

## ECOBIAS ERASMUS+ FINAL CONFERENCE

International University of Travnik, Bosnia and Herzegovina

9<sup>th</sup> – 10<sup>th</sup> December 2022



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

# Final Dissemination Report University of Tuzla – UNTZ P8 2020-2023

**PhD Jasmina Kamberović, WP Leader  
University of Tuzla**

**In the preparation of the presentation assisted  
Edina Hajdarević, PhD**



# ECOBIAS



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

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5 DISSEMINATION - WPL UNTZ JASMINA KAMBEROVIĆ	TASK LEADER
5.1. Preparing project dissemination plan	UNS Dušanka Cvijanović
5.2. Setting and updating of Project site	UNS, UNI Dušanka Cvijanović
5.3. Design, printing, recording and publishing promo material	UNS Maja Novković
5.4. Workshops at Partner Country HEI	IUT Zlatko Mecan
5.5. Round tables with stakeholders	UDG Sandra Tinaj UBL Svjetlana Lolić UDG Marija Vugdelić
5.6. Open day at each Partner Country HEI	IUT Selma Otuzbir Mecan
5.7. Workshop and Summer School in DNA Metabarcoding at University of Tuzla	UNTZ Jasmina Kamberović
5.8. Final Conference on ECOBIAS	UNTZ Elvira Hadžiahmetović Jurida

# Task 5.1 Preparing project dissemination plan

Task Leader Dušanka Cvijanović, UNS

Task	Start	End
5. 1 Preparing project dissemination plan	15.02.2020.	15.05.2020. On time

- Project Dissemination plan prepared on time by Task Leader Dušanka Cvijanović and Task team. The first draft of Dissemination plan was made in May 2020, the second revised version was created in March 2021

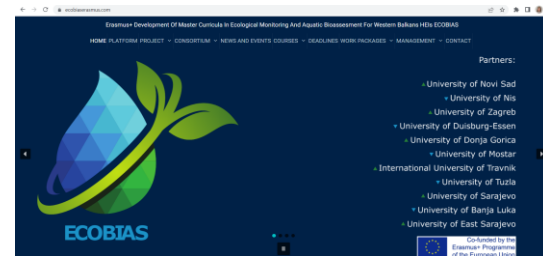


Dissemination Plan

# Task 5.2 Setting and updating of Project site

## Additionally Ecobias Erasmus Facebook page

- The project web site was created in February 2020 (<https://www.ecobiaserasmus.com/>) by P1 UNS.
- Facebook page created on 20. 3. 2020. <https://www.facebook.com/EcobiasErasmus>
  - Average reach per month in the period of 23.3.2020 – 15.12.2023 = 1 916
  - Total reach for the project duration period (15/1/2020- 15/12/2022 = 35 636



Facebook Page reach



Facebook Page visits



Facebook Page new likes



### Lokacija

Gradovi Države

Bosna i Hercegovina	552
Njemačka	27
Srbija	22
Hrvatska	13
Crna Gora	12
Austrija	7
Sjedinjene Američke Države	5
Italija	4
Belgija	2
Nizozemska	2

### Lokacija

Gradovi Države

Tuzla, Bosnia and Herzegovina	121
Sarajevo, Bosnia and Herzegovina	82
Banja Luka, Bosnia and Herzegovina	27
Jelah, Bosnia and Herzegovina	26
Lukavac, Bosnia and Herzegovina	23
Mostar, Bosnia and Herzegovina	22
Zivinice, Bosnia and Herzegovina	19
Brcko, Bosnia and Herzegovina	17
Zvornik, Bosnia and Herzegovina	16
Zenica, Bosnia and Herzegovina	12



## Task 5.3 Design, printing, recording and publishing promo material

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Designing the project logo and visual identity: **Logo created ECOBIAS Word and PPT documents templates and colour palette created on time.**

