mar620 - Profile Module Marine Chemical Ecology

Module label: Profile Module Marine Chemical Ecology
Module code: mar620
Credit points: 6.0 KP
Workload: 180 h
Used in course of study: Master's Programme Microbiology > Mastermodule

Module responsibility
- Peter Schupp

Module counseling
- Sven Rohde

Entry requirements
Lecture: Organic chemistry

Skills to be acquired in this module
Students will learn about the chemical properties and major ecological roles of secondary metabolites, how to investigate the secondary metabolites of marine invertebrates and algae, how to analyze secondary metabolite profiles, how to isolate compounds of interest and how to conduct various bioassays to assess potential ecological roles of crude extracts and potentially isolated compounds. Students will also learn how to statistically evaluate their results.

Module contents
Chemical Ecology: The course consists of lectures, followed by laboratory experiments. Students will research about various topics in marine chemical ecology. Laboratory work will include production of extracts from various invertebrates and algae. Extracts will be tested in various feeding assays to assess the chemical properties of extracts. Extracts will also be tested for antimicrobial activity with environmental strains. This includes the culture of test bacteria and antimicrobial assays. Final evaluation will be a laboratory report about the experiments. This will include statistical analysis of their experiments and discussion of their results in the framework of the lectures and seminars presented during the course.

Reader's advisory
Marine Chemical Ecology, McClintock, Baker

Links
Language of instruction: English
Duration (semesters): 1 Semester
Module frequency: jährlich
Module capacity: unlimited
Module level: Abschlussmodul (Abschlussmodul)
Modulart: Wahlpflicht
Lern-/Lehrform / Type of program
- Seminar (2 CP, 1 SPPW ), practical course (4 CP, 4 SPPW)
- Compact Course

Vorkenntnisse / Previous knowledge

Examination
Time of examination
Type of examination
One assessment of examination:
Portfolio (seminar presentation, written protocol)

Portfolio (seminar presentation – no mark, written protocol 100%). Active participation (Active and documented participation in practical courses (labs, exercises, seminars, field trips) and courses. These include e.g. the delivery of exercises, writing a lab report or seminar presentations according to the advice of the course supervisor.)

Course type
Comment
SWS
Frequency
Workload attendance
Seminar
1.00
14 h
Practical
4.00
56 h

Total time of attendance for the module: 70 h