local, better-informed digital management —especially in the hands of its own users, who could opt for more sober, economical practices adjusted to needs. To support citizen and cooperative network spaces is also to support associative, decentralized, and potentially more frugal hosting, favoring local social and economic development and making possible a greater climate resilience in those areas. If the very large companies—the world of banking and finance, which represent a preponderant share of Internet traffic and the computing and storage capacities of data centers—are not ready to turn toward this type of distributed infrastructure, opportunities nevertheless exist for civil society, the associations, the municipalities, the social and solidarity economy, to take over this common good that is the Internet.

Malta/CCZ:
What are the rights of deep-sea communities to an other-than-human common heritage?

Amy Balkin

What are the rights of deep-sea communities to an other-than-human common heritage?

In a 1967 speech to the United Nations General Assembly, Arvid Pardo, Representative of Malta and "Father of the Law of the Sea Conference,"[1] proposed the seabed and ocean floor beyond the limits of national jurisdiction ("the Area") be proclaimed "the Common Heritage of Mankind (CHM)."[2] He argued that along with banning nonpeaceful uses of the ocean floor, the seabed should be mined, with some portion of the profits of the vast mineral wealth used to finance poor nations in a challenge to the "structural relationship between rich and poor countries."[3]

Under the long banner of "the common heritage of mankind," commercial mining of the international seabed appears poised to finally begin, the research, legal, and regulatory phases nearing completion. Fifteen-year contracts have been issued by the International Seabed Authority to sponsoring state/contractor partnerships including the UK/Northern Ireland with UK Seabed Resources/Lockheed Martin[4] for exploration of wide areas of the global seabed, including the Clarion-Clipperton Fracture Zone (CCZ), Mid-Atlantic Ridge and the Western Pacific Ocean.

This commencement is intertwined with scientific research documenting previously unknown deep-water species and the unsurprising extinction risks of mining for seafloor mineral deposits. Seabed mining, from research dredging to planned hydraulic bucket mining, threatens seamount scavengers and sessile creatures of the abyssal plains where polymetallic nodules are found[5], produces sediment plumes damaging to life in the water column, and endangers communities around black smoker hydrothermal vents where seafloor massive sulfides form and at white smokers, where some scientists theorize life on Earth began.[6]

These scientific discoveries parallel and inform growing global public awareness, pushback and protest against the irreversible harms of deep-sea extractivism, which are inseparable from the rights of future generations of deep-sea dwellers to an 'other-than-human' common heritage.

The rights of non-human life of the ocean floor are increasingly recognized in the demands of anti-mining alliances like the Alliance of Solwara Warriors and Kiwis Against Seabed Mining, and a growing subject of critical and theoretical investigation and attention.

The question of an other-than-human commons is urgent, as seabed mining, driven by the expansionist imperatives and technological capacities of capital, will produce new extinctions, legitimized under the rubric of common heritage and its framework of multilateral exploitation. What work can be done beyond environmental monitoring and accepting fragmented marine protected areas? Without a ban, a brutal ecocide of the seafloor's desert-like ecologies, vent assemblages, and vertically and horizontally migrating deep sea species seems inevitable.

While the rights of nature are fought in human courts with both symbolic and practicable outcomes, the rush towards commercial deep-sea mining and the development of its apparatuses quickens, generating documentation, and with it glimpses for third parties of the stakes of the commons for diverse abyssal life.

The project of seabed mining, its bathymetric geopolitics and biopolitics of deep-sea research exploration have left a wake of images documenting seafloor communities, habitats and landscapes, mineral deposits, and mining technology. Due to the inaccessibility of the deep seabed and ocean floor to others than states, research institutions, and mining companies, images and visual materials available to the public reflect these origins and interests.

