



## DEBRECEN, AS AN ALGOLOGIST SEES IT

Eső után Debrecen, avagy a teresztris algák virágzása

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Algae are known to be cosmopolitan. Algae are not only found in freshwater or marine ecosystems, but they also are common in terrestrial environments. In addition, they can be also found in unusual environments such as surface of snow and ice. The terrestrial algae occur on the surface or even several centimetres deep in soil, living in and on rocks and in caves. These are habitat characterized by very low light intensities. The most important environmental factors that seem to regulate terrestrial algal populations are light, humidity, temperature, nutrient availability and pH. A rainy year, the different surfaces of cities can become almost green or red after the precipitation. This event was studied in Debrecen in 2023. After a heavy rainfall, samples were collected with toothbrushes from the surface of rocks, buildings, stones and trees from different parts of Debrecen. The fresh samples were immediately studied at 100 - 1000× magnification using a Zeiss Axio Observer 7 inverted microscope and the observed species were documented by Canon EOS R6 digital camera. Organisms were identified at the lowest possible taxonomic level. Since their physical structure is very simple, typically with a few types (unicellular, unicellular filamentous, sarcinoid colony), and they provide very few taxonomically and systematically useful features, therefore the identification and classification of terrestrial algae are complicated. Various species from cyanobacteria, chlorophytes and diatoms were characteristic components of the studied terrestrial community in Debrecen. Green algae (*Klebsormidium* sp., *Treuboxia* sp., *Apatococcus* sp.) represent the dominant element in all samples. Regardless of the rainfall, the surface of trees was covered by *Trentepohlia* species. A rare Cyanobacteria species, the *Hassallia byssoidea* Hassall ex Bornet & Flahault was found on a concrete plate in the courtyard of the Atomki.