

Project Update: June 2018

Aims:

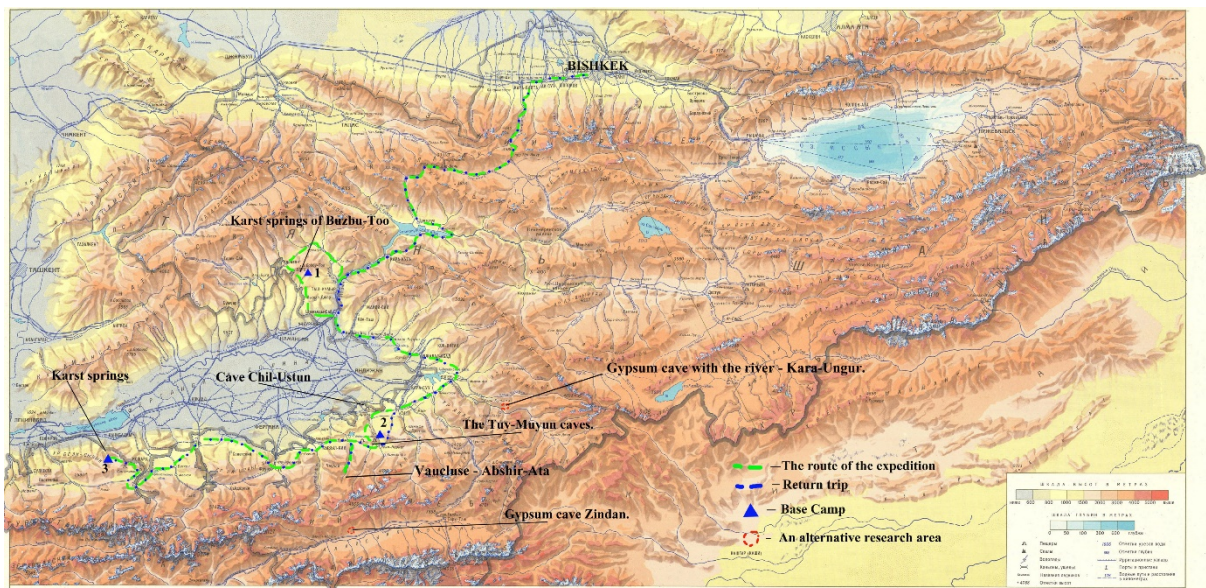
1. Gather information about the underground sites in the study region.
2. Research of target caves and preliminary assessment of the main threats for bat summer colonies.
3. Training workshop for the local students in Tuya-Muyun mountain range.

Results:

1. Gather information about the underground sites in the study region.

In April and May 2018, the promotional material (project logo, t-shirts and flag) was made. The equipment necessary for the upcoming field work was ordered and bought.

The biggest part of the information for the study region was provided by the Foundation for the Preservation and Exploration of Caves. According to the collected information, Tuya-Muyun mountain range (Osh Region) was chosen as a perspective area for the start of the bat research in south-western Kyrgyzstan. According to the available maps we decided to start with the small mine of Fersman cave, Baritova cave and Ajidar-Unkur cave also to check the importance of Aktur-Pak, Kan-i-Gut cave (Batken region) and Chil-Ustun cave (Aravan region). A map of the road for the first part of the project was also prepared.



2. Research of target caves and preliminary assessment of the main threats for bat summer colonies.

In June 2018 the field work started in Tuya-Muyun mountain range. The first cave which was explored was the small mine of Fersman cave (fig. 1). The mine is a breeding site for *Rhinolophus lepidus*, where several colonies with pregnant females were found into the tunnel branches (fig. 2). The mine is also used as a shelter from males *Myotis blythii* (fig. 3).



Fig 1. The small mine of Fersman cave.



Fig 2. A breeding colony of *Rhinolophus lepidus* in the small mine of Fersman cave.



Fig 3. *Myotis blythii* from the small mine of Fersman cave.

In Baritova cave (fig. 4) a breeding colony of *Myotis blythii* was observed (fig. 5). A pregnant individuals *Rhinolophus ferrumequinum* (fig. 6) and *Myotis emarginatus* (fig. 7) were captured and identified. In addition, one *Barbastella capsica* was observed. Ajidar-Unkur cave is a nursery site for *M. blythii* (fig. 8), where newly born individuals were observed. The cave is in a close proximity to Baritova cave.



Fig 4. Baritova cave. Fig 5. A breeding colony of *Myotis blythii* in Baritova cave.



Fig 6. *Rhinolophus ferrumequinum* from Baritova cave. Fig 7. *Myotis emarginatus* from Baritova cave.



Fig 8. A breeding colony of *Myotis blythii* in Ajidar-Unkur cave.

In Aktur-Pak cave (fig. 9) several individuals of *Rh. lepidus* was observed (fig. 10). Further, a male and a female *Barbastella capsica* were captured and measured (fig. 11).



Fig 9. Aktur-Pak cave. Fig 10. *Rhinolophus lepidus* from Aktur-Pak cave.



Fig 11. *Barbastella caspica* from Aktur-Pak cave.

In the mine entrance of Kan-i-Gut cave (fig. 12) a small colony from five *Barbastella caspica* was observed and another four males were captured and measured (fig.13). In Chil-Ustun cave a small *Rhinolophid* colony was found in the third and most inaccessible hall. The scars of the illegal tourism are clearly visible on the first two halls and cave walls (fig. 14).



Fig 12. The mine entrance of Kan-i-Gut cave.



Fig 13. *Barbastella caspica* from the mine of Kan-i-Gut cave.



Fig 14. The results from illegal truism in Chil-Ustun cave.

All these caves are easily accessible for the local people and become a part of illegal tourism. However, these underground sites play an important role for the cave-dwelling bats and their breeding colonies. This put them into the list of the significant underground habitats in south-western Kyrgyzstan.

In order to take adequate measures for bat conservation, we will follow the dynamic of the summer colonies.

3. Training workshop for the local students in Tuya-Muyun mountain range.

A seminar and practice on the field were provided for students from the Osh State University. During the seminar the students' attention was focused on the bat diversity, ecology, habitat preference and conservation significance, underground habitats and their conservation impact (fig. 15 and 16). The fieldwork was conducted in front of the small mine of Fersman cave (fig.17) where the students had practice on how to put a mist-nets (fig. 18 and 19), catch and identified different bat species (fig. 20).

Further, a hydrobiological and biospeleological demonstration was provided by prof. Anton Brancelj and Lee Knight (fig. 21 and 22).



Fig 15. Field seminar for the students from the Osh State University.



Fig 16. Group picture of all participants.



Fig 17. Start of the fieldwork in front of the small mine of Fersman cave.



Fig 19. The elements of the mist-net.



Fig 19. Mist-net placed in front of the mine entrance.



Fig 20. Bat identification.



Fig 21. Hydrobiological sampling.



Fig 22. Biospeleological sampling.

