

Studies on the lichens of the Tarna-vidék, NE-Hungary I. The lichen flora of Nagy-kő hill, near Bükkszenterzsébet

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ABSTRACT: As a result of a short field trip at Nagy-kő hill, near the village Bükkszenterzsébet, taken in 1984, a total of 50 lichen species are reported. Some notes on the substrates on which they occurred are also given. Toninia diffracta (MASSAL.) ZAHLBR. is new to Hungary.

Virtually nothing is known about the lichen flora of the so-called Tarna-vidék, a hilly area (cca 300-500 m a.s.l.) between and N of the Mátra and Bükk Mountains, surrounding the stream Tarna. Numerous plant species (higher plants, bryophytes and even a clubmoss species) of floristic interest have been reported (SUBA 1969, BAKALÁR et al. 1975, VÖRÖSS 1985, BENEDEK & ZAY 1987), although the study of its flora is not completed at all.

The occurrence of a special kind of sandstone makes the Tarna-vidék more interesting for the lichenologists. It has a double chemical character as substrate, since the Si-containing quartz particles are cemented by a Ca-containing matrix, consequently it is slightly calcareous in the beginning and siliceous after weathering or leaching. It seems to be supported by the presence of the saxicolous species, which usually occur on both calcareous and siliceous substrates, e. g. Aspicilia hoffmannii, Caloplaca lactea, Caloplaca velana, Lecanora muralis etc.

The Nagy-kő hill, the place where the lichens were collected on 23rd September, 1984, is located cca 2.5 km NNW of the village Bükkszenterzsébet. The south face of the hill is a large sandstone rock where three habitats were distinguished: 1. the very steep lower part of the rock (17 lichen species were found), 2. the gentle slope upper part of the rock where sandy soil is formed, covered by Festuca pallens (KOVÁCS & MÁTHÉ 1964) (18 lichen species were found), 3. the top of the rock scattered with oak trees (20 lichen species were found). Unfortunately, the frequent occurrence of the epiphytic Lecanora conizaeoides and Scoliciosporum chlorococcum, the common, toxitolerant struggle zone lichens in Budapest (FARKAS et al. 1985) indicates the presence of air pollution in this area. It is planned to make a further, more complete field work to find species overlooked during the first field trip, e.g. lichens of pyrenocarpous ascomata.

LIST OF THE SPECIES

- Arthonia exilis (FLK.) ANZI - on tiny, decaying twigs found on the ground among mosses
Aspicilia hoffmannii (ACH.) FLAGEY - on sandstone
Aspicilia radiosa (HOFFM.) POELT & LEUCKERT - on sandstone
Bacidia bagliettoana (MASSAL. & DNOT.) JATTA - on dead mosses
Bacidia herbarum (STIZ.) ARN. - on dead mosses
Buellia punctata (HOFFM.) MASSAL. - on bark of *Quercus* sp.
Buellia venusta (KOERB.) LETT. - on sandstone
Caloplaca lactea (MASSAL.) ZAHLBR. - on sandstone
Caloplaca velana (MASSAL.) DU RIETZ - on sandstone
Candelariella surella (HOFFM.) ZAHLBR. - on sandstone
Candelariella vitellina (HOFFM.) MÜLL. ARG. - on sandstone
Candelariella xanthostigma (ACH.) LETT. - on bark of *Quercus* sp.
Cladonia coniocraea (FLK.) SPRENG. - on bark of *Quercus* sp. at the base of the trunk
Cladonia fimbriata (L.) FR. - on sandy soil
Cladonia pyxidata (L.) HOFFM. - on sandy soil
Cladonia rangiformis HOFFM. - on sandy soil (it gives PD+ orange-red reaction near the youngest, apical branchlets)
Cladonia subulata (L.) WEB. - on sandy soil
Collema crispum (HUUDS.) WEB. - on sandy soil

Collema cristatum (L.) WEB. - on sandstone
Collema tenax (SW.) ACH. em. DEGEL. - on sandy soil
Diploschistes scruposus (SCHREB.) NORM. - on sandstone
Evernia prunastri (L.) ACH. - on bark of *Quercus* sp.
Hypogymnia physodes (L.) NYL. on bark of *Quercus* sp.
Lecanora carpinea (L.) VAIN. - on bark of *Quercus* sp.
Lecanora chlarotera NYL. - on bark of *Quercus* sp.
Lecanora conizaeoides NYL. ex CROMB. - on bark of *Quercus* sp.
Lecanora dispersa (PERS.) SOMMERF. - on sandstone
Lecanora muralis (SCHREB.) RABENH. - on sandstone, sometimes accompanied by mosses
Lecidella stigmatea (ACH.) HERTEL & LEUCKERT - on sandstone
Lepraria incana (L.) ACH. - on bark of *Quercus* sp.
Lepraria sp. - on sandstone
Melanelia elegantula (ZAHLEBR.) ESSL. - on bark of *Quercus* sp.
Melanelia glabra (SCHAER.) ESSL. - on bark of *Quercus* sp.
Melanelia glabratula (LAMY) ESSL. - on bark of *Quercus* sp.
Melanelia subargentifera (NYL.) ESSL. - on mosses, sometimes the lobe-ends grow over onto the sandstone
Parmelia sulcata TAYL. - on bark of *Quercus* sp., on mosses, the lobe-ends on sandstone, sometimes even on the thallus of Lecanora muralis
Parmelina tiliacea (HOFFM.) HALE - on bark of *Quercus* sp., on mosses and sometimes the lobe-ends on sandstone
Pertusaria albescens (HUDD.) SHOISY & WERN. var. albescens - on bark of *Quercus* sp.
Phasophyscia orbicularis (NECK.) MOBERG - on sandstone, on mosses
Phlyctis argena (SPRENG.) FLOT. - on bark of *Quercus* sp.
Physcia adscendens (FR.) OLIV. - on sandstone
Physcia dimidiata (ARN.) NYL. - on sandstone, on mosses
Physconia enteroxantha (NYL.) POELT - on mosses, on bark of *Quercus* sp.
Rinodina bischoffii (HEPP.) MASSAL. - on sandstone
Rinodina exigua (ACH.) S. F. GRAY - on bark of *Quercus* sp.
Scolicosporum chlorococcum (STENHAM.) VÉZDA - on bark of *Quercus* sp.
Squamarina cartilaginea (WITTH.) P. JAMES - on sandy soil, on mosses
Toninia caeruleonigricans (LIGHTF.) TH. FR. - on sandy soil
Toninia diffracta (MASSAL) ZAHLEBR. - on sandstone
Xanthorina parietina (L.) TH. FR. - on bark of *Quercus* sp.

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