Project BIOLAWEB

Deliverable D3.2

Reports from STSM

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Deliverable D3.2
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Deliverable summary

Deliverable D6.3 describes the training activities linked with short term scientific missions (STSMs) within WP3 – Training and networking of the BIOLAWEB project. This report provides insight into what was done during the eight visits to partner institutions, INRAE (Thonon-les-Bains, France) and NIVA (Oslo, Norway). Finally, it provides information on the results of all visits and further steps in project dissemination.

INRAE and NIVA experts led the overall implementation of training and networking activities. UB-ICTM was responsible for compiling this report.

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1. Short term scientific missions at INRAE

UB-ICTM researchers visited UMR Carrtel (Thonon, France) on four occasions for the duration of three weeks per staff exchange. UMR Carrtel is a research unit of 40 people in INRAE working on the functioning of lakes, aquatic ecosystems, and DNA metabarcoding. Experts from INRAE supervised scientists from UB-ICTM and provided them with all the assistance required to ensure high-quality know-how transfer. Research topics covered during the short term staff exchanges are aligned with the defined project objective 3 in which the partner institution has expertise. The outcome of these short term staff exchanges resulted in several publications.

1.1 Staff exchange 1

Dr Miloš Ćirić was a guest researcher at the Molecular laboratory of UMR Carrtel (INRAE) in Thonon from 22nd May to 12th June 2023. Experts from INRAE, Dr Frederic Rimet and Dr Clarisse Lemonnier, helped Dr Ćirić to prepare a detailed training plan (Appendix 1.1) and supervised him during the visit.

1.1.1 Report – Staff exchange 1

During his first visit to UMR Carrtel (INRAE), Dr Miloš Ćirić was trained in the following activities: 1 – Collection of water for eDNA analyses of phytoplankton from Lake Geneva (test samples), 2 – DNA extraction from test samples, phytoplankton (Figure 1) and diatom samples collected from lakes in Serbia (spring season), 3 – PCR amplification of phytoplankton and diatom samples, 4 – Analysis of PCR products by agarose gel electrophoresis, 5 – Preparation of the library of amplicons for HTS sequencing. Dr Clarisse Lemonnier supervised the trainee in metabarcoding techniques and Dr Frederic Rimet shared with Dr Ćirić his knowledge of phytoplankton counting and biovolume calculation (Figure 2).

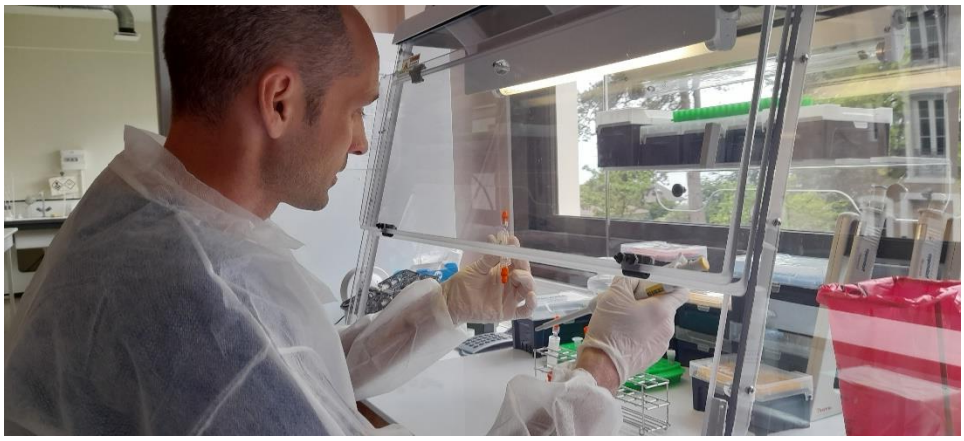

Figure 1. DNA extraction of phytoplankton samples conducted by Dr Miloš Ćirić during STSM 1

Figure 2. Phytoplankton counted by Dr Miloš Ćirić using INRAE procedure during STSM 1

At the end of the visit, 36 samples of diatoms and 16 samples of phytoplankton (collected from lakes in Serbia) were processed. PCR of all phytoplankton samples was successfully accomplished, while the amplification of diatom DNA failed due to an issue with the PCR reagent.

