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SIBER: Sustained Indian Ocean Biogeochemical and Ecosystem Research

Raleigh Hood and the SIBER Scientific Steering Committee Team
University of Maryland Center for Environmental Science, PO Box 775, Cambridge MD USA 21613

SIBER (Sustained Indian Ocean Biogeochemistry and Ecosystem Research) is an emerging international program cosponsored by IMBER (Integrated Marine Biogeochemistry and Ecosystem Research) and IOGOOS (Indian Ocean Global Ocean Observing System) that is aimed at advancing our understanding of biogeochemical cycles and ecosystem dynamics in the Indian Ocean. Although there have been significant advances in our ability to describe and model the oceanic environment, the Indian Ocean remains substantially under-sampled in both space and time, especially compared to the Atlantic and Pacific Oceans. The overarching goal of the SIBER program is to motivate and coordinate international interest in Indian Ocean research in order to fill in our knowledge gaps and address the major outstanding scientific questions. SIBER is structuring its research around six major scientific themes, each focusing on a specific set of scientific issues that require attention. Theme 1 focuses on boundary current dynamics, interactions and impacts on biogeochemical cycles and ecosystem dynamics in the Indian Ocean. Theme 2 considers the unique dynamics of the equatorial zone, southern tropics and Indonesian Throughflow and their impacts on ecological processes and biogeochemical cycling. Theme 3 contrasts physical, biogeochemical and ecological processes between the Arabian Sea and the Bay of Bengal. Theme 4 considers controls and fates of phytoplankton and benthic production in the Indian Ocean. Theme 5 addresses climate change and anthropogenic impacts on the Indian Ocean and its marginal seas and theme 6 considers the role of higher trophic levels in ecological processes and biogeochemical cycles. All of these scientific themes are relevant to the overarching goals of IMBER. In this presentation we provide an overview of SIBER.