©Arbeitsgemeinschaft Österreichischer Entomologen, Wien, download unter www.biologiezentrum.at

Z.Arb.Gem.Öst.Ent.	63	37-42	Wien, 20. 5. 2011	ISSN 0375-5223

A new species of *Caryocolum* from Montenegro (Lepidoptera: Gelechiidae)

Peter HUEMER & Ole KARSHOLT

Abstract

A new species of Gelechiidae is described from the Durmitor NP (Montenegro). *Caryocolum srnkai* sp. n. is closely related to *C. confluens* HUEMER, 1988, from Greece but differs in external characters and in structures of the male genitalia. Habitus and male genitalia are figured, whereas the female remains unknown. Bionomics and habitat requirements of the new species are grossly unknown.

Key words: Lepidoptera, Gelechiidae, *Caryocolum srnkai*, new species, Montenegro, Durmitor.

Zusammenfassung

Eine neue Gelechiidae-Art wird aus dem Gebiet des Nationalparks Durmitor (Montenegro) beschrieben. *Caryocolum srnkai* sp. n. ist mit *C. confluens* HUEMER, 1988, aus Grichenland nahe verwandt, differiert aber in äußeren Merkmalen sowie in Strukturen der männlichen Genitalien. Habitus und männliche Genitalien werden abgebildet, während das Weibchen unbekannt ist. Die Bionomie und Habitatansprüche der neuen Art sind weitgehend unbekannt.

Introduction

With currently 50 described species the genus *Caryocolum* GREGOR & POVOLNÝ, 1954, is among the most species-rich genera of European Gelechiidae. It was recently treated in an identification handbook of European Gnorimoschemini (HUEMER & KARSHOLT 2010). In that book we tentatively referred a specimen from the Durmitor National Park in Montenegro to the otherwise endemic Greece species *C. confluens* HUEMER, 1988, following an earlier work by HUEMER & JAKŠIC (1996). Only during the printing stage we received additional material from Montenegro from Ignác Richter, and it thereby became clear to us that the population occurring there represents a species which is distinct from *C. confluens*. It is described below.

Abbreviations:

RICH coll. Ignác Richter, Prievidza, Slovakia.

TLMF Tiroler Landesmuseum Ferdinandeum, Innsbruck, Austria.

TOKA coll. Zdenko Tokár, Šal'a, Slovakia.

ZMUC Zoological Museum, University of Copenhagen, Denmark.

©Arbeitsgemeinschaft Österreichischer Entomologen, Wien, download unter www.biologiezentrum.at

Results

***Caryocolum srnkai* sp. n.** (Figs. 1-3)

Descripiton: Adult (Fig. 1). Wingspan 11-14 mm. Segment 2 of labial palp blackish brown mottled with cream-white, especially on inner surface; segment 3 black mottled with some cream-white, especially at tip. Antenna black, with weakly lighter ringeds. Face greyish white; neck fuscous; thorax and tegula black, the latter with white-grey tip. Forewing black mottled with some white, especially between indistinct black spots at 2/5 and 3/5; costal and tornal spots prominent, white; cilia grey, lighter towards tip. Hindwing grey, with grey cilia.

Variation: The type series shows slight variation in the distinctness of the black spots and in the amount of white scales in the forewing. The costal and tornal spots are normally separated, but they can be merged – occasionally only in one of the forewings.

Male genitalia (Figs. 2-3). Uncus broad, sub-quadrate, anterior margin straight; tegumen with deeply emarginated anterior margin; transtilla weakly sclerotized, covered with some minute spines; valva broadly shovel-shaped, apically with long and large dorsal and smaller ventral hump; sacculus a small digitate process, largely fused with valva; posterior margin of vinculum medially with ovoid emargination, lateromedially with pair of distinct digitate processes; saccus moderately long, slender, basal part broadened; phallus slender, straight; coecum inflated and about one third length of phallus.

Female genitalia: Unknown.

Diagnosis: *C. srnkai* sp. n. is very similar to the slightly smaller (wingspan 10-12 mm) *C. amaurella* (HERING, 1924) and probably not always possible to separate from this species without examination of the genitalia (which are quite different). Both species vary in a similar way. Dark specimens of *C. petryi* (HOFMANN, 1899) can also be similar, but they have normally orange-brown scales in the forewings. *C. confluens* HUEMER, 1988, has the labial palps and the head much lighter, and white patches at 1/5 and in middle of wing. The male genitalia of the new species prove a close relationship to the latter species but differ particularly in the large dorsal hump of the valva-apex which is distinctly larger than the ventral hump, a character almost without variation. In *C. confluens* these humps are of about the same size (Figs. 4-5). Furthermore the sacullus of *C. srnkai* sp. n. is smaller and the phallus is more slender with less inflated coecum than in *C. confluens*.

Material examined. Holotype: ♂, 'YU. Crna Gora Durmitor Sedlo [pass] 1907 [meter] 25.VII.1984 leg. Jakšic P. / GU 92/329♂ P. Huemer / interalbicella HS. / Photographed for Microlep. of Europe vol. 6, 2010' (TLMF).

Paratypes. 13 ♂♂, Montenegro, Durmitor, 1500-1900 m, 10.-11.vii.2007, leg. L. Srnka, GU 10/1324 P. Huemer, further genitalia preparations (in tubes) I. Richter 12970, 12971, 12981, 15099, 15104, 15105, 15106, 15107, 15108, 15109, 15110 (RICH, TOKA, ZMUC).

Etymology: The new species is named after Lubomir Srnka, who collected all paratypes.

Distribution: Known only from the type locality, Durmitor National Park in Montenegro.

