Module Name Tutorial Ecology, Evolution and Environment						
Type of Module o Basic Module			Module Code Ecology Tutorial			
Identification Number	Workload	Credit Points	Term	Offered Every	Start	Duration
MN-B-E 3	180 h	6 CP	1st term of studying	Winter term	Winter term only	1 term

1	Course Types	Contact Time	Private Study	Planned Group Size
	Tutorial	60 h	120 h	12 students

2 Module Objectives and Skills to be Acquired

Students who successfully completed this module

- have acquired detailed knowledge on ecological theory and methods as well as skills on the analysis of experimental data from field and laboratory studies.
- have acquired knowledge on current aspects of evolution in ecological systems and its relationships to the aquatic, terrestrial and chemical environment.
- can solve problems and develop strategies to answer questions related to environmental aspects of ecology and evolution.

3 Module Content

- Aquatic ecology in the anthropocene (Example: River Rhine)
- Terrestrial ecology
- Microbial ecology
- Chemical ecology (e.g. Environmental chemistry, HPLC, chemical communication)
- Abiotic gradients in limnology
- Population ecology and genetics
- Population genomics and ecological genomics
- Community ecology
- Phylogeny and ecology (community genetics, phylogenomics and environmental transcriptomics)

4 Teaching Methods

- Project work; Bioinformatic exercises; Excursions, Training on presentation techniques in oral and written form

5 Prerequisites (for the Module)

Enrollment in the Master´s degree course “Biological Sciences”; Simultaneous participation in the lecture “Ecology, Evolution and Environment” as well as in the seminar “Ecology, Evolution and Environment”

6	Type of Examination Oral presentation (100 % of the total module mark)
7	Credits Awarded Regular and active participation; Oral presentation at least “sufficient”
8	Compatibility with other Curricula* None
9	Proportion of Final Grade 7.5 %
10	Module Coordinator Prof. Dr. Hartmut Arndt, phone 470 3100, e-mail: teach-ecology@uni-koeln.de
11	Further Information Participating faculty: Prof. Dr. H. Arndt, Prof. Dr. M. Bonkowski, apl. Prof. Dr. J. Borcherding, Prof. Dr. E. von Elert, PD Dr. K. Lampert, Dr. F. Nitsche, JProf. Dr. A.-M. Waldvogel Literature: • Information about textbooks and other reading material will be given on the ILIAS representation of the course (https://www.ilias.uni-koeln.de/ilias/goto_uk_cat_2815610.html) General time schedule: Weeks 1-14: Tutorials and oral presentations (starting at 2:00 p.m. at different dates, more details will be given in the introduction to the module). Introduction to the module: October 11, 2021 at 2:00 p.m. (further information see ILIAS folder)