

The CLimate Impacts on TOP Predators (CLIOTOP) science programme: building collaborations to develop understanding of dynamic marine ecosystems and pathways for sustainable practices



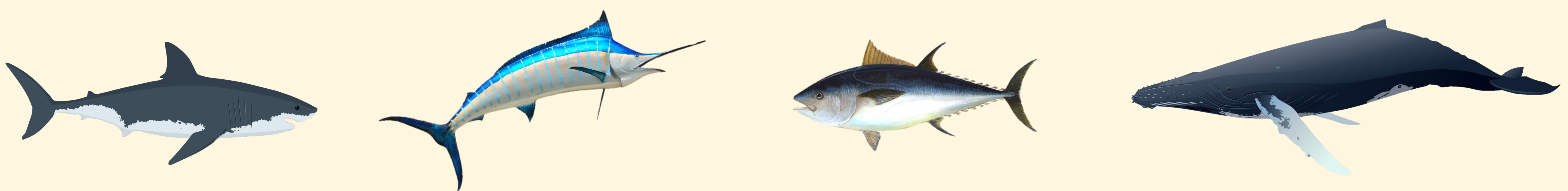
Barbara Muhling^{1,2}, Karen Evans³, Yu Kanaji⁴, Takashi Kitagawa⁵, Joel Llopiz⁶, Anne Lorrain⁷, Heidi Pethybridge³, Lilis Sadiyah⁸, Kylie Scales⁹, and Sebastian Villasante¹⁰

What is CLIOTOP?

CLIOTOP is a regional programme of the Integrated Marine Biosphere Research (IMBeR) project sponsored by the Scientific Committee on Oceanic Research (SCOR) within the International Science Council. IMBeR is one of 27 Global Research Networks supported by Future Earth. CLIOTOP has been operating since 2005 and is now in its third phase (2016-2025).

CLIOTOP is an international research network open to researchers, managers, and policy makers involved in marine research related to large marine species.

CLIOTOP's overarching goal is to facilitate broad-scale comparisons (e.g. over time, space, and taxa) that better identify the impacts of climate and fishing on top predators and the functioning of pelagic ecosystems, with the ultimate goal of developing predictive capabilities. Activities such as collaboration-promoting workshops, open science symposia, and dedicated task teams addressing specific topics are open to any interested individuals



Task Teams

CLIOTOP task teams are formed to address specific research topics. Task teams are networks of researchers and are by nature open to collaboration and membership.

Past task teams have engaged in a wide range of collaborative research activities, covering topics such as operational oceanography, dynamic ocean management, movement behaviours, and trophodynamics. Outputs include four special issues of Progress in Oceanography and Deep-sea Research II.

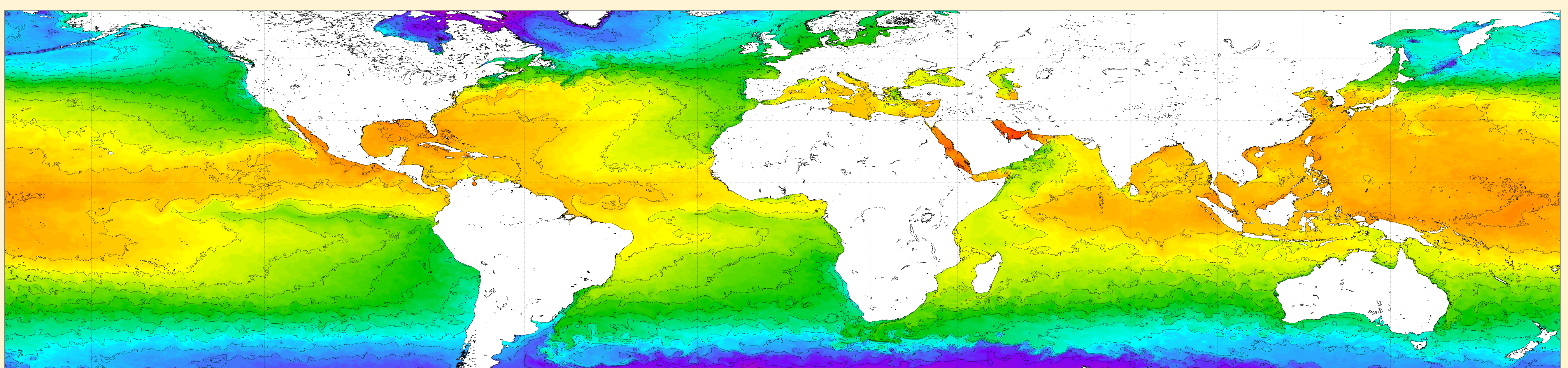
Current (2023 – 2024) Task Teams

A Medieu, A Choy et al.:
Investigating global trophic linkages in the mesopelagic zone:
anais.medieu@ird.fr

P Lian, B Muhling et al.:
The climate impacts of marine heatwaves on top predators in tropical oceans:
fisheries@foxmail.com

K Scales, S Brodie et al.:
Exploring new horizons, barriers and bottlenecks in marine ecological forecasting for oceanic top predators: kscales@usc.edu.au

C Huveneers, L Meyer et al.:
Global analysis of white shark trophic role:
charlie.huveneers@flinders.edu.au



Get involved with CLIOTOP!

Are you working on similar topics or interested in the impacts of climate change on oceanic top order predators? Send us an email to get on our mailing list, plan to attend upcoming meetings, and join or create a task team to increase the impact and relevance of your research. You may even be interested in joining our Scientific Steering Committee (SSC) for a two-year renewable term. Contact: Heidi Pethybridge and Anne Lorrain (CLIOTOP co-chairs) via imber@ecnu.edu.cn

Link to CLIOTOP website:



1: University of California, Santa Cruz, USA, 2: NOAA Southwest Fisheries Science Center, USA, 3: Commonwealth Scientific and Industrial Research Organisation, Australia, 4: Fisheries Resources Institute, Japan, 5: Atmosphere & Ocean Research Institute (AORI), University of Tokyo, Japan, 6: Woods Hole Oceanographic Institution, USA, 7: IRD, LEMAR, France, 8: Center for Fisheries Research and Development, Indonesia, 9: University of the Sunshine Coast, Australia, 10: University Santiago de Compostela, Spain. Images: P. Brennan, NOAA, M. Elturkey