



13th EuroSpeleo Forum 26-29 September 2019 Sofia, Bulgaria



13TH EUROSPELEO FORUM 2019

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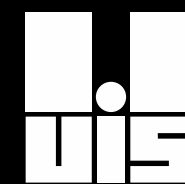


**90 years of organized speleology in Bulgaria
45 years of cave rescue in Bulgaria**



EuroSpeleo Forum 2019 is financially supported by the KP-06-MNF-12 (15.07.2019) contract between the National Science Fund - Bulgaria and the Geological Institute of Bulgarian Academy of Sciences.

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2019 SOFIA, BULGARIA

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Big entrance of Prohodna cave, descending with flags during celebration of 85 years anniversary of organized speleology in Bulgaria, 2014. Photo Tsvetan Ostromski

Cave Rescue Exercise in Balabanova dupka Cave during 11th European Cave Rescue Meeting in Bulgaria, 2017. Photo: Sigurður Ólafur Sigurðsson

Prohodna cave – “Oknata” geological phenomena. Photo: Yavor Shopov

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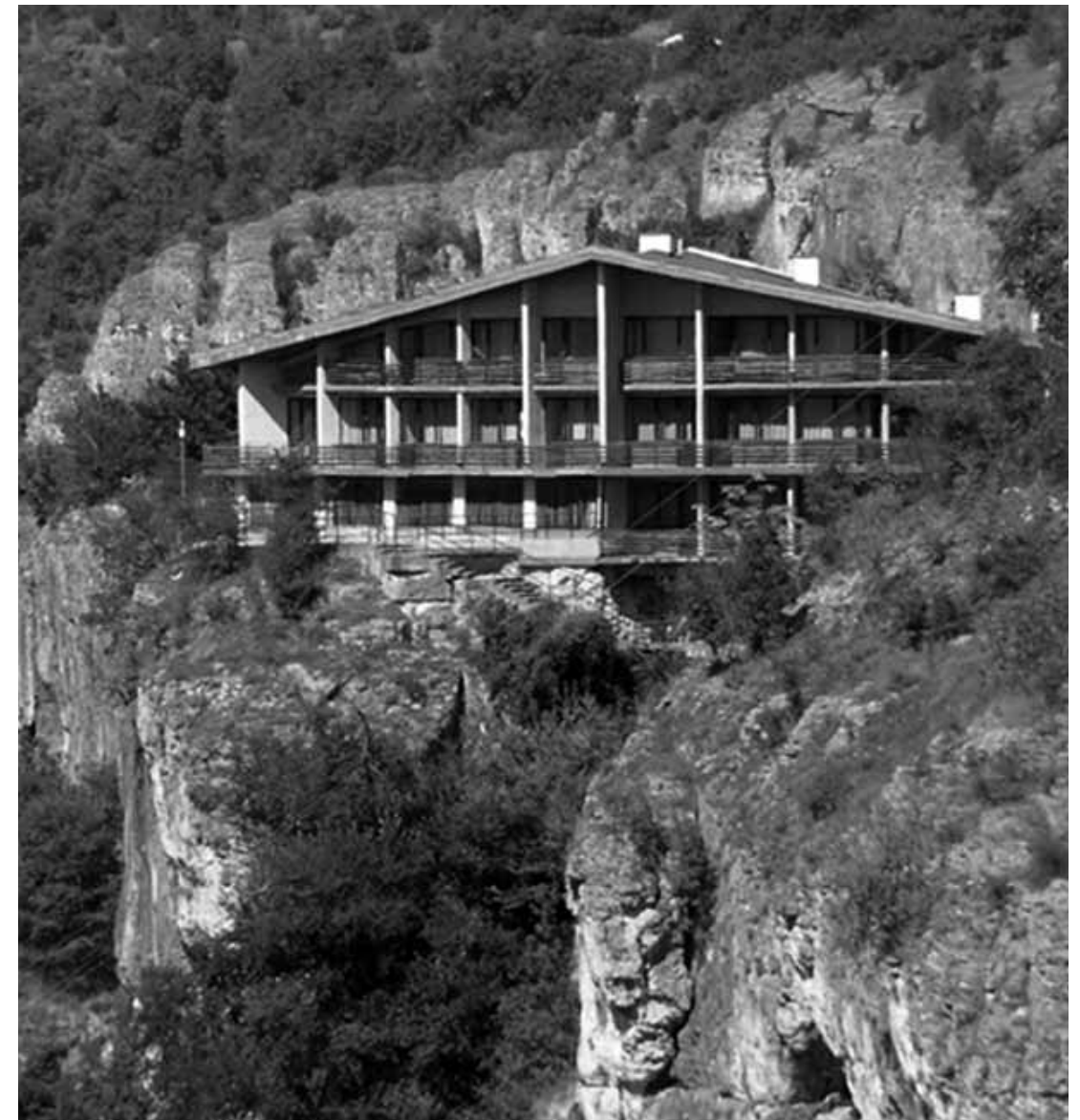
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National Caving House “Petar Tranteev”, Karlukovo

90 YEARS OF ORGANIZED SPELEOLOGY IN BULGARIA

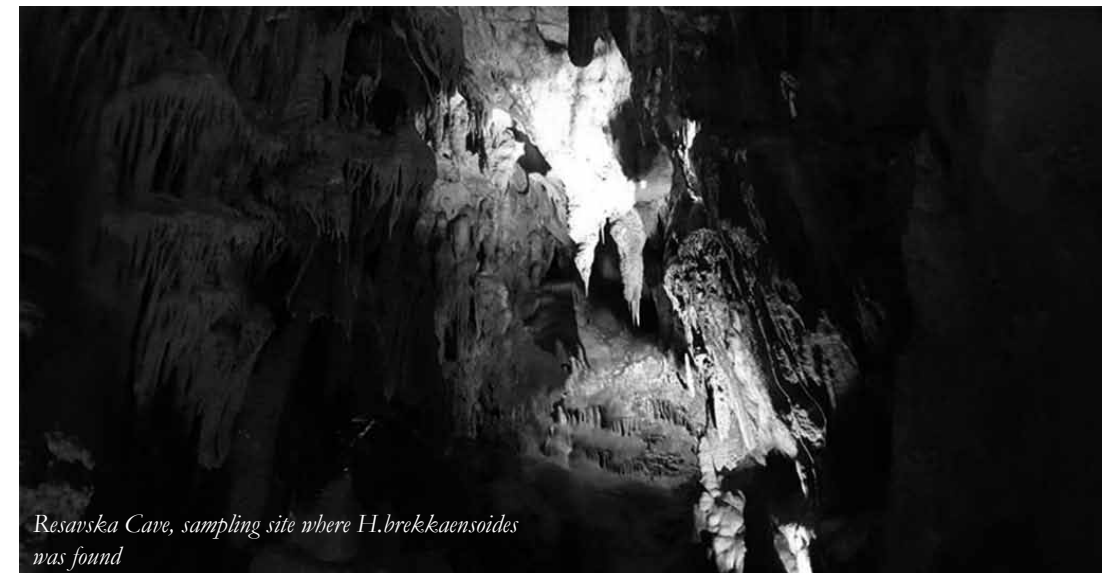
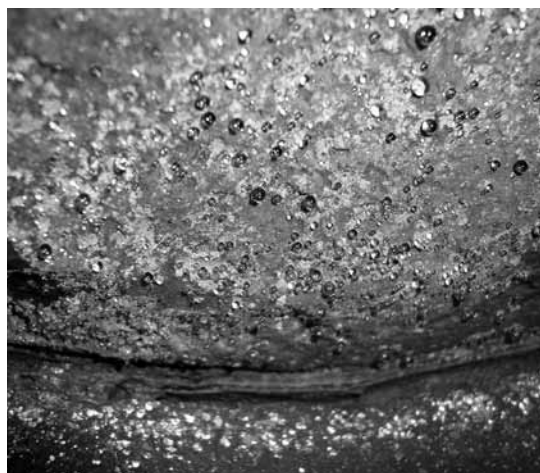
(A BRIEF HISTORY AND MAIN ACHIEVEMENTS OF BULGARIAN CAVERS AND SPELEOLOGY)

world, subterranean communities have specific microorganisms (genus and species), many of which are unknown, present in those habitats. The uniqueness of the microorganism species presents in each cave and the strong relationship with the input of allochthonous nutrients make microbial studies in tropical caves a priority tool to evaluate the use and management of these environments. Increased efforts to study diversity and microbial communities dynamics allow the knowledge of new species of microorganisms, relationships of microbial communities with the ecological dynamics in subterranean habitats and possible risks in the exploitation of that environment.

Short bio of the presenter:

Caio César Pires de Paula is a biologist and started cave studies in the Federal University of São Carlos, Brazil. Nowadays he works in Biology Centre CAS, at the Institute of Hydrobiology, Czech Republic. The researcher worked in tropical caves seeking to understand nutrient flow and microbial dynamics. Your focus of study is fungi and bacteria communities in several ecosystems, with special attention to caves. Re-

search results can corroborate with the knowledge of microbial biodiversity and to discuss the functional role of the microbial communities in the dynamics of natural environments. In subterranean environments, the researcher intends to promote the discussion about the functional role and the dynamics of microorganisms. Finally, the researcher has experience in biotechnological processes, looking for new potentially valuable microorganisms, such as higher yields enzyme producers, isolated from the subterranean environment.



Resavska Cave, sampling site where H.breikkaensoides was found

HUMIDOPHILA BREKKAENSOIDES (BOCK) LOWE, KOCIOLEK, J.R.JOHANSEN, VAN DE VIJVER, LANGE-BERTALOT & KOPALOVÁ: AEROPHYTIC DIATOM FROM THE CAVES OF SERBIA

Authors:

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Section:

Cave Biology / Bio speleology

Type:

Poster Presentation

Abstract:

Diatom *Humidophila braekkensoides* is rare, aerophytic species found in seven caves of Serbia. First time was found at Alp's rock in thin layer and described as a species that prefer non calcareous substratum. Our results show that *H.breikkaensoides* is found at limestone in caves, sporadically at the entrance, and in higher abundance inside, near artificial light. Cell dimensions differ from first record and it is shown that species can tolerate wider range of ecological parameters.

References:

Nikolić N., Zarubica N., Gavrilović B., Predojević D., Trbojević I., Subakov Simić G., Popović S.

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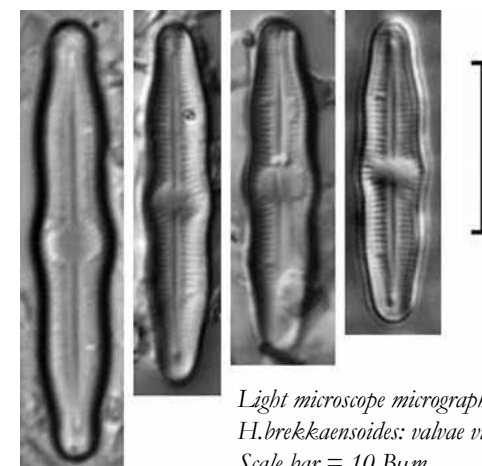
² University of Belgrade, Scientific Institution,

(2018): Cyanobacteria in tourist caves in Serbia (Potpeć and Stopić): biofilm at the entrance and lampenflora. The 3rd Early Career Researcher Symposium on Cyanobacteria, Cyano 2018, Freiburg, Germany. 12-14.09.2018. Abstract book. p. 59.

Nikolić N., Subakov Simić G., Popović S. (2018): Effect of hydrogen peroxide solution on green algae culture. BTAK Symposium 27-30.09. 2018, Băile Herculane, Romania. Abstract book. p. 41.

Short bio of the presenter:

Nataša Nikolić is a PhD Student at Faculty of Biology, University of Belgrade. The focus of her thesis is monitoring algae growth in caves and finding solution for their removal from cave substratum.



Light microscope micrographs of H.breikkaensoides: valvae view. Scale bar = 10 Bµm.