1.2 Staff exchange 2

Dr Srđan Miletić attended a training on metabarcoding techniques at UMR Carrtel (INRAE) from the 19th of November to the 11th of December 2023. The training was conducted according to the training plan (Appendix 1.2) that INRAE and UB-ICTM research staff prepared.

1.2.1 Report – Staff exchange 2

During his stay in France, Dr Miletić collected water samples from Lake Geneva (test samples for phytoplankton analysis) (Figure 3), extracted DNA from diatom and phytoplankton samples, performed PCR amplification of extracted DNA (Figure 4), and finally analyzed the PCR products using electrophoresis. A total of 76 samples were processed. The training was directly supervised by Dr Clarisse Lemonnier.

Figure 3. Collection of water for eDNA analysis by Dr Srđan Miletić at Lake Geneva using INRAE procedure during STSM 2

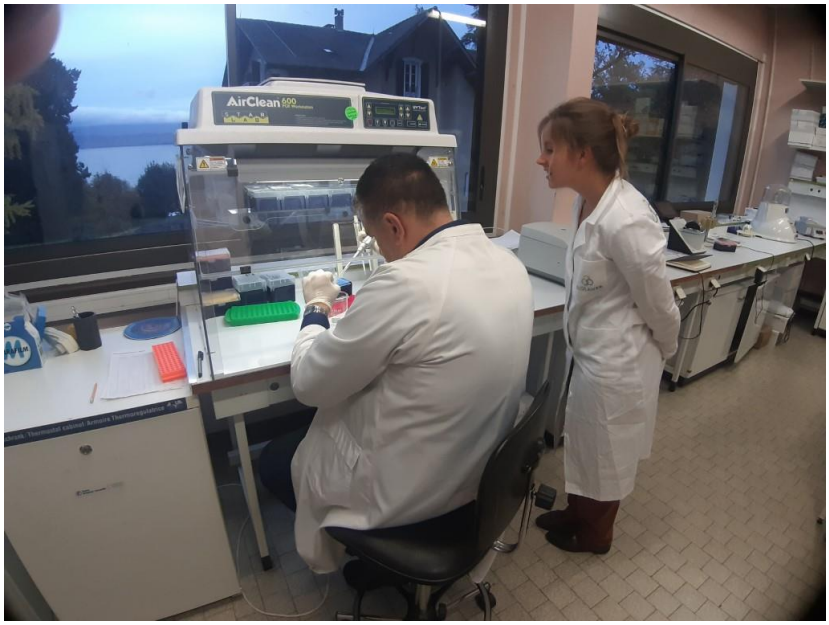

Figure 4. DNA extraction of phytoplankton samples conducted by Dr Srđan Miletić during STSM 2

The direct results of this training were:

- The acquisition of new skills and knowledge in metabarcoding techniques by UB-ICTM research staff
- Publication of new scientific results on metabarcoding of diatoms – 1 conference abstract:

Vidaković, D., Rimet, R., Dojčinović, B., Lemonnier, C., Milovanović, Ž, Petrović, P. & Ćirić, M. (2024): Metabarcoding as a tool to complement the reference database – a case study of saline lake (Pečena Slatina, Serbia), 8th Congress of the International Society of Applied Phycology, Book of abstracts, 16-21 June, Porto, Portugal, 20.

1.3 Staff exchange 3

Dr Miloš Ćirić was on his secondment to the partner institution INRAE (Thonon, France) from the 19th of November to the 11th of December, 2023. Before visiting the Molecular Laboratory of UMR Carrtel, a comprehensive training plan (Appendix 1.3) was prepared in collaboration with Dr Clarisse Lemonnier. The aim of this short term staff exchange was additional training in DNA extraction and amplification using phytoplankton samples collected in the summer and autumn of 2023 from four lakes in Serbia, as well as the completion of 3 PCR series related to diatom DNA that was not amplified during the first visit.

1.3.1 Report – Staff exchange 3

In the course of the second visit to UMR Carrtel (INRAE), Dr Miloš Ćirić improved his skills in the following techniques: 1 – DNA extraction from phytoplankton (Figure 5) samples collected from lakes in Serbia (summer and autumn seasons), 2 – PCR amplification of phytoplankton and diatom samples, 3 – Analysis of PCR products by agarose gel electrophoresis, 4 – Preparation of the library of amplicons for HTS sequencing. During the training, Dr Clarisse

Lemonnier supported the trainee by giving precise instructions on how to use laboratory gadgets, keep a sterile and safe working environment, mix reagents, etc. (Figure 6).

