

Description of hitherto unknown female genitalia of *Crossotocera wagnerella* Zerny, 1930, in Wagner (Lepidoptera: Oecophoridae)

Jan Šumpich & Ignac Richter

Abstract

This paper describes the female genitalia of *Crossotocera wagnerella* Zerny 1930, in Wagner, 1930 for the first time. Photographs of adults as well as of the genitalia of both sexes are provided, and first records from North Macedonia are reported.

Keywords: Lepidoptera, Oecophoridae, *Crossotocera wagnerella*, first record, North Macedonia.

Descripción de la hembra, hasta ahora desconocida, de *Crossotocera wagnerella* Zerny, 1930, in Wagner (Lepidoptera: Oecophoridae)

Resumen

Se describen, por primera vez, la genitalia de la hembra de *Crossotocera wagnerella* Zerny, 1930, in Wagner. Se proporcionan fotografías de los adultos de ambos sexos y su genitalia. Se presentan los primeros registros de Macedonia del Norte.

Palabras clave: Lepidoptera, Oecophoridae, *Crossotocera wagnerella*, primer registro, Macedonia del Norte.

Introduction

Crossotocera wagnerella Zerny, 1930, in Wagner, was originally described based on two males and one female collected in Turkey (Akşehir, in Central Anatolia) (Zerny, 1930). Alongside a detailed description of the male specimens, Zerny (1930) noted the female as having a lighter stripe along the costa, as well as a dark longitudinal stripe from the base of the forewing to the apex and ciliae of hind wing that is lighter than that of the males. Later records, such as those from Romania (Popescu-Gorj, 1984) or more recently from Turkey (Kemal & Koçak, 2020), have concerned only males of the species. Male genitalia were first described and drawn by Lvovsky (2002), and the first photographic documentation of them was provided by Kemal & Koçak (2020). The aim of this paper is to provide a first description for the female genitalia of this species.

Material and methods

Study material collected by the second author was attracted via ultraviolet light tubes (8W/12V) attached to portable light traps.

The present study is based on material from the following collections:

NMPC	National Museum, Prague, Czech Republic
RCIGR	Research collection of Ignác Richter, Malá Čausa, Slovakia
RCJS	Research collection of Jan Skyva, Prague, Czechia

Results

Crossotocera wagnerella Zerny, 1930, in Wagner

Crossotocera wagnerella Zerny, 1930, in Wagner. *Int. ent. Z.*, 24, 20

LT: Anatolia [TURKEY]

= *Rhipidocera monotona* Amsel, 1952. *Bull. Soc. Found 1er Ent.*, 36, 130, figures 5-6

LT: Homs, SYRIA

= *Crossotocera wagnerella tripunctella* Amsel, 1958. *Z. wien. ent. Ges.*, 43, 74 (subspecies)

LT: Prodomos, CYPRUS

Material examined Adult (Figures 1-4): For description see Zerny (1930). Male genitalia (Figure 6). For description see Lvovsky (2002).

Description of female genitalia (Figures 7-8): Apophyses anteriores slightly shorter than apophyses posteriores; ostium concealed by a narrow elongate lobe associated with a quadrate sclerotized process and exceeding the posterior margin of sternum VIII; antrum indistinct, ending in weakly sclerotized colliculum; ductus bursae moderately long, 2.5x shorter than bursa copulatrix, narrow, membranous; ductus seminalis at approximately half the length of ductus bursae; bursa copulatrix oval, without signum.

Bionomy: Host plant unknown. In North Macedonia, the species was collected on open steppe habitat containing thermophilic flora (Figure 5).

Distribution: Pontomediterranean, Bulgaria (Soffner, 1967), Cyprus (Amsel, 1958), North Macedonia (this paper), Romania (Popescu-Gorj, 1984), Turkey (Zerny, 1930; Kemal & Koçak, 2020), Syria (Amsel, 1952).

