

1 **Sponge and coral communities of potential mineral resources in the deep-sea:**
2 **an overview**

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13 Depletion of commercially valuable minerals on land and increased need of such resources for
14 modern electronics and manufacturing is attracting more and more attention to deep-sea mineral
15 deposits such as cobalt crusts, manganese nodules, phosphorites, polymetallic sulfides and even
16 deep-sea ooze. In a few years we expect intensive exploitation in the deep-sea. Being suspension-
17 feeders, corals and sponges associated with hard substrata in potential mining sites would be
18 adversely impacted by deep-sea mining. Deep-sea corals and sponges are characterized by
19 extremely slow growth rates and, as can be seen from fishery impacts, they may take decades to
20 centuries to restore. At the same time, they serve as a substrate, shelter and food for a number of
21 associated deep-sea organisms, thus increasing the cumulative impact of their loss. We
22 summarize here the available data on coral and sponge communities of solid deep-sea ore
23 deposits and possible mechanisms driving their diversity.

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25 Keywords: deep sea, corals, sponges, mineral resources, mining

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27 Short Description: An overview of coral and sponge communities inhabiting solid deep-sea ore
28 deposits