

# **Corso di Studi: “Biology and Ecology of Marine Environment and Sustainable Use of its Resources”**

## **Titolo dell’insegnamento:**

**“Biodiversità animale e biomonitoraggio dell'ambiente marino”**

**“Marine animal biodiversity and environmental biomonitoring”**

**Anno accademico 2017/18**

## **Programma**

Introduzione alla biodiversità marina

Introduzione alla biodiversità marina Europea, la biosfera e la distribuzione animale

Zoologia marina

Gruppi di protozoi, classificazione degli invertebrati e relazioni

Spugne, radiati, lofotrocozoi, ecdisozoi, acelomati, animali bilaterali, pseudo-celomanti, anellidi, molluschi, trilobiti, chelicerati, crostacei, echinodermi, emicordati, pesci.

Sensi negli organismi acquatici

Tecnica del DNA barcoding

Meiobentos: tecniche di estrazione della meiofauna

Lab: Attività pratica di studio dei tipi di diversità animale, usando campioni vivi e conservati, tecniche usate nella ricerca zoologica.

## **Contents**

Introduction to Marine Biodiversity

Marine biodiversity, An introduction to European Marine Biodiversity, The biosphere and animal distribution.

Marine Zoology

Protozoan groups, Invertebrates Classification and Relationships,

Sponges, Radiates, Lophotrochozoa, Ecdisozoa, Acoelomates Bilateral Animals,

Pseudo-coelomates, Segmented worms, Mollusks, Trilobites, Chelicerates,

Crustaceans, Echinoderms, Hemichordates, Fishes.

Senses in Aquatic Organisms

DNA Barcoding technique

Meiobenthos: techniques of Meiofauna extraction

Lab: Practical Activities, study of types and exposure to diversity, using live and preserved specimens, and exposure to techniques used in zoological research

## **Supplementary materials and books**

- The role of marine protected areas for Biodiversity conservation and for Science  
[www.ukmpas.org/presentations.html](http://www.ukmpas.org/presentations.html)
- Biodiversity and Corals
- Review of Jellyfish blooms in the Mediterranean and Black Sea General fisheries  
Commission for the Mediterranean, Studies and Reviews No.92, Boero F. 2010
- Evolution and challenge in creating OBIS Costello et al.  
[m.costello@auckland.ac.nz](mailto:m.costello@auckland.ac.nz)
- DNA barcode for marine Biodiversity:Moving Fast Forward? Radulovici et.al  
Diversity, 2010, 2, 450-472.
- Underwater video for observing coastal marine biodiversity: a review of sixty  
years of publications (1952-2012)
- Mallet,D. and Pelletier, D. Fisheries research.2014, Vol.154, page 44-62
- Book, Neuroecology and Neuroethology in Molluscs, The interface between  
Behaviour and Environment Anna Di Cosmo and William Winlow Eds