30th INTERNATIONAL KARSTOLOGICAL SCHOOL "Classical Karst"

KARST – APPROACHES AND CONCEPTUAL MODELS

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30. MEDNARODNA KRASOSLOVNA ŠOLA "KLASIČNI KRAS"

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ABSTRACTS & GUIDE BOOK

POVZETKI & VODNIK

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To what extent reactivated faults are (not) responsible for karst process: example from Serbian Carpatho-Balkanides?

Kakšno vlogo igrajo reaktivirani prelomi pri procesih zakrasevanja: primer iz Karpato-Balkanidov, Srbija

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Carpatho-Balkanides represent part of the complex Dinaric – Carpatho – Balkan orogenic system, that geomorphologically dominates the central part of the Balkan Peninsula. The existence of this orogenic system is a result of closure of the Neotethys ocean and subsequent convergence of the Adriatic microplate and the Eurasian continent, that has been still active in the recent times. Such geodynamic characteristics conditioned complex tectonic structures, multiply reactivated during Late Cretaceous and Cenozoic times. The main aim of this work is to determine impact of these reactivated faults on the formation and evolution of karst process in the area of the East Serbian Carpatho-Balkanides. This was done by studying relationship of the evolution of karst caves or their specific conduits and mapped tectonic structures. For that purpose, three key areas have been chosen. The northernmost area, Dževrinska greda, is situated in the part of the orogen dominated by dextral strike-slip tectonics, related to the activity of the Poreč – Cerna-Jiu Fault during Oligocene to recent times. The central part of the investigated area, around the Mala Bizdanja Cave, is situated in the area in which tectonic regime is defined as transpressional, with regionally important structures multiply activated during Late Cretaceous and Miocene – recent times. The southeasternmost area is located in the Vidlič thrust zone, where compressional events were active during Cretaceous and Miocene times. Preliminary results from several karst caves show that proto-conduits are mainly formed along regionally important fault structures, occasionally assisted with mechanical erosion in areas of fault-related rocks.

Keywords: *Carpatho-Balkanides, karst caves, reactivated faults, transpressional tectonics*
Ključne besede: *Karpato-Balkanidi, kraške jame, reaktivirani prelomi, transpresivna tektonika*

Student geological mapping of the Black Olms habitat and its catchment area in Bela krajina

Študentsko geološko kartiranje habitata črnega močerila v Beli krajini

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The Black Olm (Proteus anguinus parkelj) is an endemic species, that lives in a very limited (10 km^2 only) karstic hydrogeological system west of Črnomelj (Bela krajina, SE Slovenia). Researchers have observed a steady decline in the population over the past few decades due to various environmental factors. Six Geology students from the Faculty of Natural Science and Engineering (University of Ljubljana) set out to map the hinterland of the karst springs in which the Black Olm was found so far. The main goal was to define the geological structures, which limit the habitat of this endemite. The mapped area is paleogeographically located on the northeastern part of the Adriatic carbonate platform, and structurally belongs to the External Dinarides. Prior to fieldwork, the alignments of dolines were observed with Lidar to determine structural blocks, that were later verified in the field.