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Number of different kinds of distributed promo materials: /At least four kinds of material per year: leaflets, flyers or notebooks, banners/- **Achieved**

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General rules of visibility: **Achieved:** All promo material contains ECOBIAS acronym and logo as well as logo mention: "Co-funded by the Erasmus+ Programme of the European Union"

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Media communication and press releases/interviews/articles (A minimum of 60 press releases) – **Achieved**  
**202** press or media releases until 5<sup>th</sup> of December 2022. The list available on  
<https://docs.google.com/spreadsheets/d/1WCyi0QI8lkScv0TYWtMrAouynq0KlPkGfsLMe080EC8/edit#gid=0>

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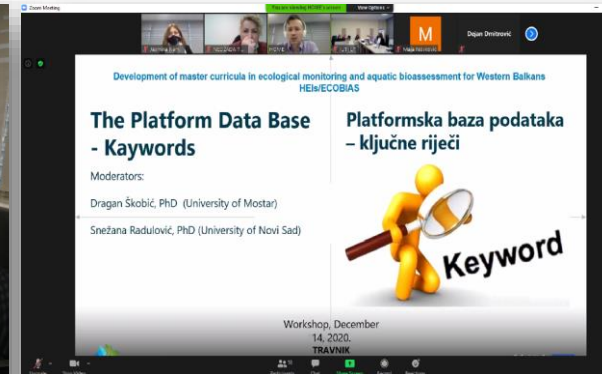
Posts of events on the partner websites /At least two during project duration on each institution websites/ We are still counting.....

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# Task 5.4 Workshops at Partner Country HEI

Task Leader Zlatko Mecan, IUT

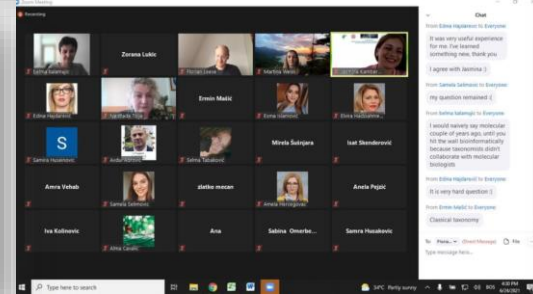
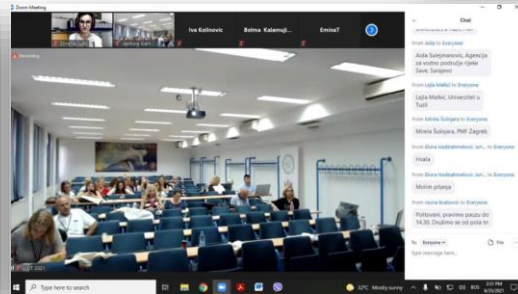
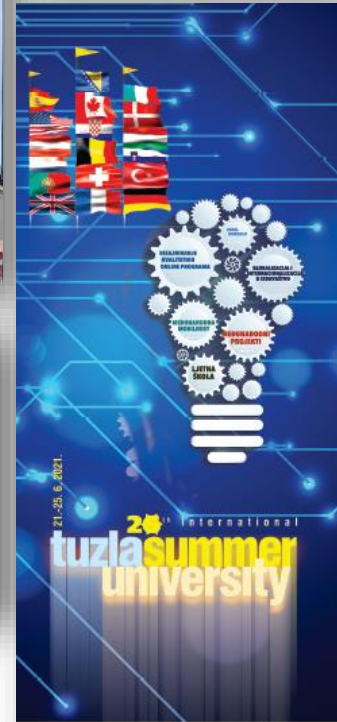
- **The first workshop** „Establishment of regional academic network in EMAB“ held on 14th and 15<sup>th</sup> of December 2020 at IUT. This event has been dedicated to the transfer of knowledge in EMAB, making ECOBIAS Platform plan and networking participants in EMAB.
- In total 49 participants
- Summary grade = 2,87



