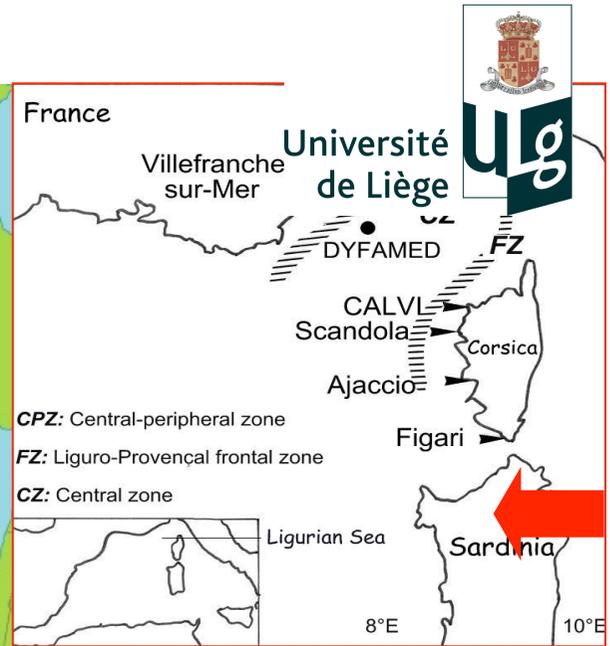
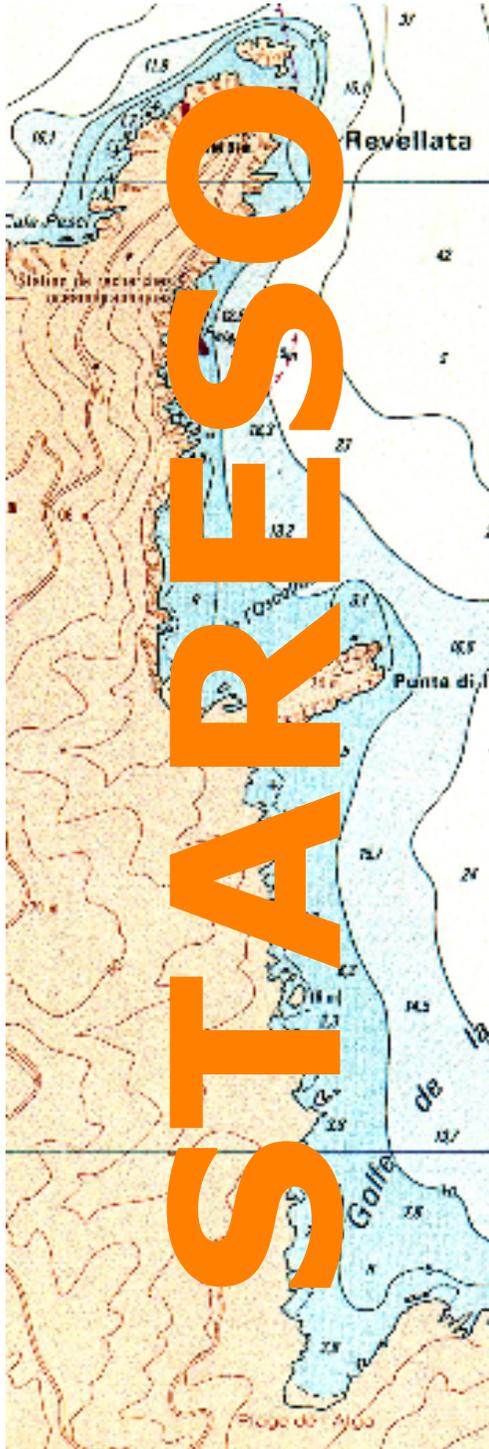




**Marine and oceanographic research station  
of the University of Liège – Calvi, Corse,  
Mediterranean Sea**

**Anne GOFFART 2011**

# STARESO



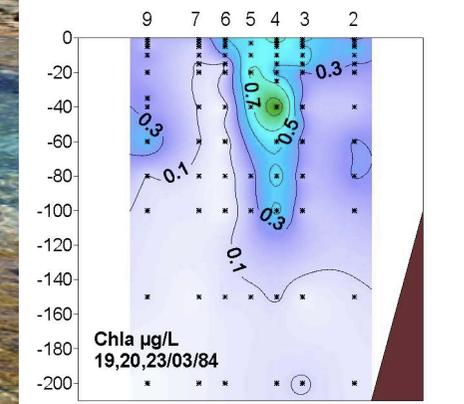
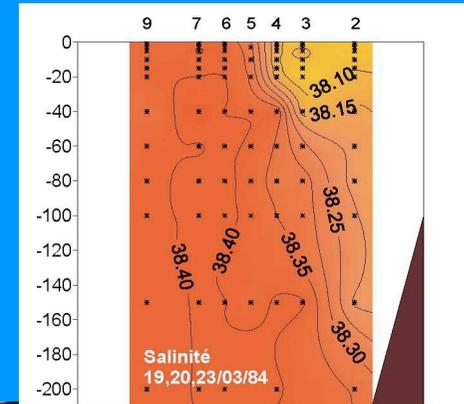
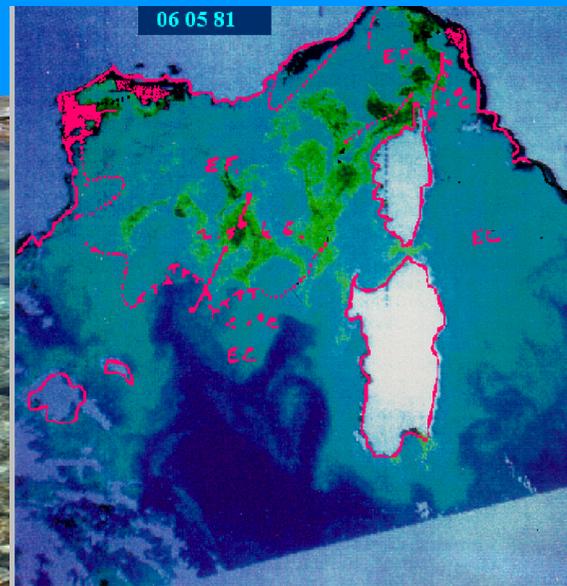
# CHARACTERISTICS



