



SOUTH AFRICA'S CONTRIBUTION TO THE IIOE-2

- **Summary report for 2021-2022** Subsequent to the two DEA- (now DFFE) led regional training cruises in 2017 & 2018 on the *SA Agulhas II* [IIOE2-EP26], which took place off Mozambique, Tanzania and the Comoros, several activities and initiatives have been achieved and others planned. A summary is provided below.

Workshops

1. WIO Regional Benthic Imagery Workshop – 30 August-3 September 2021 (Partners: RSA; IOC; WIOMSA, etc.) – Haupt et al. (2022) The WIO Regional Benthic Imagery Workshop: Lessons from past IIOE-2 expeditions. Research Ideas and Outcomes 8: e81563 <https://doi.org/10.3897/rio.8.e81563>
2. IOGOOS Virtual Training Workshop on “Biological Observations in the Indian Ocean (From Microbes to Megafauna)” - 8-12 November 2021 (Partnership: (DFFE (RSA); Sustained Indian Ocean Biogeochemistry and Ecosystem Research (SIBER), the Centre for Marine & Coastal Studies (CEMACS) (Malaysia) and the Indian National Centre for Ocean Information Services (INCOIS) (India); IOC of UNESCO). – article on the upcoming “Indian Ocean Bubble”

Capacity Building

1. Masters Student: Ceica Chioze (from Mozambique) – processing and analysing data from the IIOE-2 2017 zooplankton data for her work - also part of the ReMoTurb project - Dr Jenny Huggett (Supervisor).

Conferences

1. International Indian Ocean Science Conference 2020 (IIOSC-2020) 14-18 March 2022 (Virtual) – Oral and Poster presentations by RSA participants
Summary of presentations:
 - a. Dr Tarron Lamont & Dr Issufo Halo, “Evaluation of the GLORYS ocean model for environmental monitoring in the Agulhas Current System”, IIOSC-2022, 14 March 2022.
 - b. Dr Jenny Huggett et al., “Microzooplankton communities associated with diverse oceanographic environments in the South West Indian Ocean”, IIOSC-2022, 15 March 2022.
 - c. Dr Tanya et al., “Refining outputs from past IIOE2 expeditions: The WIO Regional Benthic Imagery Workshop”, IIOSC-2022, 15 March 2022.
 - d. Dr Issufo Halo & Dr Tarron Lamont, “Intrusion of the Antarctic Intermediate Waters inshore of the Agulhas Current along the Southeast Coast of South Africa: perspectives from GLORYS-12v1 model”, IIOSC-2022, 16 March 2022.
 - e. Dr. Ashrenee Govender: Metabarcoding of zooplankton enhances analyses of connectivity in marine pelagic environments
 - f. Dr Ken Findlay. Ocean Accounting: Integrating transdisciplinary ocean data to bridge the science-policy gap for ocean sustainable development. Panel Discussion on Blue Economy and sustainable development (Speaker)
 - g. Sean Fennessy: WIO-Benth A project to map benthic habitats and communities in the Western Indian Ocean



IIOE-2 National Report: South Africa

IIOE-2 SC5, 21-22 March 2022

- h. "Keeping the Agulhas current" - one of the 4 speakers in the Plenary session & Panel Discussion: Ocean value chain: Observations to services
 - i. Daneeja Mawren: Marine heatwaves and tropical cyclones - two devastating types of coastal hazard in South-eastern Africa
 - j. Bernardino S Malauene (NMU): Temperature gradients along the East African coast using 50 years of ship data
 - k.
2. UPCOMING: 17th Southern African Marine Science Symposium – 20-24 June 2022 (hybrid); Durban, south Africa.
 3. UPCOMING: 12th WIOMSA Scientific Symposium 10 – 15 October 2022 – Hybrid Conference (Port Elizabeth, South Africa).

Report prepared by:

Jenny Huggett and Mthuthuzeli Gulekana (presented), on behalf of:

Ashley Johnson, Chair: South African National IIOE-2 Committee, Oceans and Coasts, Department of Forestry, Fisheries and the Environment (DFFE); March 2022.