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Coleophora impalella Toll, 1961, a new record for Hungary (Lepidoptera: Coleophoridae)

G. Baldizzone* & Z. Tokár

Abstract

The occurrence of *Coleophora impalella* Toll, 1961 in Hungary is recorded. This species was hitherto only known from Russian Middle and Lower Volga regions. Descriptions are given of the adult and male and female genitalia.

KEY WORDS: Lepidoptera, Coleophoridae, *Coleophora impalella*, Hungary.

Coleophora impalella Toll, 1961, una nueva cita para Hungría
(Lepidoptera: Coleophoridae)

Resumen

Se registra la presencia de *Coleophora impalella* Toll, 1961 en Hungría. Esta especie era conocida de las regiones de Rusia central y del bajo Volga. Se dan la descripciones del adulto y de la genitalia del macho y de la hembra.

PALABRAS CLAVE: Lepidoptera, Coleophoridae, *Coleophora impalella*, Hungría.

Introduction

The genus *Coleophora* is the richest genus of European Lepidoptera, with more than 500 recorded species (BALDIZZONE, 2008). Nevertheless, we have an incomplete knowledge of how many species might occur in Europe, but the number both from the whole of Europe as well as individual countries has steadily increased and remarkable new discoveries are made. *Coleophora impalella* is a little known species and its discovery in Hungary adds to the local Central European fauna of *Coleophora* which comprises more than 190 species (PASTORÁLIS, 2007).

Coleophora impalella was described by TOLL (1961) based on a single male collected by Christoph in the 19th century in the vicinity of Sarepta (now Volgograd district; also previously Krasnoarmeysk) in South-eastern European Russia. The locality is part of the Lower Volga region. It was omitted from the checklist of the European fauna (BALDIZZONE, 1996) but added to it later (BALDIZZONE & WOLF, 2000) following a work from the region compiled by ANIKIN & FALKOVITSH (1997). About 150 years after the discovery of the only specimen, ANIKIN (2004) provided a new record from Middle Volga region (6 km south of the village Vyazovka, Radishchevskiy

* Contribution to the knowledge of Coleophoridae CXVII.

rayon, Ulyanovskaya oblast, 8 males and 1 female, leg. V. Zolotuhin) and gave a description of a female of the species under the name *Orthographis impalella* (Toll, 1961).

Recently Csaba Szabóky, a well-known Hungarian entomologist, collected a series of adults of *Coleophora impalella* in a locality near Bélmegyer, south Hungary. Since the species is poorly known and Anikin's drawings of female genitalia are rather diagrammatic we provide a fresh description of its external appearance and the genitalia of both sexes.

Coleophora impalella Toll, 1961

Examined material: Hungary, Bélmegyer, *Peucedanumos*, 12-V-2005, 15 specimens, leg. Csaba Szabóky, coll. Szabóky, Tokár, Baldizzzone (Gp. ♂ ♂ ZT 9909, 9910, Bldz 14314, 14316, ♀ ♀ ZT 9320, Bldz 14050, 14317, 14318). Examined specimens of the species are deposited in the private collections of Szabóky in Budapest and partly also of the authors in Asti and Šal'a.

Description (Fig. 4): Wingspan 14-15 mm. Head white dorsally suffused with light yellow-grey. Scales white behind eye. Outer side of labial palpus white, second segment 1.5 times longer than third one, with ventrally tufted apex. Antenna annulated with white and grey, in female upper two thirds grey. Scape white with yellow-grey scale tuft. Forewing and hindwing white, sprinkled with grey scales mainly along veins and at apex. Fringes white with basal light yellow-grey hue, white on costa.

Male genitalia (Figs. 1-3): Spinose knob of gnathos small and oval, basal arms wide. Tegumen medium-long, transtilla narrow and long. Valva wide and rounded in ventral margin. Cucullus wide and short. Sacculus broad with curved ventral margin, dorsal process tapered toward apex, exceeding cucullus. Aedeagus simple, arched, dorsally sclerotized, vesica with four long cornuti joined at common base.

Female genitalia (Figs. 5-7): Papillae anales large, oval. Apophyses posteriores about 3 times longer than apophyses anteriores. Sterigma subtrapezoidal, sclerotized conspicuously along colliculum from base of apophyses anteriores to distal margin. Distal margin straight, lined with short bristles. Colliculum sclerotized, funnelled. Ostium and colliculum spinulose. First section of ductus bursae with short sclerotized structure extending from colliculum. Further sclerotization in lower section of ductus above ductus seminalis. Corpus bursae oval, with one large signum.

Bionomy: The food plant and the early stages are unknown. Adults of *Coleophora impalella* were collected by sweeping plant vegetation in early May. Szabóky (pers. comm.) supposes the host-plant of the species could be *Aster* sp.

Distribution: Currently the species is only known from widely separate localities in Russia, Middle and Lower Volga and south Hungary, Bélmegyer, Fáspuszta.

