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
Contact person: Thomas Glatzel

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 databases, 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.doaj.org/ - externhttp://www.plosone.org

Links
Language of instruction: German
Duration (semesters): 1 Semester
Module frequency: jährlich
Module capacity: unlimited
Modulart: Wahlpflicht / Elective

Vorkenntnisse / Previous knowledge:

- 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
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