

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN INDIA

April 1st, 2019 to March 31st, 2020

GEOTRACES activity is continuing in India. We are now focusing on the study of the interaction of trace metals with biology. Emphasis is given to understand the adaptation of microbes physiology to metal scarcity and its variable supply and interaction with cellular function and evolution and to understand the impact of varying levels of TMs on a select set of biota using simulated conditions and the proteins/ enzymes by these organisms.

- Sampling in the Indian Ocean

GEOTRACES section along 9 °N (Figure) was sampled during Jan-Feb 2020 onboard *Sindhu Sadhana*. Samples were collected for trace metals alongwith omics study. MacLane pumps were used to collect particulate matter from the water column.

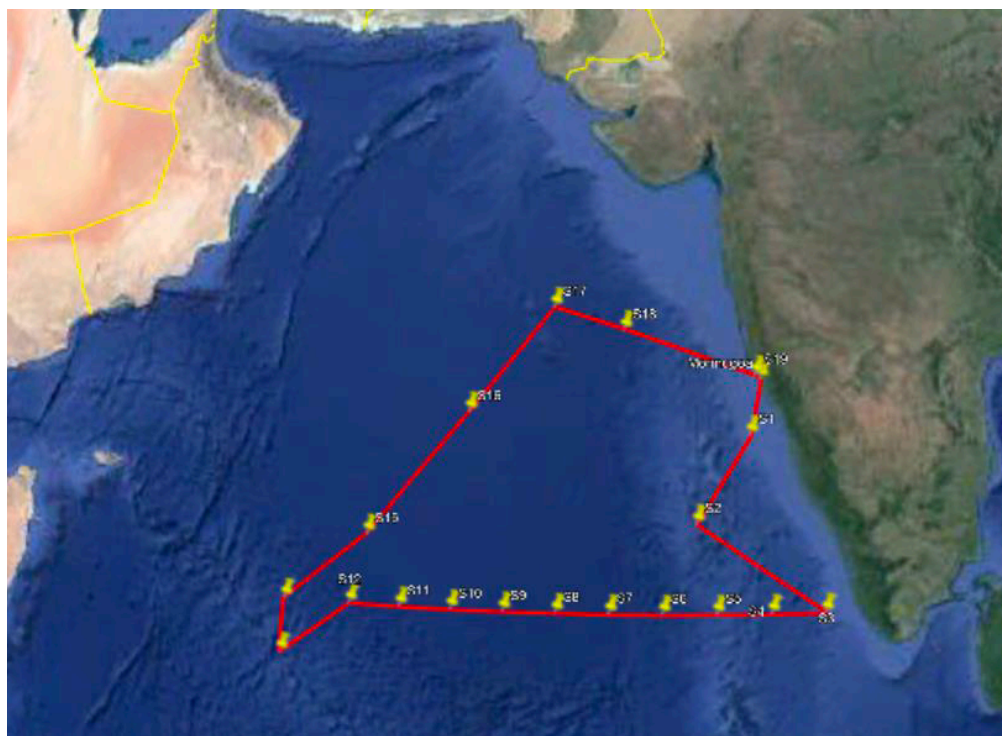


Figure: GEOTRACES section sampled in the Arabian Sea during Jan-Feb 2020.

- Trace elements, genomics and proteomics in the Arabian Sea

A suite of bio-active trace metals is being analysed in the samples collected in the Arabian Sea using newly installed HR-ICPMS coupled with SeaFast.

Submitted by Vineet Goswami and Sunil Kumar Singh (sunil@nio.org).