

## **HYDRO-GEOLOGICAL CHARACTERISTICS OF KARST TERRAIN IN THE CONFLUENCE OF THE BOKA KOTOR BAY**

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The main task of this scientific work is to contribute to better understanding of the specific hydro-geological phenomena existing in the zone of our explorations, i.e. in the confluence of the Boka Kotor bay, one of the most beautiful bays on the Adriatic coast. Application of new up-to-date scientific methods has thrown the new light on the present level of knowledge. Today, on this stage, when processing numerous results obtained during our investigations, we are able to give scientific interpretation of some karst phenomena specific for this region, in order to form better scientific basis for solving urgent water- supply problems of the Montenegrin coast. The confluence of the Boka Kotor bay is characterized by very specific and complex geological structure. In the first place, we must emphasize very complex structural-tectonic relations existing within three different geo-tectonic units: Paraautochton, Budva-Cukali and High karst zone. Each of these zones has its own, already defined, hydro-geological characteristics. Besides this evident tectonic complexity, the region of the Boka Kotor bay is mainly built of intensively karstified limestone complexes of Mesozoic age. Characteristic karst shapes and structures existing within these complexes, as well as hydro-geological functions of some of them will be presented in this paper. During the summer months, in the zone pertaining to the High karst region, penetration of salt water is registered within the carbonate complex what complicates otherwise difficult process of potable water taking for the purpose of water supply. The results of hydro-geological investigations for the Kotor region are also presented in this paper. The scope of these investigations is taking of additional quality underground waters.