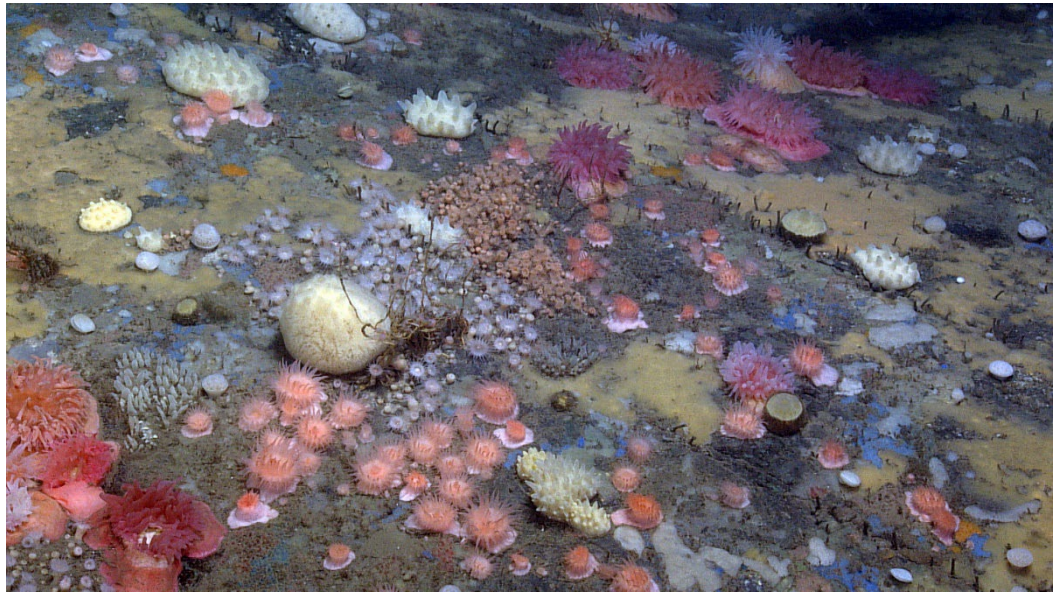


The Deep Ocean and BBNJ: Important Points for IGC-4

Why does the deep ocean matter in BBNJ Negotiations?

The deep ocean is critically important to global biodiversity. Consisting of the entire ocean below 200 meters, it provides over 95 percent of the space used by life on Earth. This means that the deep ocean includes almost all of the marine areas beyond national jurisdiction (ABNJ) whose biological diversity the BBNJ instrument aims to conserve. As the world's largest and oldest environment, the deep ocean also provides critical services that keep the rest of the planet healthy. Despite this importance, **the value and unique policy needs of the deep ocean are often overlooked.** The Deep Ocean Stewardship Initiative (DOSI) is a global network of experts created to support effective decision-making for the deep ocean by connecting scientists and policymakers. In service of that mission, this communication from DOSI members **outlines key relationships between the four core elements of the BBNJ treaty and the deep ocean for IGC-4 delegates.** We include links to policy briefs and papers elaborating on those relationships for further reading and offer to **support delegates with any questions** on the latest deep-ocean science.



Examples of thriving deep-sea biodiversity adapted to the food-limited, transparent waters of the deep ocean. *Credit: Anna Metaxas, Martha Nizinski and ROPOS*

(1) Capacity-Building and Transfer of Marine Technology

The advanced technology and training needed to study the dark, high-pressure environment of the deep ocean can be prohibitively expensive for all but the wealthiest states and research institutions. Deep ocean exploration efforts are [often compared to space programs due to their difficulty](#). This inaccessibility is a problem for conserving BBNJ and prevents most countries benefiting from discoveries. As rules are negotiated, deciding how to build international capacity for deep-ocean research will be important. Suggestions for how this might be done have been offered in papers such as [Harden-Davies et al. \(2022\)](#) and [Harden-Davies & Snelgrove \(2020\)](#) written by DOSI experts.