The results of the visit were:

- 34 phytoplankton samples were processed (DNA extracted, amplified, and prepared for sequencing)
- 108 PCRs related to diatom samples (spring season) were completed
- 2 conference abstracts were published using the output of this training:
  a. Ćirić, M., Lemonnier, C., Alric, B., Miletić, S., Avdalović, J., Dojčinović, B.P., Milovanović, Ž., Petrović, V., Andreas Ballot, A., Rimet F. (2024): Application of eDNA metabarcoding to phytoplankton research in freshwater and saline lakes. 37th Congress of the International Society of Limnology – SIL2024, Abstracts book, 05-09 May 2024, Foz do Iguaçu, Brazil, 266 pp.
  b. Ćirić, M., Lemonnier, C., Alric, B., Dojčinović, B.P., Avdalović, J., Miletić, S., Petrović, V., Milovanović, Ž., Vidaković, D., Marković, A., Rimet, F., Andreas Ballot, A. (2024) Ecological potential assessment of Markovačko lake - a new approach in biomonitoring. 53rd Annual Conference of the Serbian Water Pollution Control Society "Water 2024", Conference Proceedings, 27-29. May 2024, Palić, Serbia, 273 – 282 pp.

Figure 5. DNA extraction of phytoplankton samples conducted by Dr Miloš Ćirić during STSM 3

Figure 6. Diatom samples preparation for DNA extraction and subsequent steps (Dr Miloš Ćirić and his supervisor Dr Clarisse Lemonnier) during STSM 3

1.4 Staff exchange 4

Second-year PhD student **Kristina Petrović** was on her secondment to the partner institution INRAE (the Molecular laboratory of UMR Carrtel in Thonon) from the 4th until the 22nd of November 2024. Dr Clarisse Lemonnier produced a detailed training plan (Appendix 1.4) with the BIOLAWEB coordinator and trainee.

1.4.1 Report – Staff exchange 4

During her visit to UMR Carrtel (INRAE), Kristina Petrović was trained by Dr Clarisse Lemonnier in metabarcoding techniques. Training included the following techniques: 1 – Collection of water for eDNA analyses of phytoplankton from artificial ponds at INRAE (test samples), 2 – DNA extraction from test samples and phytoplankton samples collected from lakes in Serbia, 3 – DNA extraction from diatom samples collected from lakes in Serbia, 4 – DNA extraction from algal cultures from the Thonon Culture Collection, 5 – PCR amplification of phytoplankton and algal culture samples (Figure 7), 6 – Analysis of PCR products by agarose gel electrophoresis (Figure 8), 7 – Purification of PCR product with magnetic beads, 8 – Quantification of DNA using Qubit 3.0 device.

At the end of the visit, 48 samples of phytoplankton (collected from lakes in Serbia) and 13 samples of algal cultures were processed. DNA was successfully isolated for 47 out of 48 phytoplankton samples, except for one sample that showed really low quantities of DNA after isolation and quantification on Nanodrop. DNA of all cultures was successfully isolated. PCR of DNA isolated from 11 out of 13 cultures was successful. Two cultures did not amplify at the expected yield and were excluded from further analysis. All the PCR reactions for cultures were performed in triplicates. PCR products of algal cultures were further purified with magnetic beads and quantified on Qubit 3.0 before they were merged in defined ratios to create artificial, mock communities of known DNA concentration and ratios.

