Seabed Mining

Impacts of Experimental Deep Sea Mining



Should Nautilus Minerals have the go ahead around Papua New Guinea?

Deep seabed mining is an experimental field that involves drilling the sea floor to extract minerals and deposits. It occurs 500m below the surface, usually around areas with hydrothermal vents. Currently, there have been no incidences of deep-sea mining that have occurred around the world but the start could be problematic for many ecological and social implications. Nautilus Minerals, a Canadian mining company, is planning to take on the deepsea mining project called Solwara-1. Terrestrial mining has been excessively overexploited and now companies are turning to the deep ocean to extract and destroy unfamiliar territory. It is important that we prevent experimental mining from taking off and destroying habitats that are relatively unknown to scientists.





Allonautilus scrobiculatus

One of the world's rarest nautilus species inhabits the waters of Papua New Guinea where the proposed mining site will happen. Will the mining activity result in extinction of this species or will efforts against the deep-sea mining allow the ancient nautilus to survive?



Reasons Against Deep-Sea Mining

- Hydrothermal vents are habitats for a diverse population of species→the vent communities would be at risk
- Sediment and toxic build up in the water
- The relatively unknown nature of the deep sea could lead to adverse effects
- Once mining starts, other parts of the world will follow, destroying marine habitats
- The deep-sea is a carbon sink, disturbing the environment will release carbon into the water column

- Local communities around the proposed site are against the mining project
- High nutrient water moving up into environments where low nutrient animals live
- Underwater noise threatening animal behavior
- Bringing light into a dark environment will disrupt specialized lifestyles
- Local livelihoods are threatened→fisheries, food security and cultural benefits of the ocean

SOLUTION

- The government of Papua New Guinea needs to prevent international companies from having the right to exploit resources and damage marine environments in their exclusive economic zone.
- A marine protected area could be proposed to prevent mining and other threats to the area, which impacts the local communities way of life.
- Getting Allonautilus scrobiculatus on a protected species list could lead to protection of their habitat as well as a reason to stop mining from happening

References:

http://www.deepseaminingoutofourdepth.org/wp-content/uploads/accountabilityZERO_web.pdf https://www.oceanfdn.org/resources/seabed-mining http://www.jstor.org.ezproxy.library.ubc.ca/stable/pdf/20036268.pdf?acceptTC=true http://www.nytimes.com/interactive/projects/cp/summer-of-science-2015/latest/nautilus