1
Dr. Arvid Pardo, 'Father of Law of Sea Conference', Dies At 85, in Houston, Texas, United Nations Press Release, SEA/1619, 16 July 1999. https://www.un.org/press/en/1999/19990716.SEA1619.html

2
UNCLOS, Article 136

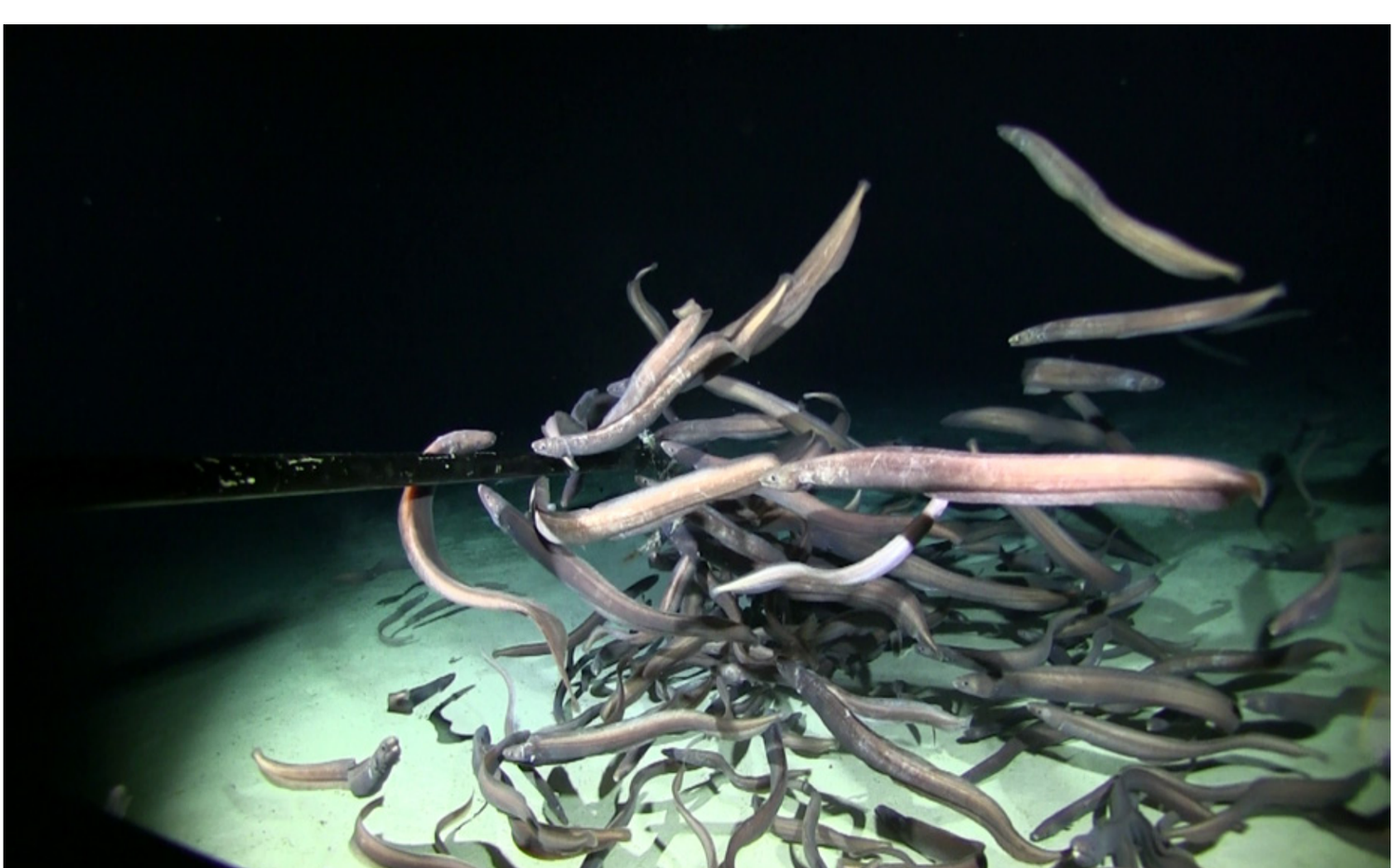
3
Wikipedia/Pardo A (1984). "Ocean, Space and Mankind". Third World Quarterly. 6 (3): 559–69. doi:10.1080/01436598408419785

