

# Geological peculiarities



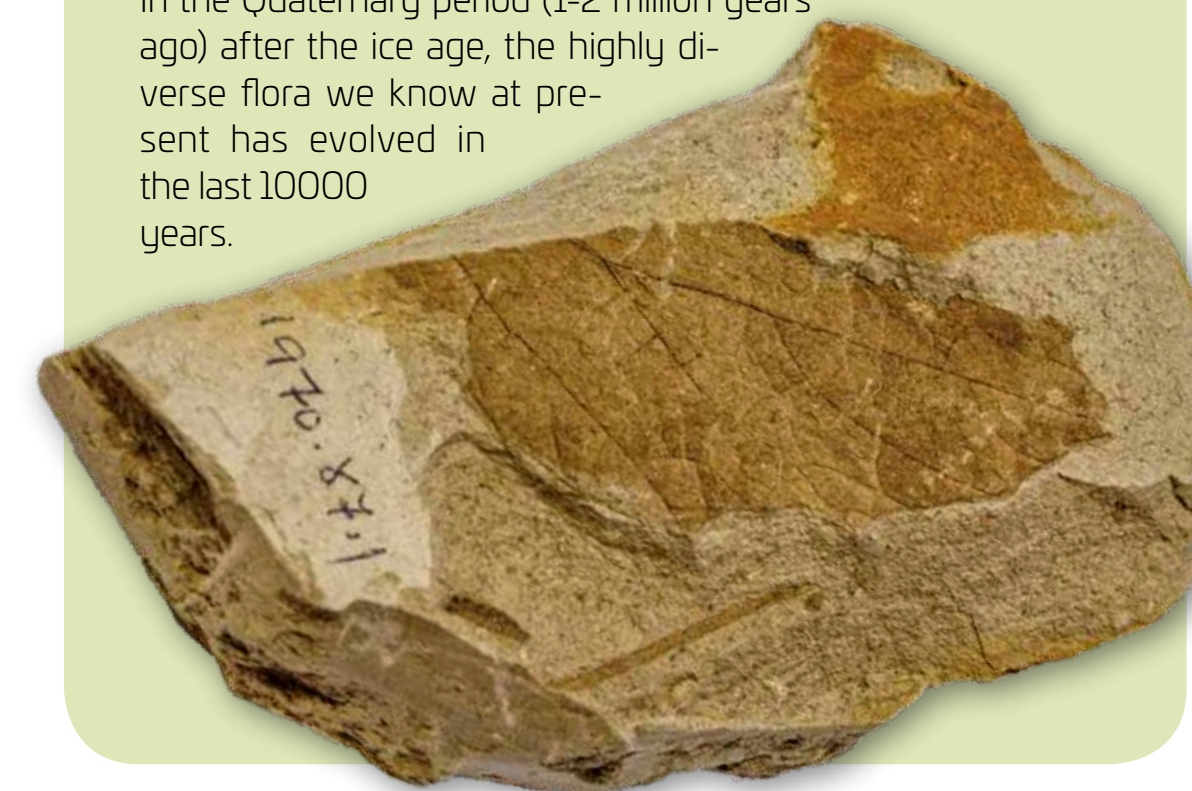
The Nagy-Eged hill is the highest of the southern foothills of the Bükk Mountains and has the same petrological characteristics as the mountain range. Seen from Eger it is bell-shaped, volcano-like, which is misleading, as volcanic rock cannot be observed here, but almost solely composed of limestone. Limestone is a sedimentary rock formed in the sea having waved here millions of years ago. Based on the colour, limestones can be well differentiated. Mostly yellowish limestones formed 37-35 million years ago (in the Eocene period) can be found here and there is a smaller proportion from the Triassic period (formed 220-210 million years ago). Nagy-Eged is also part of the recently established Bükk-region Geopark. It is a truly remarkable territory from geological, geomorphological, and geotouristical aspects as well.

Along the trail Eocene limestone is the most typical rock type (37-35 million year old). Yellow-white sediment (bedded limestone) deposited in the sea has become the most typical rock of the hill. The limestone was formed in the shallow sea, where corals, sea-urchins, sea snails, shellfish, crabs and fishes used to live. In the coastal zone **tropical mangrove forests** used to be found. Not too far from here, subtropical evergreen forests were located, similar to present-day's forests in the Canarian region (**Laurisilva forest**).



On the hilltop region, the typical rock type is not the Eocene limestone anymore, but a much older limestone can be observed here from the Triassic age. The limestone here was formed 180-220 million years ago. The main mass of the Bükk Mountains is composed of this type of rock.

It is peculiar, that the wall-rue (*Asplenium ruta-muraria*), a plant living here today is related to the extinct *Asplenium egedense*, which lived in this region during the Tertiary period. This plant was first described here and its name refers to Eged hill. The fossil remains of a grape variety having grown here 30 million years ago - **Vitis hungarica** - was found on the slope of the hill, relating this way to today's wine grapes. This leaf fossil can be seen in the collection of the Mátra Museum (in Gyöngyös). In the Quaternary period (1-2 million years ago) after the ice age, the highly diverse flora we know at present has evolved in the last 10000 years.



In these pictures we can see the fossils of a snail and shellfish having lived millions of years ago (From the collection of Tamás Szarvas and Norbert Havasi). The remains of calcareous marine organisms having lived here in the long-ago waving sea, were deposited on the sea bottom. The limestone belonging to sedimentary rocks consists of these organic remains.