Discussion

The genus *Crossotocera* Zerny, 1930, in Wagner, comprised only one known species, the type-species *C. wagnerella*. A separate genus, *Rhipidocera* Amsel, 1952, with *R. monotona* Amsel, 1952 as type-species, was created some years later. In 1958, the same author described *C. tripunctella* from Cyprus (currently considered a subspecies endemic to Cyprus) and synonymized *R. monotona* with *C. wagnerella* (Amsel, 1958).

Generally speaking, *C. wagnerella* is considered to be rare due to the limited number of known localities, however it is often very abundant where it does occur (cf. Popescu-Gorj, 1984, this paper). While it is currently still one of the rarest Lepidoptera species in the Balkans, it is widespread in Turkey, as confirmed by a number of recent findings (Kemal & Koçak, 2020).

Acknowledgements

We are grateful to Jan Skyva for providing his collection data. The authors thank Kristina Lexová for English language corrections and to Antonio Vives for preparing the Spanish text. Jan Šumpich carried out his portion of the work for this article with support from the Ministry of Culture Czech Republic (DKRVO 2019-2023 / 5.I.d, National Museum, 00023272).

References

Amsel, H. G. (1952). Neue Kleinschmetterlinge aus Syrien. *Bulletin de la Société Fouad 1er d'Entomologie*, 36, 127-134.

- Amsel, H. G. (1958). Cyprische Kleinschmetterlinge. *Zeitschrift der Wiener Entomologischen Gesellschaft*, 43(69), 69-75.
- Kemal, M., & Koçak, A. Ö. (2020). On the new records of *Crossotocera wagnerella* in Turkey (Lepidoptera, Oecophoridae). *Centre for Entomological Studies Ankara. Miscellaneous Papers*, 211, 10-12.
- Lvovsky, A. L. (2002). Examination of *Crossotocera wagnerella* Zerny, 1930, with the description of a new tribe (Lepidoptera, Oecophoridae). *Atalanta*, 33(1/2), 209-212.
- Popescu-Gorj, A. (1984). *Crossotocera wagnerella* Zerny a less known species new to Romania's fauna. *Travaux du Muséum d'Histoire Naturelle "Grigore Antipa"*, 26, 107-109.
- Soffner, J. (1967). Kleinschmetterlinge aus Bulgarien (Lep.). *Mitteilungen der Münchner Entomologischen Gesellschaft*, 57, 102-122.
- Zerny, H. (1930). Pyralidae-Tineidae. In F. Wagner. Zweiter (III) Beitrag zur Lepidopteren-Fauna Inner-Anatoliens. *Internationale Entomologische Zeitschrift*, 24(1), 16-22.

*Jan Šumpich
National Museum
Department of Entomology
Cirkusová, 1740
CZ-193 00 Praha 9 - Horní Počernice
REPÚBLICA CHECA / CZECH REPUBLIC
E-mail: jansumpich@seznam.cz
<https://orcid.org/0000-0002-0262-2941>

