



SWINGS

OCEANOGRAPHIC MISSION TO STUDY NUTRIENT SOURCES, SINKS AND DISTRIBUTION PROCESSES IN THE SOUTHERN OCEAN

The Southern Ocean is considered a nutrient 'hub' between the Atlantic, Pacific and Indian Oceans, but the sources, sinks and processes controlling the distribution of these nutrients are presently unknown.

SWINGS is a multidisciplinary project that aims to identify the sources, transformations and sinks of trace elements and isotopes along a section of the Southern Indian Ocean (SIO). The SWINGS project - France's major contribution to the international GEOTRACES Programme (www.geotraces.org) - involves 78 scientists from 19 laboratories in 6 countries in a 63-day oceanographic mission in the SIO with 47 participants on board the survey vessel.

The SWINGS project's strategy is based on closely combining physical oceanography, biogeochemistry and modelling.

As the first year of the project, 2020 will be devoted to preparing for the survey mission, which is scheduled for early 2021 (summer in the southern hemisphere), aboard the Marion-Dufresne. Data analysis, validation and interpretation will begin in 2021 in the northern hemisphere.

Partners

Research centers

Université de Toulouse, LEGOS UMR 5566, Toulouse (31) [Project Developer]
CEA-SACLAY Laboratoire des Sciences du Climat et de l'Environnement (LSCE), UMR 8212, Gif-sur-Yvette
CERFACS, Laboratoire Climat, Environnement, Couplages et Incertitudes (CECI), Toulouse
Council for Scientific and Industrial Research / Southern Ocean Carbon and Climate Observatory CSIR-SOCCO, Cape Town (Afrique du Sud)
Duke University / Biogeochemistry & Ecophysiology, DU-B&E, Durham (USA)
Eidgenössische Technische Hochschule Zürich, ETHZ / Institute for Geochemistry and Petrology Zurich (Suisse)
Florida University / Department of Earth, Ocean and Atmospheric Science FU-DEOAS Tallahassee (USA)
Institut Méditerranéen d'Océanographie- Université d'Aix-Marseille, MIO-AMU, Marseille
Laboratoire AD2M (UMR7144), Station biologique de Roscoff
Laboratoire d'Océanographie Microbienne (LOMIC, UMR 7621), Banyuls
Max Planck Institute for Chemistry / Climate Geochemistry Department MPI-CCGD, Mayence (Allemagne)
Sorbonne Université Laboratoire d'Océanographie et du Climat, Paris
Stellenbosch University / Department of Earth Sciences SU-DEAS, Stellenbosch (Afrique du Sud)
UBO, Laboratoire d'Océanographie Physique et Spatiale (LOPS), Brest (29)
UBO, Laboratoire des sciences de l'Environnement MARin, LEMAR (UMR 6539), Brest
Université de Toulouse, Géosciences Environnement Toulouse, UMR 5563, Toulouse
Washington University / The School of Oceanography WU-SO, Seattle (USA)
Woodshole Oceanographic Institution / Marine Biogeochemistry WHOI-MBC, Woods Hole (USA)

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4418 K€