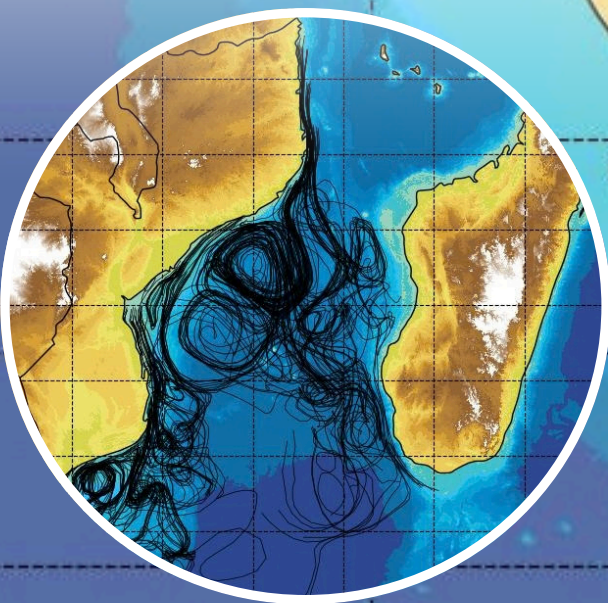


WORKSHOP

Marine Connectivity Modelling



Introduction to marine connectivity modelling and application with Ichthyop

Marine connectivity refers to the movement of marine organisms—from microscopic plankton to large whales—and the resulting exchange of matter, genes, and energy between habitats. Understanding these is fundamental to assessing population resilience, ecosystem integrity, and species capacity to respond to a rapidly changing ocean.

Connectivity knowledge informs decision-making and management at both local and global scales, providing valuable information for public and private sectors involved in ocean use, marine spatial planning, and conservation. For example, connectivity can help assess fisheries stocks, identify important areas and reveal pathways for species, and improve the design and effectiveness of Marine Protected Areas (MPA)— whether one simple large MPA or a network of several smaller, connected MPAs.

The Institute for Coastal and Marine Research and UK-SA Bilateral Research Chair: Ocean Science & Marine Food Security at Nelson Mandela University is hosting Nicolas Barrier, a research engineer for IRD in France, who specialises in numerical modelling applied to marine ecosystems. This is under the Marine Ecological Connectivity and Conservation in the Mozambique Channel (MERMOS) SIOMPA project.

This 1-day practical workshop, facilitated in conjunction with other relevant MERMOS project team members, aims at providing an introduction to marine connectivity and its applications. It includes a practical session on the use of the Lagrangian dispersal software Ichthyop (<https://ichthyop.org>). This workshop is open to students, researchers, and the marine science community interested in exploring the applications and challenges of marine connectivity using dispersal models.

TIME	SESSION	SPEAKERS
Morning section: Lectures		
09h00 – 09h45	Context of marine connectivity	Christophe Lett (IRD)
09h45 – 10h30	Introduction to oceanography	Mike Roberts (NMU) and Issufo Halo (DFFE)
10h30 – 11h15	Corridors and barriers to marine connectivity	Bernardino Malauene (NMU/IIMP)
11h15 – 12h00	Modelling larval dispersal and connectivity	Bernardino Malauene or Nicolas Barrier (IRD)
12h00 – 13h00	Lunch break	All
Afternoon section: Practical section		
13h00 – 15h00	Ichthyop larval dispersal modelling tool	Nicolas Barrier (IRD)

* Advanced Ichthyop model sections are available on request between 20-30 October. This includes software/package installation, setup and run simulation, deriving indicators of connectivity from models using the Ichthyop Python package.

19 OCT

TIME: 09:00 – 15:00 SAST

VENUE: Nelson Mandela University, Ocean Sciences Campus, Dept. of Atmospheric and Oceanographic Sciences Lecture Room, C Block, 1st floor

SCAN QR CODE OR CLICK [HERE](#) TO REGISTER

