

Expedition Name: Taurus 2013
Duration: Nov 2 – 10, 2013
Goal: Altin Besik Magarasi Cave (Altinbesik).
Cave Characteristics:

The Altinbesik Cave is declared a national park and its entrance is accessible to public. The entrance to the resurgence cave is located in a tributary canyon of the Manavgat River approx. 150 m above the valley bottom, 7.3 km SSE from the village of Ibradi. The cave drains a large area of the Western Taurus including the districts of Ibradi, Derebucak and probably also Manavgat. Trace testing proved connection between the Altinbesik Cave and the sink cave of Büyük Düden on the Kembos Polje SE of Derebucak. The direct distance between both caves is 31 km.

Expedition Members: *CSS ZO 1-05 Geospeleos, Prague* - Ondřej Jäger, Evžen Janoušek, Pavel Schmidt, Martin Hóta, Michal Novák, Ondřej Dufek, Helena Vysoká
ASPEG, Istanbul - Hakan Egilmez, Ender Usuloglu, Oktay Pohrenk, Volkan Turkey, Turgay Gonulalan
AKÜMAK, Antalya - Umut Ozten, Ugur Mumcu Akkaya, Jenuz Gelik, Ali Özdemir, Deurin Yetkin

Expedition Timeline:

Saturday, Nov 2, 2013 Arrival at cave, purchase of food and other equipment, informing the local authorities and the National Park administration about commencing the expedition. Exact expedition plan.

Sunday Nov 3, 2013 7:00 - 22:30 Rigging the 40 m high lake wall, placing the rubber boats on lakes beyond the wall, installation of ropes in the cave. Transport of the necessary equipment to the 1st siphon. Shooting the TV documentary.

Monday Nov 4, 2013 9:00 - 19:00 Transport of material to the 1st siphon. Overcoming the siphon and installation of a climbing rope into the siphon. Shooting the TV documentary.

Tuesday, Nov 5, 2013 8:00 - 2:30 (Nov 6) Seven divers past 1st siphon. Overcoming 2nd siphon (Pussies) – open half siphon. Rigging Fifty (a 50 m high wall past 2nd siphon). Surveying passages past 1st siphon all the way past Fifty to the Sinter Waterfalls Chamber. Shooting the TV documentary.

Surveying the passage past Seventeen (side passage in the dry part of the cave).

Wednesday, Nov 6, 2013 Day off. Visit to the Kaymakam of Ibradi, purchase of groceries, visit to tea house in Ürünlü, exploration of surface areas.

Thursday, Nov 7, 2013 8:00 - 5:00 (Nov 8) Four divers past 1st siphon. Penetration to the terminal 3rd siphon (Nesvik). Surveying of the main passage from the Sinter Waterfalls Chamber to the terminal siphon Nesvik. Transport of material in front of the 1st siphon. Photodocumentation of the cave in front of the 1st siphon.

Friday, Nov 8, 2013 8:00 - 19:00 Transport of material out of the cave. Surface surveying of the vicinity of Goat Abyss with the goal of finding upper entrance into the cave. Photodocumentation of the entrance parts of the cave.

Saturday, Nov 9, 2013 9:00 - 18:00 Transport of material out of the cave. Removal of ropes and rubber boats out of the cave. Cave left untouched, no material remained inside. In the evening expedition assessment.

Sunday, Nov 10, 2013 Drying of rubber boats and gear, packing, departure.

Expedition Results

Documentary movie A TV documentary was shot about the proceedings of the expedition which will be aired by the end of the year on Czech Television CT 1 as part of the Objective program. The duration of the documentary is 8 minutes.

<http://www.ceskatelevize.cz/ivysilani/1096911352-objektiv/213411030401229/obsah/299667-altinbesik/>

Photodocumentation The members of the expedition performed individual photo documentation.

Map Documentation Beyond the 1st siphon the main passage was surveyed all the way to the terminal siphon Nesvik. The main polygon is 2106 m long with the vertical difference of 122 m. In the area in front of the 1st siphon in the Mound Chamber a branching chamber was surveyed which included the 17 m deep shaft Seventeen, the overall length of the passage is 71 m and vertical difference 16 m.

Further Findings Significant changes in the morphology and sediments of the cave occurred. In October 1995 two members of the team penetrated into the passage between the 1st siphon and the Nesvik Siphon. Since then major transport of sediments in the cave took place. The transport affected namely the gravel beds in the area of the Dry Siphon, where the underground bivouac was located in 1995. The most significant changes

occurred in the terminal part of the cave between the Nesvik Siphon and the Lake of Hope. The bottom of the 120 m long meandering passage was formed by gravel and a stream flowed from the lake towards the Nesvik Siphon, the wall were covered by scallops. In the time interval before the year 2013 this part of the passage collapses, probably as a result of earthquake activity. The bottom is currently covered by debris a and talus blocks. No scallops can be observed on the collapsed walls.

Further activities planned in Altinbesik

We would like to focus our future speleological activities in the Altinbesik System in the following directions:

- 1) Determination of the hydrological system function. Based on hydrogeological monitoring of the water level, chemistry and spring flow describe the groundwater regime in the Altinbesik System. This activity requires a several-year long project based on studying archived geological and hydrogeological surveys performed in the area and on our own measurements in the cave and on the surface.
- 2) Discovering continuation of the cave past the Nesvik Siphon. Due to the remoteness and difficult access to the terminal part of the cave an underground bivouac will have to be created. Detail surveying including the side passages past 1st siphon, exploration of the chimneys and diving in the Nesvik Siphon and the Lake of Hope.
- 3) Finding access past the Nesvik Siphon from the surface. In case of penetration past the Nesvik Siphon it will be extremely difficult to perform activities in the cave from the current entrance. Using the geophysical method Radiotest with the transmitter located past the Nesvik Siphon, the surface above the cave will be explored with the goal to find access to this part of Altinbesik through another cave from the surface.

The Altinbesik Cave is an important hydrogeological system providing source and drainage of high quality water from the region covering the Ibradi, Derebucak and Manavgat Districts. Understanding the expanse and function of the system will enable broad utilization of water for irrigation and use by the local inhabitants as well as effective protection or the quality of the source. Finally the investigation itself of the karst phenomena which is one of the Turkish Nation Parks is extremely important.