



2nd **ECOBIAS Workshop**

New trends in ecological monitoring and aquatic bioassessment
University of Tuzla

New master study program in ecological monitoring and aquatic bioassessment in Bosnia and Herzegovina

Jasmina Kamberović, Ph.D.

Vedad Pašić, Ph.D.

University of Tuzla, Bosnia and Herzegovina

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Erasmus+ project: Development of master curricula in ecological monitoring and aquatic bioassessment for Western Balkans HEIs/ECOBIAS



Co-funded by the
Erasmus+ Programme
of the European Union



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Objectives of the ERASMUS+ ECOBIAS project



ECOBIAS

Equipment, networking, capacity building, dissemination

Develop and
implement master
curricula and LLL in
EMAB, textbooks.

Training for the
participants

Equip seven
laboratories for
EMAB

Summer School in
eDNA
metabarcoding at
UNTZ (summer
2022)

Develop
ECOBIAS-NET
platform

Workshops, open
days and round
tables

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Objectives of the ERASMUS+ ECOBIAS project

Develop and implement advanced master curricula in Ecological Monitoring and Aquatic Bioassessment in WB HEIs

Four Master curricula:

- University of Tuzla (B&H)
- University of Sarajevo (B&H)
- International University of Travnik (B&H)
- University of East Sarajevo (B&H)

In total 26 new master courses!!!

Develop and implement the LLL courses for the environmental monitoring sector in line with WFD in the WB HEIs

Three Lifelong Learning curricula:

- University of Banja Luka (B&H)
- University of Mostar (B&H)
- University of Donja Gorica (Montenegro)

In total 14 LLL new courses!!!

ECOBIAS COURSES

Complete list is available on the
<https://www.ecobiaserasmus.com/list-of-ecobias-courses/>

Supporting institutions for the development of
the courses at WB HEIs:

- University of Novi Sad (coordinator institution)
- University of Zagreb
- University of Duisburg-Essen
- University of Niš



ecobiaserasmus.com/list-of-ecobias-courses/

Erasmus+ Development Of Master Curricula In Ecological Monitoring And Aquatic Bioassessment For Western Europe

HOME PROJECT ▾ CONSORTIUM ▾ NEWS AND EVENTS COURSES ▾ DEADLINES WORK PACKAGES ▾ MA

List of ECOBIAS Courses

Courses selected by ECOBIAS HEIs:

1. Aquatic ecotoxicology (Task Leader P3; other partners involved: P1, P2, P4), develop for: P10, P8, P9, P11
2. Aquatic and semi-aquatic macrophytes (Task Leader P1; other partners involved: P2, P3), develop for: P6, P10
3. Aquatic macroinvertebrates in bioassessment (Task Leader P3; other partners involved: P1, P2), develop for: P6, P10
4. Phycology (Task Leader P1; other partners involved: P3), develop for: P6, P10
5. Algology (Task Leader P3; other partners involved: P1), develop for: P9
6. Freshwater ecology (Task Leader P1; other partners involved: P2, P3), develop for: P7, P8, P9
7. Wetland and riparian ecology (Task Leader P2; other partners involved: P1, P3), develop for: P8, P9

Curriculum example: Master curricula in EMAB at University of Tuzla

Magistarski studij *Ekomonitoring i bioindikacija voda* na Prirodno-matematičkom fakultetu Univerziteta u Tuzli