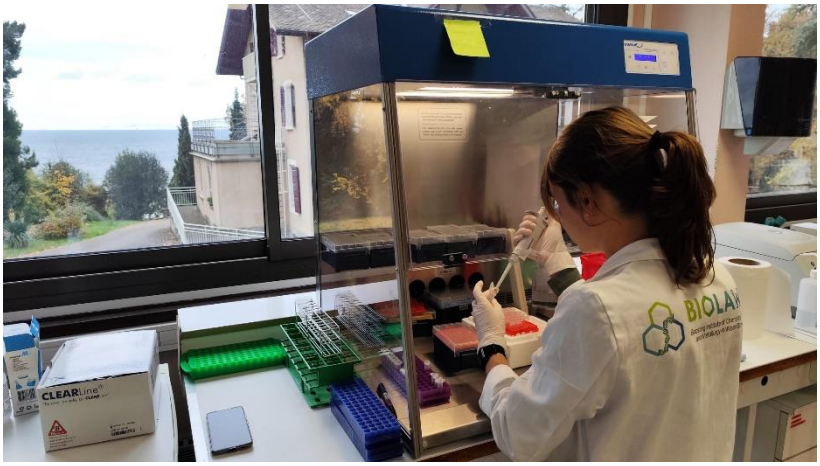

Figure 7. PCR amplification of phytoplankton samples conducted by Kristina Petrović during STSM 4

Figure 8. Analysis of PCR products by agarose gel electrophoresis by Kristina Petrović during STSM 4

2. Short term scientific missions at NIVA

UB-ICTM researchers visited NIVA on two occasions, with two persons from UB-ICTM participating in each visit. NIVA is one of Europe's leading institutes for fundamental and applied research on marine and freshwater, with about 290 employees. The institute is Norway's leading competence center for environmental and resource issues relating to the field of water.

Experts from NIVA supervised scientists from UB-ICTM and organized metabarcoding training in the laboratory, as well as training in bioinformatic and phylogenetic analyses. Research topics covered during the short term staff exchanges are aligned with the defined project objective 3 in which the partner institution has expertise. The outcome of these short term staff exchanges resulted in several conference abstracts and will be used in future publications.

2.1 Staff exchange 1 and 2

Dr Aleksandra Marković and **Dr Danijela Vidaković** were guest researchers at the Norwegian Institute for Water Research (NIVA) in Oslo (Norway) from 11th April to 1st May 2024. The expert from NIVA, Dr Andreas Ballot, prepared the training plan (Appendix 2.1) together with Dr Marković and Dr Danijela Vidaković, and supervised them during their visit, together with Dr Susanne C. Schneider.

2.1.1 Report - Staff exchange 1 and 2

During their first short term scientific mission in NIVA, Dr Aleksandra Marković and Dr Danijela Vidaković were trained in the following activities: 1 – DNA extraction from water samples (eDNA) (Figure 9); 2 – PCR amplification of macrophyte samples using different primers, as well as testing selected primers at different temperature (Figure 10); 3 – Nested PCR, 4 – Analysis of PCR products by agarose gel electrophoresis. All samples used in the analysis were collected during the BIOLAWEB fieldwork from four lakes in Serbia in three seasons at four sites per lake (48 samples total). All extractions were done successfully.

Together with their supervisors, Dr Andreas Ballot and Dr Susanne Schneider, Dr Vidaković and Dr Marković discussed problems and challenges that occurred during the sample preparation, as well as the next steps in the sample analyses and the best way of applying charophyte algae in ecological status assessment using metabarcoding in the future.

DNA was successfully extracted from 48 water samples, and four different primers were tested. As this is the first time primers for amplifying DNA of macrophytes and charophytes in water samples have been tested, more tests were needed to obtain the best product for sequencing. This work was continued in the next short term scientific missions.

Figure 9. DNA extraction of macrophytes samples conducted by Dr Danijela Vidaković during STSM 1 and 2

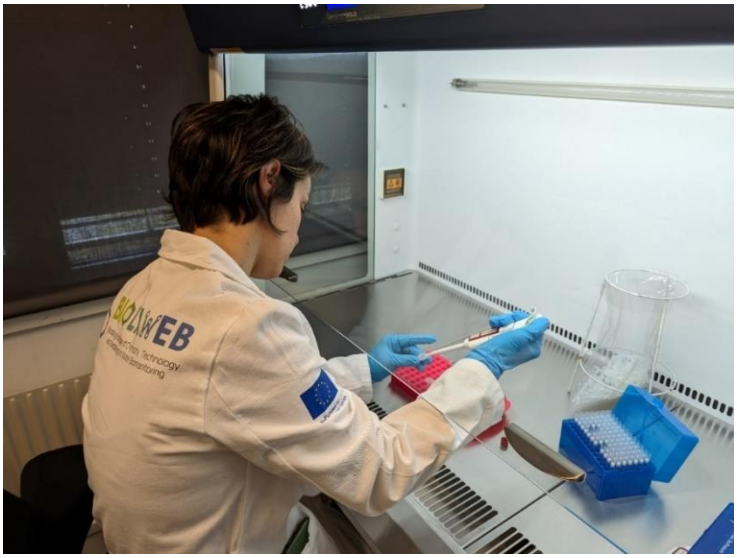

Figure 10. PCR amplification of macrophytes samples conducted by Dr Aleksandra Marković during STSM 1 and 2