- Open bay
- Narrow shelf
- Few anthropogenic forcing
- Oligotrophic characteristics
- High water quality

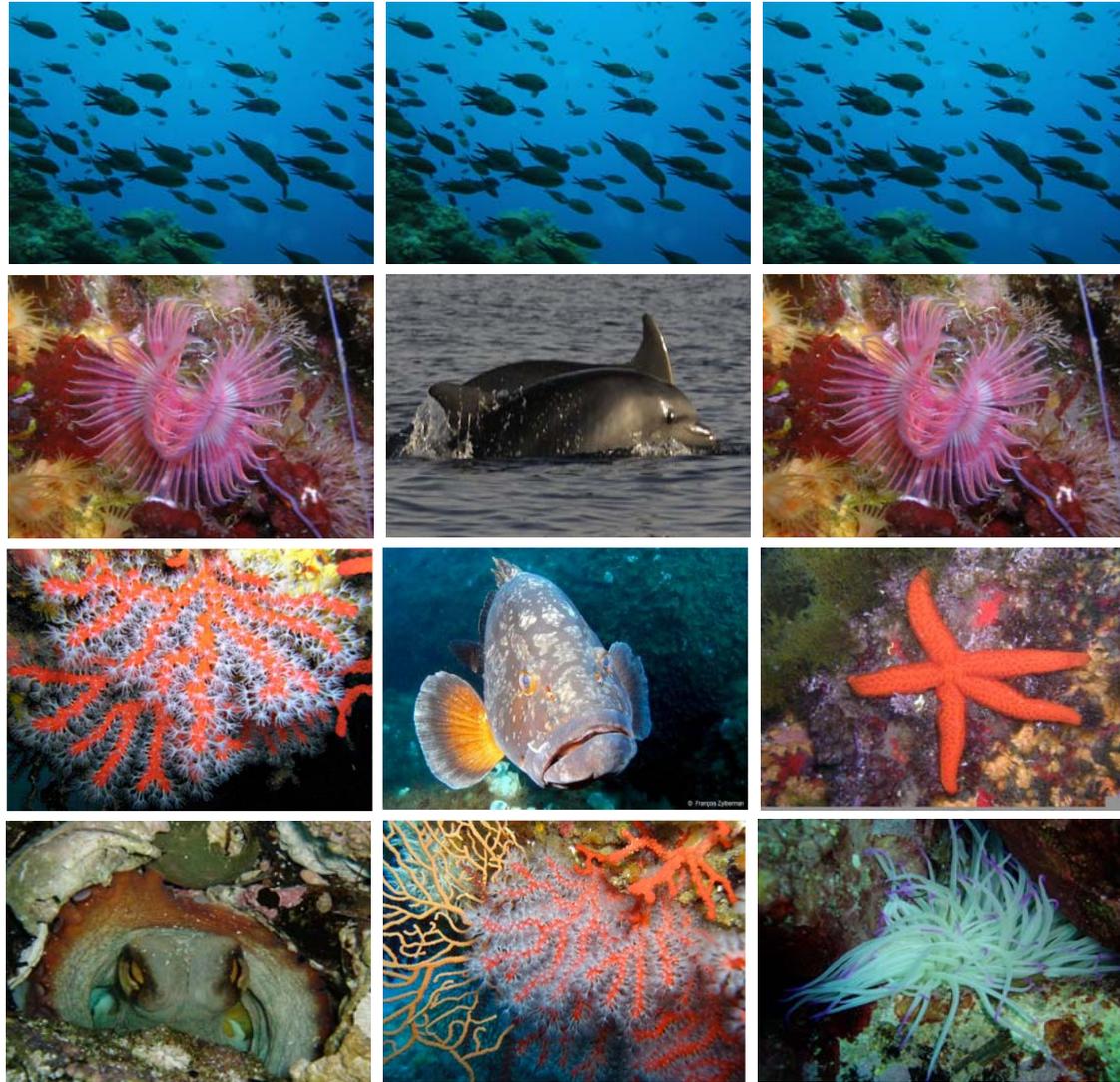
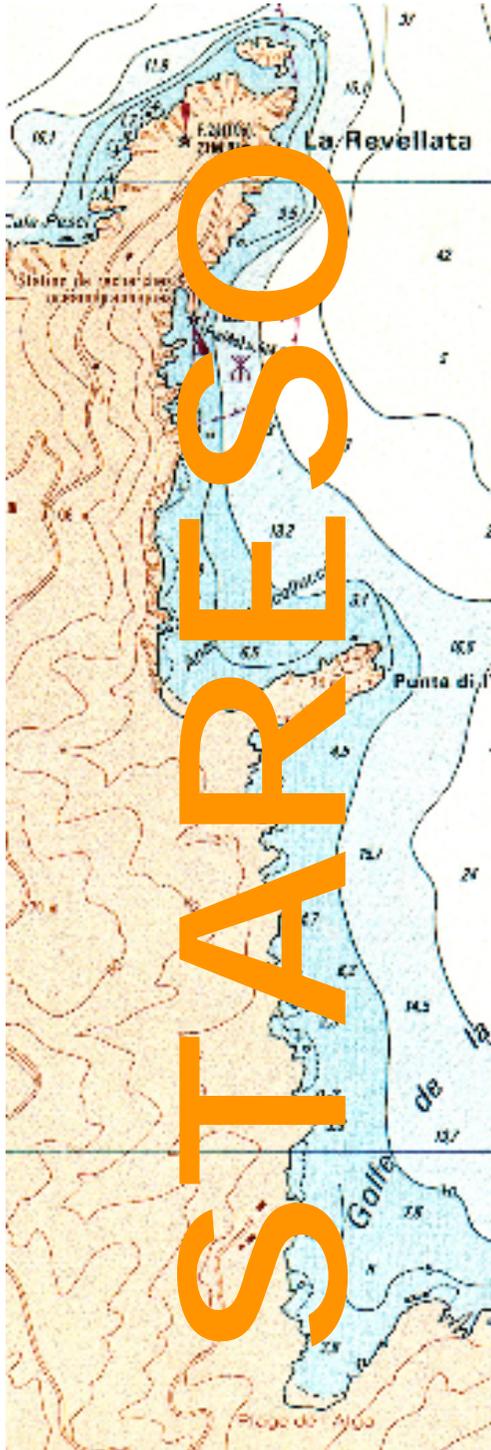
# CHARACTERISTICS

