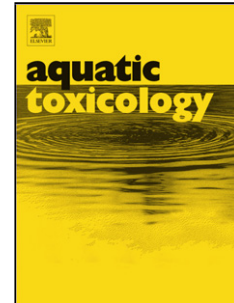


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1 **A comparative experimental approach to ecotoxicology in shallow-water and deep-sea**
2 **holothurians suggests similar behavioural responses**

3

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12 **Highlights**

- 13 • Shallow-water and deep-sea holothurians avoided copper-contaminated sediment.
- 14 • Shallow-water taxa may be suitable ecotoxicological proxies for deep-sea taxa.
- 15 • Avoidance behaviour may have bioenergetic consequences.

16

17 **Abstract**

18 Exploration of deep-sea mineral resources is burgeoning, raising concerns regarding
19 ecotoxicological impacts on deep-sea fauna. Assessing toxicity in deep-sea species is
20 technologically challenging, which promotes interest in establishing shallow-water
21 ecotoxicological proxy species. However, the effects of temperature and hydrostatic pressure
22 on toxicity, and how adaptation to deep-sea environmental conditions might moderate these

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