2; Decapoda 1); 1 tentative troglophile (Diptera) and 1 trogloxene (Chiroptera). Almost total absence of troglophiles can be explained with low temperatures in the entrance parts of the pit. The number of collected specimens of most taxa is extremely low considering the collection effort. In total 16 troglobionts and 2 stygobionts found in the cave system are endemic for Velebit Mt. and Lika region. However, several troglobionts recorded in deep pits only few kilometers away from Lukina jama – Trojama have not been found (Hirudinea 1; Araneae 2; Pseudoscorpiones 1; Isopoda 1; Collembola 1; Coleoptera 1). Along with a species of Coleoptera adapted to hygropetric habitat, extremely troglomorphic representatives of Collembola and Isopoda terrestria were found. In comparison to the world's deepest subterranean community from Krubera – Voronja Cave (Western Caucasus), Lukina jama – Trojama has higher species richness (29 vs. 16 taxa) probably as a result of more frequent collection effort but also biogeographical position. The vertical distribution of species richness is different where the highest number of collected taxa in Voronja-Krubera is in the entrance zone (60 m deep) and in Lukina jama – Trojama in a chamber at 1000 m depth. About half of the taxa collected in Lukina jama – Trojama are still undescribed, including several new genera, but more specimens are needed for the taxonomical studies.

Phylogeography, Phylogeny and Evolution: oral presentation / student

Phylogeography of the subgenus *Alpioniscus* (*Illyrionethes*) (Isopoda: Oniscidea: Trichoniscidae) in the Dinaric Karst

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At present the genus *Alpioniscus* includes two subgenera: *Alpioniscus* s. str. and *Illyrionethes*. The latter includes 13 species in the Dinaric Karst, two species from Sardinia (*A. fragilis* (Budde-Lund, 1885) and *A. thanit* Taiti & Argano, 2009) and one from Spain (*A. escolai* Cruz & Dalens, 1989). All known species of the genus *Alpioniscus* are troglobiotic except for the Sardinian endogean species *A. thanit*. A total of 3763 specimens of *Illyrionethes* were found in 308 caves from the Dinaric Karst. Molecular analyses were conducted on 35 different populations from 52 caves (1–4 specimens for each population), using two mtDNA genes (16S rRNA and COXI) and a nuclear one (H3). On the basis of morphological analyses two different groups were identified, while by molecular analyses some distinct groups are recognized, each with a merodinaric distribution. The *strasseri* group consists of six subgroups, and has a northwestern Dinaric distribution. Four groups have a southeastern distribution pattern: two monotypic groups (*absoloni* and *verhoeffi*) and two groups (*heroldi* and *herzegowinensis*) each consisting of two subgroups. Two groups (*magnus* and *haasi*) include four subgroups and have a paralittoral distribution. The *strasseri*, *absoloni*, *veroheoffi*, and *heroldi* groups are well characterized both morphologically and molecularly, the *haasi* and *herzegowinensis* groups are morphologically the most diversified each other, and *magnus* group is morphologically not well supported. Some groups are geographically overlapping: on the Biokovo Mt. three different groups (*strasseri*, *heroldi* and *verhoeffi*) are present. Syntopic species are relatively rare, more than two species together were never reported. The distribution pattern of *Illyrionethes* phylogroups seems to be different from that of phylogroups of other cave dwelling fauna in the Dinaric Karst.