- High diversity of planktonic organisms, sometimes influenced by the vicinity of the Liguro-Provençal Front



# CHARACTERISTICS

- Healthy and very diverse biocenosis (e.g. Posidonia meadows, rocky and sandy communities)

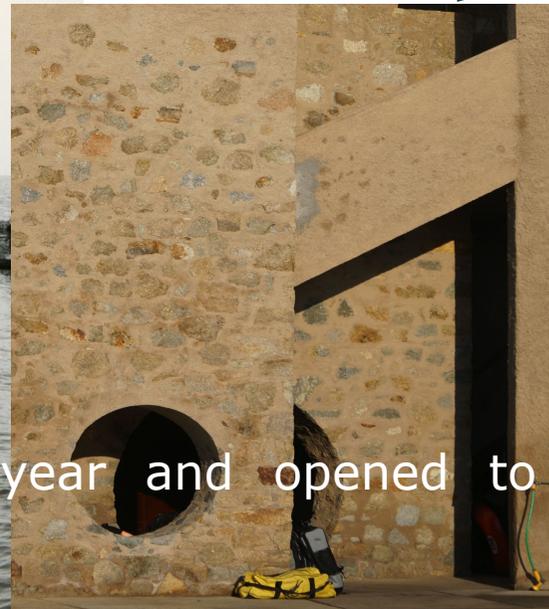




# CHARACTERISTICS



- Direct access to the sea
- Structure accessible all the year and opened to international collaborations