The outcomes of this short term scientific mission were:

- 48 DNA extractions
- testing four primers
- abstract presented at the 8th Congress on extant and fossil Charophytes: Schneider, S., Marković, A., Vidaković, D. & Ballot, A. (2024): Treasures in murky waters? – The search for Chara-eDNA in water samples. 8th Congress on extant and fossil Charophytes, Book of abstracts, 8-11 October, Melbourne, Australia, 33.
- abstract presented at 8th Congress of the International Society of Applied Phycology: Marković, A., Ballot, A., Avdalović, J., Dojčinović, B., Milovanović, Ž., Petrović, V. & Schneider, S. (2024): The use of charophyte algae in ecological status assessment of lakes – developing new methods based on eDNA, 8th Congress of the International

Society of Applied Phycology, Book of abstracts, 16-21 June, Porto, Portugal, 149-150.

2.2 Staff exchange 3 and 4

Dr Aleksandra Marković and **Dr Danijela Vidaković** were guest researchers at the Norwegian Institute for Water Research (NIVA) in Oslo (Norway), for the second time, from 7th to 23st October 2024. Dr Marković and Dr Vidaković were supervised by Dr Andreas Ballot and Dr Susanne Schneider during their visit. The training plan (Appendix 2.2) was designed by Dr Ballot, in collaboration with Dr Marković and Dr Vidaković before the visit.

2.2.1. Report – Staff exchange 3 and 4

During their second short term scientific mission at NIVA, Dr Aleksandra Marković and Dr Danijela Vidaković were trained in the following activities: 1 – DNA extraction from training samples collected in Serbia, 2 – PCR amplification of macrophyte samples extracted during the visit in April, using different primers (Figure 11), 3 – Cleaning products after PCR (Figure 12), 4 – Analyzing the charophyte sequences obtained after nanopore sequencing, 5 – Drafting the first manuscript related to eDNA-based methods for exploring charophyte algae diversity.

Dr Andreas Ballot supervised Dr Aleksandra Marković and Dr Danijela Vidaković in the laboratory and gave training in bioinformatic analyses of the sequencing results. Dr Ballot, Dr Schneider, Dr Vidaković and Dr Marković discussed the details of their future publication and drafted a first manuscript (Figure 13).

DNA extraction from a training set of 18 samples was done successfully. PCR amplification was repeated for 16 samples extracted during the visit in April. 24 charophyte sequences obtained from BIOLAWEB samples were analyzed. The plan is to submit the first manuscript by the end of March 2025.

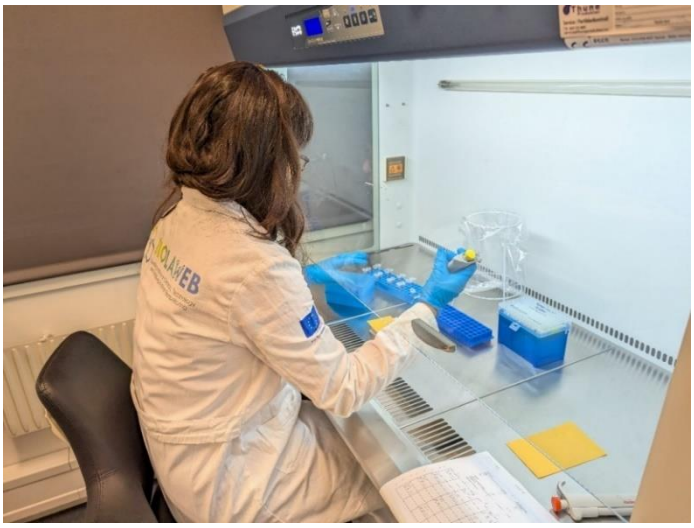

Figure 11. PCR amplification of macrophytes samples conducted by Dr Danijela Vidaković obtained during STSM 3 and 4

