

Cape Verde Ocean Observatory

A Multi-Platform Ocean Time-Series Station



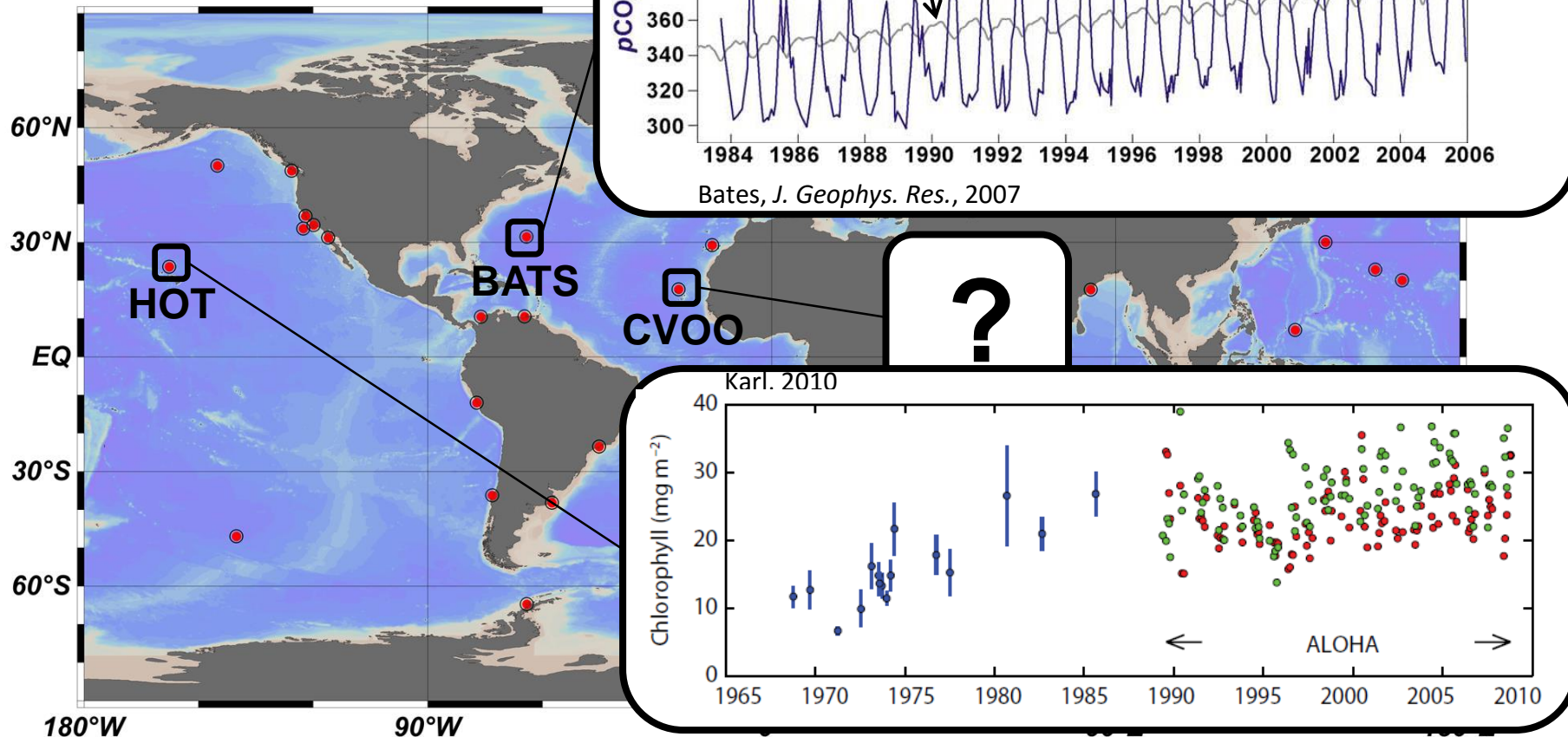
Pericles Silva, Björn Fiedler, Ivanice Monteiro, Nuno Vieira, J. Karstensen, M. Lohmann, C. Zenk, Carlos Santos, and Arne Körtzinger



