue areas contained within the BBNJ Agreement with CCAMLR.

This interplay is likely to have positive outcomes despite CCAMLR's argument of its competence, and potential competition with the new instrument. Much can be learned from CCAMLR's near forty years of experience in BBNJ. The new instrument will also influence CCAMLR's future, as although the core principle of the BBNJ agreement is

[82] Ibid: 206.

[83] See note 45.

that it does not undermine existing arrangements and institutions, it will necessarily enhance attention towards the current arrangements for the conservation of marine biodiversity in areas beyond national jurisdiction under relevant regional organisations such as CCAMLR.

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Bibliography

Antarctic Treaty Consultative Meeting, *Final Report of the Fortieth Antarctic Treaty Consultative Meeting 22 May 2017 - 1 June 2017, Beijing, China* (Buenos Aires: Secretariat of the Antarctic Treaty, 2017). .

Auster, P., K Gjerde, E. Heuple, L. Watling, A. Grehan and A D. Roger. "Definition and Detection of Vulnerable Marine Ecosystems on the High Seas; Problems with the 'Move-On' Rule" *ICES Journal of Marine Science,* 68, 2 (2011): 254-264.

Barnes, R. "The Proposed LOSC Implementation Agreement on Areas beyond National Jurisdiction and Its Impact on International Fisheries Law" *The International Journal of Marine and Coastal Law*, 31 (2016): 583-619.

Barrett, J M. "The Antarctic Treaty System", in *Research Handbook on Polar Law,* ed. K N. Scott and D L. VanderZwaag (Cheltenham: Edward Elgar, 2020), 40-63.

Beck, P J. "Antarctica and the United Nations"; in *Handbook on the Politics of Antarctica*, ed. K. Dodds, A D. Hemmings and P. Roberts (Cheltenham: Edward Elgar, 2017): 255-268.

Bestley S., Y. Ropert-Coudert, S. Bengtson Nash, C M. Brooks, C. Cotté, et al. "Marine Ecosystem Assessment for the Southern Ocean: Birds and Marine Mammals in a Changing Climate". *Frontiers in Ecology and Evolution* (2020) 8: 566936. doi: 10.3389/fevo.2020.566936.

Biermann, F., P. Pattberg, H. van Asselt, and F. Zelli. "The Fragmentation of Global Governance Architectures: A Framework for Analysis" *Global Environmental Politics*, 9, 4 (2009): 14-39.

Brooks, C M., L B. Crowder, L M. Curran, R B. Dunbar, D G. Ainley, K J. Dodds, K M. Gjerde, Y R. Sumaila. "Science-based Management in Decline in the Southern Ocean". *Science*, (2016) 354, 6309: 185-187.

Brooks, C M., L B. Crowder, H Österblom, A L. Strong. "Reaching Consensus for Conserving the Global Commons: The Case of the Ross Sea, Antarctica" *Conservation Letters* (2020): 13:e127.

CCAMLR, *Report of the Commission for the Convention on the Conservation of Antarctic Marine Living Resources*, CCAMLR-XXI (Hobart, 21 October–1 November 2002), 88, [15.2].

Chittleborough, G. "Nature, Extent and Management of Antarctic Living Resources" in *Australia's Antarctic Policy Options*, ed. S. Harris (Canberra: CRES Monograph 11 ANU, 1984), 135–163.

Constable, A J. "Lessons from CCAMLR on the Implementation of the Ecosystem Approach to Managing Fisheries" *Fish and Fisheries* 12 (2011): 138–151.

Constable, A J., J. Melbourne-Thomas, S P. Corney, K R. Arrigo, C. Barbraud et al. "Climate Change and Southern Ocean Ecosystems I: How Changes in Physical Habitats Directly Affect Marine Biota' *Global Change Biology*, 20 (2014): 3004–3025.

De Santo, E M. "Implementation Challenges of Area-based Management Tools (ABMTS) for Biodiversity Beyond National Jurisdiction" *Marine Policy* 97 (2018): 34-43.

Edeson, W. "Closing the Gap: The Role of 'Soft' International Instruments to Control Fishing". *Australian Year Book of International Law*, 20 (1999): 83-104.

El-Sayed, S Z. “The Contribution of the BIOMASS Program to Antarctic Marine Ecosystem Research” in *The Biology of Antarctic Fish* eds. G. di Prisco, B. Maresca and B. Toto (Berlin-Heidelberg: Springer Verlag, 1991), 131–142.