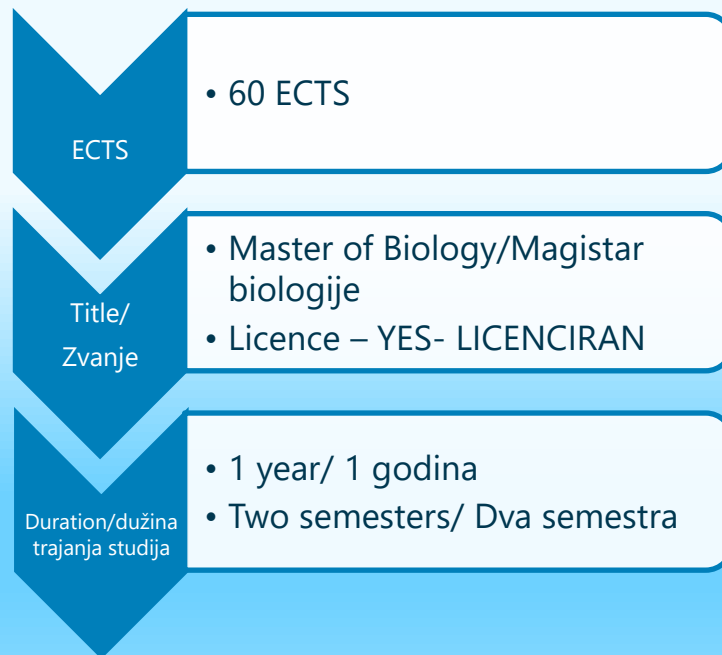
Lista obaveznih predmeta/Obligatory

Red. br. pr.	Naziv predmeta	P	A	L	ECTS
1.	Ekologija kopnenih voda	3	0	1	6
2.	Terenska praksa u ekologiji voda	3	0	0	6
3.	Klasifikacijski protokoli i sistemi u ekomonitoringu voda	3	0	1	6

Lista izbornih predmeta/Optional

4.	Konzervaciona ekologija	2	0	1	6
5.	Geografski informacijski sistemi i daljinska detekcija u ekomonitoringu	2	0	1	6
6.	Numerička ekologija	2	0	1	6
7.	Okolišna DNK u biomonitoringu	2	0	1	6
8.	Akvatična ekotoksikologija	2	0	1	6
9.	Mikrobiologija površinskih voda	2	0	1	6
10.	Ekologija vlažnih i riparijalnih staništa	2	0	1	6
11.	Praktikum u ekologiji i botanici	2	0	1	6
12.	Praktikum u ekologiji i zoologiji	2	0	1	6
13.	Forenzika vodenih insekata	2	0	1	6

Master curricula



Nastavni plan/Curriculum

Nastavni predmet	Zimski semestar				Ljetni semestar			
	Sati			ECTS	Sati			ECTS
	P	AV	LV		P	AV	LV	
Ekologija kopnenih voda	3	0	1	6				
Terenska praksa u ekologiji voda	3	0	0	6				
Izborni predmet 1	2	0	1	6				
Izborni predmet 2	2	0	1	6				
Izborni predmet 3	2	0	1	6				
Klasifikacijski protokoli i sistemi u ekomonitoringu voda					3	0	1	6
Završni magistarski rad					0	0	0	24
Ukupno po semestrima	12	0	4	30	3	0	1	30
UKUPNO SATI NASTAVE		16				4		
UKUPNO		20 SATI NASTAVE			60 ECTS			

Competencies

Kompetencije

Monitoring vodenih organizama (fitobentos, fitoplankton, makrofite, zoobentos i ribe) /Aquatic bioassessments

Terenska uzorkovanja/ Field sampling

Ocjena ekološkog statusa i ekološkog potencijala vodnih tijela/
Evaluation of the ecological status of water bodies

Mikrobiološki monitoring akvatičnih ekosistema/ Aquatic microbiology

Ekotoksikološki testovi/ ecotoxicology

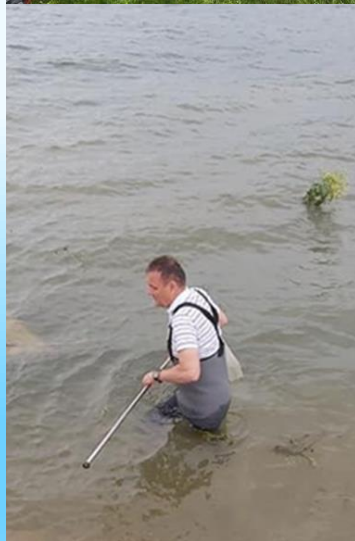
Monitoring i konzervacija riparijalnih i vlažnih staništa/
Conservation of wetland and riparian habitats