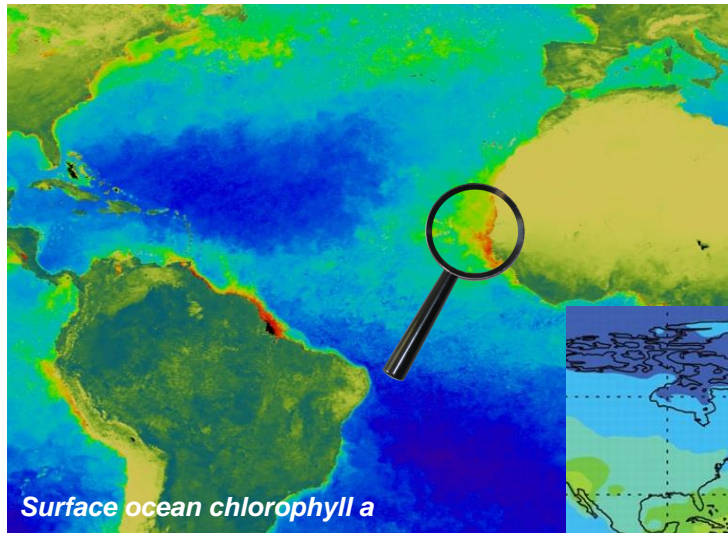
Nov. 3_5th, 2015 – WORKSHOP ON “UPDATE OF METADATA, DATA AVAILABILITY AND APPLICATION NEEDS FOR A CCLME ECO-GIS VIEWER”

, Praia , Cape Verde

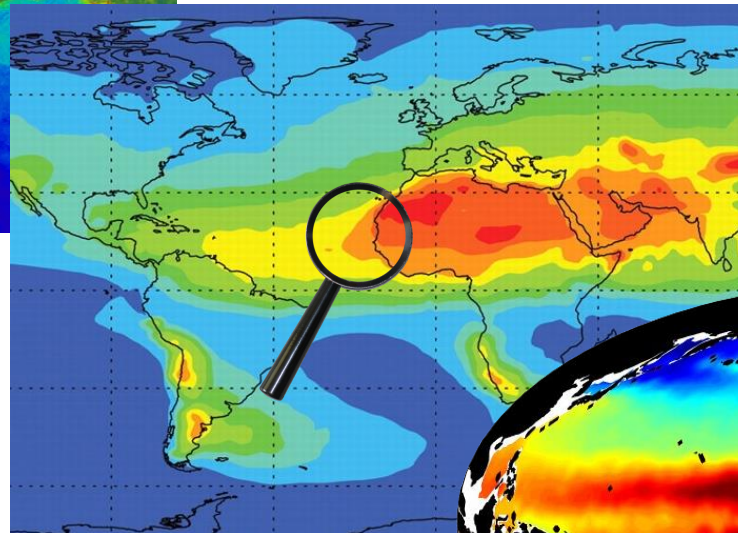
Time-Series Stations



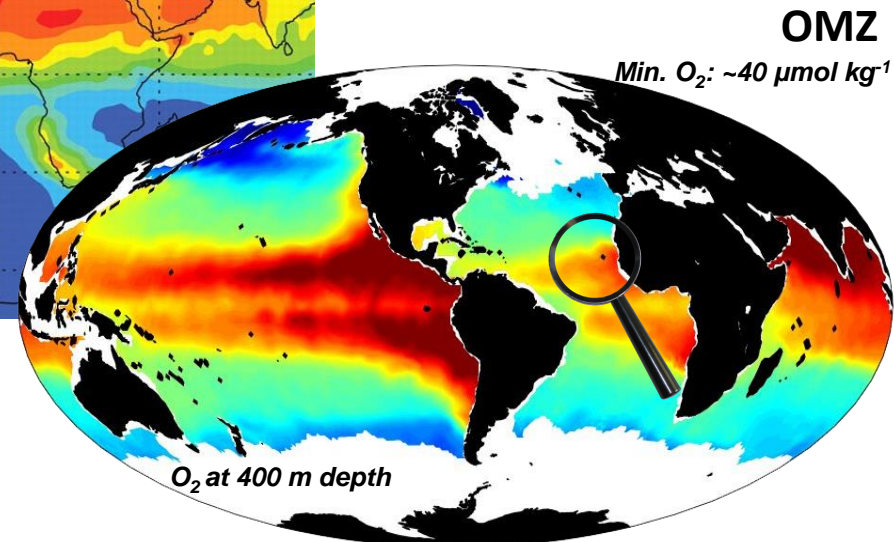
Quelle: Ocean Carbon & Biogeochemistry (OCB)