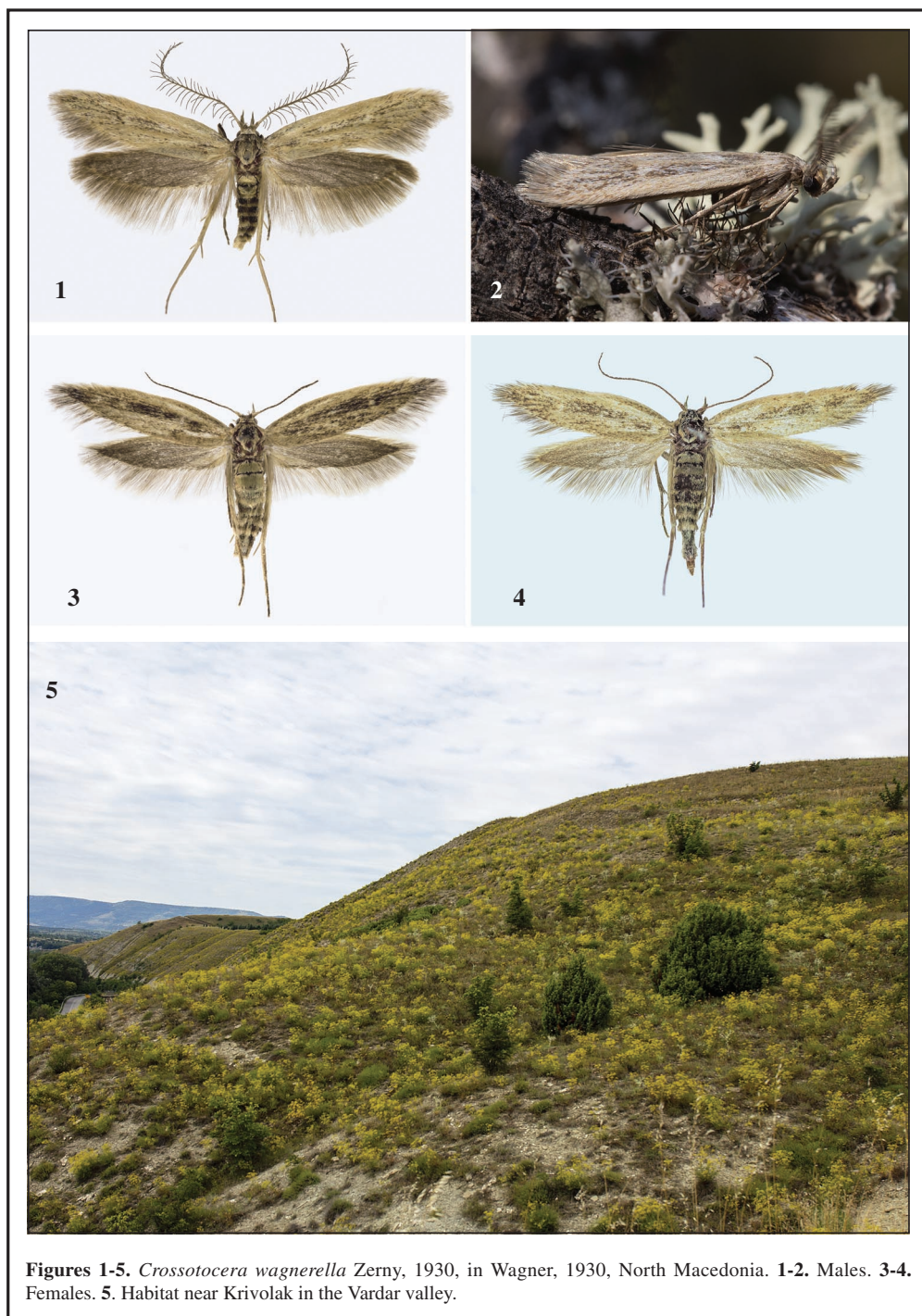
Ignac Richter
Malá Čausa, 289
SK-97101 Malá Čausa
ESLOVAQUIA / SLOVAKIA
E-mail: ignac.richter@gmail.com
<https://orcid.org/0000-0001-8122-8709>

*Autor para la correspondencia / *Corresponding author*

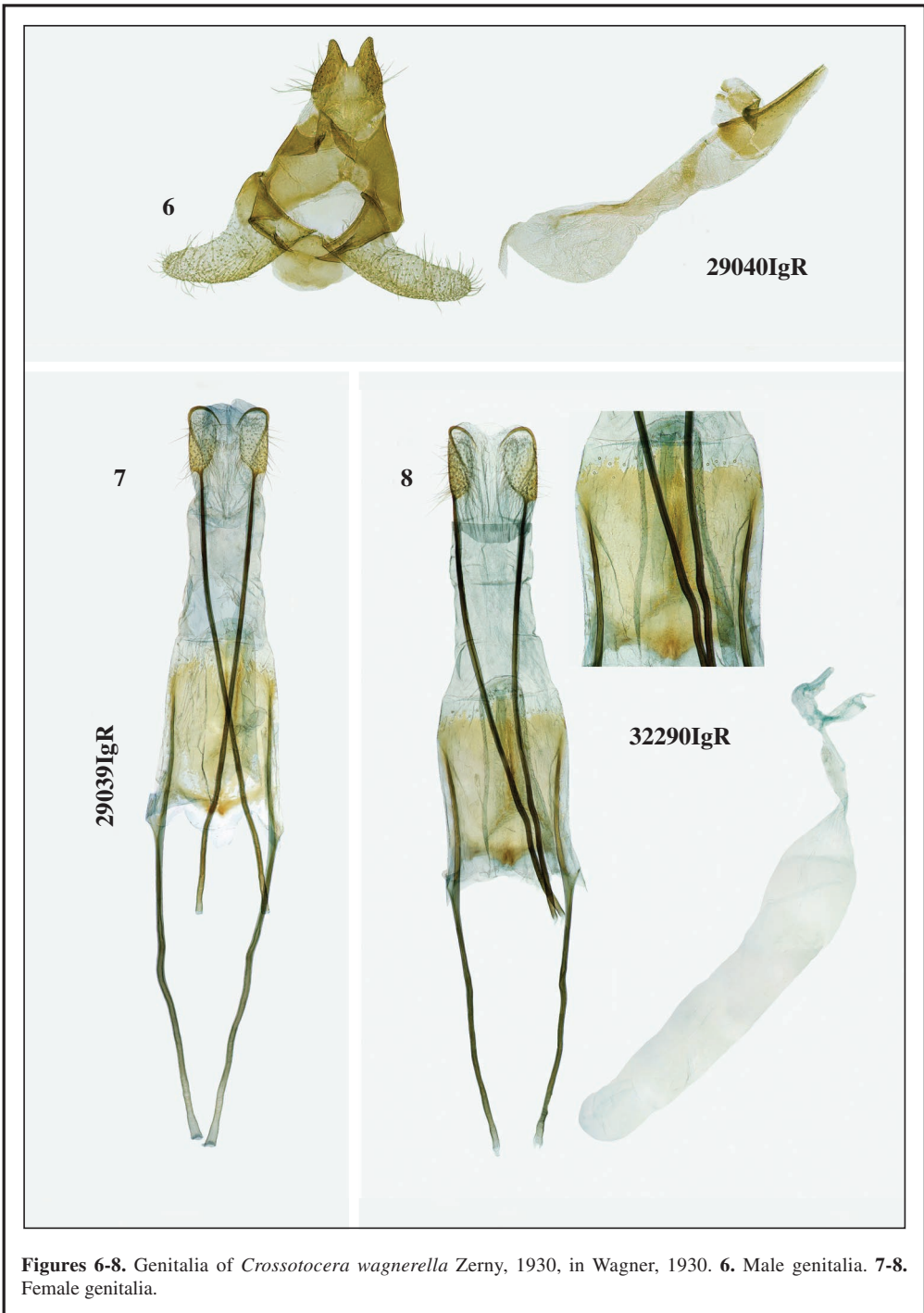
(Recibido para publicación / *Received for publication* 23-V-2022)

(Revisado y aceptado / *Revised and accepted* 27-VI-2022)

(Publicado / *Published* 30-III-2023)



Figures 1-5. *Crossotocera wagnerella* Zerny, 1930, in Wagner, 1930, North Macedonia. 1-2. Males. 3-4. Females. 5. Habitat near Krivolak in the Vardar valley.



Figures 6-8. Genitalia of *Crossotocera wagnerella* Zerny, 1930, in Wagner, 1930. **6.** Male genitalia. **7-8.** Female genitalia.