

Geotourist maps for hikers

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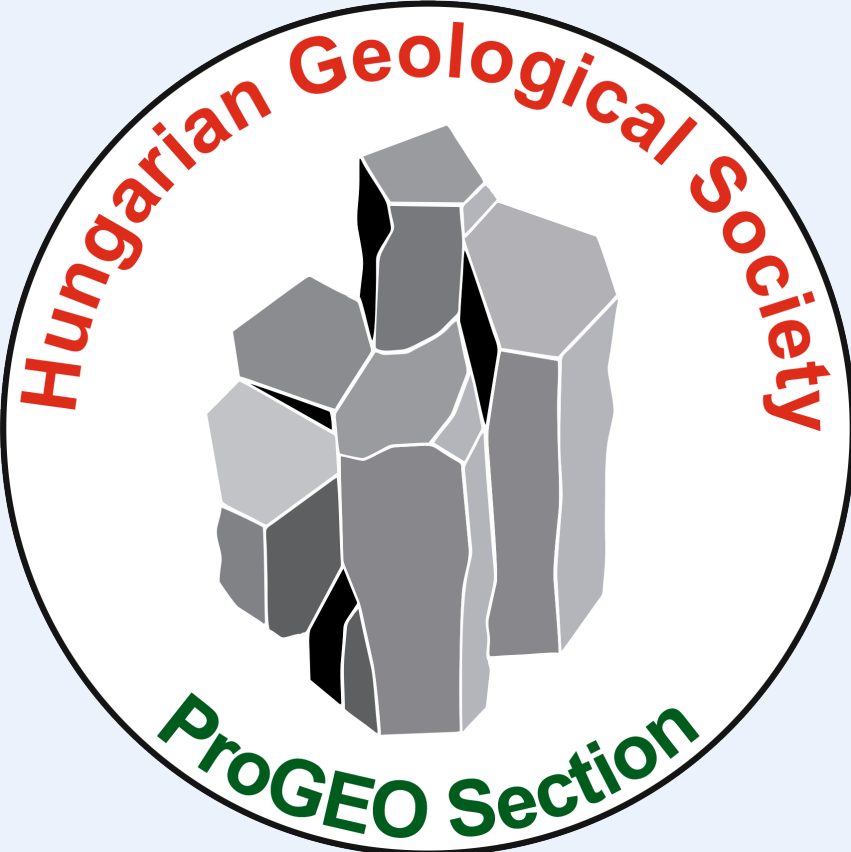
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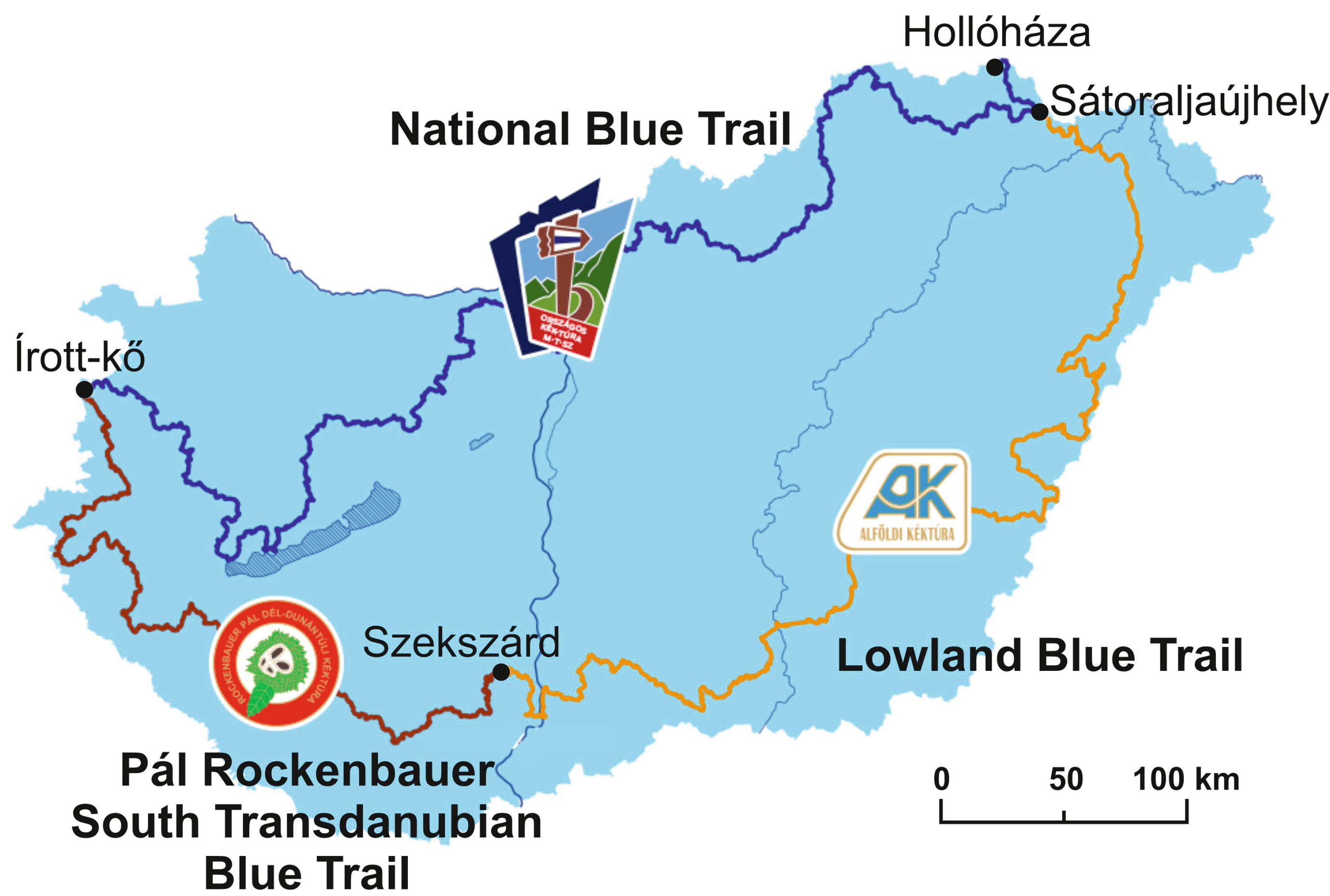