Remarks: The Hungarian locality Bélmegyer - Fáspuszta comprises clearings and the edges of oak forests on alkali-soil. One of the most notable communities of the glades of Fáspuszta is the *Peucedano-Asteretum sedifolii* (ATTILA, 1989). Notable plants observed in Fáspuszta are: *Athyrium filix-femina*, *Rhinanthus alectorolophus*, *Hieracium piloselloides*, *Gypsophila paniculata*, *Aster canus*, *Aster linosyris*, *Peucedanum officinale*, *Limonium gmelinii*, *Alopecurus pratensis*, *Phragmites australis*, *Agrimonia eupatoria* and *Artemisia pontica*. Typical examples of moths occurring there are: *Agonopterix putridella* (Denis & Schiffermüller, 1775) (Depressariidae), *Aristotelia calastomella* (Christoph, 1873), *Holcophora statices* Staudinger, 1871 (Gelechiidae), *Cochylimorpha halophilana* (Christoph, 1872), *Phalonidia albipalpna* (Zeller, 1847) (Tortricidae) and *Gortyna borelii* (Pierret, 1837) (Noctuidae).

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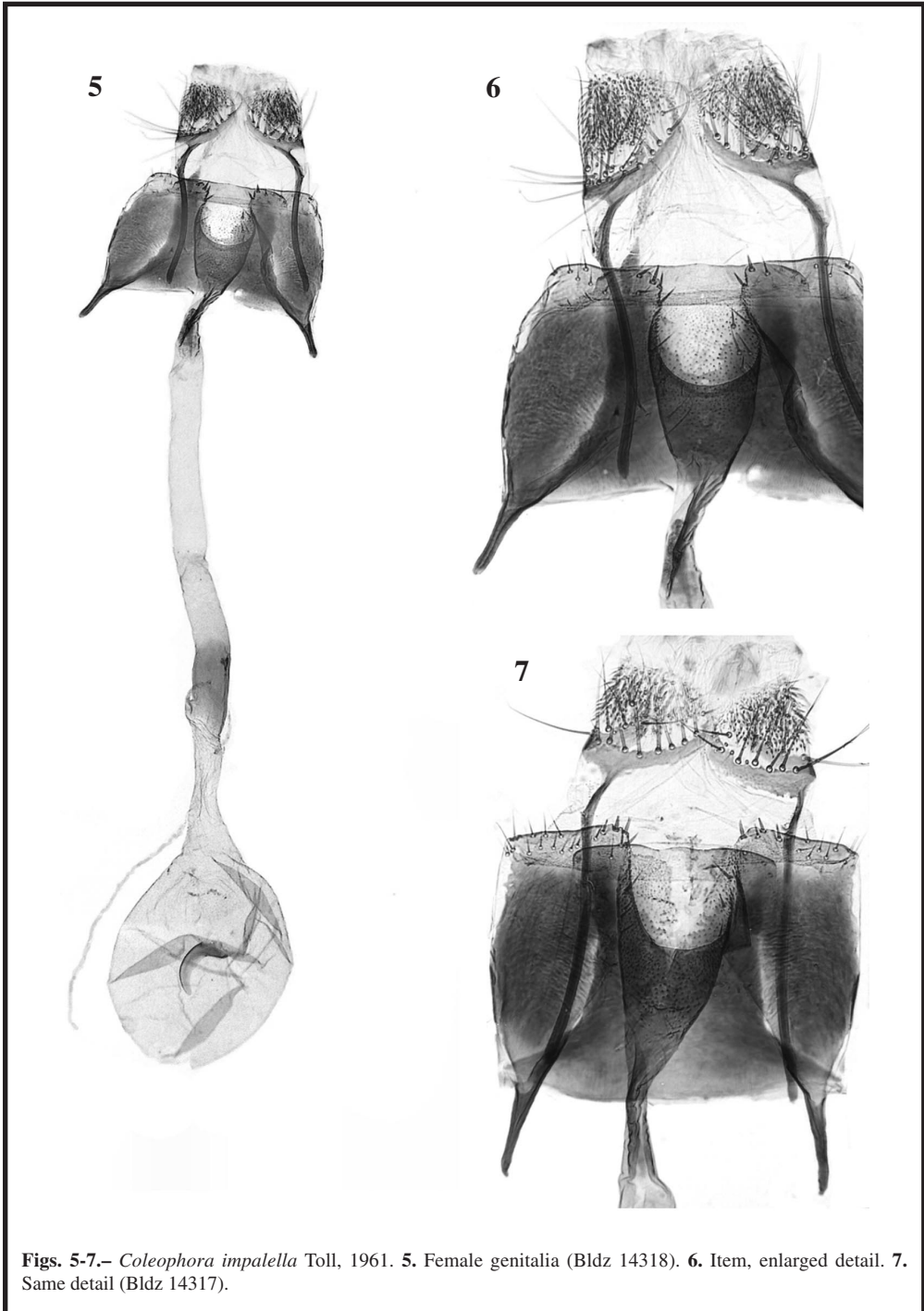
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Figs. 1-4.– *Coleophora impaella* Toll, 1961. **1.** Male genitalia (Bldz 14316). **2.** Item, enlarged detail. **3.** Same detail (Bldz 14314). **4.** Imago.



Figs. 5-7.— *Coleophora impalella* Toll, 1961. **5.** Female genitalia (Bldz 14318). **6.** Item, enlarged detail. **7.** Same detail (Bldz 14317).