DEEP-SEA MINING

- Deep-sea mining is the process of retrieving mineral deposits from the deep seabed the ocean below 200m.
- **Depleting terrestrial deposits** and **rising demand for metals** mean deep-sea mining may begin soon, even though research suggests that it could destroy habitats and **wipe out species**.
- **Deep-sea mining should be halted** until the criteria specified by IUCN are met, including the introduction of assessments, effective regulation and mitigation strategies.
- **Comprehensive studies** are needed to improve our understanding of deep-sea ecosystems and the vital services they provide to people, such as food and carbon sequestration.

What is the issue?

Deep-sea mining is the process of extracting and

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Disturbance of the seafloor

The digging and gauging of the ocean floor by machines can alter or destroy deep-sea habitats. This leads to the loss of species, many of which are found nowhere else, and the fragmentation or loss of ecosystem structure and function. It is the most direct impact from deep-sea mining and the damage caused is most likely permanent.

Potential impacts from deep-sea mining © Amanda Dillon, from Drazen et al. 2020 doi.org/10.1073/pnas.2011914117

Sediment plumes

Deep-sea mining will stir up fine sediments on the seafloor, creating plumes of suspended particles. This is exacerbated by mining ships discharging waste water at the surface. Scientists are concerned these particles may disperse for hundreds of kilometres, take a long time to resettle on the seafloor, and affect ecosystems and commercially important or vulnerable species. For instance, such plumes could smother animals, harm filter-feeding species, and block animals' visual communication.

Pollution

Species such as whales, tuna and sharks could be affected by noise, vibrations and light pollution caused by mining equipment and surface vessels, as

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