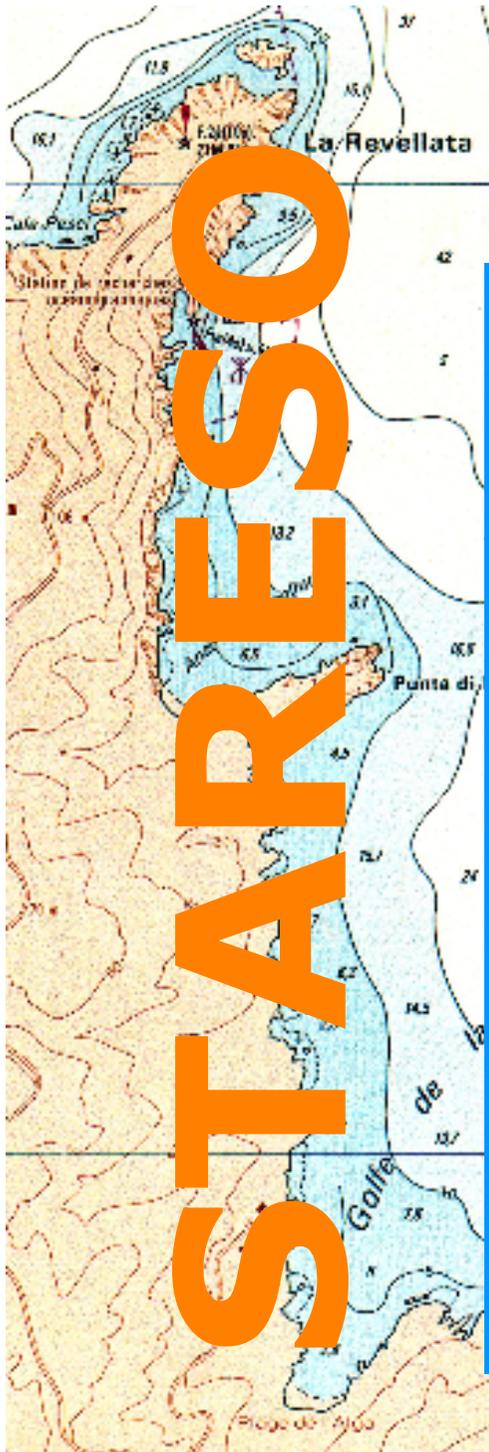




## EXPERTISE

- Marine research
- Education
- Organization of scientific meetings and workshops





**EXPERTISE**



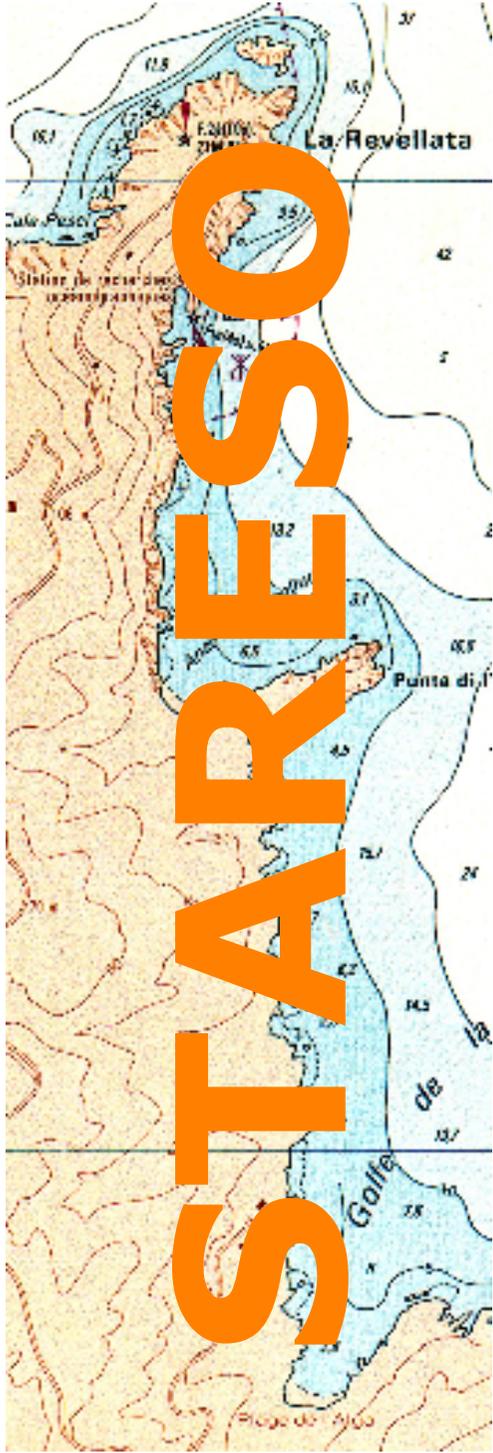
Current projects : interdisciplinary approach

**Financements  
Communauté  
française, FNRS,  
Belspo, Agence  
de l'Eau RMC,  
Ifremer, CE**



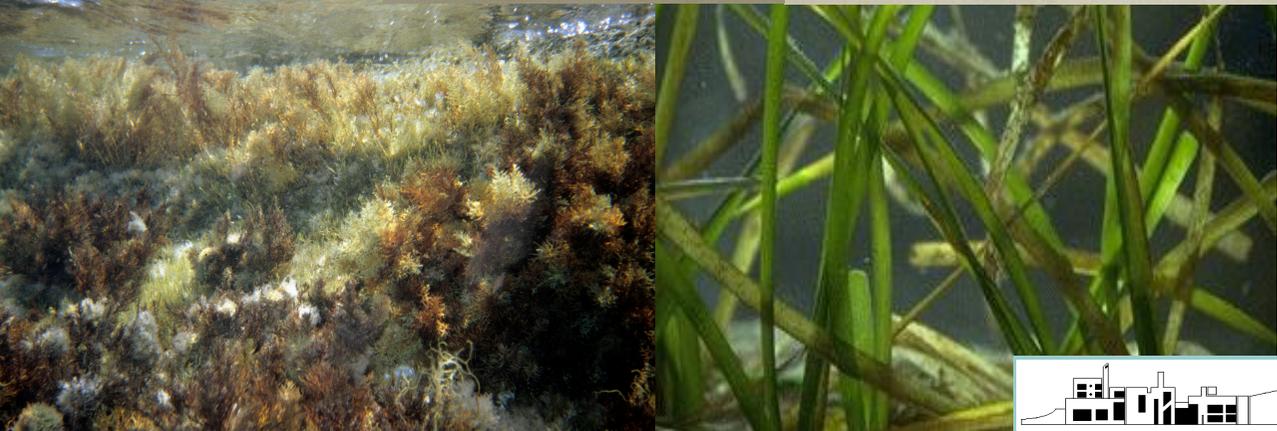
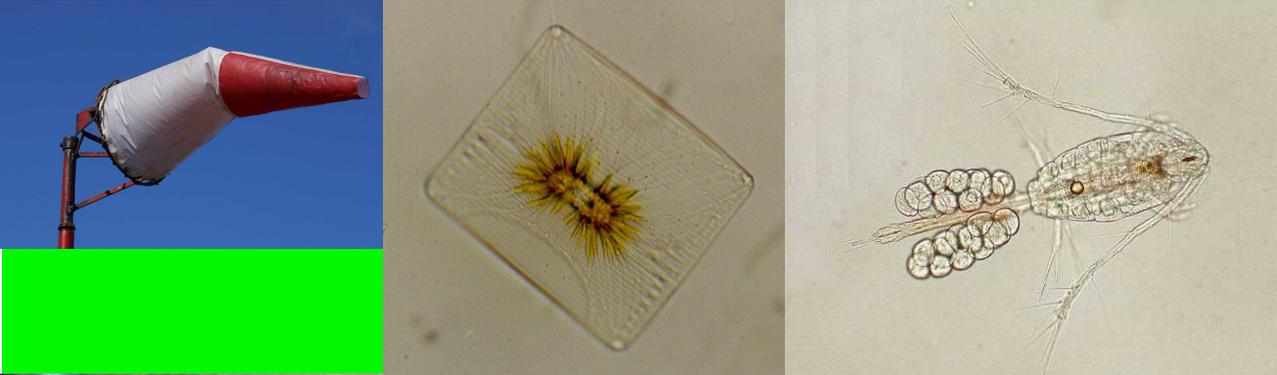
## SPECIFICITIES