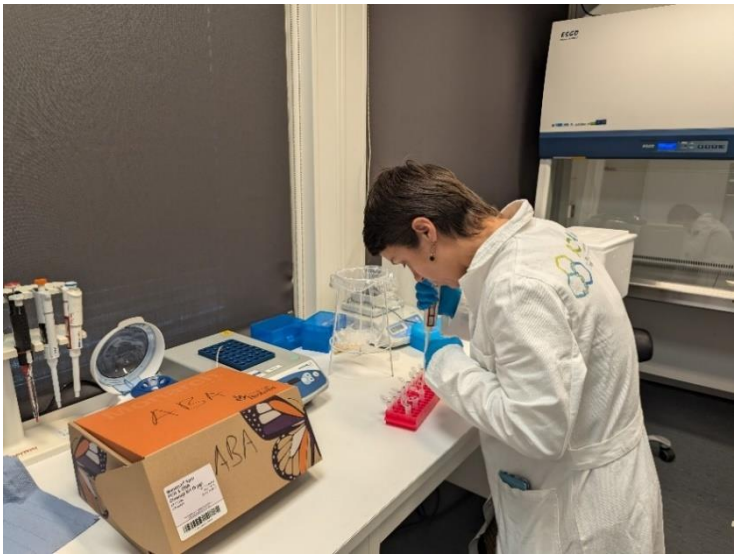

Figure 12. Cleaning products after PCR conducted by Dr Aleksandra Marković during STSM 3 and 4

Figure 13. Discussion of the results obtained during STSM 3 and 4

Appendix 1 – A detailed training plan for short term scientific missions at INRAE

Appendix 1.1 The training plan of STSM 1 at INRAE (Dr Miloš Ćirić)

1st week	Monday 22.05.2023	Tuesday 23.05.2023	Wednesday 24.05.2023	Thursday 25.05.2023	Friday 26.05.2023	Saturday 27.05.2023	Sunday 28.05.2023
Morning		Buffer preparation Field sampling of phytoplankton for training	Demonstration for 3 samples of phytoplankton (whole day)	4 samples of phytoplankton (whole day)	4 samples of phytoplankton (whole day)		
Afternoon	Arrival	Presentation of DNA extraction protocols					

2nd week	Monday 29.05.2023	Tuesday 30.05.2023	Wednesday 31.05.2023	Thursday 01.06.2023	Friday 02.06.2023	Saturday 03.06.2023	Sunday 04.06.2023
Morning	Holiday	4 samples of phytoplankton (whole day)	4 samples of phytoplankton (whole day)	Dilution for PCR + PCR demonstration (4 samples)	10 DNA extractions diatoms		
Afternoon	Holiday			Meeting + pellet preparation for the 38 diatom samples	10 DNA extractions diatoms		

3rd week	Monday 05.06.2023	Tuesday 06.06.2023	Wednesday 07.06.2023	Thursday 08.06.2023	Friday 09.06.2023	Saturday 10.06.2023	Sunday 11.06.2023
Morning	10 DNA extractions diatoms	8 PCR phytoplankton	Dilution for PCR + 12 PCR diatoms	32 PCR diatoms	Backup day		
Afternoon	6 DNA extractions diatoms	8 PCR phytoplankton	32 PCR diatoms	32 PCR diatoms	Backup day		

	Monday 12.06.2023
Morning	Backup day
Afternoon	Departure

Objectives (max)	Diatoms	Phytoplankton
DNA extraction	36	16
PCR	36×3	16

Appendix 1.2 The training plan of STSM 2 at INRAE (Dr Srđan Miletić)

							Sunday 19.11.2023
Morning							
Afternoon							Arrival

1st week	Monday 20.11.2023	Tuesday 21.11.2023	Wednesday 22.11.2023	Thursday 23.11.2023	Friday 24.11.2023	Saturday 25.11.2023	Sunday 26.11.2023
Morning	Welcoming in the lab, short reminder how the lab is organized.	4 samples of diatoms	8 PCR diatoms	Gel and migration (diatoms)	Gel and migration (diatoms)		
Afternoon	Culot preparation for 36 diatom samples	4 PCR diatoms		20 PCR diatoms	20 PCR diatoms		

