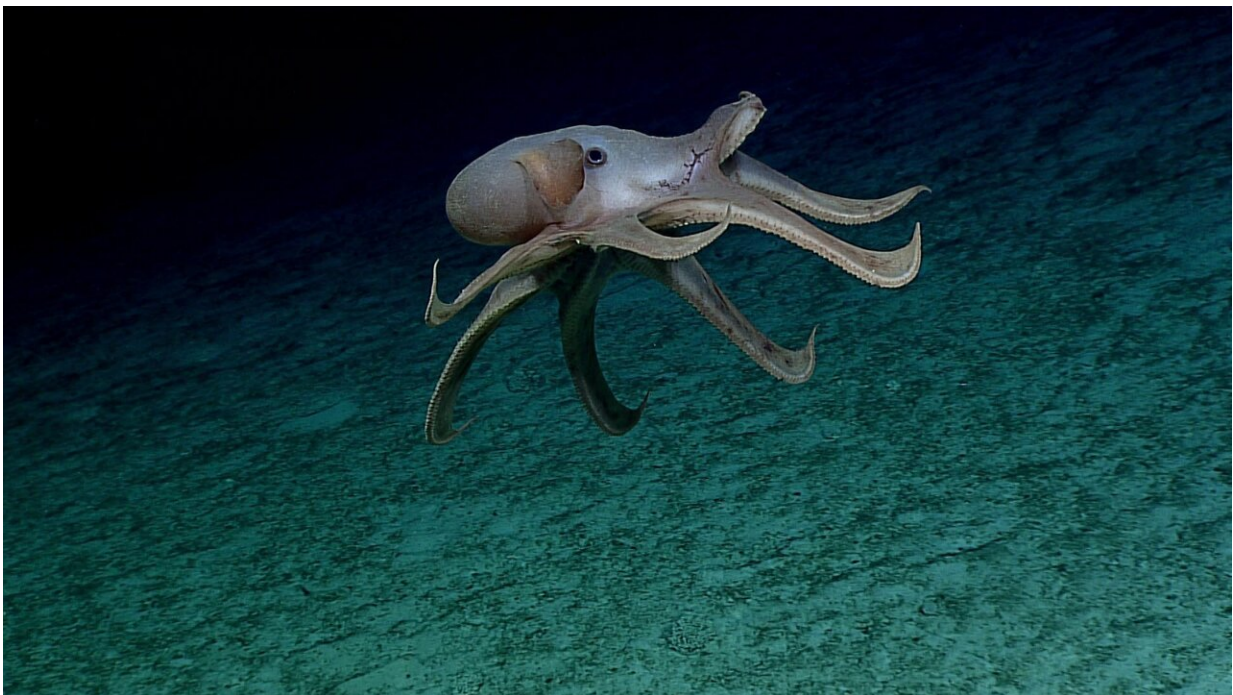


# Damage caused by deep-seabed mining would be extensive and irreversible, reveals updated report

March 27 2023

---



Credit: NOAA

A new report published by Fauna & Flora reveals growing evidence of the risks associated with deep-seabed mining—including that its negative impacts are likely to be extensive and irreversible. Once lost, deep-sea biodiversity will be impossible to restore.

The research analyzed in our report clearly demonstrates that it remains premature for deep-seabed [mining](#) to proceed and, in the absence of any suitable, proven impact-avoidance or mitigation techniques, we are calling for it to be avoided entirely.

Catherine Weller, Global Policy Director, Fauna & Flora, comments, "This is a critical year for the future of our ocean. In September 2021, members of IUCN, the International Union for Conservation of Nature, voted to support a moratorium on deep-seabed mining unless and until a number of requirements are met. This included the stipulation that the risks of mining are comprehensively understood and effective protection can be ensured.

"The research analyzed in Fauna & Flora's update report unequivocally proves that this is still far from reality, and therefore we—alongside many other organizations working to protect the future of our planet—urge the International Seabed Authority (ISA) to avoid granting mining contracts prematurely and adopt a moratorium on deep-sea mining."