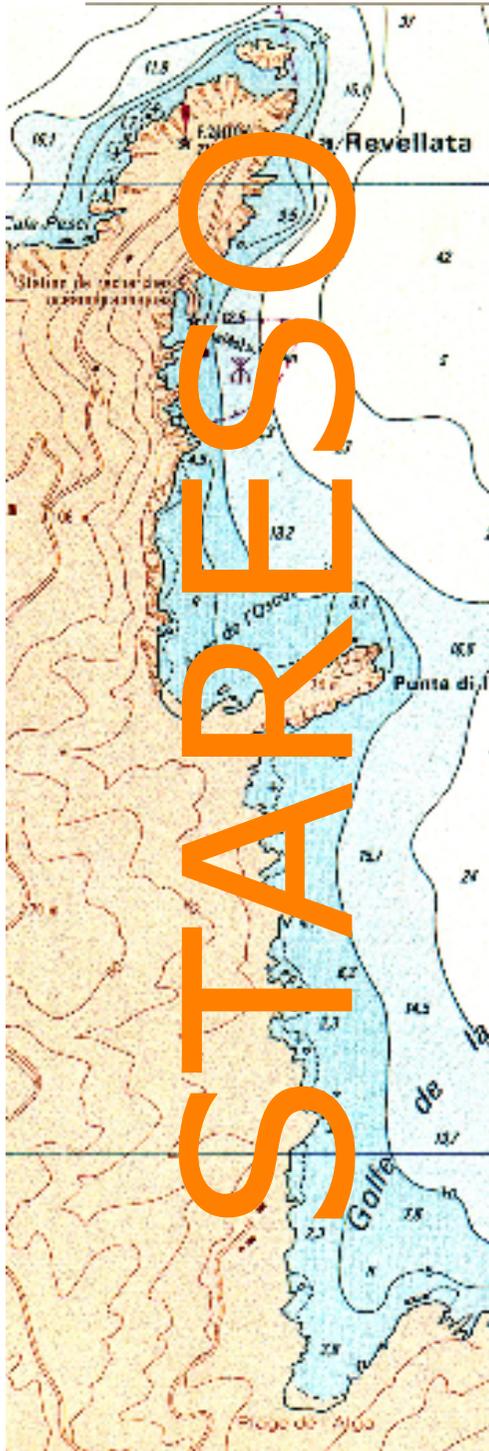
- STARESO is the only research station of the Western Mediterranean Sea situated in an oligotrophic area chosen for the exceptional quality of its waters and of its environment
- Unique time series (3 decades)



