



## A2. COASTAL MARINE RESOURCES AND SOCIETY

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### Course outline-lectures

#### 1. Structure and function of the Mediterranean benthic ecosystem

#### 2. Databases I

Overview of the databases describing vertebrate and invertebrate biology (Fish Base, Sea Life Base, Sea Around Us Project)

#### 3. Databases II

Overview of the databases on landings and fisheries management (FAO global and GFCM regional databases, and RAM Stock Assessment)

#### 4. Mediterranean coastal fisheries

Number of boats, fishing gear and catches of Mediterranean coastal fisheries

#### 5. Mediterranean Deep-Sea Fisheries

#### 6. Upwelling areas and fisheries stocks

Description of the importance of upwelling areas to global fisheries production and biology of small pelagic fish species

#### 7. Climate change and its impact on the Mediterranean ecosystem

#### 8. Climate change and fisheries

The effect of climate change (including NAO and El Nino) on the distribution and abundance of fish species, their biology and fisheries

#### 9. Fisheries biology and stock assessment

Methods of estimating growth and mortality of fish stocks and their use in stock assessment modeling

### LABS

#### 1. Laboratory exercises on databases

Computed based practical on the use of databases

#### 2. Excursion with the R/V PHILIA. Sampling methodologies

#### 3. Laboratory exercises on stock assessment analytical tools

Computed based practical on the stock assessment analytical tools using Statistica, FiSAT and R (non-linear and logistic regression, empirical equations, fisheries models)