(2) Marine Genetic Resources and Benefit Sharing

The global ocean is home to 2.2 million species of marine animals and up to a trillion different types of microorganisms, many of which are found in the deep ocean. This massive diversity of species supplies genetic material that has [environmental, economic, and societal benefits](#). BBNJ negotiations offer a unique opportunity to create a clear legal framework so that policy can keep pace with rapid scientific developments. Points that deserve special consideration include [intellectual property](#), [traceability](#), [digital sequence information](#), and [accessing and sharing benefits](#).

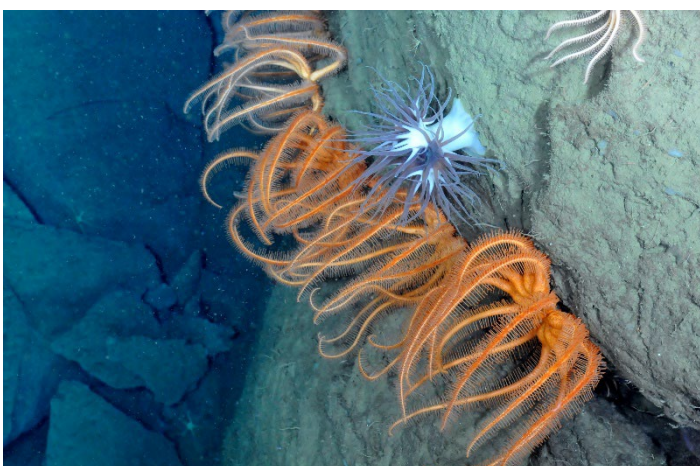
(3) Area-based Management Tools

ABMTs are commonly recognized as important tools for conserving both shallow and deep-ocean biodiversity, but the specific circumstances of the deep ocean require special consideration. Compared to shallow environments, deep-ocean ecosystems are harder to monitor and to adapt management strategies for if something goes wrong. This has led to [calls for extra caution](#) when using ABMTs in the deep ocean. The rules that emerge from these negotiations will need to consider how ABMTs that include the deep ocean can be designed to account for [the different spatial management needs of diverse deep-ocean habitats](#), human uses such as fishing and [mining](#) that are subject to different regulations, [connectivity between separate zones and regions of the ocean](#), and the [effects of ongoing climate change](#) on forward-looking conservation planning.

(4) Environmental Impact Assessments

As with area-based management, EIAs are more difficult to design for the deep ocean due to its size and inaccessibility. Species there tend to evolve, mature, and reproduce slowly, with some living thousands of years. This increases their vulnerability to direct and indirect human harm, which makes it [especially important to use the best available deep-ocean science](#) to inform the development of EIAs and other management tools in ABNJ. Specific factors to consider when planning rules for EIAs include the environmental impacts of [climate change](#) and [deoxygenation](#), which can add to more direct pressures on deep-ocean habitats like fishing or mining. At the massive scale of ABNJ, [effective rules for Strategic Environmental Assessments \(SEAs\)](#) will also be critical.

As a network of ocean scientists, DOSI is pleased to support BBNJ delegates with any and all deep-ocean information needs. For more background on deep-ocean biodiversity, we encourage you to read our policy briefs on [deep-sea fundamentals](#) and [sustaining biodiversity beyond national jurisdiction](#). If your delegation requires expert input on any deep-ocean questions during IGC-4, please email us at DOSIcomms@gmail.com or reach out to us on Twitter @deepstewardship. We will be happy to connect you with DOSI scientists ready to offer their support.



Deep-ocean creatures extend into the current to catch a meal.
Credit: Anna Metaxas, Martha Nizinski and ROPOS

This communication was prepared by Brandon Gertz, DOSI Communications and Network Development Lead, on behalf of the DOSI Core Team.

Read more DOSI policy briefs:

<https://www.dosi-project.org/resources/dosi-policy-briefs/>

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