

COUNTRY: CHILE

Project Title:

Center of Oceanographic Research in the South eastern Pacific (FONDAP-COPAS)

Source of Information:

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Project Description:

The FONDAP-COPAS Center focuses its main multi- and interdisciplinary research on the physical, biogeochemical, ecological and paleoceanographic processes that occur in the systems of the Eastern South Pacific (ESP) region. In a long term (~10 years) the goal of the COPAS is to become an institution of international recognition. Among its interests with social impact the COPAS favors the collaboration with national and foreign scientists, and with international organizations in the achievement of the goals. Besides the normal educational activities of a FONDAP Center, also inherent to its nature is a robust outreach and information transference program both to decision and policy makers as well as to the general public and students at all levels on oceanographic and climate issues.

The nucleus of the COPAS initially is formed by the Research Programs, with the Principal (PI), and Associated Investigators (AI).

1. General Goals

- To create new multidisciplinary knowledge regarding the Eastern South Pacific.
- To create a motivating and pleasant environment conducive to the highest possible scientific productivity in advanced research on regional oceanography and paleoceanography aspects in the ESP, and the role of this ocean in the global climate system.
- To consolidate a Center of Excellence in Oceanography with international recognition.
- To strengthen the capacity to carry out scientific oceanographic research in Chile and the Latin American region.
- To encourage interdisciplinary ocean and climate research projects and international collaboration in the ESP region.
- To raise the level of awareness in policy makers and the general public of the region regarding oceans and climate change.

2. Specific goals

- To train young students in oceanography and related disciplines.
- To attract young researchers, post-doctoral fellows, graduate students and oceanographers, and climate scientists from all over the world to participate in the research and educational activities of the Center.
- To improve the quality of graduate education in oceanography at the University of Concepción
- To contribute in the increase of the number and quality of the oceanographers in Chile and Latin America.
- To contribute in opening new interdisciplinary research areas related with oceanography interacting with disciplines such as meteorology, geology, geophysics, applied mathematics, engineering, molecular biology, biogeochemistry and ecology.
- To inform and educate policy makers and the general public with regard to oceanography and climate issues.

Target Organisms:

Dominant planktonic species from pico-, nanno-, micro-, meso- and macrozooplankton

Soft-bottom benthic species

Physical Processes Examined:

Remote forcing El Niño/La Niña

The Oxygen minimum zone

Large scale patterns of circulation at mesopelagic depths

Key Questions, Hypotheses and Issues:

The scientific goals in the medium-term (5 years) are: i) to analyze and understand the impact of the ENSO (El Niño Southern Oscillation) cycle and other large scale phenomena in the region and its feedback on the climatic system, ii) to study the structure and function of the Oxygen Minimum Zone (OMZ) and its impact on the climatic system, and iii) to identify the role that the Antarctic Intermediate Waters (AAIW) play in the physical, chemical and biological characteristics of the region and its modification due to the global climate change.

Funding Agency:

Chilean National Commission for Science and Technology.