# Task 5.4 Workshops at Partner Country HEI

Task Leader Zlatko Mecan, IUT

- **The second workshop** “New trends in ecological monitoring and aquatic bioassessment” held at UNTZ on 24<sup>th</sup> and 25<sup>th</sup> of June 2021. The aim was transfer of knowledge in EMAB and popularization of new ECOBIAS MSc study programs and LLL courses to students and professionals in EMAB.
- In total 63 participants
- Summary grade = 2,92





# Task 5.4 Workshops at Partner Country HEI

Task Leader Zlatko Mecan, IUT

- **The 3<sup>rd</sup> workshop** “Establishment of the regional academic network in EMAB / Freshwater assessment and climate change issue” held on 8<sup>th</sup> and 9<sup>th</sup> December 2021 at IUT. The main goal of the workshop is establishment of the regional cooperation between workshop participants and institution involved in the process of monitoring and water management in the Western Balkans and impact of climate change on inland water ecosystems.

- In total 26 participants
- Summary grade = 3





# Task 5.5 Round tables with stakeholders

Task Leaders Sandra Tinaj UDG and Svjetlana Lolić UBL

- Svjetlana Lolić will give report on this task



# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

## The first Open days

Indicators od successful dissemination	Date	Number of participants	Summary results of participants feedback forms
<b>P5 UDG</b>	4.6.2021	Achieved: <b>YES</b> 32 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (60%); helpful = 40% -3
<b>P6 SUM</b>	26.5.2021	Achieved: <b>YES</b> 24 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (95%); helpful = 5% -3
<b>P7 IUT</b>	5.12.2020	Achieved: <b>YES</b> 12 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)
<b>P8 UNTZ</b>	28.5.2021	Achieved: <b>YES</b> 17 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)
<b>P9 UNSA</b>	3.6.2022.	Achieved: <b>YES</b> 12 participants	Achieved: <b>YES</b> Summary grade: extremely helpful -3 (100%)
<b>P10 UBL</b>	27.5.2021	Achieved: <b>YES</b> 20 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (80%); helpful – 3 (20%)
<b>P11 UES</b>	11.6.2021	Achieved: <b>YES</b> 26 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)

# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The first Open day**



P5 UDG



P6 SUM



P7 UIT



P8 UNTZ

# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The first Open day**



P9 UNSA



P10 UBL



P11 UES

# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The second Open days**

Indicators od successful dissemination	Date	Number of participants	Summary results of participants feedback forms
<b>P5 UDG</b>	18.10.2021	Achieved: <b>YES</b> 10 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (80%); helpful – 3 (20%)
<b>P6 SUM</b>	11.10.2021	Achieved: <b>YES</b> 10 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (95%); helpful – 3 (5%)
<b>P7 IUT</b>	9.10.2021	Achieved: <b>YES</b> 12 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)
<b>P8 UNTZ</b>	24.9.2021	Achieved: <b>YES</b> 16 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (92%)
<b>P9 UNSA</b>	14.6.2022.	Achieved: <b>YES</b> 10 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)
<b>P10 UBL</b>	14.10.2021.	Achieved: <b>YES</b> 12 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)
<b>P11 UES</b>	6.10.2021	Achieved: <b>YES</b> 27 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (85%); helpful - 3 (15%)



# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The second Open day**



P5 UDG



P6 SUM



P7 UIT



P8 UNTZ

6.12.2022.



# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The second Open day**



P9 UNSA



P10 UBL



P11 UES

# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The third Open days**

Indicators od successful dissemination	Date	Number of participants	Summary results of participants feedback forms
<b>P5 UDG</b>	16.5.2022.	Achieved: <b>YES</b> 26 participants	Achieved: <b>YES</b> Summary grade: extremely helpful – 3 (100%)
<b>P6 SUM</b>	27.4.2022	Achieved: <b>YES</b> 23 participants	Achieved: <b>YES</b> Summary grade: extremely helpful – 3 (91%); helpful – 3 (9%)
<b>P7 IUT</b>	17.06.2022.	Achieved: <b>YES</b> 8 participants	Achieved: <b>YES</b> Summary grade: extremely helpful – 3 (100%)
<b>P8 UNTZ</b>	24.5.2022	Achieved: <b>YES</b> 23 participants	Achieved: <b>YES</b> Summary grade: extremely helpful – 3 (100%)
<b>P9 UNSA</b>	23.9.2022	Achieved: <b>YES</b> 11 participants	Achieved: <b>YES</b> Summary grade: extremely helpful - 3 (100%)
<b>P10 UBL</b>	3.6.2022	Achieved: <b>YES</b> 9 participants	Achieved: <b>YES</b> Summary grade: extremely helpful – 3 (100%)
<b>P11 UES</b>	25.5.2022	Achieved: <b>YES</b> 20 participants	Achieved: <b>YES</b> Summary grade: extremely helpful – 3 (90%); helpful – 3 (10%)

# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- The third Open day



P5 UDG



P6 SUM



P7 UIT



P8 UNTZ

# Task 5.6 Open day at each Partner Country HEI

Task Leaders: UDG Marija Vugdelić and IUT Selma Otuzbir Mecan

- **The third Open day**



P9 UNSA



P10 UBL



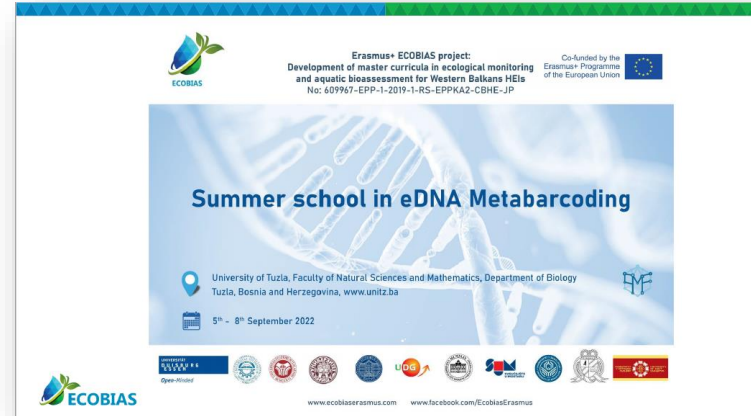
P11 UES



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

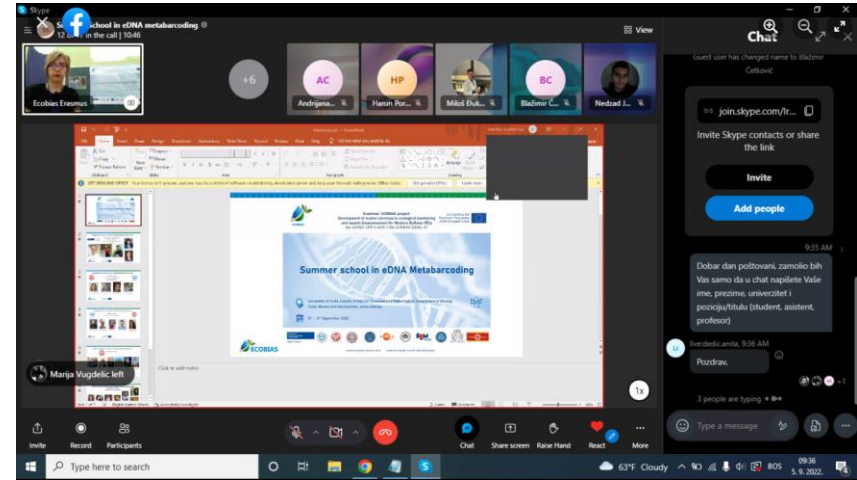
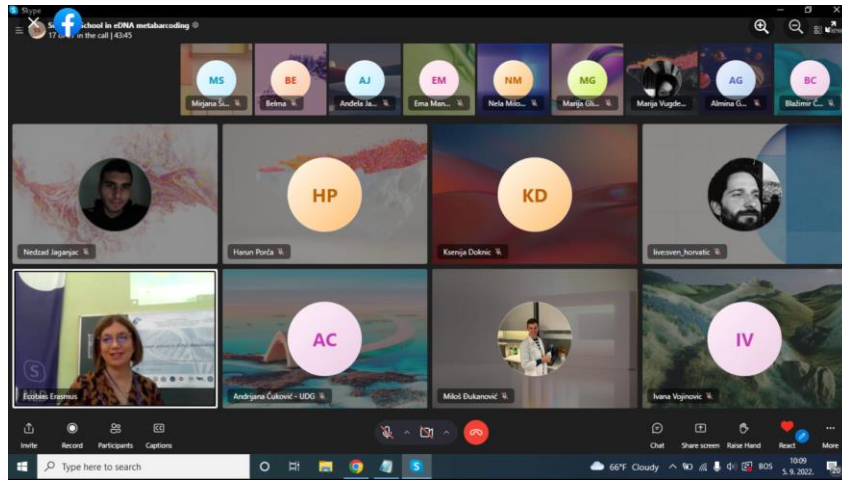
Task Leader UNTZ Jasmina Kamberović

