



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee on Judiciary
Friday, February 24, 2023 at 9:30 a.m.

By

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And

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And

Michael Bruno, Provost

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SB 376 SD1 – RELATING TO THE ENVIRONMENT

Chair Rhoads, Vice Chair Gabbard, and Members of the Committee:

The University of Hawai'i supports the intent SB 376 SD1.

My name is Jeffrey Drazen and I am a professor in biological oceanography at the Department of Oceanography, School of Ocean and Earth Science and Technology, and a deep-sea ecologist at University at Hawai'i. In these roles, I can attest to the amazing diversity of life that thrives in the deep waters of our state and beyond. The deep sea, waters below about 600 feet, are challenging for most of us to envision because we can't easily go there and nature documentaries provide us only snapshots of its inhabitants in a poorly lit realm. It's easy for this important habitat to be out of sight and thus out of mind. However, that does not make these waters any less important than our coral reefs.

The state's second largest fishery harvests snappers from depths of 300 to over 1000 feet down. The ahi that we enjoy often dive to depths of 1500 feet and opah and swordfish to 3000 feet to forage for squid, lanternfish and other deep-sea species. The ocean's ability to take up carbon dioxide and sequester it out of the atmosphere relies on the deep ocean. Its communities migrate from the shallows at night where they feed to the depths during the day and thus transport carbon deeper into the ocean. In short, though we may not easily see the deep sea, we are connected to it and we rely on it.

Deep-sea mining poses many risks to the deep sea. Industrial sized vehicles will crush corals, sponges and other seafloor animals. Some deep-sea corals in Hawai'i live for several thousand years. Studies of the resilience of deep-sea ecosystems suggests that

recovery will likely take many decades to hundreds of years. In the case of polymetallic nodules which form over millions of years and that are the habitat for much of the life in nodule beds, this fauna will not recover and biodiversity could be lost. The harvesting of metals and their return to a surface ship also recovers much unwanted mud which will then be discharged back into the ocean, possibly into deep midwaters. This mud will also contain an unknown amount of dissolved metals some of which are toxic to marine life. These could harm the midwater communities which provide food for the fish species we harvest, or even toxify our seafood supply.

Mining in state waters seems unlikely. However, should it occur, there is a high potential for this industrial activity to harm our deep waters and for mud plumes to affect shallow nearshore habitats as well.

Thank you for the opportunity to testify on SB 376 SD1.