The National Blue Trail

The **National Blue Trail** is Hungary's most iconic **long-distance hiking route**. Stretching approximately 1172 km from Írott-kő in the Kőszeg Mountains to Hollóháza in the Zemplén Mountains, it is **the oldest continuously signposted trail in both Hungary and Europe**. Managed by the Hungarian Ramblers Association, the trail offers a **badge-earning challenge** with no time limit, though participants must purchase an official certificate booklet.

What makes the Blue Trail unique is its blend of natural and cultural richness. In 2020, National Geographic included it among the **world's top 25 travel destinations**. Its roots date back to the 1930s, when the Hungarian Tourist Association first marked a continuous blue route across northern Hungary. The trail gained nationwide fame in 1979 with the 14-part television series One and a Half Million Steps in Hungary, directed by **Pál Rockenbauer**. The series showcased the landscape and spirit of Hungary, helping to popularize long-distance hiking.

Following the success of the original route, additional Blue Trails were developed. These include the **Rockenbauer Pál South Transdanubian Blue Trail** (1989) and the **Lowland Blue Trail** (from 1992). By 1996, they were linked into a national network—the **National Blue Circle**—spanning over 2500 km.



The GeoBlueTrail

The **National Blue Trail** crosses Hungary's **most geologically diverse landscapes**. Along the route, hikers encounter 400 MA old limestones from ancient equatorial seas, basaltic pillow lavas in the Bükk Mountains formed under water 165 MA ago, and volcanic deposits in the Börzsöny from eruptions 14 MA ago. Even those unfamiliar with geology can discover **significant geological, geomorphological, and hydrological features** in seemingly ordinary places.

The **GeoBlueTrail** concept, developed by **Zsolt Veres**, grew from a university field course held in 2010–2011 in the Bükk and Mátra Mountains. These multi-day hikes evolved into professional geological fieldwork and science communication initiatives. Veres's GeoBlueTrail book **showcases geoscientific highlights along the Blue Trail in 11 chapters, each supported by geotourist maps**. Though not for navigation, these maps illustrate topography, geology, and geosites—highlighting the striking natural and cultural features of each landscape unit.

Geotourist maps & map editing workflow

Geological and tourist maps both evolved from topographic maps but **serve different purposes**: tourist maps aid field orientation, while geological maps convey scientific data. Growing interest in geotourism has led to demand for **maps that combine both functions**—usable in the field and informative about geological-geomorphological features. Geotourism maps, which gained popularity in countries like the Czech Republic, Poland, and Slovakia from the late 1990s, integrate topographic and geoscientific elements into a single map. **In Hungary, the first published large-scale geological hiking map appeared only in 2018**, though few similar attempts have followed. These maps use **complex legends**, typically half based on topographic symbols and half on geological themes. Their scale determines their purpose: large-scale maps (1:5,000–1:50,000) support field navigation and detailed local interpretation, while medium and small-scale maps (50K–500K) offer overviews of regions, highlighting key geosites and access routes. Accurate geospatial data is essential, as geosites form the core of geotourist maps.

The geotourist maps of the GeoBlueTrail book were developed in parallel with the text, structured around Hungary's 11 major landscape units. The goal was to **balance geological accuracy with clear topographic representation**, requiring both geoscientific and cartographic expertise. The map editing followed a **five-phase workflow**:

- **Define dimensions, scales, and map keys**: Scales ranged from 150K to 300K, depending on region size. Topographic symbols were simplified, geosite and cultural symbols were added.
- **Generalise geological content**: Based on Hungary's 1:100,000 geological map, formations were grouped by composition and age to ensure clarity at reduced scale.
- **Edit topographic content**: Relief was shown using SRTM-derived hillshade. Roads, waters and boundaries were digitised from OpenStreetMap and compiled into a topographic base layer.
- **Add labels and geosites**: Key lakes, rivers, and settlements were labeled. Only the most significant geosites and culturally relevant locations were included based on field evaluation.
- **Finalise layout**: Maps were exported from QGIS and finished in graphic software, including geological legends, coordinate grids, and scalebars. Colours were adjusted to CMYK, inspired by the Bologna 1881 geological colour system, and text was converted to curves for print stability.

Results & conclusions

11 geotourist maps were created for the GeoBlueTrail book, covering the full National Blue Trail route and highlighting 138 geosites and 31 cultural values. Each chapter begins with a map sheet, slightly overlapping for continuity. These are the first middle-scale maps to balance lithology with topography, offering accessible geoscientific content. The project sets a precedent in thematic cartography, aiding both experts and the public. A digital version is planned to complement the printed maps. This work contributes to defining geotourist maps as a distinct genre, promoting geoscience awareness and sustainable tourism through thoughtful visualisation.

Abstract QR:

