Study programme: MSc in Ecology

Level: Master degree

Course title: Freshwater fauna

Lecturer: Branko Miljanović; Ivo Karaman

Status: elective

ECTS: 6

Requirements: no

Learning objectives

General knowledge on the invertebrate freshwater fauna with particular attention on dominant groups and bioindicator species .

Learning outcomes

Detailed knowledge of local freshwater invertebrate fauna as a basis for practical use in estimation of freshwater biodiversity, water quality and protection.

Syllabus

Theoretical instruction

The origine of freshwater fauna. Fauna of atypical freshwater habitats. Fauna of groundwater and springs, running water fauna, fauna of standing waters and brackisch fauna. Neuston. Periphyton. Vertical strata and horizontal zones of freshwater ecosystems and their fauna. Zooplankton- overview of most important groups, sesonal dynamics, distribution, vertical migration and trophical relationships. Zoobentos-overview of most important groups. Benthic communities of littoral and profundal, benthic fauna of running waters. Bioindicator species. Rare and endengered freshwater species.

Practical instruction:.

.Introduction to characteristic representatives of temporal waters, psamon, neuston and bioindicator species. Identification of characteristic representatives of zooplancton, zoobenthos and aquatic insects.

Literature

- H. Streble, D. Krauter: Das Leben im Wassertropfen. Mikroflora und Mikrofauna des Susswassers. Kosmos, Stuttgart, 1973
- R. W. Pennak: Fresh-water invertebrates of the United States, John Wiley & Sons, 1978
- L. A. Kutikova: Fauna Aerotenkov. Nauka, Leningrad, 1984
- R. G. Wetzel: Limnology. Lake and River Ecosystems. Academic Press, 2001
- J. G. Needham, P. R. Needham: A guide to the study of fresh-water biology. WCB, Mc Graw-Hill, 1976.
- P. Gloeer: Die suesswassergastropoden Nord- und Mitteleuropas. Die Tierwel Deutschlands, 73. Teil, pp.1 327, 2002.

Weekly teaching	g load			
Lectures: 2	Exercises: 2	Other forms of teaching:	Student research: 5	

Teaching methodology

Theoretical lectures, practical work, overview and identification of samples collected during the fieldwork.

*Writing and presentation of seminar works on particular topics.

Grading method (maximal number of points 100)					
Pre-exam obligations	points	Final exam	points		
lectures		Written exam	50		
exercises					
(other)	50				