bio780 - Biodiversity of Littoral Communities

Module label: Biodiversity of Littoral Communities
Module code: bio780
Credit points: 15.0 KP
Workload: 450 h

Used in course of study:
- Master's Programme Biology > Background Modules
- Master's Programme Biology > Background Modules

Contact person:

- Module responsibility
  - Thomas Glatzel
- Authorized examiners
  - Thomas Glatzel
  - Pedro Miguel Martinez Arbizu
- Module counseling
  - Pedro Miguel Martinez Arbizu

Entry requirements:
Safe apnoediving with aptitude test and medical fitness certificate

Skills to be acquired in this module:

+ deepened knowledge of biological working methods
+ ability to perform independent biological research
++ teamwork
+ ethics and professional behaviour
+ project and time management

By actively participating in this module students acquire qualifications in the following fields:

Biological oceanography, marine biology and marine ecology:

- Geological formation history of the Mediterranean Sea and Atlantic Ocean, respectively, or the Red Sea and adjacent seas
- Oceanography and hydrology
- Development of the faunal and floral composition of the Atlantic Ocean, the Mediterranean Sea and the Mediterranean region or the Red Sea (biogeography)
- Commercial utilization of the seas and its impacts
- Biotopes and biotic communities
- Evolution, systematics, morphology, modes of life, and ecology of selected animal groups
- Applying theoretical knowledge to real-world organisms/systems
- Improved and specialized knowledge of species
- Adaptation of life cycles
- Interaction between organisms and environment
- Dynamics of reef-building and reef-degrading processes
- Threat to coral reefs/protection of marine environments

Methods:

- Formulation and definition of scientific approaches and selection of methods
- Observation and investigation of organisms and their habitats (snorkelling/diving)
- Documentation of small research projects in groups in the style of a scientific publication
- Editorial work to prepare a module report
- Popular presentation of results to be published by the media and to be presented at the University

Further skills:

- Social engagement in groups/teamwork in projects
- Independent scientific work in groups
- Improvement of scientific discussion culture
- Consciousness of the threat to coral reefs
- Practising English
- Dealing with the culture of the visited region

Culture:
- History, culture, politics, and religion
Additionally:

- Physiological aspects of apnoediving
- Measures in case of accidents (also caused by "poisonous" organisms)

Module contents

Biodiversity of littoral biotic communities – topographical field research

GRÜTER, W., 2001: Leben im Meer - Vielfalt und Zusammenhänge. Dr. Friedrich Pfeil Verlag, München.
Should be read prior to a marine biological excursion! This book will arouse your curiosity about the submarine world. A reading book!

This textbook is information and fun for all readers interested in marine life as well as in the protection of marine environments.

The textbook for the Mediterranean Sea! The general 1st part provides valuable information on symbioses or feeding types, for example.

Very compact, explanatory! Not expensive! A must for biological oceanography! Recommended for preparing examinations! Provides basic information!

Highly illustrative! Much additional information on different fields! The authors provide a unique ecological approach that helps students understand the real-world relevance of marine biology by exploring how organisms interact within their individual ecosystems.

Connecting biological oceanography with theoretical ecology!

Literature study:
Web of science: externhttp://www.bis.uni-oldenburg.de – Data banks (DBIS) – Biology – TOP data banks, e.g. ASFA, Science Citation Index, Zoological Record
http://www.biodiversitylibrary.org/bibliography/14107
externhttp://scholar.google.de/
externhttp://www.vifabio.de
Open access journals: externhttp://www.dbaj.org/ · externhttp://www.plosone.org

Links

Language of instruction German
Duration (semesters) 1 Semester
Module frequency jährlich
Module capacity unlimited
Modulelevel MM (Mastermodul / Master module)
Modulart Wahlpflicht / Elective

Vorkenntnisse / Previous knowledge

Examination Time of examination Type of examination
Final exam of module during the lectures
1. Report(s) (30 %)
2. Assignment (70 %) (project report in the style of a scientific publication)

PLEASE NOTE:
Additional conditions regarding attendance and ungraded activities as determined by the persons responsible for the module will apply.

Course type Comment SWS Frequency Workload attendance
Exercises 9.00 SuSe 126 h
Seminar 3.00 SuSe 42 h
Seminar 0.00 WiSe 0 h
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<td>(Pflichtveranstaltung für Erstsemester OHNE bisherige Belehrung)</td>
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**Total time of attendance for the module**