

X-traordinary: The Place of Hot Vents in a World of Humanity

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Add to the X-citing files! Xenoturbella and Xyloplax exemplify the novelties found in chemosynthetic environments: little socks and sea daisies not only grab our imaginations but fuel fascinating evolutionary debates. How often do we find new phyla or classes (well, debate continues on taxonomic levels)? Vents - and chemosynthetic systems in general - are a hotbed of organism discovery that has changed forever our interpretation of Life's origins and evolutionary patterns. If not for hot vents, Enceladus would probably be an uninteresting extraterrestrial target today. Vents provide opportunities for bio-product development, inspiration for creative endeavours, and delight for future ocean explorers. Exploration has also fostered knowledge of how metal-rich ores are formed by hydrothermalism. Large sulphide deposits in both State and Area seabed are potential mining opportunities. The International Seabed Authority is currently developing a Mining Code following approval of Exploration licences at vent sites in the Atlantic and Indian Oceans. The Deep Ocean Stewardship Initiative has responded to requests for commentary from ISA - and other organizations - on draft regulations with application of the precautionary principle and membership knowledge of potential hazards for these tiny islands of life in the deep sea. DOSI requests its community to engage in the exploitation discussion.