

Third Austral Summer Institute Ocean Observing Systems

University of Concepción-Woods Hole Oceanographic Institution- Fundación Andes

6 – 24 January 2003 Dichato Marine Biological Station Oceanography
Department University of Concepción.

I.- Introduction

The third Austral Summer Institute (ASI-3) was developed in the framework of the collaboration program between the university of Concepción and Woods Hole Oceanographic Institution Supported by Fundación Andes. Additional support for traveling students from other Latin American countries was obtained from the Partnership for Observation of the Global Oceans (POGO) organization.

The objective of the event was to reinforce graduate academic formation and promote scientific discussion among invited lectures and students from Chile and other South American countries, including graduate students, professionals, post docs and faculty member interested in the different subjects.

The Summer Institute was held at the Dichato Marine Biological Station, Oceanography Department, University of Concepción, from 6 to 24 of January. In this occasion, the Institute was focused on physical and biological ocean observing system. Five courses were developed with the participation of scientist from US, Europe and Chilean institutions. The general topics covered were: 1) Application of Acoustical and Optical methods for Plankton Monitoring; 2) Introduction to Ocean Modeling and Data Assimilation; 3) Observing the Large-Scale Ocean Circulation, 4) Mooring design, Materials and Operation and 5) Coupled physical-biological and biogeochemical time series and advanced technologies. The lectures consisted of five days blocks devoted to one specific theme, including the participation of one or two lecturers and about 10-25 students. Each course considered formal lectures, and practical activities like data analysis, computer and fieldwork.

1. PROGRAM

- I. **Application of Acoustical and Optical Methods for Plankton Monitoring**
Dr. Marck C. Benfield
Department of Oceanography & Coastal Sciences/Coastal Fisheries Institute
Louisiana State University
6-10 January 2003

- II. **Introduction to Ocean Modeling and Data Assimilation**
Dr. Vincent Echevin
Laboratoire d'Océanographie Dynamique et de Climatologie (LODYC)
Universite Pierre et Marie Curie
Dr. Ole K. Leth
Program for Physical Oceanography and Climate
University of Concepción
6-10 January 2003

- III. **Observing the Large-Scale Ocean Circulation**
Dr. Detlef Quadfasel
Niels Bohr Institute for Astronomy, Physics and Geophysics
Department of Geophysics and Danish Centre for Earth System Science
University of Copenhagen
13-17 January 2003

- IV. **Mooring design, Materials and Operations**
John Kemp
Woods Hole Oceanographic Institution
20-24 January 2003

- V. **Coupled physical-biological and biogeochemical time series and advanced technologies**
Francisco P. Chavez
Monterey Bay Aquarium research Institute
20-24 January 2003

2.- Participants – Lecturers

N°	Lecturer	Course	Data
1	Dr. Mark C. Benefield, Department of Oceanography & Coastal Sciences/Coastal Fisheries Institute Louisiana State University	Application of Acoustical and Optical Methods for Plankton Monitoring	6-10 January 2003
2	Dr. Ole K. Leth Program for Physical Oceanography and Climate University of Concepción Dr. Vincent Echevin, Laboratoire d'Océanographie Dynamique et de Climatologie (LODYC) Universite Pierr et Marie Curie	Introduction to Ocean Modeling and Data Assimilation	6-10 January 2003
3	Dr. Detlef Quadfasel Niels Bohr Institute for Astronomy, Physics and Geophysics Department of Geophysics and Danish Center for Earth System Science University of Copenhagen	Observing the large-Scale Ocean Circulation	13-17 January 2003
4	Ing. John Kemp, Woods Hole Oceanographic Institution	Mooring design, Materials and Operations.	20-24 January 2003
5	Francisco P. Chavez, Monterey Bay Aquarium Research Institute	Coupled physical- biological and biogeochemical time series and advanced technologies	20-24 January 2003

3.- Participants-students

I. Application of Acoustical and Optical Methods for Plankton Monitoring 6-10 January 2003

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IV. Mooring design, Materias and Operations 20-24 January 2003

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V. Coupled physical-biological and biogeochemical time series and advanced technologies.
20-24 January 2003

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