NEW COMBINATIONS FOR MYRIOLECIS ZOSTERAE (ASCOMYCOTA, LICHENIZED FUNGI) VARIETIES AND A NEW RECORD OF THE SPECIES FOR POLAND

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Abstract. Two new combinations for Myriolecis zosterae (Ach.) Śliwa, Zhao Xin & Lumbsch varieties are proposed: M. zosterae var. beringii (Nyl.) Śliwa and M. zosterae var. palanderi (Vain.) Śliwa. Additionally, M. zosterae var. zosterae is reported for the first time from Poland. The species is briefly discussed and its known distribution in Poland illustrated.

Key words: nomenclature, lichenized Ascomycota, Lecanoraceae, new record, Poland

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INTRODUCTION

Myriolecis zosterae (Ach.) Śliwa, Zhao Xin & Lumbsch is representative of a genus that includes lichen species most common on calciferous rocks and bark. The majority of species have a crustose and often inconspicuous thallus, and apothecia with a pale margin. The species either contain chlorinated xanthones, often accompanied by depsidones, or lack secondary metabolites. The genus has a worldwide distribution but is most diverse in temperate to Arctic-alpine regions of the Northern Hemisphere (Zhao et al. 2016). Previously, most species were placed in the Lecanora dispersa group as defined by Śliwa (2007) and Śliwa et al. (2012). Most recently, however, they have been shown to form a clade separate from Lecanora sensu stricto (Zhao et al. 2016). The oldest available generic name in the group was Myriolecis Clements; it was resurrected to accommodate the species of this clade. Consequently, 30 new combinations were proposed to cover all taxa at species rank designated to L. dispersa gr. (Zhao et al. 2016). Among the species, M. zosterae has a long and complicated taxonomic and nomenclatural history revealed in research by Brodo (1976), Brodo and Vitikainen (1984), Brodo et al. (2001) and Laundon (2003).

The latter author provided a precise circumscription of M. zosterae type variation, accepted in the later study by Śliwa (2007). However, because of the considerable morphological variability of the species, when taking into account extra-European material it became very difficult to keep such a clear species concept. To cover this variability, delimitation of two infraspecific taxa was proposed: L. zosterae var. beringii (Nyl.) Śliwa and L. zosterae var. palanderi (Vain.) Śliwa (Śliwa 2007). Transferring these two remaining varieties of the species to Myriolecis is still necessary, and therefore the new combinations are proposed below.

Of all known species of the genus Myriolecis, eleven have been reported from Poland up to the present time: M. agardhiana, M. albecens, M. crenulata, M. dispersa, M. hagenii, M. persimilis, M. pruinosa, M. reuteri, M. salina, M. sambuci and M. semipallida (for authorities citations see Zhao et al. 2016). All of them were confirmed during my revision of material available in Polish herbaria. Additionally, Myriolecis zosterae var. zosterae was found to occur in the country, and this novel record is reported here as well.
Material and methods

The material from the following Polish herbaria was revised: GPN, LBL, LOD, KRA, KRAM, KRAP, KTC, WRSL. Morphology and anatomy were studied by standard techniques, with preparations mounted in water or a 25% solution of potassium hydroxide (KOH). Tissues were measured in water, ascospores in KOH, and granulation was observed in polarized light (pol). The solubility of granules and/or crystals was tested with KOH and 65% nitric acid (HNO₃). Lichen substances were studied by thin-layer chromatography (TLC) using the methods of Culberson and Kristinsson (1970) and Orange et al. (2001).

New combinations

Myriolecis zosterae (Ach.) Śliwa, Zhao Xin & Lumbsch var. beringii (Nyl.) Śliwa, comb. nov.

MycoBank no.: MB 821599

Basionym: Lecanora beringii Nyl. [= ‘Lecanora behringii Nyl.’], Flora 68: 439. 1885. – Lectotype (selected by I. M. Brodo in 1993 and formalized by Śliwa in 2007): [Russia] ‘Ins. Behringii, E. Almqvist (Exped. Vega)’ (H-Nyl 26134!).

≡ Lecanora zosterae var. beringii (Nyl.) Śliwa, Polish Bot. J. 52(1): 60. 2007.

≡ Lecanora turbinata Poelt & Leuckert, Biblioth. Lichenol. 58: 327. 1995. – Holotype: [Austria] ‘Dachstein-Gruppe, Steiermark / Ober-Oesterreich: Gipfel des Hohen Dachstein, Kalk, 290 m, 29.7.1990, leg. J. Poelt’ (GZU!).

Myriolecis zosterae (Ach.) Śliwa, Zhao Xin & Lumbsch var. palanderi (Vain.) Śliwa, comb. nov.

MycoBank no.: MB 821600

Basionym: Lecanora palanderi Vain., Arkiv Bot. 8(4): 48. 1909. – Holotype: [Russia, Siberia] ‘Ad lignum in peninsula Jinretlen’ (from the protologue), Wainio (TUR).

≡ Lecanora zosterae var. palanderi (Vain.) Śliwa, Polish Bot. J. 52(1): 62. 2007.

New country record

Myriolecis zosterae (Ach.) Śliwa, Zhao Xin & Lumbsch var. zosterae Fig. 1

Flora 59: 577. 1876. – Lecanora subfusca [var.] zosterae Ach., Syn. Meth. Lich.: 158. 1814. – Lectotype (designated by Brodo & Vitikainen, Mycotaxon 21: 296. 1984): [Sweden] ‘Suecia’ (H-ACH 1147A).

The type variety of this species is characterized by its large peltate apothecia (0.6–1.6 mm diam.) with a brown or, more usually, orange-brown to reddish and epruinose disc, which becomes sinuous and concave when old, and with a whitish or grey involute margin. It has an amphithecial cortex which is distinctly delimited and clearly thickened at the base, and an epithecium which is not at all granular. The species lacks any lichen products. For a detailed description and pictures see Śliwa (2007).

Myriolecis zosterae is most similar to M. hagenii (Ach.) Śliwa, Zhao Xin & Lumbsch. The latter differs in having small, sessile apothecia up to 0.8 mm diam., with a plane disc which is usually pruinose.

Habitat. On wood, detritus, other organic substrata; described and often noted as occurring on the eelgrass Zostera.

Distribution. It is a widespread taxon with a heterogenous distribution, known from Europe, Asia and North America, including Greenland. In Poland it was recorded in Western and Central Pomerania (Fig. 1).
Specimens examined. Poland. Pomerania. Kościerzyna district, spit of Kołobrzeg lake, wooden piles drilled into the seabed, 19 July 1986, W. Faltynowicz (UGDA L-2908, KRAM), Vistula Spit, Piaski village, area of GUM near Vistula Lagoon, at branch no. 10, on wood, 16 May 1981, E. Budzbon (UGDA L-2157).

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