# SPECIFICITIES

## STARESO time series



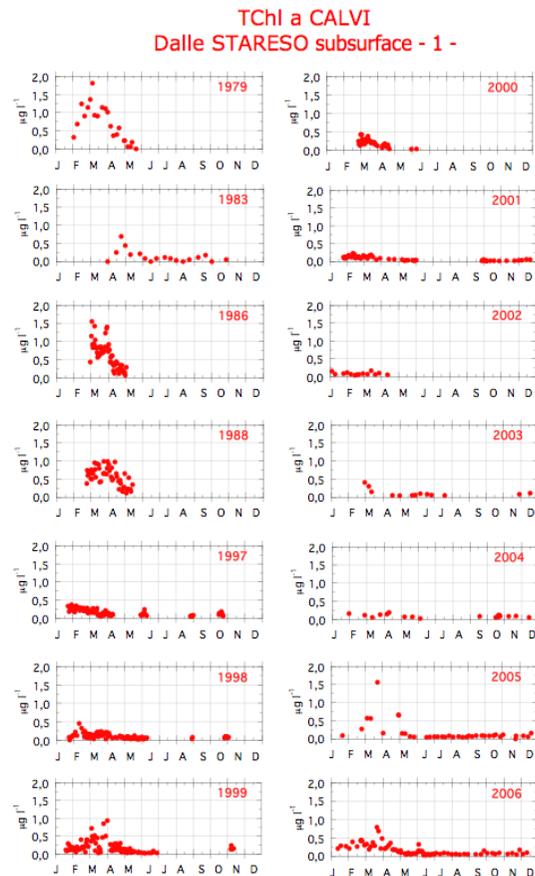


STARESO

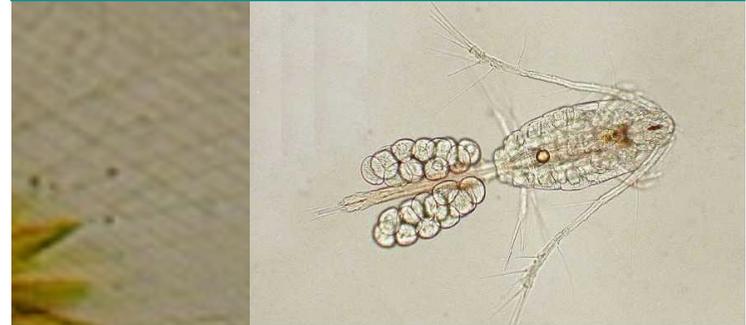
# SOME EXAMPLES OF RESEARCH IN PROGRESS



I. Phyto-, zoo- and ichthyo-plankton dynamics, including jellyfishes



Time series from 1979



Main objective : to study the linkage between climate variation, physical forcing and plankton dynamics on decadal time scales

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JH.Hecq@ulg.ac.be





## SOME EXAMPLES OF RESEARCH IN PROGRESS

I. Phyto-, zoo- and ichthyo-plankton dynamics, including jellyfishes

Bay of Calvi

- Reference for the WFD
- Reference for the impact of climate variation on pelagic ecosystem

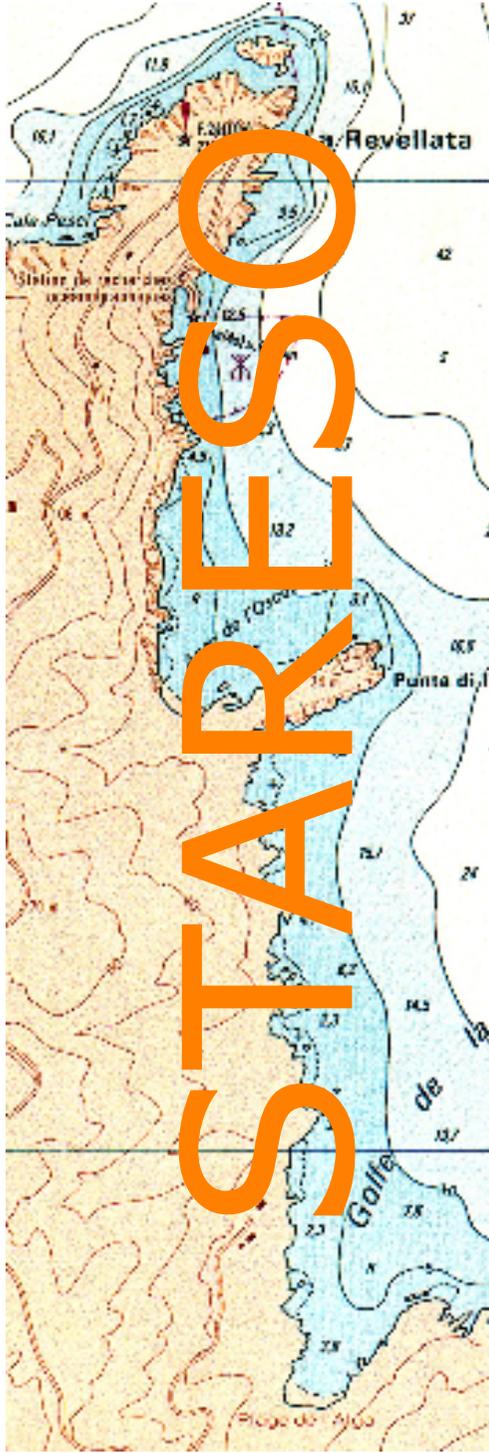
Expertise

- Biodiversity
- Dynamics of communities
- Impact of perturbations



Specific equipment

- Microscopes
- Fluorimeters
- HPLC
- Technicon



# SOME EXAMPLES OF RESEARCH IN PROGRESS

## II. *Posidonia* ecosystem





# Ecology-Conservation-Monitoring-Management of Posidonia ecosystem



## Data - Long term series (1975)

On biomass, growth, flowering of *P.oceanica*,  
On Posidonia ecosystem: associated flora and fauna,  
grazers,  
On *Posidonia oceanica* physiology: carbon, nitrogen,  
light, temperature ...



## Specificity:

Food web  
Trace elements (Mn, Mo, Ag, Sb, CU, Cd, Hg...)  
Nitrogen cycle...