Coastal
Upwelling



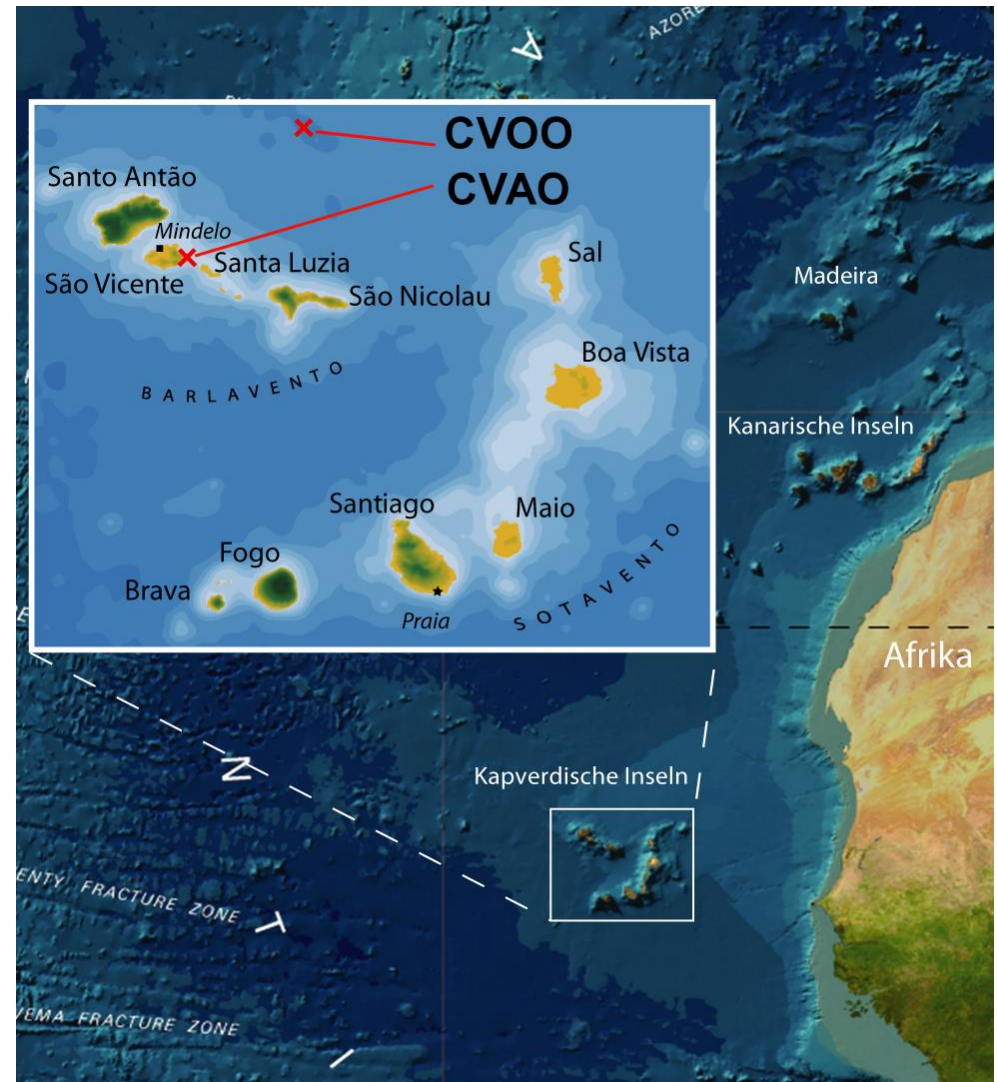
Dust
Deposition



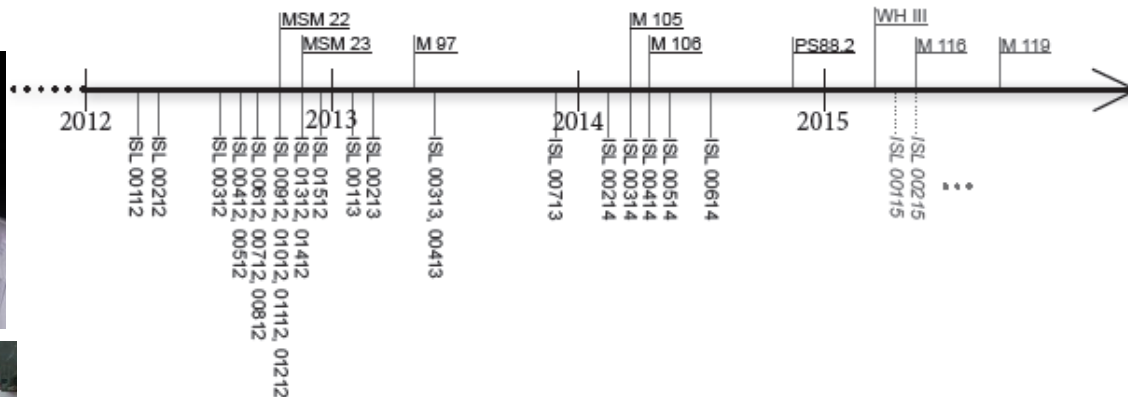
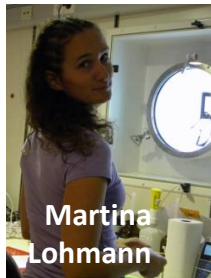
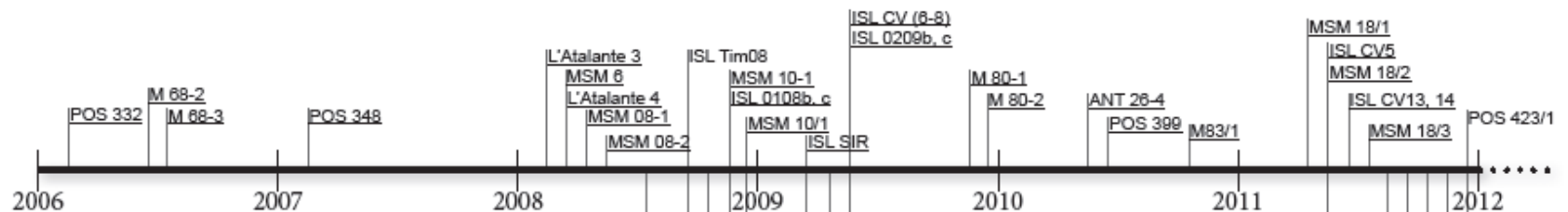
Two Observatories

Combined Observatories:

- Ocean Station (CVOO)
- Atmosphere Station (CVAO)
- 60 nautical miles distance
- NE trade winds
- 3600 m water depth



CVOO Team at INDP & GEOMAR



CVOO Sampling & Mooring Program

Ship-based sampling:

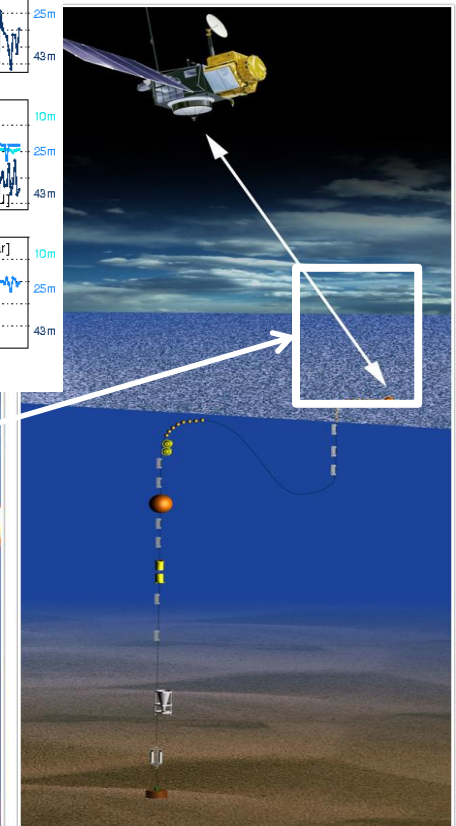
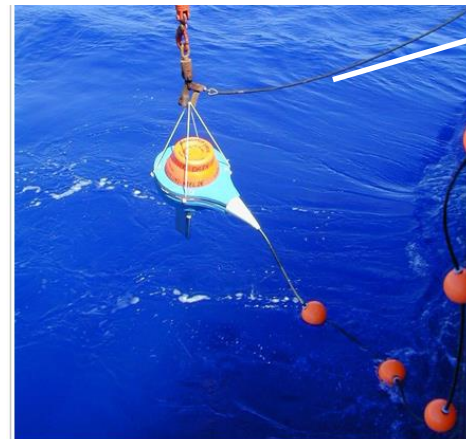
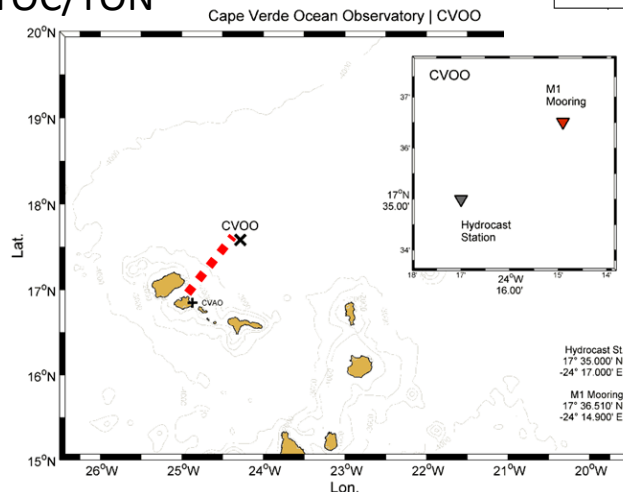
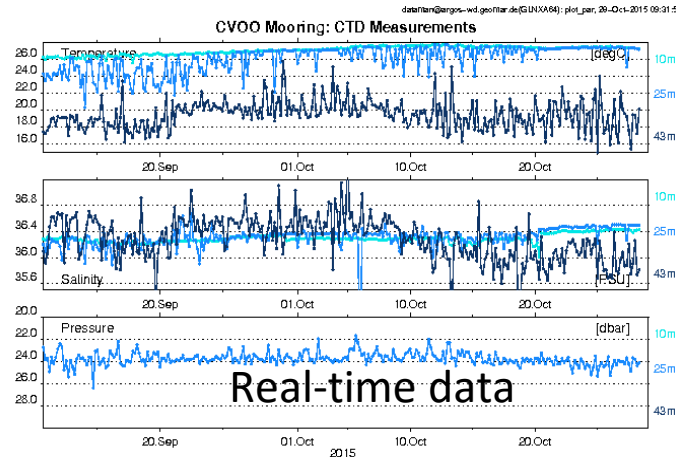
- CTD
- Fluorescence/Turbidity
- PAR
- O₂
- DIC & TA
- Nutrients
- Chlorophyll
- POC/PON & TOC/TON

Long-term Mooring (since 2006):

- CTD
- Currents
- O₂
- pCO₂
- Particle flux

Lab. Analysis/Technical support

- Chl., Nuts, O₂, S, POC/PON



CVOO

Cape Verde Ocean Observatory



[Home](#) [Facilities](#) [Research](#) [News](#) [Field Work](#) [Service](#) [Contact](#) [Imprint](#)

26.11.2012

Real-Time mooring data



The multidisciplinary long-term mooring at CVOO has been recovered and redeployed successfully in...

23.10.2012

CVOO brochure has been released in English



The brochure gives an overview about the scientific background and the projects related to CVOO....

17.08.2012

HydroBios MultiNet installed on R/V



Zooplankton organisms (mostly Siphonophores) play a major role in...

-> previous news...

[What is CVOO?](#)

[Location](#)

[Types of](#)

What is CVOO?

CVOO stands for *Cape Verde Ocean Observatory*

Observation is fundamental to understand how climate change impacts marine ecosystems, and how these changes affect biogeochemical processes. Many in...

CVOO is part of the Cape Verde Observatory. It is an operational atmosphere and ocean monitoring system that provides environmental parameters in the tropical region, as many tropical areas, is data...

The screenshot shows the CVOO website interface. At the top is the CVOO logo and navigation menu. Below the menu, there are two main sections: 'Satellite data' and 'Eddy locations'. The 'Satellite data' section includes a map of the Eastern Tropical North Atlantic showing eddy development. The 'Eddy locations' section includes a map showing eddy locations. On the right side of the screenshot, there are logos for GEOMAR, INDP, TROPOS, CAPE VERDE, and THE UNIVERSITY of York. At the bottom, there is a section titled 'In collaboration with:' featuring logos for AWA, Eddy Tracking (Satellite data), and THE UNIVERSITY of York.

