

# Oceanographic Time Series in Northern Hemisphere Coastal and Open Ocean Ecosystems: CalCOFI & BATS

This course will be a combination of lectures and practicals. The lecture component of the course will focus on the scientific history and development of two time series programs, CalCOFI and BATS, from an integrative point of view, focusing on the interactions between physical, chemical, and biological processes, and key findings in both biogeochemistry and ecosystem function. These two time series will be used as examples to contribute to the Chilean time series program via data, evolution of research questions/ideas, inference, and findings. Key principles in oceanography will be introduced and reinforced using examples from these and other time series. The practical part of the course is focused on application of the knowledge gained in the lecture. Practical will involve scholarship, reading primary literature on a topic, and writing a short summary, as well as hands-on data analysis on focused questions using data from CalCOFI, BATS, and the Chilean time series.

## **Objetivos**

- 1) Students learn about ocean ecosystem time series and global time series networks (e.g., OceanSITES), the underlying science questions, and future opportunities and challenges in time series observing.
- 2) Students learn about the basic principles of carbon cycling and ocean ecosystem function based on the analysis long time series.
- 3) Students learn to critically evaluate an area of research, and in the process develop a research question.
- 4) Students will learn of gaps and caveats in these observing programs, and challenges for the future in the context of global climate change.
- 5) Students learn and use methods developed in CalCOFI and BATS to analyze marine ecosystem time series.

## **Expositor(es):**

Dr. David Checkley, University of California San Diego, Estados Unidos  
Dr. Michael Lomas, Bermuda Institute of Ocean Sciences, Bermuda

**Otros Antecedentes:**

Fecha de inicio: 16 Enero 2012

Fecha de término: 20 Enero 2012

Lugar de realización: Campus Estación Costera de Investigaciones Marinas (ECIM), Las Cruces, Chile.

Horario: 09:00 a 18:00 hrs.

Horas teóricas: 32

Horas prácticas: 08

Créditos: 2

Idioma: Inglés

Cupos: 20

Programa tutor: Doctorado en Oceanografía

Profesor coordinador: Dr. Silvio Pantoja Gutiérrez

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Destinado a: Estudiantes de postgrado y de pre grado avanzado. Profesionales de las áreas afines.