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Caryocolum peregrinella (Herrich-Schäffer, 1854) new to Spain and notes on the biology (Lepidoptera: Gelechiidae)

R. J. Heckford

Abstract

Caryocolum peregrinella (Herrich-Schäffer, 1854) is reported new to Spain from Asturias and Cantabria, a larval description is given and two foodplants are identified.

KEY WORDS: Lepidoptera, Gelechiidae, *Caryocolum peregrinella*, foodplant, new report, Spain.

Caryocolum peregrinella (Herrich-Schäffer, 1854) nueva especie para España, y notas sobre la biología
(Lepidoptera: Gelechiidae)

Resumen

Se indica la presencia de *Caryocolum peregrinella* (Herrich-Schäffer, 1854) nueva para España, de Asturias y Cantabria, se da una descripción de la oruga y se identifican dos plantas nutricias.

PALABRAS CLAVE: Lepidoptera, Gelechiidae, *Caryocolum peregrinella*, planta nutricia, nueva cita, España.

Introduction

On 9-VII-1999, during a family holiday, I found several pupae and exuviae spun amongst frass at the base of a clump of *Silene ciliata* Pourret (Caryophyllaceae) growing on a large rock at Puertos de Áliva, Cantabria. *Caryocolum peregrinella* (Herrich-Schäffer, 1854) emerged later that month.

I visited the locality again on 4-VII-2001 and larvae were locally common amongst this plant. On 8-VII-2001 I went to Lago de la Ercina, Asturias, and found larvae amongst *Petrocoptis pyrenaica* (J. Bergeret) A. Braun ex Walpers, probably subspecies *glaucofolia* (Lag.) P. Monts. & Fernández Casas (Caryophyllaceae), growing in cracks on large rocks as well as one adult sitting on one of the rocks. Moths were reared later that month from both localities, which are in limestone mountains at an altitude of between 1120-1520 m.

This is the first record of the species from Spain and I believe that until now there has been no published description of the larva.

Description (Figs. 1, 2)

Wingspan 17-19 mm. Head white, with a narrow collar of black scales, thorax white, occasionally anterior half black, tegulae white occasionally with black scales anteriorly; antenna about three-quarters length of forewing, scape black, usually white at apex, flagellum black, ringed white becoming ringed grey distally; labial palpus white, segment 3 speckled black. Forewing white with scattered black scales on costa and occasionally with scattered blackish brown scales along dorsum, basal fascia reaching

dorsum, fascia at one-quarter reaching fold, sometimes interrupted, with a distinct, sometimes confluent, black spot in disc at outer edge of fascia, fascia at three-quarters reaching tornus, all fasciae black, varying amount of black scaling in apical and terminal areas; cilia white, with a black cilia line. Hindwing pale grey, cilia concolorous. Legs: foreleg, femur white with a few black scales, tibia black mixed white, tarsus black, white at joints; midleg femur white with a few black scales, tibia black with white scaling and a white medial band, tibial spurs white, tarsus black, white at joints; hindleg, femur white with a few black scales, tibia black with white markings near base and near medial and apical spurs, spurs white, tarsus black, white at joints, inner edge of hindleg tibia white with some black scaling, inner edge of hindleg tarsus white with some black marks. Abdomen pale greyish ochreous.

Male genitalia (Figs 3, 4): Uncus rounded. Gnathos with a broad base. Tegumen straight sided, gradually narrowing posteriorly. Transtilla weakly sclerotized, without spines. Valva not reaching uncus, sacculus shorter than valva, posterior margin of vinculum with a small lateral process and rounded medial emargination with small medial incision. Saccus long, slender and narrowing to apex. Aedeagus comparatively straight.

Female genitalia (Figs 5, 6): Papillae anales unremarkable, apophyses posteriores four times length of apophyses anteriores; antrum triangular, anterior margin concave; ductus bursae with a pair of comparatively short lateral sclerotizations posteriorly, otherwise membranous; corpus bursae sub-oval, signum with strong, comparatively short, hook.