GEOMAR



LEIBNIZ-INSTITUT FÜR
TROPOSPHÄRENFORSCHUNG



ATMOSPHERIC OBSERVATORY

Max-Planck-Institut
für Biogeochemie

THE UNIVERSITY of York



**HELMHOLTZ
ASSOCIATION**

bottlecvo

Welcome to the CVOO Niskin Bottle Database

[\[List Cruises\]](#)

Biogeochemical data

SEARCH BY:

Year: -

Latitude:

Longitude:

Geographic extent of datasets between -90.0° and 90.0° latitude.

Geographic extent of datasets between -180.0° and 180.0° longitude.

...OR:

Selected Leg(s):

IFM-GEOMAR/4
ISL_00112
ISL_00311
ISL_00511

Leave blank or select specific legs to view all available Niskin bottle datasets.
Hint: Use CTRL-Click to select multiple legs.

...AND:

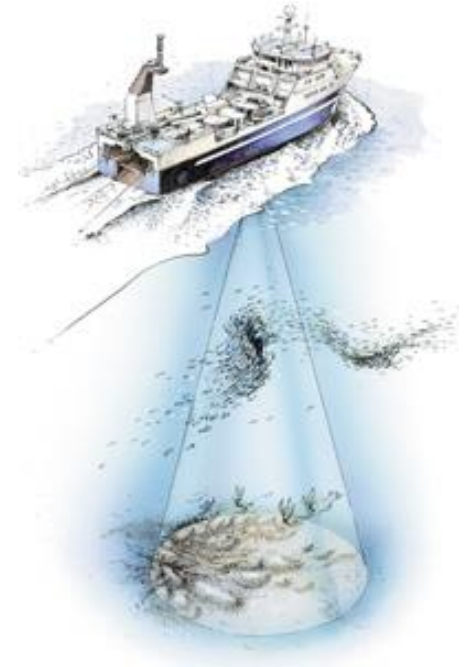
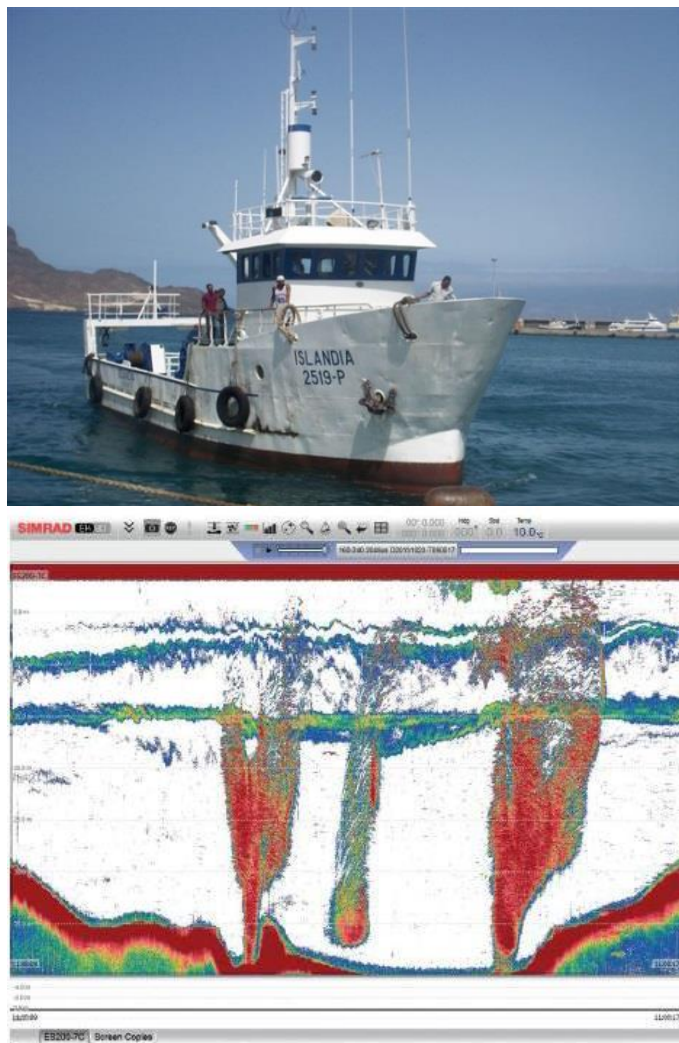
Selected Parameter(s):

CTD Wetlabs fluorescence , chl_raw [mg/m3]
CTD in situ density , sig [kg/m3]
CTD potential density, STH [kg/m3]
Chlorophyll a, CHLORA [µg/kg]

All available parameters of the selected leg(s) will be displayed if none were selected
Hint: Use CTRL-Click to select multiple parameters.

