DOI:10.21406/abpa.2017.5.1.54 4<sup>th</sup> CC 2017 Abstract *Poster* 

## THE SECOND HUNGARIAN RECORD OF STEREOCAULON TOMENTOSUM FR.

A Stereocaulon tomentosum Fr. második hazai adata

Gábor Matus<sup>1</sup>, Csongor Freytag<sup>1</sup>, Balázs Adorján<sup>1</sup>, Viktor Oláh<sup>1</sup>, Ilona Mészáros<sup>1</sup> & László Lőkös<sup>2</sup>

<sup>1</sup>Dept. of Botany, University of Debrecen, Debrecen, <sup>2</sup>Hungarian Natural History Museum, Budapest; e-mail: matus.gabor@science.unideb.hu

The amphipolar lichen genus, *Stereocaulon* Hoffm. (Stereocaulaceae, Ascomycota) consists of ca. 130 species typical of cold regions. In Europe its area is arctic-boreal-montane. Scandinavian countries have the most species (>30) as well as the most stable populations. In contrast, in Central Europe suitable habitats (e.g. subalpine to alpine siliceous cliffs, heaths) are scattered. Most species are endangered here while some have already become regionally extinct. In Hungary, the only proven species of the genus is *Stereocaulon tomentosum* Fr. The only specimen till now was known as *Zemplén, Erdőbénye: Nagy Sasvölgy (= Sajtház-völgy/Kő-kút-folyás); CEU: 7694.3. Versechy, 1966.09.16. (BP 50582).* 

Fifty years later we came across the species at a surprising, anthropogenic habitat as *Nyírség, Debrecen: Egyetem tér, Life Science Building of Debrecen University, shaded flatroof, on quartz pebbles, N47° 33.372' E21° 37.325', alt. 130 m ;CEU: 8495.2. Freytag and Matus, 2016.03.23.* Two fertile specimens have been deposited in the collections DE (no. 1760) and BP while some sterile specimens have been left in situ.

Scattered data on anthropogenic occurrence of some *Stereocaulon* species [*S. nanodes* Tuck., *S. pileatum* Ach., *S. vesuvianum* (Sm.) Ach. and less frequently also for *S. tomentosum* Fr.] from pioneer habitats (e.g. industrial wastelands, railway lines, walls and gravel-covered flatroofs) are available from NW-European countries (Belgium, The Netherlands, Great Britain, Germany).

Construction of the building where the new specimens have been collected was finished in 2005. Investigation of specimens proved that development of apothecia started within these 11 yrs, however no ripe asci have yet been formed. Source of the new occurrence is unknown as natural dispersal or colonization from 80 to 100 yrs old fertile specimens preserved in the nearby Debrecen University Herbarium (DE) are both possible.

Some climatic conditions of this uncommonly low altitude habitat have also been studied. Light climate of the site has been analyzed using HemiView Hemisphaerical Canopy Analyzer (Delta-T Devices, England). Temperature and humidity data from two sensors on the roof (positioned at heights of 5 cm and 30 cm, respectively) have been compared to standard records from the University Meteorological Station (located 400 m to W). The site is strongly limited in direct sunlight due to shading of the surrounding building and receives a maximum potential direct sunlight of 75 min at the summer solstice. Summer records of the site show markedly lower temperatures and higher humidity on the gravel bed, which makes the habitat more similar to high-altitude natural ones. Chemical analysis has been supported by OTKA K81232 and NKFIH K\_17/124341.