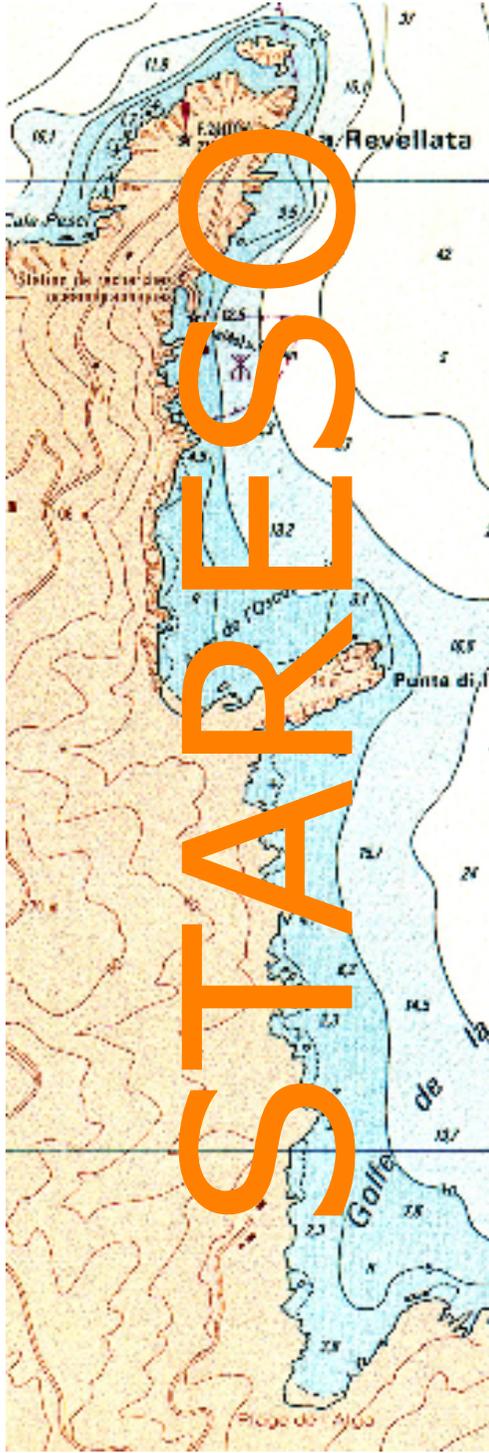
## Expertise:

WFD  
Measurements *in situ*  
Mesocosm...

## Technical support

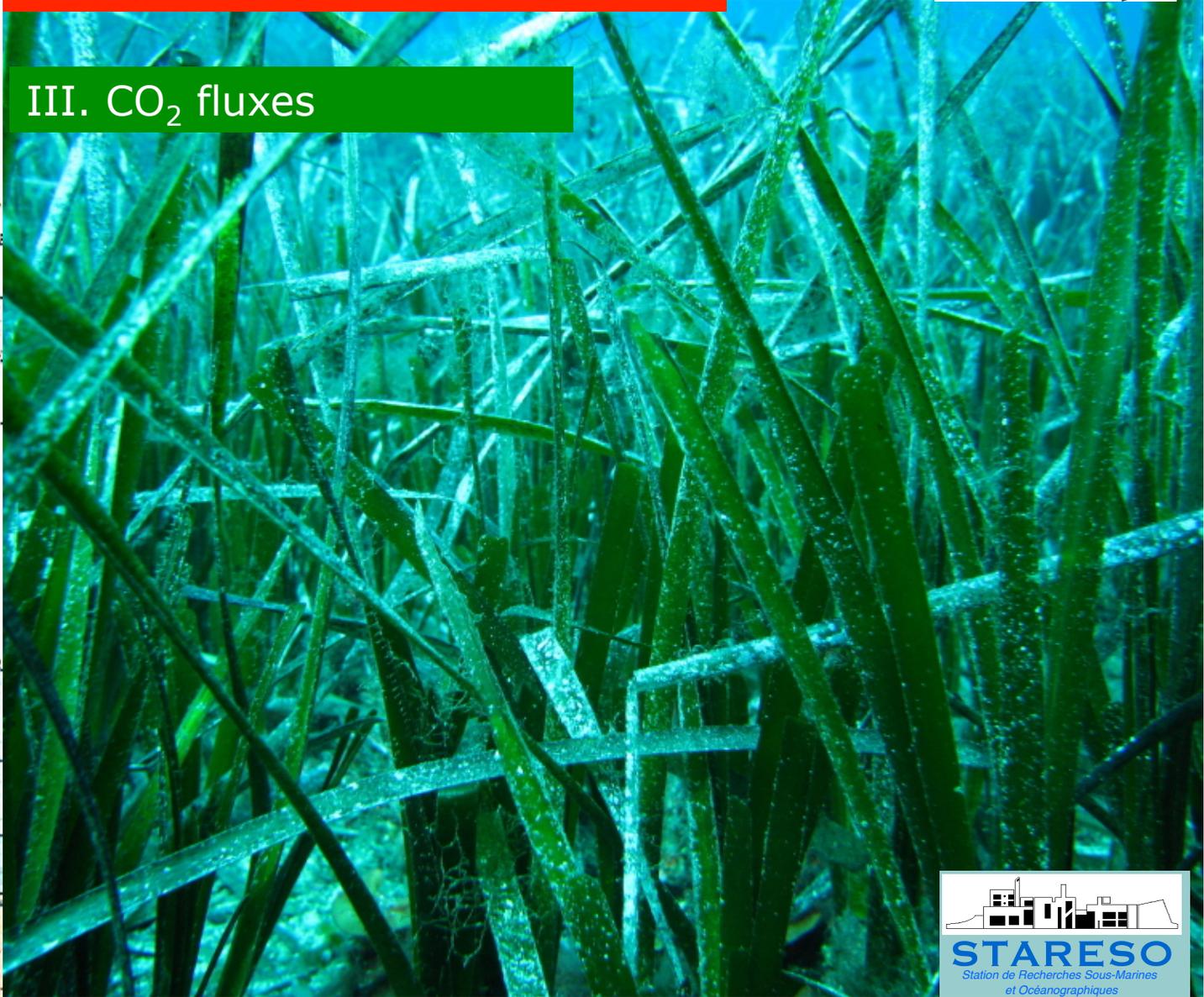
SAN Skalar  
ICP-MS  
MS-CNS elemental  
analyser