- **Date:** 5<sup>th</sup> – 8<sup>th</sup> September
- **Place:** University of Tuzla, Faculty of Natural Sciences and Mathematics, Field Lake Modrac
- **Event objective:** The summer school in eDNA metabarcoding was organized as a four-day program, which aims to train participants in the research planning of the environmental DNA metabarcoding techniques, sampling methodology, environmental DNA extraction and amplification, and basic steps in sequencing data analysis.
- The Summer School was attended by **56 students** and **33 professors/assistant/experts** from partner institutions of the Ecobias project.



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

- The summer school is organized in a **hybrid way** (live and online via Skype link) with the support of the University of Duisburg Essen





# The teachers of the Summer School in DNA Metabarcoding at University of Tuzla

UNIVERSITÄT  
DUISBURG  
ESSEN

Open-Minded



**University of Duisburg-Essen**  
Faculty of Biology  
Aquatic Ecosystem Research Group  
Leese Lab  
<http://udue.de/leeselab>



Prof.dr. Florian Leese



Msc. Robin Schütz



Msc. Till-Hendrik Macher



Cristina Hartmann-Fatu, PhD



Martina Weiss, PhD



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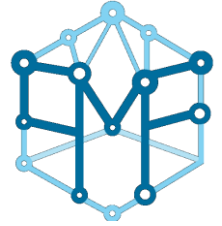


# The teachers of the Summer School in DNA Metabarcoding at University of Tuzla

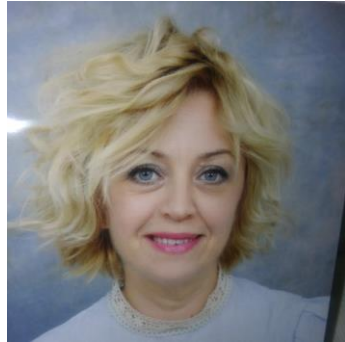


## Faculty of Natural Sciences and Mathematics

Department of biology  
<http://bio.pmf.untz.ba/>



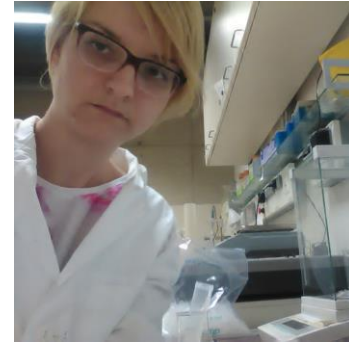
Prof.dr. Jasmina Kamberović



Prof. Adisa Ahmić



Prof.dr. Edina Hajdarević



Dr.sc. Darja Husejnagić



Co-funded by the  
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of the European Union



