



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Marine Vertebrate Zoology

2122-1-F7502Q012

Aims

The course aims to allow students to: 1) recognize and be able to classify the major groups of marine vertebrates in the wild; 2) learn specialized terminology and basic concepts of the zoology of these groups of organisms; 3) understand selected external and internal structures which allow adaptation to the aquatic environment; 4) learn about methodologies of study of these classes of organisms in the wild and measures taken for their conservation.

Contents

The course covers marine vertebrates' systematics, evolutionary history, anatomy, physiology, behavior, conservation and research.

Detailed program

This course is an introduction to the biology of marine vertebrates. It is structured in two modules, the first dealing with fish sea birds (run by Dr De Maddalena) and the second (run by Dr Valsecchi) regarding marine mammals and marine reptiles. Both sections cover a sampling of various taxonomic groups, their evolutionary relationships and biology including anatomy and physiology, adaptation to the aquatic environment (for marine mammals and marine reptiles), behavior, ecology and conservation.

Prerequisites

Basic biology notions

Teaching form

42 hours (21 + 21) frontal lessons (anti-COVID measures allowing)

Textbook and teaching resource

Source material can be found in the following books:

"Sharks of Maldives" by De Maddalena A, Editoriale Magenes

"FishBase", Froese R and Pauly D, www.fishbase.org

"The Diversity of Fishes. Biology, Evolution and Ecology" by Helfman G.S., Collette B.B., Facey D.E., and Bowen B.W., Wiley-Blackwell Publishing

"Marine Mammals Evolutionary Biology" by Berta A and Sumich JL, Academic Press

"Biology of Marine Mammals" by Reynolds JE and Rommel SA, Melbourne University Press

"Marine Mammals of the World. Systematics and Distribution" by Dale W. Rice, Special Publication N4, The Society for Marine Mammalogy

Semester

II Semester: March to May 2021

Assessment method

Oral and written exam.

It will be carried out first the oral exam (normally 10 questions, 5 for each section: Marine Mammals and Reptiles, Fish and Marine Birds). The written test will be followed, on the same day, by few questions from both Prof. Valsecchi and Prof. De Maddalena.

Office hours

Mondays from 11.00am till noon