Number of datasets per page:

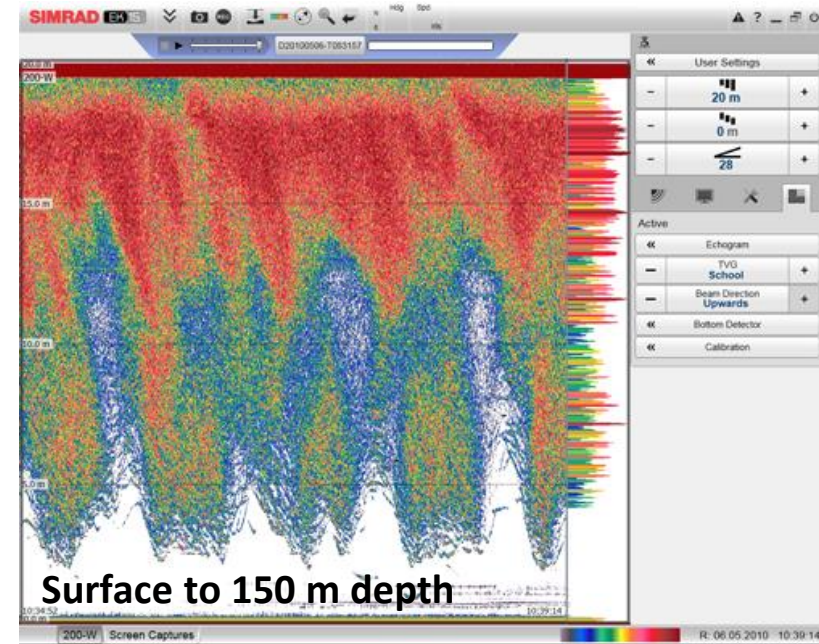
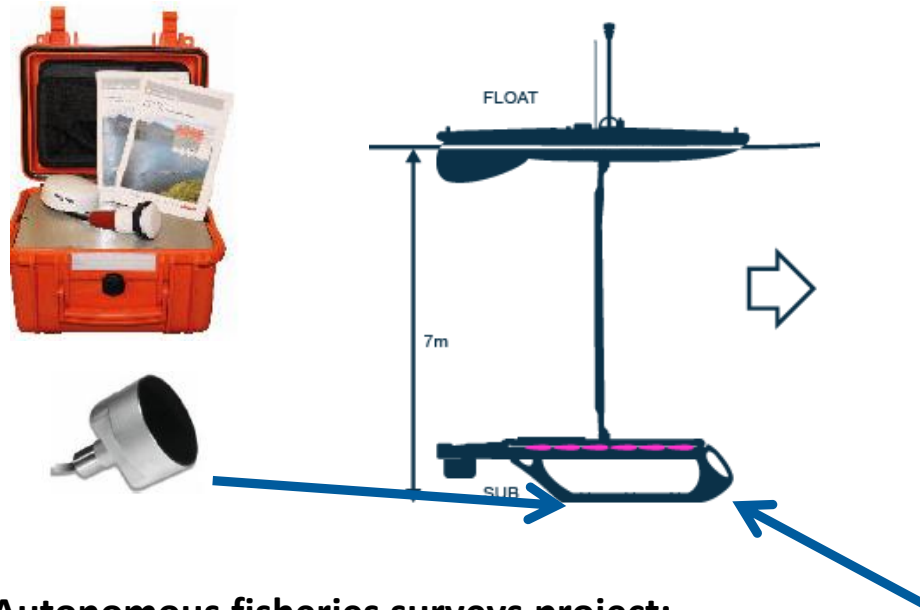
SIMRAD EK 80 Splitbeam



CVOO Ecosystem component:

- biomass assessment
- species identification
- detection of different trophic levels
- stock size estimates
- Etc.