GIS i daljinska istraživanja/ Remote sensing

Molekularne i forenzičke metode za monitoring akvatičnih ekosistema/eDNA monitoring of aquatic ecosystems

Ekološko planiranje i pisanje projekata/Ecological planning, writing of the projects

Obrada podataka/Data analysis



Labor market/Tržište rada



RUDARSKI INSTITUT TUZLA



Mogućnost zapošljavanja/Possibility of employment

Naučno-nastavne ustanove/Scientific and educational institutions

Kontrolne laboratorije, instituti i agencije /Control laboratories, institutes and agencies

Konsultatske kuće, organi državne i kantonalne uprave /Consulting

Istraživački centri /Research centres

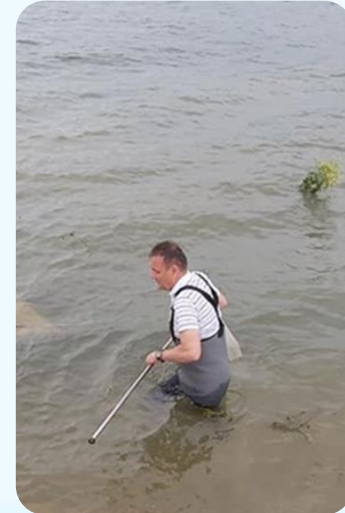
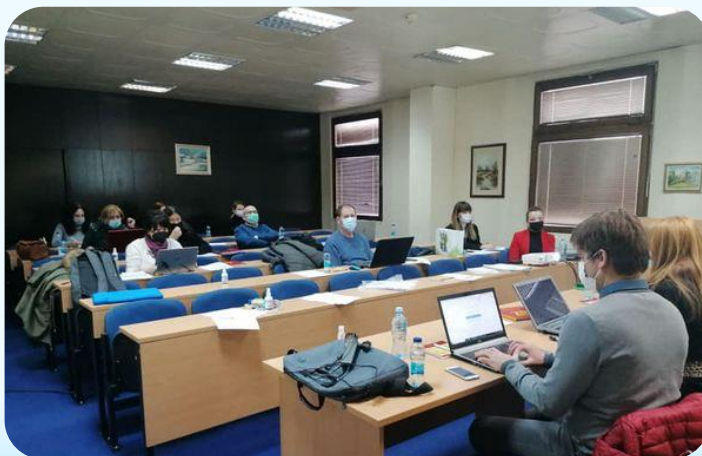
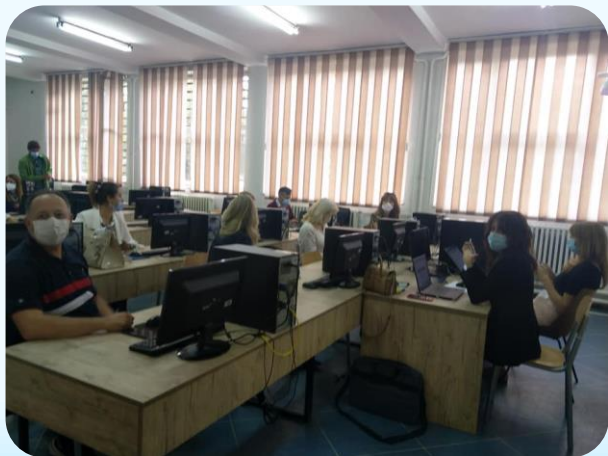
Ustanove za zaštitu prirode/Nature protection institutions

