

Press Release



75/2023

Deep-sea mining and warming trigger stress in a New study led by GEOMAR provides insight into the effects of sediment plumes

21.11.2023/Kiel. The deep sea is home to one of the largest animal communities on earth which is increasingly exposed to environmental pressures. However, our knowledge of its inhabitants and their response to human-induced stressors is still limited. A new study led by scientists from GEOMAR Helmholtz Centre for Ocean Research Kiel now provides first insights into the stress response of a pelagic deep-sea jellyfish to ocean warming and sediment plumes caused by deep-sea mining. The researchers are publishing their results today in the journal

to the stress response of a deep pelagic jellyfish to ocean sediment plumes.

Environmental stressor for organisms in the deep ocean is the with the commercial mining of mineral resources on the sediment will need to be discharged back into the water regulations at what water depth the sediment should be generated like this can extend for tens to hundreds of Deep-

ing as Dr Helena Hauss, co-first author of the study and Research Director Marine Norwegian Research Centre (NORCE), explains: "The midwater is crucial for the global

Brazil, South Africa, Canada and the USA, and complemented by a wider network of associated partners.

Project funding:

The Integrated Assessment of Atlantic Marine Ecosystems in Space and Time (iAtlantic) project is funded by the European Union's Horizon 2020 programme, under grant agreement 818123. The project started on 1 June 2019 and finishes on 31 March 2024.

Links:

www.iatlantic.eu iAtlantic project website

https://www.iatlantic.eu/wp-content/uploads/2023/11/iAtlantic_Jellyfish_DSM_brief_webversion.pdf

Science Brief iAtlantic

www.norceresearch.no/en Norwegian Research Centre

<https://www.sams.ac.uk/> Scottish Association for Marine Sciences

<https://www.si.edu/> Smithsonian Institution

<https://www.geomar.de/en/hhoving/researchgroup> Deep-Sea Biology Research Group

Images:

Images are available for download at <http://www.geomar.de/n9207-e>.

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