



# Lettre d'information SUBLIMO

February 2012 - n°1

## EDITO

According to recent assessments done by the Census of Marine Life and published in august 2010 in the PlosOne review, 230 000 marine species equal to 12% of fishes are present in all seas and oceans. The Mediterranean Sea, which represents less than 1% possess 650 species. It is therefore a hot spot of the global biodiversity. Unfortunately, the increase of anthropisation/human impact leads to the loss of biodiversity. The Mediterranean biodiversity loss is considered as the most alarming. The LIFE project objectives respond to the urgent need to stop this biodiversity decrease. This quarterly newsletter will enable to follow the project progress / achievements.

**Philippe Lenfant**  
**Coordinator SUBLIMO**

- Name: SUBLIMO
- Duration: 40 months (01/12/2011 to 01/04/2015)
- Total budget: 1 947 590 €
- Location: North Western Mediterranean Sea
- Leader: CNRS Languedoc Roussillon
- Partners: University of Corte, University of Perpignan, EPHE

## Project ID



### Summary:

- 1-presentation of the project
- 2-project progress
- 3-focus on the aquaculture-farms



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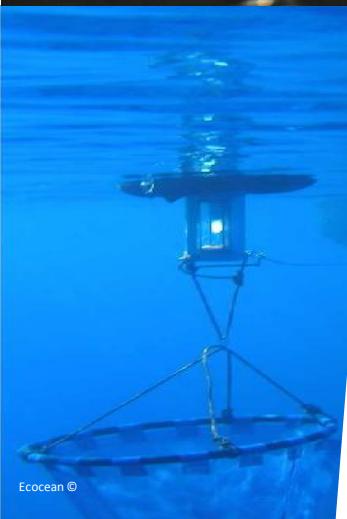
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## Presentation of the project:

*An alarming context...*

According to evaluations published in August 2010, the marine biodiversity decrease is particularly important in the Mediterranean Sea. Causes are multiple and mainly due to human activities, habitat degradation, overexploitation of natural resources, climate change, invasive species and pollution.

*Ambitious objectives...*

The SUBLIMO project proposes a new approach to **analyze**, to **monitor** and to **reduce this loss of marine biodiversity**.

It will tend to identify and estimate the abundance of coastal fish species which return to colonize coastal habitats.

The SUBLIMO project's specific goal is to analyze the biodiversity at the post-larval stage. In the fish life cycle, the arrival and settlement of pelagically spawned post-larvae in their permanent habitat is a critical phase with more than 90% mortality occurring, due to predation and habitat degradation.

The innovative technique proposed in the SUBLIMO Project is to catch alive post-larvae of endangered or overexploited species, which are then reared-on in aquaria before being used for restocking (in Pyrénées-Orientale and Corsican research centers). A few months later, the tank-reared juveniles can return to the sea using micro-habitats to reduce mortality. The objective is to boost endangered or exploited species population.

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## PRESENTATION OF THE PROJECT:

### *1-knowledge improvement*

The first results will be related to the inventory of the post-larvae biodiversity. The calendar of post-larvae arrival will inform us on the species dynamics (e.g. winter/spring reproduction) and will give the level of species vulnerability to natural and anthropic pressures. The resulting atlas and data-basis will constitute referential documents for scientists and managers who will use them to evaluate the biodiversity of their respective sites.

### *2-Concrete actions on the environment*

The restocking phase will start with a rearing phase involving all captured species. Tagging and monitoring will be carried out on patrimonial species and exploited species. An estimation of survival rate will be carried out, along with an assessment of the restocked fishes' interactions with the resident species. The case of "alien species" will be investigated too.

### *3-Networking*

A study on the managerial recommendations will be set-up using workgroup reports, in order to propose concrete actions in term of population replenishment. The project will also organize knowledge and experience exchanges between the different partners of the Western Mediterranean sea.

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## PRESENTATION OF THE PROJECT:

### *Project area...*

The project area goes along the North Western Mediterranean sea, with seven French sites (including Corsica):

- 2 priority sites where
- 5 secondary sites
- In addition, 2 sites followed by both Spanish and Italian (Sardinia) colleagues.



### *Location of the different sites for the SUBLIMO project:*

- 2 priority sites: (▲) sampled 12 months during 2 years
  - 5 secondary sites: (□)sampled 4 months a year during 2 years
  - 2 dissemination sites: (○)sampled by our Spanish and Italian colleagues (in parallel to the project)
- The targeted sites are Natura 2000 and protected marine areas for their biodiversity.

**MORE INFORMATION:** waiting for the proper SUBLIMO's website, you can find complementary information online: <http://cefrem.univ-perp.fr>

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## PROJECT PROGRESS:

The choice of the capture sites will be done in collaboration with ECOCEAN, a subcontracting company.

Installation of the aquaculture-farms (cf. focus on the aquaculture-farms)

*Creation of a European post-larvae network in the Mediterranean region MEDPLANET ([www.med-planet.net](http://www.med-planet.net) realization ongoing)*

From left to right :

- Paul-Antoine Bisgambiglia
- Sylvia Agostini, Corsica university
- José Garcia-Charton Murcia university
- Mateo Murenu
- Manuel Muntoni Cagliari university
- Gilles Lecaillon ECOCEAN
- Philippe Lenfant CNRS-Perpignan University



Romain Crec'Hriou arrival,  
CNRS engineer in charge of the Leucate/Barcares aquaculture-farm setting

## PERSPECTIVE FOR 2012

- Set up the website/creation of the logo and graphic plan
- The first fishing are forecasted for May 2012
- The first congress in July 2012 (Larval conference at Bergen-NORWAY)

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## FOCUS ON THE AQUACULTURE-FARMS

The priority site of Bastia -Corsica, has set up early this growth system.



The mobile aquaculture-farm for the priority site of Leucate/Barcarès was delivered in 2012 March, the 9th, by the subcontracting company ECOCEAN.





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## CONTACTS

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Coordination of the project

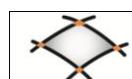
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## Collaborations



Agence des Aires Marines Protégées / Parc Naturel Marin Golfe du Lion, Réserve Naturelle Marine de Cerbère-Banyuls / CG66, ADENA, Parc National de Port-Cros, Parc des Bouches de Bonifacio, Communes de Leucate et Le Barcarès, Ecocean, Efficient Innovation