## » Main project activities from the start of project as of July 2024:

1. Organization of the field activities at the end of the summer and during the autumn (choosing main localities for the start of the project by determining different types of the habitats: streams, lakes, ponds and rivers of Fruška Gora mountain)

2. Sample collection and storage of collected material

3. Morphological determination of collected specimen and preparation for the genetic determination

4. PCR analyses in laboratory usually two times per month, from October 2024 onward

5. Comparison of our PCR products and their DNA sequences with deposited sequences in the Barcode of Life Data System (BOLD)

6. Cluster analyses of Trichoptera families within their natural habitats and preferences for different types of ecosystems

7. Printing promo material for educational purposes at the University of Belgrade, Faculty of Biology, mainly for students in the first part of the project and later for the local inhabitants, school children and local government

8. Educational sessions with students of the Faculty of Biology on the subject of Trichoptera importance (unfortunately delayed due to students blockades in Serbia)

## » Photo part of our project:

Figure 1. Day collection of Trichoptera specimen of larvae at Fruška Gora mountain during August 2024.



Figure 2. Equipment for chemical analyses of Fruška Gora waters.



Figure 3. Chemical analyses of the Rakovac stream (village Rakovac, Fruška Gora) during August 2024.



Figure 4. Settled light trap for night collecting of Trichoptera at Ledinci stream in October 2024 (village Ledinci, Fruška Gora).



Figure 5. Morphological identification of collected specimen of Trichoptera.



Figure 6. PCR laboratory analyses and DNA multiplication at the Faculty of Biology, University of Belgrade, Serbia, conducted from October to December 2024.



Figure 7. Isolated DNA material prepared for sequencing.



Figure 8. Multiplied DNA material achieved after electroforesis at PCR laboratory (enlightened fields represent successfully multiplied DNA).



Figure 9. Preparing Trichoptera genital structures for photography, using method of decolorization by potassium hydroxyde.



Figure 10. Microscopic preparation of genital structures.



Figures 11. Promo material of the project for educational purposes, with our logo for the project.



Figure 12. Different types of localities at Fruška Gora.



## » Main achievements in the first part of the Rufford project are:

1. Maping of significant number of localities of interest at national park Fruška Gora mountain

2. Gaining important contacts with the bord of national park Fruška Gora and local authorities

3. Collecting Trichoptera specimen from day and night activities during late summer and complete autumn season

4. Successful DNA amplification and sequencing from more than 25 collected Trichoptera species so far

5. Identification of species *Silo nigricornis* Pictet, 1834 (Goeridae), enlisted as endangered species in Red book of Serbian invertebrates
6. Identification of species *Hydropsyche fulvipes* Curtis, 1834 (Hydropsychidae), recognized as very rare species in Serbian fauna
7. Chemical composition of different water bodies at Fruška Gora national park, as base for our next steps in environmental protection

## » Next steps for the spring season:

- 1. Education of local inhabitants and children from local schools
- 2. Collecting species in spring part of the year
- 3. Providing base of species collected so far at Fruška Gora
- 4. Continuing PCR methods of genetic identification in laboratory

5. Creating Instagram platform of Caddisfly Initiative to gain wider attention in Serbia and Balkans

6. Next report planning by the end of April 2025