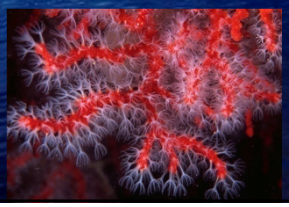
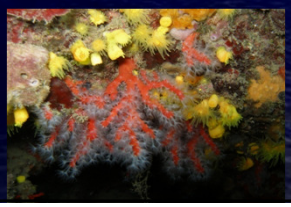
GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

SCIENTIFIC ADVISORY COMMITTEE (SAC)
Sub-Committee on Marine Environment and Ecosystems (SCMEE)
Sub-Committee on Stock Assessment (SCSA)
Sub-Committee on Economic and Social Sciences (SCESS)

Transversal workshop on red coral

Alghero (Sardinia), Italy, 16-17 September 2010



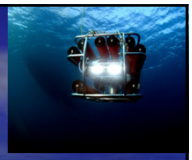


Participation

- 68 participants from Greece, Italy, Morocco and Spain
  Representatives of FAO and GFCM Secretariat
  21 contributions
- Attendance of fishery stakeholders: scientists, fishermen associations, private companies, management institutions and conservation organizations

Terms of Reference

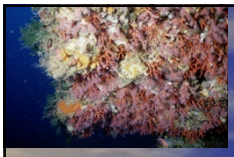
- To undertake an **inventory of red coral** including a review of the available information from each country on biology, fishery and regulations
- To gather the **existing scientific literature** on the distribution of red coral, protection patterns, management plans where adopted and on restocking
- To find **synergies** with RAC/SPA activities and other iniciatives on this issue

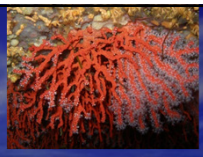


General conclusions of the Workshop

On management and conservation measures

- Set up a **minimum size to foster population recovery**. To consider other biological parameters also, such us branching pattern and colony height.
- **Protect overharvested shallow-water populations**
- Study thoroughly the **new technologies** before allowing their use for harvesting.
- Ensure the **biological and economical sustainability** of the harvesting
- Consider that the extension of the **fishing to deeper water** should require the need to establish **new deep water reserves**
- Ensure **adequate enforcement** of the measures suggested and apply efficient controls





General conclusions of the Workshop

On scientific monitoring

- Set up a **co-operative approach** at the Mediterranean level
- Improve the knowledge on the **status of red coral** populations at the regional level
- Carry out **extensive studies** on population biology and ecology **of deep water populations**
- Perform **genetic studies** to measure structuring and connectivity among populations
- Consider the use of **demographic models** as a useful management tool
- Organize **training programmes** to transmit new technologies and knowledge
- Carry out **regional medium term research programmes**

Scientific research medium term working plan

Shallow populations (living between 10-50 meter depth), characterized by high dense, small sized colonies with a low commercial value have been well studied. They are overharvested and in need of protection. This creates the necessity to move towards a fishery in deeper waters, and calls for **prior research on deep populations (deeper than 50 meters).**

In particular, predictive demographic models are needed to manage the resource at local population level. To this aim the following priorities for scientific research in the Mediterranean are identified:

Stock assessment: large and small-scale bathymetric surveys and mapping of Mediterranean red coral populations through standardized methodologies.

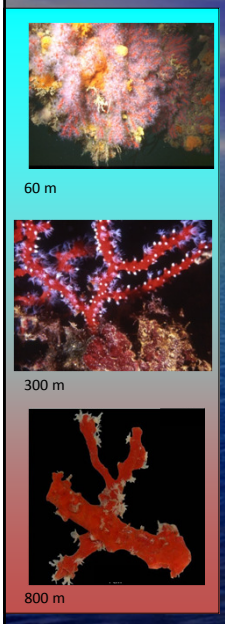
Oceanographic data collection: abiotic and biotic variables (hydrodynamics, seston, sedimentation, temperature, etc).

Population data:
Demography:
- Population density.
- Colony growth rate assessment.
- Population size structure.
- Population reproductive structure and larval output.
- Recruitment and mortality assessment (including infection by boring sponges).
- Fishery dependent data.

Population genetics
- DNA microsatellite analysis of different populations
- Genetic variability and connectivity assessment

Stock recovery and restoration.
Development of restoration techniques.

Development of alternative deep harvesting
Evaluation on the impact of the application of Remote Operating Vehicle (ROV) and submersible harvesting.



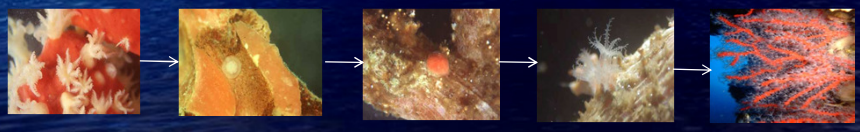
General conclusions of the Workshop

Collaborations and synergies

- Strengthen **collaborations and synergies** among different regional organizations and initiatives
- Invite the FAO regional projects and potential donors to support as a **priority the work plan as proposed by the workshop**

Recommendations on research

- As a **precautionary approach**, to carry out **regional pilot studies** to assess the potential impacts **regarding the use of new technologies** to harvest red coral, namely, among others, ROV's
- To collect **annual data on harvest** at the national level and submit them to FAO and GFCM by GSA's, **according to GFCM Task 1 requirements**. The applicability of these information to coral harvesting should be checked
- To cross-check **data from different sources** (e. g. trade data)



Recommendations on management

- To set up a **minimum size of 10 mm of basal diameter** with 20% tolerance
- To **prohibit the harvesting of the shallow water** populations at depths of less than 50 m
- To establish a **daily and/or seasonal quota system** based on number of licenses issued to control fishing effort
- To set up a system of **permanent or temporary** (in a rotational fashion) **no-take zones** for red coral
- To promote a **participatory approach** of all stakeholders in the management processes

The WS unanimously thanked the hosting country (Italy), in particular the Autonomous Region of Sardinia for their hospitality and excelent organization.