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Trifurcula (Glaucolepis) lituanica sp. nov., an unexpected new stem-miner on *Salvia pratensis* occurring in eastern Europe (Lepidoptera: Nepticulidae)

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Abstract

Trifurcula (Glaucolepis) lituanica Ivinskis & van Nieukerken, **sp. nov.**, is described from adults reared from stem-mining larvae on *Salvia pratensis* (Lamiaceae) from Lithuania and some specimens taken as adults in Austria, Slovenia and Greece. In addition the new species is recorded from Bulgaria, the Czech Republic and Romania. Superficially, it resembles *Trifurcula (Glaucolepis) headleyella* (Stainton, 1854), especially the male, but it differs by male genitalia with additional cornuti, a unique character for the subgenus, and the female genitalia differ by the larger number of convolutions in the ductus spermathecae. It is the only known *Trifurcula* to make its cocoon partially inside a stem-mine. The synonymy of *Nepticula dubiella* Hauder, 1912 with *T. headleyella* is confirmed, but some specimens recorded under this name from Austria belong to the new species. DNA barcodes are provided and compared with related species.

Key words: Taxonomy, new species, hostplants, Lamiaceae, DNA-barcodes, COI gene, Palearctic

Introduction

The nepticulid genus *Trifurcula* Zeller, 1848 comprises globally 68 described species, of which the large majority occurs in the Mediterranean region; only six named species and a few unnamed ones are known from North America, Asia (outside the Mediterranean region), South Africa and Australia (van Nieukerken 1986b; van Nieukerken 2010). The species occurring in the Mediterranean are specialized in feeding on shrubs and herbs, where they make stem-mines or leaf-mines. The subgenera *Trifurcula* (with 26 species) and *Levarchama* Beirne, 1945 (7 species) all feed on Fabaceae, the first making stem-mines, the latter leaf-mines, and the subgenus *Glaucolepis* Braun, 1917 (29 species) makes stem- or leaf-mines, or a combination of both, on plants belonging to families such as Lamiaceae, Apiaceae (only the genus *Bupleurum*), Plantaginaceae (genus *Globularia*) and a few others. In Europe the diversity of the genus sharply declines towards the north (van Nieukerken *et al.* 2010); only a few species of *Glaucolepis* are known from northern parts in Europe: *T. (Glaucolepis) headleyella* (Stainton, 1854) on *Prunella* goes as far north as southern Sweden, Finland and Estonia, *T. (G.) thymi* (Szöcs, 1965) on *Thymus* is occasionally encountered in extremely hot localities in Germany and Poland (van Nieukerken & Johansson 1990) and *T. melanoptera* Van Nieukerken & Puplesis, 1991 has recently been recorded from Germany (van Nieukerken *et al.* 2010). It was thus a surprise for the authors to discover an unknown species in Lithuania, where hitherto only *T. headleyella* had been recorded (Diškus 2003).

Stem-mines and cocoons attached to the stems, characteristic for Nepticulidae, were found on *Salvia pratensis* in a river valley. The emerging moths externally resembled those of *T. headleyella*. However, *T. headleyella* has a completely different life history, with mines going through several leaves, petioles and stem of *Prunella*. Two species of *Trifurcula* have hitherto been recorded as leafminers on *Salvia* species: *T. (G.) trilobella* Klimesch 1978, common in Greece and Turkey, on *Salvia fruticosa* and *T. (G.) salvifoliae* Z. Laštůvka & A. Laštůvka, 2007 from Spain on *Salvia lavandulifolia*.