Gardiner, N B. “Marine Protected Areas in the Southern Ocean: Is the Antarctic Treaty System Ready to Co-exist with a New United Nations Instrument for Areas Beyond National Jurisdiction?” *Marine Policy* 122 (2020): 104212.

Goldsworthy, L. “Finding the ‘Conservation’ in the Convention on the Conservation of Antarctic Marine Living Resources” *Yearbook of Polar Law*. 12, 1 (2020): 132–155.

Goldsworthy, L. and Brennan, E. “Climate Change in the Southern Ocean: Is the Commission for the Convention for the Conservation of Antarctic Marine Living Resources doing enough?” *Marine Policy* (2021): 130: 104549.

Grid-Arendal, “The Antarctic Convergence”. https://www.grida.no/resources/5505

Hall, R. “Saving Seabirds”, in *Looking South: Australia's Antarctic Agenda.* eds. L Kriwoken, J Jabour and A Hemmings (Sydney, The Federation Press, 2007): 117-132.

Haas, B., M. Haward. J. McGee and A. Fleming. “Regional Fisheries Organizations and the New Biodiversity Agreement: Challenge or Opportunity?” *Fish and Fisheries*. 22 (2021): 226–231. DOI: 10.1111/faf.12511

Haward, M. “The Law of the Sea Convention and the Antarctic Treaty System; Constraints or Complementarity” In *Maritime Boundary Disputes, Settlement Processes, and the Law of the Sea*. eds. S-Y. Hong and J. van Dyke (Leiden: Martinus Nijhoff Publishers, 2009): 231–251.

Haward, M. 'The Antarctic Treaty System: Challenges, Coordination and Congruity' in *The Emerging Politics of Antarctica*. ed. A-M Brady (Abingdon. Oxon: Routledge, 2013): 11–28.

Haward, M. "Contemporary challenges to the Antarctic Treaty and Antarctic Treaty System: Australian Interests, Interplay and the Evolution of a Regime Complex", *Australian Journal of Maritime & Ocean Affairs* 9: 1 (2017): 21–24.

Haward, M. "Southern Ocean Fisheries" in *Research Handbook on Polar Law.* eds. K. Scott and D. VanderZwaag (Cheltenham, UK: Edward Elgar, 2020): 180–198.

Haward, M. and D. Mason. "Australia, the United Nations and the Question of Antarctica" in *Australia and the Antarctic Treaty System: Fifty Years of Influence.* eds. Haward, M and T. Griffiths (Sydney: UNSW Press, 2011): 202–221.

Herr, R A. (ed). *Antarctica Offshore: A Cacophony of Regimes.* (Hobart: Antarctic Cooperative Research Centre, 1995).

Herr, R A. "CCAMLR and the Environmental Protocol: Relationships and Interactions", in *Implementing the Environmental Protection Regime for the Antarctic*. ed D. Vidas (Kluwer Academic Publishers: Dordrecht, 2000): 274–284.

Jabour, J. "Progress Towards the Mandatory Code for Polar Shipping, *Australian Journal of Maritime and Ocean Affairs*. 6:1 (2014): 6467.

Jabour, J., and D. Nicol. "Bioprospecting in Areas Outside National Jurisdiction: Antarctica and the Southern Ocean," *Melbourne Journal of International Law*. 4 (2003): 76–111.

Johnson, C M. "The Relevance of the Southern Ocean to the Development of a Global Regime for Marine Areas Beyond National Jurisdiction – An Uncommon

Commons" *The International Journal of Marine and Coastal Law,* 32: 4, (2017): 709-732.

McBride, M M., O S. Stokke, A H H. Renner, B A. Krafft, O D. Bergstad, et al. "Antarctic Krill *Euphausia superba*: Spatial Distribution, Abundance, and Management of Fisheries in a Changing Climate" *Marine Ecology Progress Series*, 668 (2021): 185-214.

McDorman, T L. "A Few Words on the 'Cross Cutting Issue – The Relationship Between a BBNJ Convention and Existing, Relevant Instruments and Frameworks and Relevant Global, Regional and Sectoral Bodies" in *Marine Biodiversity of Areas beyond National Jurisdiction* eds. M. H. Nordquist and R. Long (Leiden: Brill Nijhoff 2021): 273-284.

Molenaar, E J. "CCAMLR and Southern Ocean Fisheries" *The International Journal of Marine and Coastal Law*, 16: 3, (2001): 465-499.