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Monday 5<sup>th</sup> September 2022 - **first day** of the Summer School

**Introduction in eDNA monitoring, Technical preparations for eDNA sampling, DNA extraction and amplification, Field sampling**

- Coordinator of the UES, Prof Ljubica Vasiljević addressed the audience in front of the project consortium.
- The lecture on the topic General introduction in eDNA monitoring was given by Jasmina Kamberović (UNTZ) and Adisa Ahmić (UNTZ).
- The lecture Technical preparations for eDNA sampling, DNA extraction and amplification followed and was given by Msc Robin Schütz (UDE).





# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Monday 5<sup>th</sup> September 2022 - **first day** of the Summer School

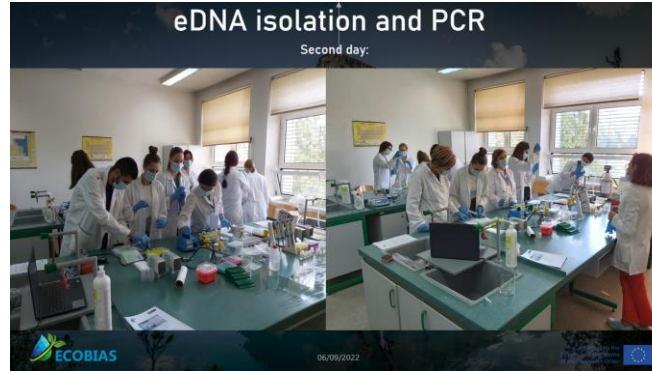
- Field sampling



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Tuesday 6<sup>th</sup> September 2022 - **second day** of the Summer School

- **Laboratory practice**
- DNA extraction from biofilm and syringe filter samples



Online participants followed the laboratory work of the first group during the summer school.

# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Tuesday 6<sup>th</sup> September 2022 - **second day** of the Summer School

- Laboratory practice
- Qubit quantification of DNA





# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Tuesday 6<sup>th</sup> September 2022 - **second day** of Summer School

- **Laboratory practice**
- PCR amplification using *rbcL* primer region for diatoms and *12S* primer region for fishes.



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Wednesday 7<sup>th</sup> September 2022 - **third day** of the Summer School

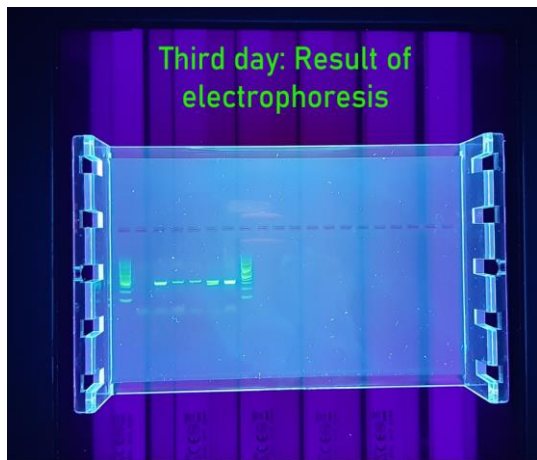
- **Theory**
- The lecture Chances and challenges in eDNA monitoring *Importance of the ECOBIAS project* was given by Prof. Florian Leese (UDE)



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Wednesday 7<sup>th</sup> September 2022 - **third day** of Summer School

- **Laboratory practice**
- Electrophoresis of PCR products





# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Wednesday 7<sup>th</sup> September 2022 - **third day** of the Summer School

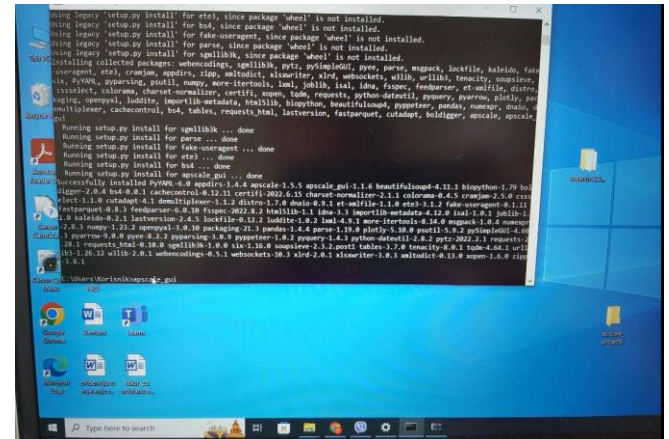
- Team work of students to prepare their presentations.



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Thursday 8<sup>th</sup> September 2022 – **fourth day** of the Summer School

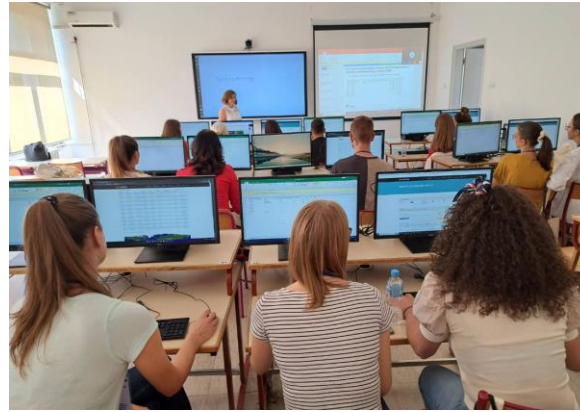
- Bioinformatics introduction, Apscale, Taxon Table Tools, reference database, from sequence to taxonomy was given by Till-Hendrik Macher (UDE)



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Thursday 8<sup>th</sup> September 2022 – **fourth day** of Summer School

- Practical bioinformatical students work in the Interba Erasmus laboratory and the computer center of PMF in the exercise titled *From sequence to taxonomy: Bioinformatics, BOLD reference database*.
- Group leaders Jasmina, Adisa, Edina and Darja, with support of Till-Hendrik Macher and Robin Schütz realized this exercise.





# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Thursday 8<sup>th</sup> September 2022 – **fourth day** of the Summer School

- **Student's presentation**
- Student's representatives presented the results of each group's work. All groups have successfully isolated DNA from water targeting a specific group of organisms (diatoms and fish) and all groups obtained bands on gel indicating successful amplification of the targeted gene region.



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

Thursday 8<sup>th</sup> September 2022 – **fourth day** of the Summer School

- Awarding of certificates



# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla

- Many media reported the news about the Summer school in eDNA Metabarcoding, while one part of the educational show on local television (RTVTK - TW show Putokazi) was dedicated to this topic.
- During the summer school, updates were posted on Facebook and Instagram social networks.



Ecobias Erasmus  
10. rujna · 🌐

I..... zadnji dan ljetne škole o metabarkodiranju na Odsjeku za biologiju PMF Tuzla, nešto bez čega metabarkodiranje nije moguće - obrada podataka 📊 📊 📊. Autor programa Apscale i Taxon Table Tools (<https://github.com/TillMacher>), Till Hendrick Macher sa Univerziteta Duisburg Essen prezentirao je primjenu dva novorazvijena softvera, slobodno dostupna svima 🍌. Uslijedila je vježba primjenom Bold database i instalacija softvera na računare učesnika. 📺

#ecobiaserasmus #leeselab ... Prikaži više





# Task 5.7 Workshop and Summer School in DNA Metabarcoding at University of Tuzla





# Task 5.8 Final Conference on ECOBIAS

Task Leader UNTZ Elvira Hadžiahmetović Jurida

International University of Travnik, IUT

9-10<sup>th</sup> December 2022

Report follows, activity currently in progress 😊



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



<https://www.facebook.com/EcobiasErasmus>

**Thanks to the coordinator, all task leaders,  
participants and media!**