4
International Seabed Authority, Deep Seabed Minerals Contractors, web page, retrieved June 1, 2020. https://www.isa.org.jm/deep-seabed-minerals-contractors

5
NOAA Ocean Exploration and Research, Deep-sea Mining Interests in the Clarion-Clipperton Zone, website retrieved June 1, 2020. https://oceanexplorer.noaa.gov/explorations/18ccz/background/mining/mining.html

6a
NASA JPL, Underwater 'White Smoker' Vents: Is This Where Life Began?, website retrieved April 15, 2020. https://www.jpl.nasa.gov/video/details.php?id=1613

6b
Dodd, M., Papineau, D., Grenne, T. et al. Evidence for early life in Earth's oldest hydrothermal vent precipitates. Nature 543, 60–64 (2017). https://doi.org/10.1038/nature21377

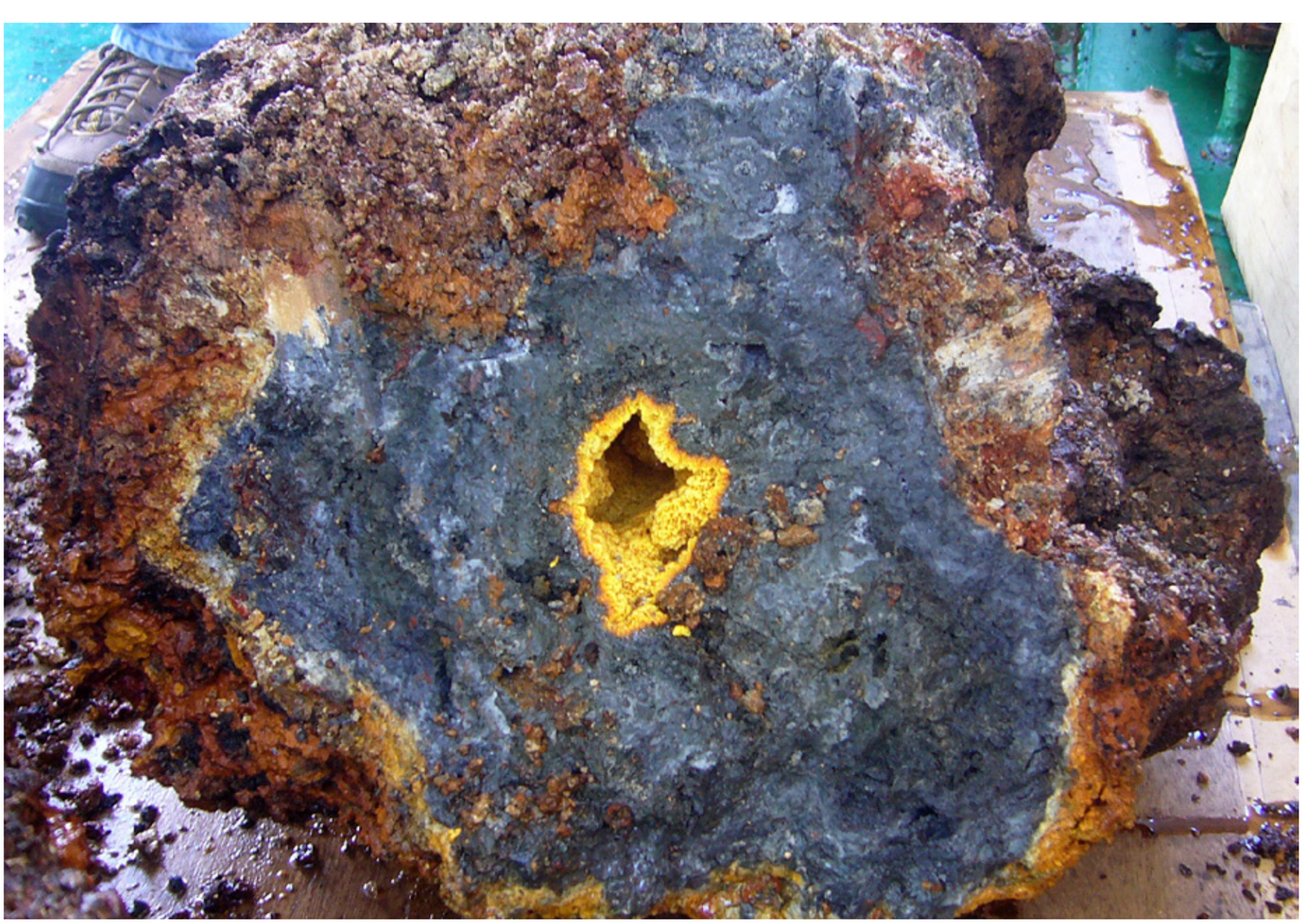


Cutthroat eels feed at a baited camera on a seamount in APEI 7, a "no-mining" area within the Clarion-Clipperton Fracture Zone (CCZ). The CCZ is a broad area in the Pacific Ocean between Hawaii and Mexico divided into 16 mining claims. It holds billions of tons of manganese nodules.

Credit: DeepCCZ project and the University of Hawaii. Leitner et al. in prep. Synaphobranchid Swarms at an Abyssal Seamount Summit: the Largest Aggregation of Fishes Ever Observed at Abyssal Depths

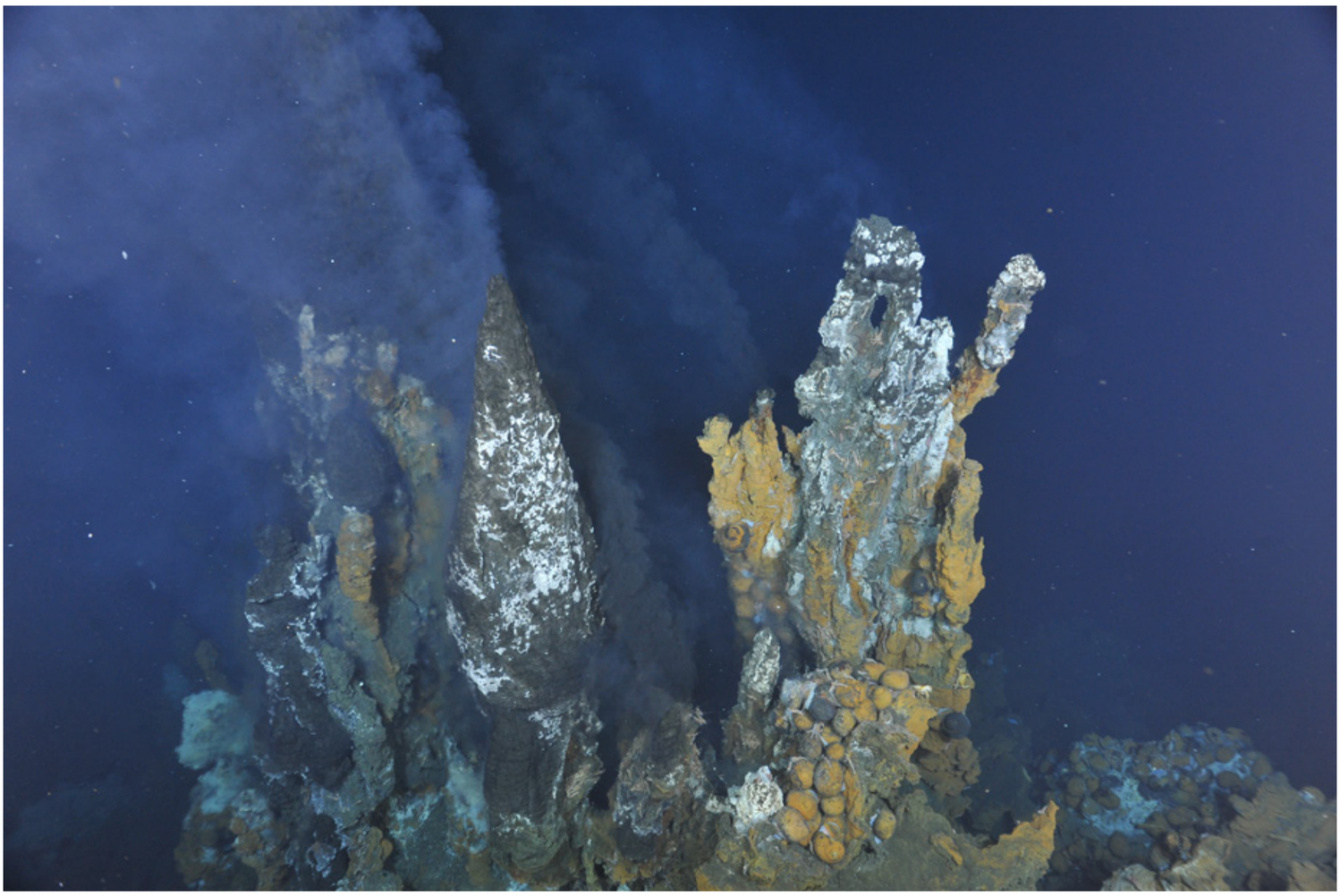
A remotely operated subsea crawler mines for polymetallic nodules in a promotional video for Royal IHC Deep Sea Mining.