Biology

HUEMER (1988: 480) states that the host-plant is unknown but notes that KLIMESCH (1968: 124) found larvae in the middle of June on an unidentified species of Caryophyllaceae. Dr. P. Huemer tells me (in litt.) that subsequent to his publication he collected larvae in silken tubes, covered with green frass, at the base of an unidentified species of *Silene* at Mount Olympus, Greece, but did not make a full description. His observations are referred to in HUEMER & KARSHOLT (2010: 258) who cite *Silene ciliata* and *Petrocoptis pyrenaica* probably subspecies *glaucifolia* as larval foodplants based on my then unpublished records. The larvae that I found fed on leaves at the base of the plants amongst silken spinings covered with green frass.

Larva, final instar: Head black, prothoracic plate black with a very narrow medial division of body colour; body dull ochreous yellow or dull greenish yellow, pinacula very small blackish brown; anal plate black; thoracic legs black, ventral and anal prolegs concolorous with body, with black crochets.

Pupa: Undescribed, in a strong white silken cocoon covered with green, granular, frass, spun amongst stems at the base of the foodplant, usually communally; exuviae yellowish brown, not extruded on emergence of the adult.

Remarks

Caryocolum peregrinella is one of the largest species of *Caryocolum* and is unlikely to be confused with any other species except for *C. trauniella* (Zeller, 1868), which is endemic to the south eastern Alps of Italy, Austria and Slovakia, and *C. delphinatella* (Constant, 1890), which occurs in the south western Alps of France, Switzerland and Italy, the French Pyrenees and the Abruzzi mountains in central Italy. Macroscopically *C. peregrinella* differs from *C. trauniella* in having a greater wingspan, 17-19 mm compared with 14 mm of *C. trauniella*, the sub-basal white area in *C. peregrinella* extends to the dorsum, although occasionally with scattered blackish brown scales along the dorsum, but does not do so in *C. trauniella*, and the hindwing of *C. peregrinella* is light grey whereas that of *C. trauniella* is dark grey. *C. peregrinella* also differs from *C. delphinatella* in wingspan, which in the latter is 15-16 mm, and the forewing usually has a white subcostal spot at about two-fifths within a blackish brown area, such spot being absent in *C. peregrinella*. *C. peregrinella* differs from both in the genitalia of both sexes, all of which are figured in HUEMER (1988), ELSNER, HUEMER & TOKÁR (1999) and HUEMER & KARSHOLT (2010).

In the males, the sacculus of *C. peregrinella* is comparatively broad and tapered distally whereas in *C. delphinatella* it is broad but rounded towards a pointed apex and in *C. trauniella* it is comparatively slender. The rounded medial emargination of the posterior margin of the vinculum in my specimens is not as deeply incised as in the illustration of *C. peregrinella* in HUEMER & KARSHOLT (2010: 428, fig. 165). It more closely resembles the illustration of *C. trauniella* in that publication (2010: 428, fig. 164). It does, however, agree with that of *C. peregrinella* in HUEMER (1988: 548, fig. 121) and ELSNER, HUEMER & TOKÁR (1999: pl. 28, fig. 249).

In the females of all three species the ductus bursae have lateral sclerotizations posteriorly that extend to only about one-third the length of the apophyses anteriores in *C. trauniella* and *C. peregrinella* but extend to about the tip of the apophyses anteriores in *C. delphinatella*. HUEMER (1988: 479) and HUEMER & KARSHOLT (2010: 257) state that the female genitalia of *C. trauniella* are characterised by the large signum, which is described as small to medium-sized in *C. peregrinella*.

Distribution

Outside of northern Spain the species is only known from the southern Alps (France, Italy, Slovenia and Austria), Bosnia and Herzegovina, Macedonia and Greece according to HUEMER & KARSHOLT (2010: 258), but ELSNER, HUEMER & TOKÁR (1999: 46) also give Ukraine.