2nd week	Monday 27.11.2023	Tuesday 28.11.2023	Wednesday 29.11.2023	Thursday 30.11.2023	Friday 01.12.2023	Saturday 02.12.2023	Sunday 03.12.2023
Morning	30 PCR diatoms	30 PCR diatoms	6 samples of diatoms (extraction)	6 samples of diatoms (extraction)	6 samples of diatoms (extraction)		
Afternoon	Gel and migration (diatoms)	Gel and migration (diatoms)	Gel and migration (diatoms)	Gel and migration (diatoms)	Gel and migration (diatoms)		

3rd week	Monday 04.12.2023	Tuesday 05.12.2023	Wednesday 06.12.2023	Thursday 07.12.2023	Friday 08.12.2023	Saturday 09.12.2023	Sunday 10.12.2023
Morning	6 samples of diatoms (extraction)	6 samples of diatoms (extraction)	2 test samples of phytoplankton from Lac Leman (extraction whole day)	2 PCR test samples of phytoplankton from Lac Leman	Backup day		
Afternoon	Gel and migration (diatoms)	6 samples of diatoms (extraction)		Gel and migration (test samples of phytoplankton from Lac Leman)	Backup day		

	Monday 11.12.2023
Morning	
Afternoon	Departure

Appendix 1.3 The training plan of STSM 3 at INRAE (Dr Miloš Ćirić)

	Sunday 19.11.2023
Morning	
Afternoon	Arrival

1st week	Monday 20.11.2023	Tuesday 21.11.2023	Wednesday 22.11.2023	Thursday 23.11.2023	Friday 24.11.2023	Saturday 25.11.2023	Sunday 26.11.2023
Morning	Welcoming in the lab, short reminder how the lab is organized.	4 samples of diatoms	4 samples of phytoplankton (extraction whole day)	6 samples of phytoplankton (extraction whole day)	8 samples of phytoplankton (extraction whole day)		
Afternoon	Culot preparation for 36 diatom samples	4 PCR diatoms					

2nd week	Monday 27.11.2023	Tuesday 28.11.2023	Wednesday 29.11.2023	Thursday 30.11.2023	Friday 01.12.2023	Saturday 02.12.2023	Sunday 03.12.2023
Morning	8 samples of phytoplankton (extraction whole day)	8 samples of phytoplankton (extraction whole day)	Gel and migration (phytoplankton)	Gel and migration (phytoplankton)	Gel and migration (phytoplankton)		
Afternoon			Dilution DNAs+ 6 PCR phytoplankton	8 PCR phytoplankton	10 PCR phytoplankton		

3rd week	Monday 04.12.2023	Tuesday 05.12.2023	Wednesday 06.12.2023	Thursday 07.12.2023	Friday 08.12.2023	Saturday 09.12.2023	Sunday 10.12.2023
Morning	Gel and migration (phytoplankton)	Gel and migration (phytoplankton)	PCR diatoms (samples from spring season)	PCR diatoms (samples from spring season)	Backup day		
Afternoon	10 PCR phytoplankton		PCR diatoms (samples from spring season)	PCR diatoms (samples from spring season)	Backup day		

	Monday 11.12.2023
Morning	
Afternoon	Departure

Appendix 1.4 The training plan of STSM 4 at INRAE (Kristina Petrović)

1st week	Monday 04.11.2024	Tuesday 05.11.2024	Wednesday 06.11.2024	Thursday 07.11.2024	Friday 08.11.2024	Saturday 09.11.2024	Sunday 10.11.2024
Morning	Welcome in the lab. Demonstration of 3 phytoplankton samples.	4 phytoplankton samples	4 phytoplankton samples	8 phytoplankton samples	10 DNA extraction of phytoplankton samples		
Afternoon	Demonstration of 3 phytoplankton samples (suite)	4 phytoplankton samples (suite)	4 phytoplankton samples (suite)	8 phytoplankton samples (suite)	10 DNA extraction of phytoplankton samples (suite)		

2nd week	Monday 11.11.2024	Tuesday 12.11.2024	Wednesday 13.11.2024	Thursday 14.11.2024	Friday 15.11.2024	Saturday 16.11.2024	Sunday 17.11.2024
Morning	Holiday (National day)	10 phytoplankton samples	10 phytoplankton samples	10 phytoplankton samples	Last phytoplankton samples if needed		
Afternoon		10 phytoplankton samples (suite)	10 phytoplankton samples (suite)	10 phytoplankton samples (suite)	Last phytoplankton samples if needed		