Credit: Assumed Fair Use, please confirm. No permission requested/given by Royal IHC.



Zinc sulfide hydrothermal vent chimney cross section collected from the Mariana volcanic arc in the west Pacific Ocean by the USGS in 2010.

Credit: James Hein, U.S. Geological Survey Pacific Coastal and Marine Science Center.

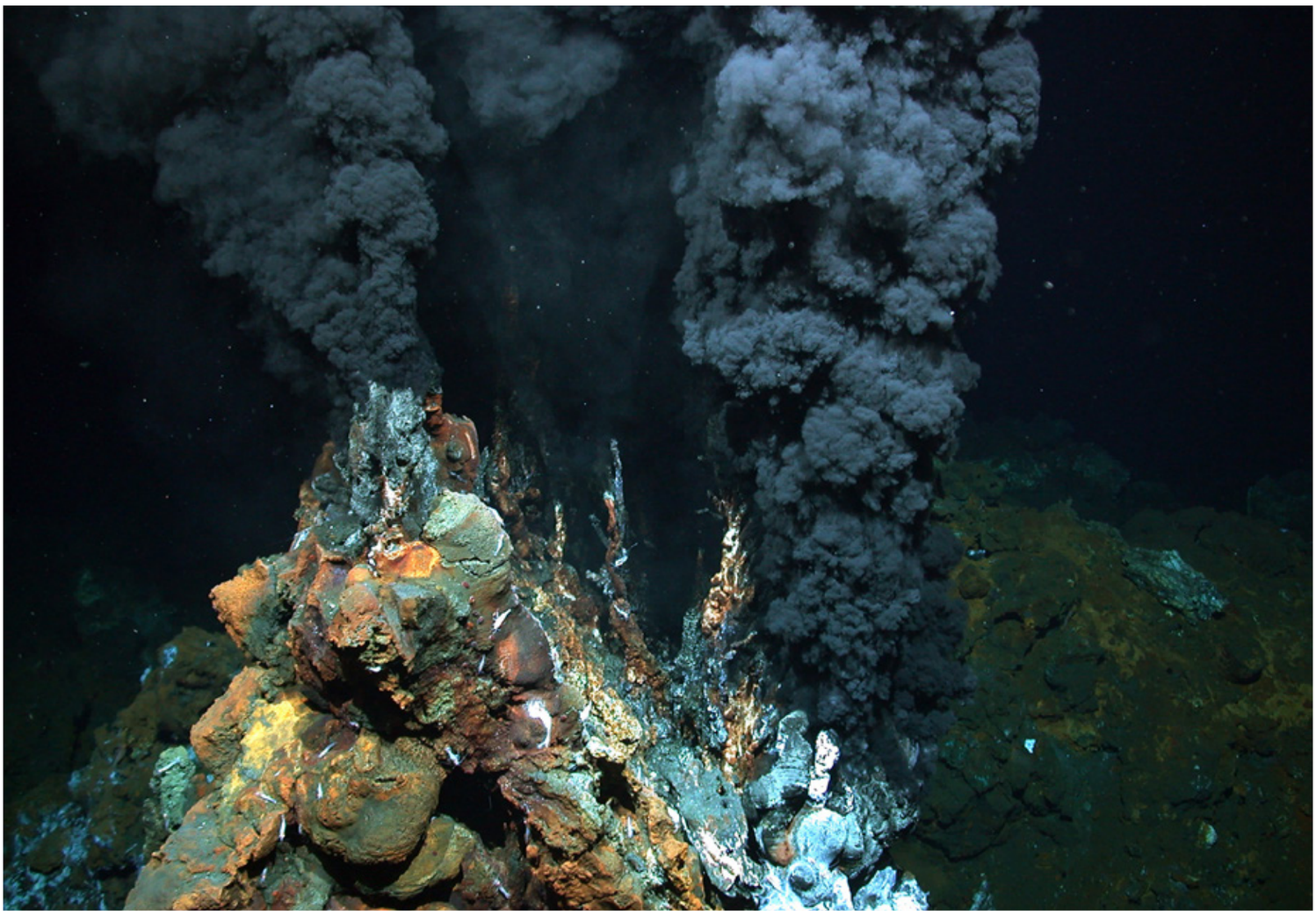


Vent snails, shrimp, and crabs on a black smoker hydrothermal vent on the seafloor between Samoa and Tonga. Black smokers form when super-heated, sulfide-rich water solidifies into vents and chimneys, where benthic communities assemble. The Schmidt Ocean Institute, which operates the R/V Falkor, is funded by Google's former CEO Eric Schmidt through the Schmidt Family Foundation.

