

## Project Update: December 2020

In the first 3 months of the project implementation, we have started with intensive work consisting of organising mycological field research and investigation of different glacial lakes during which we have sampled numerous fungal species, mostly ascomycetous fungi inhabiting these fragile and unique ecosystems. We have managed to organise successful field forays in September, October and one in the beginning of November 2020 with a lot of material and data to be analysed in the days to follow. The next 3-4 months at least are not favourable for organising field research due to the low temperatures, snow and ice in the alpine areas. However, if any opportunity due to unexpectedly warm weather occur, we will closely consider it.

In September 2020, we investigated Lake Blatačko on Mt. Bjelašnica. This is one of the most important freshwater alpine ecosystems in central Bosnia and Herzegovina and largest lake in Mt. Bjelašnica as well. It has very pronounced and dense riparian vegetation surrounding the lake and a lot of dead organic components along its banks. That is the reason why it is very suitable for many fungal species and also main reason for quite diverse mycobiota. In second half of September 2020, we visited two more lakes: Kukavičko (Kupres) and Voljičko or Malo (Mt. Raduša) where we have recorded solid number of fungal species whilst some of them inhabits very specific habitats.

In October 2020, we investigated Lake Paučko (Mt. Konjuh) which is definitely one of the least preserved ones due to the fact it is very popular destination for people from the closes place and cities. Some quite interesting species were recorded here as well.

Due to the very warm weather at the beginning of November 2020, we managed to visit Lake Blatačko once more and to record totally different fungal species compare to research organised back in September 2020. This is in accordance with hypothesis that seasonality of fungal species is very pronounced in the alpine and glacial lakes ecosystems and that alpine fungi are more likely to be even more sensitive to small changes in different microclimatic factors.

In the first month of project implementation, we have bought all equipment specified within project proposal and in accordance to planned and approved budget.

Just after we have started to shot scenes during field research (drone, DSLR camera and GoPro Camera) that will be used for completing documentary movie that will be recorded in cooperation with National Broadcasting Service in Bosnia and Herzegovina. In the meantime, on each field research and on each glacial lake we recorded one short movie and share it on our YouTube channel. All so far recorded materials can be found here: <https://www.youtube.com/channel/UCC4ZnCjmJtCxlEecx2g0AuQ>

Besides mentioned research activities we have start implementing or complete as follows:

- Create profile for Mycological Society MycoBH on GBIF official page and starting to prepare checklist of fungal species of glacial and other mountainous lakes in Bosnia and Herzegovina.

- Take a part at Rufford Grant Recipients Conference in Sarajevo held in October 2020.
- Create promo material that will be distributed to interested parties and relevant stakeholders (face masks, notebook, caps, etc.).
- We conducted detail microscopical analysis of each specimen and species collected and capture most important characters for every fungal species.
- We recorded some new species for Bosnia and Herzegovina in general.
- We have started to prepare layout for project monography.
- We recorded numerous video clips and materials by drone or other type of camera – all can be viewed and assessed on our YouTube channel: <https://www.youtube.com/channel/UCc4ZnCjmJtCxIEecx2g0AuQ>
- Additional promotion of project activities has been done through official web page of Mycological Society MycoBH – [www.mycobh.com](http://www.mycobh.com) and Facebook Page - <https://www.facebook.com/mycobh>

Even though global pandemic of Sars-CoV2 virus have made everything much more difficult to complete we have successfully managed to obtain desired dynamics of project activities planned. Field research were organised with minimum number of people, by using more vehicles and by respecting the prescribed safety and preventive measures.



**Figure 1.** After the research of Lake Blatačko (Mt. Bjelašnica) in November.





**Figure 2.** a) *Cyathicula coronata*, Lake Blatačko (Mt. Bjelašnica); b) *Calyptella capula*, Lake Voljičko (Mt. Raduša); c) *Scutellinia subhirtella*, Lake Blatačko; d), f) Scenery from field research; e) Preparing to take off the drone; g) Lake Voljičko (Malo), Mt. Raduša; h) Lake Blatačko, Mt. Bjelašnica; i) Lake Kukavičko, Kupres.