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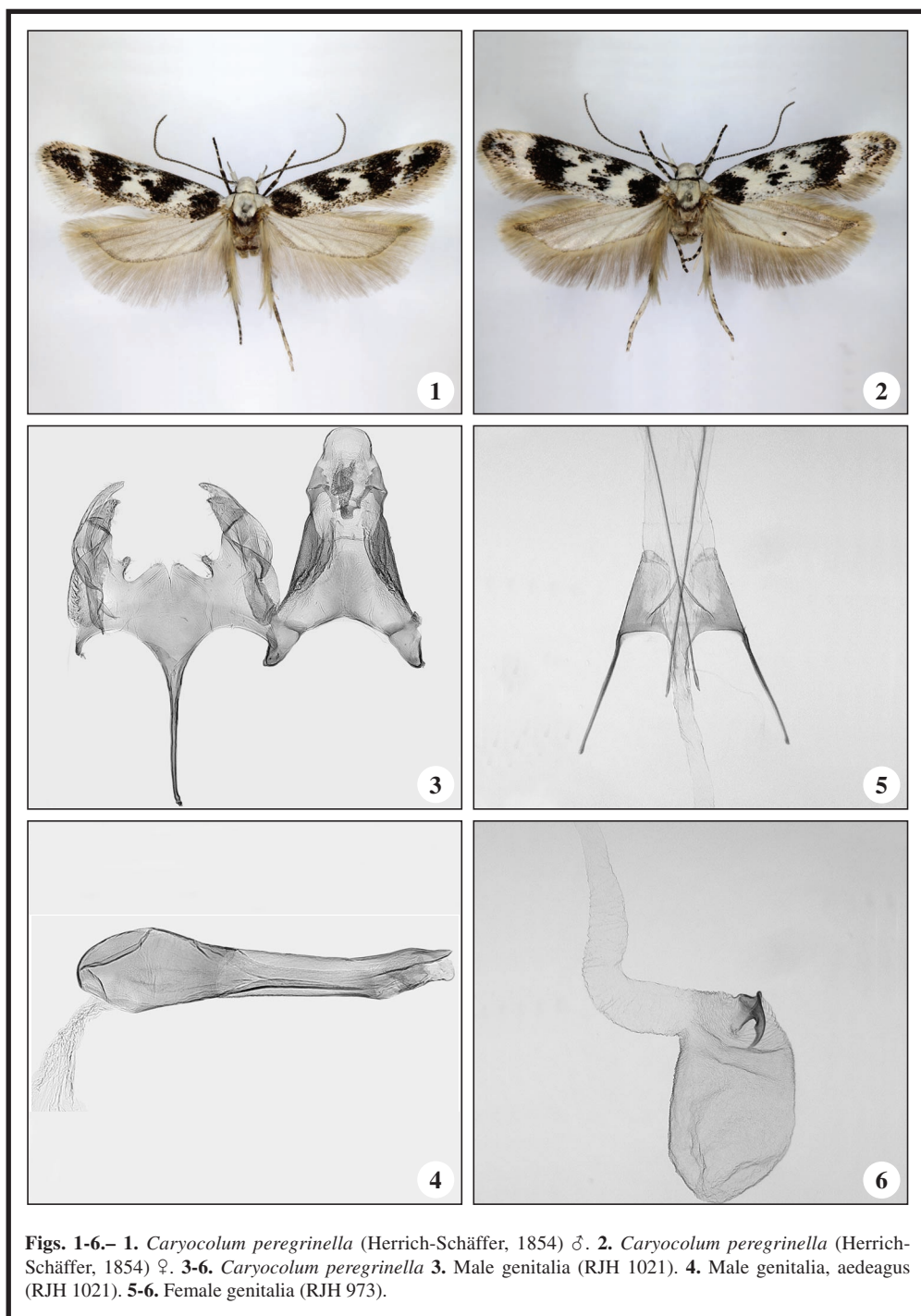
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Figs. 1-6.— 1. *Caryocolum peregrinella* (Herrich-Schäffer, 1854) ♂. 2. *Caryocolum peregrinella* (Herrich-Schäffer, 1854) ♀. 3-6. *Caryocolum peregrinella* 3. Male genitalia (RJH 1021). 4. Male genitalia, aedeagus (RJH 1021). 5-6. Female genitalia (RJH 973).