3rd week	Monday 18.11.2024	Tuesday 19.11.2024	Wednesday 20.11.2024	Thursday 21.11.2024	Friday 22.11.2024	Saturday 23.11.2024	Sunday 24.11.2024
Morning	10 PCR of mock	48 PCR of phytoplankton	PCR purification + quantification + pool	More time if needed	Departure		
Afternoon	10 gel + migration	48 gel + migration	PCR purification + quantification + pool	More time if needed			

Appendix 2 – A detailed training plan for short term scientific missions at NIVA

Appendix 2.1 The training plan of STSM 1 and 2 at NIVA (Dr Aleksandra Marković and Dr Danijela Vidaković)

				Thursday 11.04.2024	Friday 12.04.2024	Saturday 13.04.2024	Sunday 14.04.2024
Morning				Arrival	Presentation od DNA extraction protocol		
Afternoon				Getting acquainted with laboratories and obtaining service information	Preperation 6 samples for DNA extraction (Incubate up to 24h)		

	Monday 15.04.2024	Tuesday 16.04.2024	Wednesday 17.04.2024	Thursday 18.04.2024	Friday 19.04.2024	Saturday 20.04.2024	Sunday 21.04.2024
Morning	Preperation 6 samples for DNA extraction (Incubate up to 24h)	Preperation 10 samples for DNA extraction (Incubate up to 24h)	Preperation 10 samples for DNA extraction (Incubate up to 24h)	Preperation 16 samples for DNA extraction (Incubate up to 24h)	16 DNA extraction		
Afternoon	6 DNA extractions	6 DNA extractions	10 DNA extractions	10 DNA extractions	Presentation od PCR protocol		

	Monday 22.04.2024	Tuesday 23.04.2024	Wednesday 24.04.2024	Thursday 25.04.2024	Friday 26.04.2024	Saturday 27.04.2024	Sunday 28.04.2024
Morning	Dilution for PCR and PCR demonstration on 5 random samples	PCR with four different primers	PCR with the best primer on different T	PCR with three different primers	Presentation of electrophoresis protocol making gel		
Afternoon	Real time PCR, descusion of result	Real time PCR, descusion of result	Real time PCR, descusion of result	Real time PCR, descusion of result	Electrophoresis		

	Monday 29.04.2024	Tuesday 30.04.2024	Wednesday 01.05.2024
Morning	Nested PCR (whole day)	Discussion about primers and next steps (whole day)	Holiday
Afternoon			Departure

Appendix 2.2 The training plan of STSM 3 and 4 at NIVA (Dr Aleksandra Marković and Dr Danijela Vidaković)

	Monday 07.10.2024	Tuesday 08.10.2024	Wednesday 09.10.2024	Thursday 10.10.2024	Friday 11.10.2024	Saturday 12.10.2024	Sunday 13.10.2024
Morning	Arrival	Preperation 18 samples for DNA extraction (Incubate up to 24h)	18 DNA extraction (whole day)	Samples dilution for PCR and PCR of 8 samples	Presentation of cleaning protocol		
Afternoon	Getting acquainted with laboratories and obtaining service information	Discussion on what was done during April and on the primers that need to be repeated		Real time PCR, descusion of result	Cleaning 8 samples		

	Monday 14.10.2024	Tuesday 15.10.2024	Wednesday 16.10.2024	Thursday 17.10.2024	Friday 18.10.2024	Saturday 19.10.2024	Sunday 20.10.2024
Morning	Samples dilution for PCR and PCR of 8 samples	Presentation of pipelines for sequence analysis	Analyzing the charophyte sequences	Analyzing the charophyte sequences	Alignment		
Afternoon	Real time PCR and cleaning 8 samples	Exercise on one sample from April - Pipeline Czid.org	Analyzing the charophyte sequences	Alignment	Phylogenetical three		

	Monday 21.10.2024	Tuesday 22.10.2024	Wednesday 23.10.2024
Morning	Summarizing the results (whole day)	Discussion and plans for the first publication (whole day)	Backup day
Afternoon			Departure