## **What is deep-seabed mining?**

Deep-seabed mining is the proposed process of retrieving mineral deposits from the deep seabed. Despite widespread concern that it could severely damage marine biodiversity and ecosystems, there is a drive from some quarters to initiate deep-seabed mining, due to increasing demand for metals, such as lithium, copper and nickel, and depleting terrestrial resources.

## **What threats does deep-seabed mining pose?**

In early 2020, Fauna & Flora published "[An assessment of the risks and](#)

[impacts of seabed mining on marine ecosystems.](#)" At this time, we raised our concerns about the threat deep-seabed mining posed to biodiversity, ecosystem function and dependent planetary systems. Since then, scientific attention on the issue has increased rapidly, with many new studies published on deep-sea environments, the functions and services they provide for humanity, and the potential implications of deep-seabed mining for marine life.

We have now reviewed the new evidence to publish an update to our initial assessment. The analysis covers the many areas impacting the deep-seabed mining debate, including the sensitivity of deep-sea species and ecosystems to disturbance, the ability of the ocean floor to recover from mining impacts, the role of the ocean in regulating the climate, the societal implications of deep-sea mining risks and impacts, and the extent to which the anticipated impacts can be prevented, mitigated and managed.



If deep-seabed mining goes ahead, we can expect significant and likely irreversible impacts on marine biodiversity. Credit: NOAA

The analysis demonstrates that deep-seabed mining will inevitably result in the loss of deep-sea biodiversity—with implications for associated ecosystem functions and services—and that, once lost, biodiversity will be impossible to restore.

It also showcases compelling evidence that deep-seabed mining, through disturbance of marine sediment carbon stores and disruption of carbon cycling and storage processes, could contribute to the climate crisis.

Crucially, the report emphasizes how little is still known about the diversity and complexity that exists in the deep sea, and the many new species that are yet to be discovered.

Sophie Benbow, Director of Marine, Fauna & Flora, comments, "We know less about the deep sea than any other place on the planet; over 75% of the seafloor still remains unmapped and less than 1% of the deep ocean has been explored. What we do know, however, is that the ocean plays a critical role in the basic functioning of our planet and protecting its delicate ecosystem is, therefore, not just critical for [marine biodiversity](#), but for all life of earth.

"The predicted consequences and huge uncertainties associated with deep-seabed mining must not be ignored. Bold decisions are now required to put ocean health and the benefits of the deep sea for all humankind front and center. Once initiated, deep-seabed mining and its effects may be impossible to stop."

## **What happens next with deep-seabed mining?**

Since 2020, the timeline for deep-seabed mining to transition from exploration to commercial exploitation has been accelerated. In June 2021, the Republic of Nauru notified the ISA—responsible for regulating mining in areas beyond national jurisdiction—of its intention to sponsor an exploitation application for polymetallic nodule mining in the Pacific.

In doing so, Nauru triggered a "two-year rule"—a legal provision which creates a countdown for the ISA to adopt its first set of exploitation regulations for deep-seabed mining and could result in the green light for deep-seabed mining in 2023. However, a growing number of ISA member states are pushing against the pressure to be rushed into regulation and approval of mining contracts, and are calling for more time to develop a robust and science-based approach.

The evidence is loud and clear that it is still too early for deep-seabed mining to move forward. The ISA must avoid granting mining contracts prematurely and must adopt a moratorium on [deep-sea mining](#).

We've already destroyed so much of our planet that we cannot get back. We simply cannot let our oceans suffer the same fate.

**More information:** Fauna & Flora's new updated report on deep-seabed mining: [www.fauna-flora.org/app/upload ... -report-march-23.pdf](http://www.fauna-flora.org/app/upload...-report-march-23.pdf)

Provided by Fauna & Flora International

Citation: Damage caused by deep-seabed mining would be extensive and irreversible, reveals updated report (2023, March 27) retrieved 25 April 2024 from <https://phys.org/news/2023-03-deep-seabed-extensive-irreversible-reveals.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.