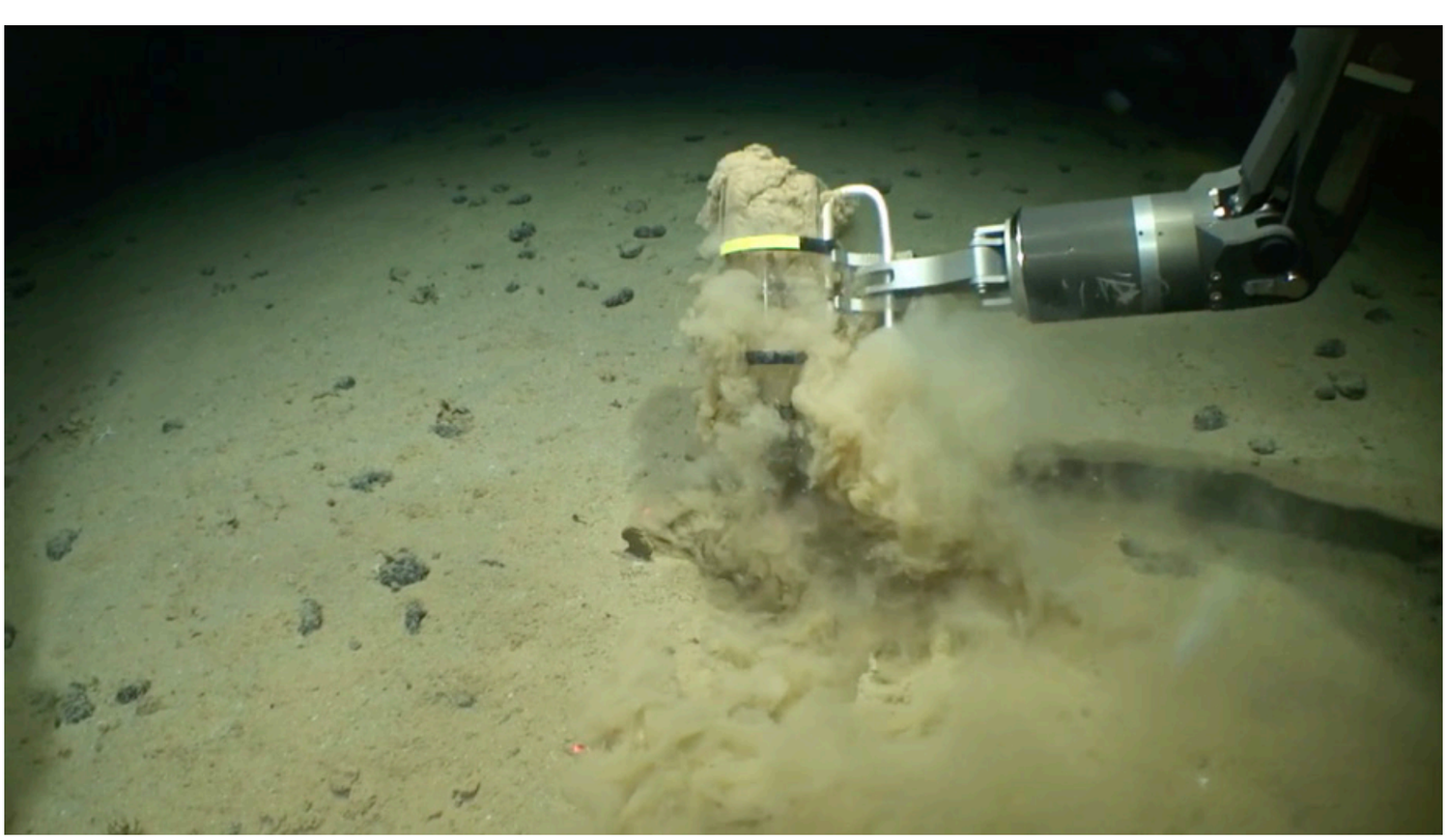
Credit: FK160322 Virtual Vents expedition. Schmidt Ocean Institute.

Torquaratoridae, from OER's Benthic Deepwater Animal Identification Guide, "a collection of in situ images created from video frame grabs taken from Deep Discoverer (D2) remotely operated vehicle (ROV)."

Credit: NOAA Office of Ocean Exploration and Research Benthic Deepwater Animal Identification Guide.
Available from http://oceanexplorer.noaa.gov/okeanos/animal_guide/animal_guide.html.



Black smoker in 2,980 meters of water on the Mid-Atlantic Ridge
Credit: MARUM – Center for Marine Environmental Sciences, University of Bremen (CC-BY 4.0)



Deep CCZ Expedition: Exploring Abyssal Communities in the Pacific Ocean Before Deep-Sea Mining Begins.

Remotely Operated Vehicle (ROV) Lu'ukai collects sediment and microbe/microbial samples from the abyssal plain at 5,000 meters in the CCZ. Manganese nodules can be seen on the seafloor.

The project is intended to research the adequacy of the network of nine preservation areas (APEIs) set aside within the planned nodule mining area of the Pacific seafloor, which encompasses over one million square kilometers.

Credit: https://oceanexplorer.noaa.gov/explorations/18ccz/logs/photolog/photolog.html#cbpi=../../media/ccz_video_070518/ccz_video_070518.html

Deep CCZ Expedition: Exploring Abyssal Communities in the Pacific Ocean Before Deep-Sea Mining Begins.

Remotely Operated Vehicle (ROV) Lu'ukai showing interior with video color balance card and rattail fish.

Credit: https://oceanexplorer.noaa.gov/explorations/18ccz/logs/photolog/photolog.html#cbpi=../../media/ccz_video_070518/ccz_video_070518.html

Notes from the Cracks of the Panthéon: On Symbolic Friction and the Possibility of Counterinstitutions

Niklas Plaetzer