Privredni proizvodni sektor/Economic sector

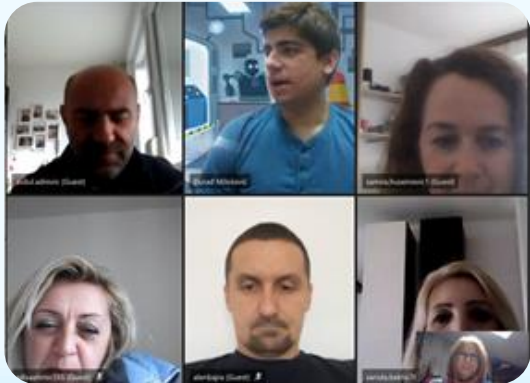
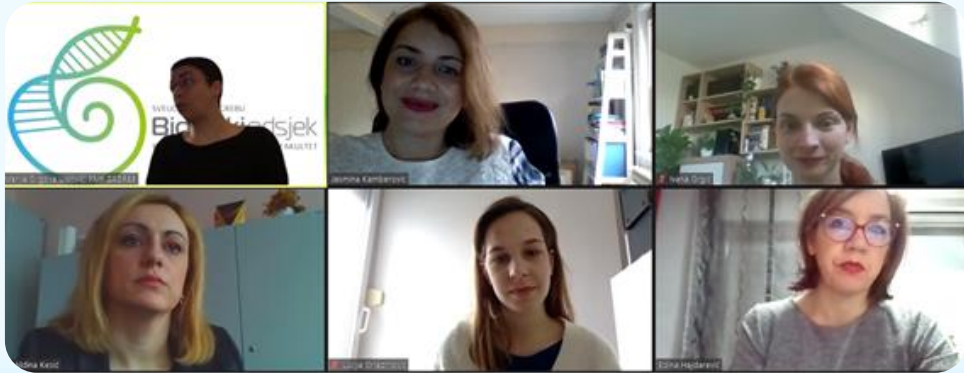
Postrojenja za prečišćavanje otpadnih voda/ Wastewater treatment plants

Organizacije civilnog društva/NGO

Trainings/Treninzi



Trainings/Treninzi



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Equipment/Oprema za potrebe magistarskog studija

ECOBIAS EQUIPMENT BUDGET: 211 424,00 EUR

University of Tuzla Equipment costs: 63 000 EUR

Na Prirodno-matematičkom fakultetu Univerziteta u Tuzli nabavljamo opremu za terensko uzorkovanje u monitoringu voda...



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Oprema za potrebe magistarskog studija

....opremu za ekologiju voda i okolišnu DNK....



Oprema za potrebe magistarskog studija

...okolišnu DNK i daljinsku detekciju u monitoringu...



Oprema za potrebe magistarskog studija

... hemikalije i potrošni materijal za okolišnu DNK, mikrobiologiju, ekotoksikologiju i kompjutersku opremu.



Future activities/Buduće aktivnosti

Implementation of master and LLL curricula

Textbook preparation, trainings

Dissemination activities – round tables, open days and workshops

Summer School in eDNA monitoring at University of Tuzla in 2022

Developing of ECOBIAS-NET platform

Equipment installation

Applications for new master study program *Ecological monitoring and Aquatic bioassessment* are open at University of Tuzla until 30.9. 2021.



KONKURS
ZA UPIS STUDENATA
U PRVI I INTEGRISANI
PRVI I DRUGI CIKLUS STUDIJA,
DRUGI CIKLUS STUDIJA I
TREĆI CIKLUS STUDIJA
U AK. 2021/22. GODINI

KONKURS ZA UPIS STUDENATA U PRVU GODINU PRVOG I INTEGRIRANOG PRVOG I DRUGOG CIKLUSA STUDIJA, KONKURS ZA UPIS STUDENATA NA DRUGI CIKLUS STUDIJA I KONKURS ZA UPIS STUDENATA NA TREĆI CIKLUS STUDIJA NA FAKULTETE/AKADEMIJU UNIVERZITETA U TUZLI U AKADEMSKOJ 2021/22. GODINI

🕒 21 Juna, 2021 ➤ Novosti

Univerzitet u Tuzli raspisuje KONKURS ZA UPIS STUDENATA U PRVU GODINU PRVOG I INTEGRIRANOG PRVOG I DRUGOG CIKLUSA STUDIJA, KONKURS ZA UPIS STUDENATA NA DRUGI CIKLUS STUDIJA I KONKURS ZA...

<https://unitz.ba/>



<https://www.ecobiaserasmus.com/>



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Thank you!



www.ecobias.uns.ac.rs



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