Extensions: Wave Glider – Fish surveys

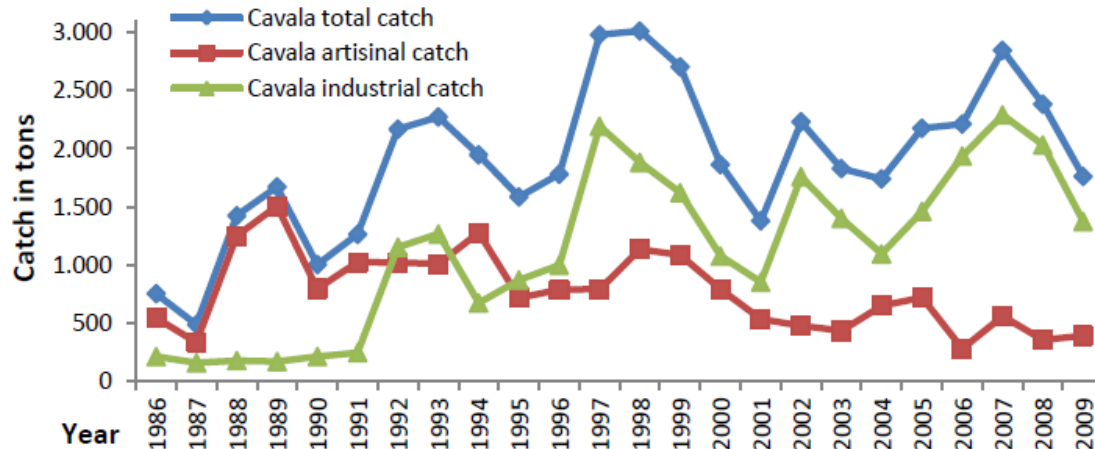


Autonomous fisheries surveys project:
Installation of a single frequency (200 kHz) echosounder on the Wave Glider

Installation of a GoPro Camera for autonomous groundtruthing of echograms



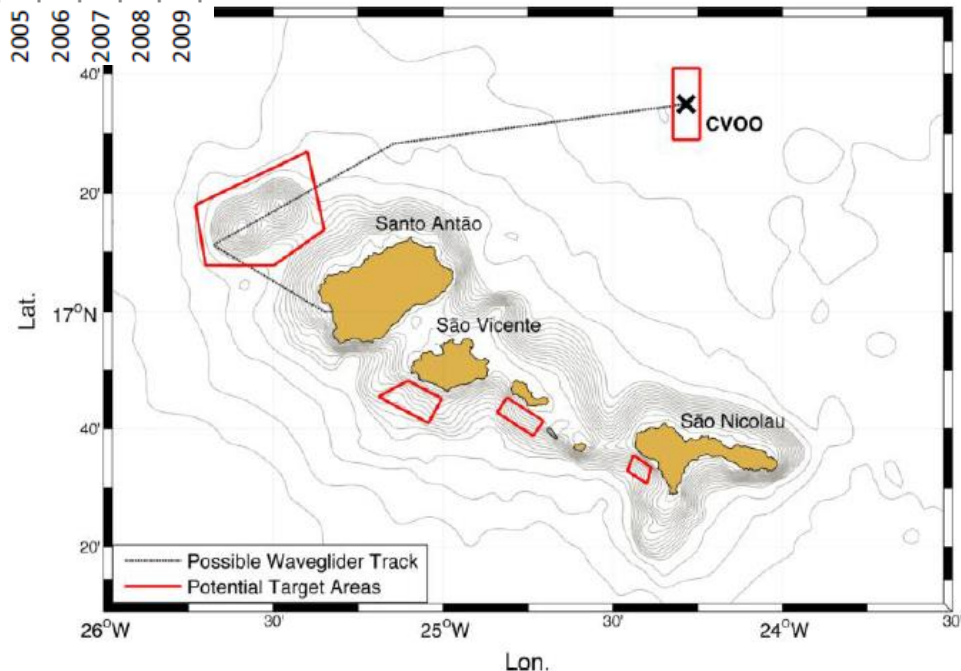
Extensions: Wave Glider – Fish surveys



DeAlteris, 2012

- Declining catches in artisanal sector
- Increasing catches in industrial sector

- Involving fishermen for finding relevant sites and for groundtruthing of echograms (catch reports)
- Autonomous surveys at certain locations
- Testing underwater camera for potential of autonomous groundtruthing, etc.
- Using this pilot study as a showcase for future autonomous surveys around CV



Ocean Science Centre Mindelo (OSCM)



**Bundesministerium
für Bildung
und Forschung**



- Laboratories
- Maintenance hall, Workshops
- Guest offices, conference room
- Storage and Technical facilities

- Construction started March 2015
- Opening expected in late 2016

Webcam
(cvoo.geomar.de)