Nickels, P P. "Revisiting Bioprospecting in the Southern Ocean in the Context of the BBNJ Negotiations" *Ocean Development & International Law*, 51: 3, (2020): 193-216, DOI: 10.1080/00908320.2020.1736773

Press, A J., I. Hodgson-Johnston and A J. Constable. "The Principles of the Convention on the Conservation of Antarctic Marine Living Resources: Why its Commission is not a Regional Fisheries Management Organisation" in *Governing Marine Living Resources in The Polar Regions* eds. N. Liu; C M. Brooks and T. Qin Cheltenham UK, Edward Elgar, 2019): 9–29.

Raustiala, K, and Victor, D. "The Regime Complex for Plant Genetic Resources" *International Organization,* 58, 2 (2004): 277–310.

Scanlon, Z. “The Art of ‘Not Undermining’: Possibilities Within Existing Architecture to Improve Environmental Protections in Areas Beyond National Jurisdiction” *ICES Journal of Marine Science*, 75, 1 (2018): 405–416.

Scully, R T. “The Antarctic Treaty as a System” in *Antarctica's Future: Continuity or Change?* eds. R A. Herr, H R. Hall and M G. Haward, (Hobart: Tasmanian Government Printer, 1990): 95–102.

Stokke, O S. “The Effectiveness of CCAMLR” in *Governing the Antarctic: The Effectiveness and Legitimacy of the Antarctic Treaty System*, ed. O S. Stokke and D. Vidas (Cambridge: Cambridge University Press, 1996): 120–151.

Stokke, O S. “Interplay Management” in *Architectures of Earth System Governance: Institutional Complexity and Structural Transformation*, ed. F. Biermann and R E. Kim (Cambridge: Cambridge University Press, 2020): 207-232.

Stokke, O S. and S. *Oberthür*. “Introduction: Institutional Interaction in Global Environmental Change” in *Managing Institutional Complexity: Regime Interplay and Global Environmental Change* eds. S. *Oberthür and* O.S. Stokke (Cambridge Mass. MIT Press, 2011): 12-13.

Sylvester, Z T. and C. Brooks, “Protecting Antarctica Through Co-production of Actionable Science: Lessons from the CCAMLR Marine Protected Area Process”, *Marine Policy.* (2020) 111: 103720

Thompson, A., J. Sanders, M Tandstad, F. Carocci, and J. Fuller. *Vulnerable Marine Ecosystems: Processes and Practices in the High Seas*, FAO Fisheries and Aquaculture Technical Paper No. 595 (Rome: FAO, 2016.) at http://www.fao.org/3/a-i5952e.pdf (accessed 21 March 2019).

Tiller, R., E. De Santo, E. Mendenhall, E. Nyman. "The Once and Future Treaty: Towards a New Regime for Biodiversity in Areas Beyond National Jurisdiction', *Marine Policy*. 99 (2019): 239–242. doi.org/10/1016/j.marpol.2018.10.046.

Walton, D. "John Heap – Obituary", *The Guardian,* 4 April 2006.

Warner, R M. "Conserving Marine Biodiversity in Areas Beyond National Jurisdiction: Co-evolution and Interaction with the Law of the Sea". *Frontiers in Marine Science*, 20 May 2014 https://doi.org/10.3389/fmars.2014.00006

Warner, R. "Principles of Environmental Protection at the Poles" in *Research Handbook on Polar Law* eds. K. N. Scott and D. L. VanderZwaag (Cheltenham; Edward Elgar, 2020): 326-345.

Wendebourg, M R. "Southern Ocean Fisheries Management – Is CCAMLR Addressing the Challenges Posed by a Changing Climate?" *Marine Policy.* (2020) 118: 103847.

Willock A. and M. Lack. *Follow the Leader: Learning from experience and best practice in regional fisheries management organizations*. (Gland and Sydney: WWF International and TRAFFIC International, 2006).

Young, O R. *Institutional Dynamics: Emergent Patterns in International Environmental Governance* (Cambridge, MA: MIT Press, 2010).

Young, O R. "Building an International Regime Complex for the Arctic: Current Status and Next Steps" *The Polar Journal* 2, 2 (2014): 391407.

Zhang M., M. Haward, and J. McGee. "Marine Plastic Pollution in the Polar South: Responses from Antarctic Treaty System" *Polar Record* 56 (e36) (2020): 1–9. DOI: https://doi.org/10.1017/S0032247420000388