UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Marine Vertebrate Zoology

2223-1-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 the anatomy and physiology of the internal and external structures that characterize marine vertebrates and which, in the case of reptiles, birds and marine mammals, have allowed secondary adaptation to the aquatic environment; 4) know their state of conservation and what measures have been or will be adopted for their safeguard; 5) deepen the various methodologies used for the study of these organisms in nature.

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 parts. The first concerns the biology of marine vertebrates (fishes and marine birds, reptiles and mammals) and deals with a sample of the main taxonomic classes, their evolutionary history, biology, including anatomy and physiology, adaptation to the aquatic environment, behavior, ecology and conservation. Particular emphasis is given to marine mammals, the teacher's decades-long field of study. The second part describes the main research approaches used for the study of marine mammals, accompanied by an extensive review of case studies.

Prerequisites

Basic biology notions

Teaching form

42 hours of lectures. Seminars held by experts in the various topics covered could be integrated into the course.

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

"Marine Vertebrate Zoology - Ichthyology - Course Notes" by De Maddalena A.

“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

"Conserving Whales, Dolphins and Porpoises in the Mediterranean Sea, Black Sea and adjacent areas. An ACCOBAMS status report 2021" Notarbartolo di Sciara G, Tonay AM

Semester

II Semester: March to May 2022

Assessment method

Oral and written exam.

A written test (normally 7-10 multiple-choice questions) will be followed by few questions on the topics dealt with during the course.

Office hours

Mondays from 11.00am till noon, by appointment.

Sustainable Development Goals

LIFE BELOW WATER