Bionomics: Host-plant and early stages unknown but it is very likely that this species feeds on Caryophyllaceae as typical for *Caryocolum*. The type series was collected in July at light. The habitats are subalpine meadows, rock formations and scree on limestone with an altitudinal range from about 1500 to 1900 m.

©Arbeitsgemeinschaft Österreichischer Entomologen, Wien, download unter www.biologiezentrum.at

Fig. 1: *Caryocolum srnkai* sp. n., adult, paratype.

Discussion: The inventory of the European fauna of Lepidoptera is still far from finished and the discovery of new species not uncommon. Particularly in some families of Microlepidoptera the number of recently described species is surprisingly high, e.g. in families such as Nepticulidae, Gracillariidae, Elachistidae, Coleophoridae and, as proven recently, also in Gelechiidae (Huemer & Karsholt 2010). Of altogether 211 species of the tribe Gnorimoschemini from Europe described in this book not less than 15 species turned out to be undescribed. *Caryocolum* belongs to this tribe, and the number of recently recognized taxa is also high in this genus, with 11 out of 50 species described during the last 3 decades, most of them in a generic revision (Huemer 1988). Isolated descriptions of new species are frowned upon by many scientists and they can in fact cause serious problems, particularly in the absence of revisions. In the case of a new *Caryocolum* the situation is somewhat different. Due to monographic publications (Huemer 1988; Huemer & Karsholt 2010) the fauna of Europe is well known and all available names in the genus have been checked. Supplementary species such as *C. srnkai* sp. n. therefore can be described easily and within a reliable scientific frame but such new descriptions should be based on sufficient material. It seems very likely that additional taxa may be recognized when exploration of hitherto disregarded areas mainly in the Mediterranean, or in the mountain systems of the Balkans, will be improved. Furthermore new methods, particularly molecular data such as barcoding, will probably lead to a more complete picture of alpha-diversity in Europe (Huemer 2011).

Acknowledgments

We are most grateful to Predrag Jakšic (Belgrade, Serbia), Ignác Richter (Prievidza, Slovakia), Lubomir Srnka, (Lehota pod Vtáènikom, Slovakia and Zdenko Tokár (Šal'a, Slovakia) for making the important material available to us. Photographs were kindly taken by Stefan Heim (TLMF).

©Arbeitsgemeinschaft Österreichischer Entomologen, Wien, download unter www.biologiezentrum.at

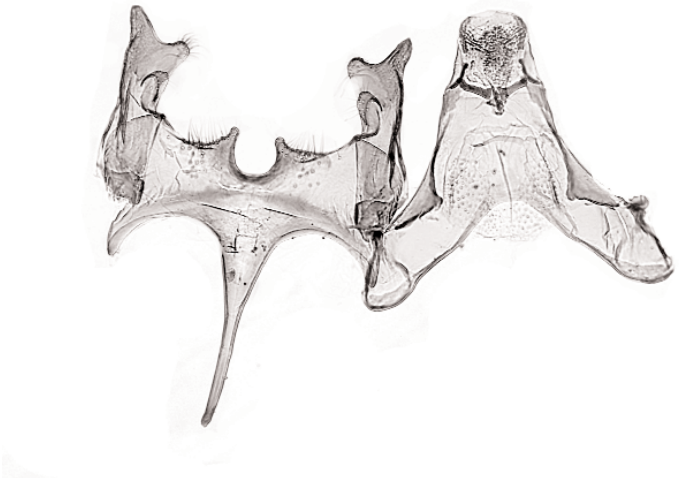

Fig. 2: *Caryocolum srnkai* sp. n., male genitalia, paratype.

Fig. 3: *Caryocolum srnkai* sp. n., male genitalia, phallus, paratype.

Fig. 4: *Caryocolum confluens*, male genitalia, paratype.

©Arbeitsgemeinschaft Österreichischer Entomologen, Wien, download unter www.biologiezentrum.at

Fig. 5: *Caryocolum confluens*, male genitalia, phallus, paratype.

REFERENCES

HUEMER, P. (1988): A taxonomic revision of *Caryocolum* (Lepidoptera, Gelechiidae). Bulletin of the British Museum (Natural History), Entomology series **57**: 439-571.

HUEMER, P. (2011): Pseudoendemism and cryptic diversity in Lepidoptera – case studies from the Alps and the Abruzzi. eco.mont **3**: (in press).

HUEMER, P. & JAKŠIC, P. (1996): Gelechiidae (Insecta, Lepidoptera). Fauna Durmitora **5**: 81-89.

HUEMER, P. & KARSHOLT, O. (2010): Gelechiidae II (Gelechiinae: Gnorimoschemini). In: HUEMER, P. KARSHOLT, O. & NUSS, M. (eds.): Microlepidoptera of Europe **6**: 1-586. Stenstrup.

Address of the authors:

Mag. Dr. Peter Huemer, Naturwissenschaftliche Abteilung, Tiroler Landesmuseen Betriebsgesellschaft m.b.H., Feldstr. 11a, A-6020 Innsbruck, Austria.

E-Mail: p.huemer@tiroler-landesmuseen.at

Ole Karsholt, Zoological Museum, Natural History Museum of Denmark, Universitetsparken 15, DK-2100 Copenhagen, Denmark.

E-mail: okarsholt@snm.ku.dk

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen

Jahr/Year: 2011

Band/Volume: 63

Autor(en)/Author(s): Huemer Peter, Karsholt Ole

Artikel/Article: A new species of Caryocolum from Montenegro (Lepidoptera: Gelechiidae). 37-41