

COUNTRY: BRAZIL

Project Title:

DEPROAS - Ecosystem Dynamics of the continental shelf of the SW Atlantic

Source of Information:

DEPROAS website (<http://www.io.usp.br/brasil/projetos/deproas.html>), March 2004 and Dr. Yasunobu Matsuura, March 2000

National Representative/ Contact

To be confirmed

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Project Description:

DEPROAS is a multi-disciplinary program, involving physical oceanography, biological oceanography, geological oceanography, and meteorology. It is also a multi-institutional (IOUSP, INPE) enterprise, with collaborations with the University of Maryland, SCIO and Centre ORSTOM). Several social benefits are expected. For example, the results will contribute to a better understanding of the cause and effects of fluctuations in fish population, to obtain proper information for adequate coastal management, and to assess the economical relevance of policies (ports, oil, fishing potential and tourism).

DEPROAS has two main goals:

- To examine the physical mechanisms responsible for seasonal variations of the penetration of the South Atlantic Central Waters (SACW) onto the continental shelf between Cabo de São Tomè and São Sebastião on the coast of Brazil.
- To understand the impact of the seasonal penetration of the SACW on the biological processes of the region's ecosystem.

System Types Studied:

Southeastern coast of Brazil between Sao Tom Cape (22°S) and Sao Sebastian Island (25°S).

Coastal upwelling and its relation to dynamics of the Brazil Current.

Target Organisms:

Sardinella brasiliensis

Paracalanus spp.

Sciaenid fish assemblage

Benthic fauna

Physical Processes Examined:

Coastal upwelling

Penetration of the South Atlantic Central Water (SACW) in the coastal region

Water column stratification

Meandering movement of the Brazil Current

Key Questions, Hypotheses and Issues:

- Input of nutrients in coastal region by intrusion of the SACW
- Concentration process of prey organisms by water column stability between cool SACW and warm Tropical Water
- Interannual and seasonal variation of intrusion of the SACW

Chief Scientist:

Dr. Belmiro Mendes de Castro Filho

Participating Institutions:

Instituto Oceanografico da Universidade de Sao Paulo (IOUSP)
Instituto de Pesquisas Espaciais (INPE)
Instituto de Estudos do Mar Almirante Paulo Moreira (IEMAPM)
University of Maryland
Scripps Oceanography Institution
ORSTOM

Number of scientists and fte:

22

Duration:

4 years

Budget:

US\$ 2,300,000 (approved in 1996 and started in December 2000)

Funding Agency:

Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq)
PRONEX (Programa de Núcleos de Excelência)
FINEP (Financiadora de Estudos e Projetos)
CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico).