MIKAS Project - Springs in Dinaric karst of former Yugoslavia, one of the globally largest karst aquifer systems

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The international project MIKAS (Most Important Karst Aquifers' Springs) has been launched by Karst Commission of the International Association of Hydrogeologists in Mid-2022 (https://mikasproject.org/). Its goal is to select, promote and protect most important springs at a global level (MIKAS) and a national level (NIKAS). The five selection criteria include historic, aesthetic, economic, ecologic, and scientific values. The initial evaluation has been completed for the Dinaric karst system, one of the largest in the world. The system extends along the Adriatic Coast and inland territories from Trieste in Italy to Albanian Alps, the majority of which (some 140,000 km^2) belong to countries formed from what was once Yugoslavia. The Dinaric system is commonly considered as karst holotype and a classic karst region where all typical karst features are present. This includes as many as 130 karst poljes, and areas where density of sinkholes (dolines) can reach 150/km^2. The region is by far the richest in groundwater resources in all of Europe: there are more than 100 springs with minimum discharge over 500 l/s.

As of end of February 2024, the team of national experts (authors of this article) completed the survey and identified 14 springs for the MIKAS list, an average of two per country. The list includes Jadro and Ombla springs in Croatia which supply drinking water to Split and Dubrovnik, respectively; Rašče spring, which provides water to Skopje, the capital of North Macedonia; and Mareza, the main source of water supply of Podgorica, the capital of Montenegro. In the list are also Unica, which emerges from the Planina Cave with a unique underground confluence and exceptional biodiversity, and Vrelo Bune in Bosnia & Herzegovina, with the recorded maximum discharge of 152 m^3/s. St. Naum is the main fresh water source of Ohrid Lake which supports important ecosystem with endemic species. Survey for the NIKAS list is still incomplete and would likely include 25 springs.