# SOME EXAMPLES OF RESEARCH IN PROGRESS

## III. CO<sub>2</sub> fluxes





**Aanderaa optodes 3835  
Wetlabs Eco fluorometer  
Pro-oceanus CO<sub>2</sub>-Pro**

**Shallow mooring (10m depth) - on-going since August 2006:**

<b>Fluorescence</b>	<b>4m</b>	<b>12 h</b>
<b>pCO<sub>2</sub></b>	<b>4m</b>	<b>24 h</b>
<b>%O<sub>2</sub></b>	<b>4, 7, 10m</b>	<b>30 min</b>
<b>Temperature</b>	<b>4, 7, 10m</b>	<b>30 min</b>
<b>Wind speed</b>	<b>-</b>	<b>1 h</b>

**Benthic incubations :**

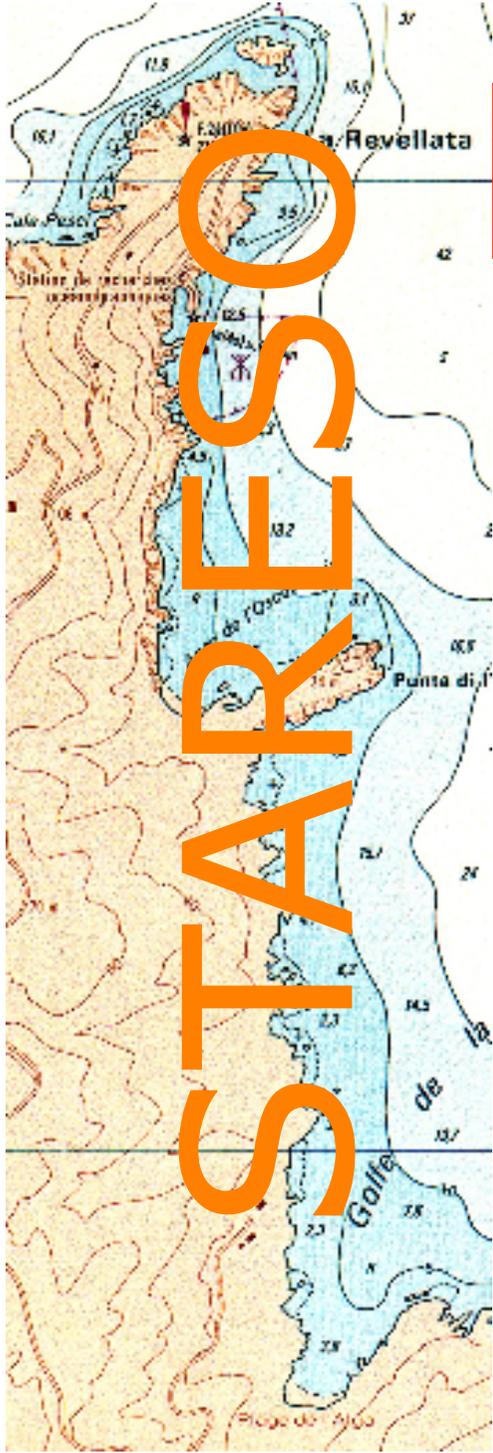
**CO<sub>2</sub>, O<sub>2</sub>, nutrient fluxes 10m 2 months**

**For results refer to**

**Champenois et al., oral presentation, Thursday 15:45**

**Champenois et al., poster**





# SOME EXAMPLES OF RESEARCH IN PROGRESS

and also ...

- Continuous monitoring of selected parameters
- Development of tools for measuring ecosystem quality
- Modelisation
- Data banking, ...



FUTURE

The Bay of Calvi is one of the few areas where very specific characteristics can be used to study :

- responses of marine ecosystems to physical forcing and changing climate,
- processes of early eutrophication.

The Bay of Cavi : a continuous marine observatory of healthy ecosystem



MORE INFO

- [www.stareso.ulg.ac.be](http://www.stareso.ulg.ac.be)
- [A.Goffart@ulg.ac.be](mailto:A.Goffart@ulg.ac.be)



Thank you for your attention !

