

Description of *Coleophora oreiosella* Baldizzone, sp. n. and new records on the distribution of some European Coleophoridae (Lepidoptera: Coleophoridae)

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Abstract

A new species of the genus *Coleophora* Hübner, 1822, *C. oreiosella* Baldizzone, sp. n., known to be found only in the Sierra Nevada, Spain, is described. New data on the distribution of some European species are provided. The male of *C. depunctella* Toll, 1961, is shown for the first time.

KEY WORDS: Lepidoptera, Coleophoridae, *Coleophora*, new species, new records, Europa.

Descripción de *Coleophora oreiosella* Baldizzone, sp. n. y nuevos registros sobre la distribución de algunos Coleophoridae europeos (Lepidoptera: Coleophoridae)

Resumen

Se describe una nueva especie del género *Coleophora* Hübner, 1822, *C. oreiosella* Baldizzone sp. n., sólo conocida de Sierra Nevada, España. Se proporcionan nuevos datos sobre la distribución de algunas especies europeas. Se muestra, por primera vez, el macho de *C. depunctella* Toll, 1961.

PALABRAS CLAVE: Lepidoptera, Coleophoridae, *Coleophora*, nueva especie, nuevos registros, Europa.

Introduction

Over the last years, I studied many indeterminate Coleophoridae specimens, both from private collections and from museums. This allowed me to gather much data on the distribution of several species, some of which are rather rare and localized. In particular, with regard to the area of former Yugoslavia, I have acquired many detailed data relative to the various republics into which that territory has been divided, Slovenia and Croatia in particular. The publication presents some of these data, while others will be the subject of future specific wildlife publications, such as on the fauna of the Coleophoridae of Slovenia, in collaboration with Stanislav Gomboc. A new species from Spain is also described, *C. oreiosella* Baldizzone sp. n., and the male genitalia of *C. depunctella* Toll, 1961 are illustrated for the first time.

* Contribution to the knowledge on Coleophoridae, CXXXIX

Abbreviations:

Bldz = Baldizzone.

BMNH = The Natural History Museum, London, UK.

JT = Jukka Tabell.

ZMUC = Zoological Museum, University of Copenhagen, Copenhagen, Denmark.

ZSM = Zoologische Staatssammlung, München, Germany.

***Coleophora oreiosella* Baldizzone, sp. n.**

Holotype ♂: "HISP.[ANIA] Sierra Nevada | Camino de la Veleta | 2050 m, 18-VII-1985, | G. Baldizzone y E. Traugott-Olsen" "Bldz PG n° 7525", coll. Baldizzone.

Paratypes: 1 ♂ (PG Bldz 4557) "Spanien | Sierra Nevada | Veleta | 2200 m | 12-7-1980 | leg. Gg. Derra", coll. Baldizzone; 1 ♂ (PG Bldz 8488) "Hispania | Andalucía | S[ier]ra Nevada | Cam[ino] de la Veleta | 2200 m | 1-7-1986 | E. Traugott-Olsen leg.", coll. ZMUC.

Diagnosis: A species characterized by the almost uniform ochreous shining colour, with thin white costal stripe. Based on the male genital structure, this species belongs to the group of *C. genistae* Stainton, 1857 and is closely related to *Coleophora svenssoni* Baldizzone, 1985. It differs from this species for the habitus, which is smaller, uniform and clear, and for the shape of the genitals, with more prominent and rounded sacculus and a smaller number of cornuti

Description (Fig. 1): Wingspan 10-11 mm. Head white, ochreous tinged. Antenna white, annulated with brown. Scape with a short tuft of pale brown scales. Labial palp brown, second article 0.5 x longer than third article. Thorax white, ochreous tinged. Forewing ochreous brown glossy; costal stripe white, very narrow, from base to near apex; costal fringe white, towards apex pale ochreous, dorsal fringe pale ochreous grey. Hindwing ochreous grey, fringe pale ochreous grey. Abdomen ochreous, lustrous.

Male genitalia (Figs 9, 10, 12): Gnathos knob. Tegumen stout, slightly constricted in the middle with moderately short pedunculi. Transtilla short, triangular. Valvula large, oval. Cucullus elongate, narrow, club shaped. Sacculus well sclerotized with oval protuberance elongated outwards. Phallosome conical, only dorsally sclerotized. Vesica transparent with five cornuti, of which the proximal ones are shaped like curved and slightly long needles and the distal one consisting of numerous small thorns gathered in a curved formation.

Female genitalia: Unknown.

Abdominal structures (Fig. 11): No posterior lateral struts. Transverse strut slightly convex, proximal margin broad. Tergal disks 3 x longer than wide, covered with 40-45 conical spines (3rd tergum).

Bionomy: The early stages and the food plant are not known.

Distribution: Known only from Spain, Sierra Nevada.

Origin of name: From Greek *ὄρειος* = highlander. It refers to the fact that all the specimens were collected at high altitude.

Coleophora ptarmicia Walsingham, 1910

SPAIN: Prov. Burgos, Villaquirán de los Infantes, Santa Barbara, 885 m, 5-VI-2009, 1 ♂, leg., coll. Lasan.

Distribution: Baltic countries, France, Italy, Sicily, Austria, Croatia, Czech Republic, Slovakia, Hungary, Bulgaria, Greece, Ukraine, Russia (Lower Volga), Turkey, Altai, China. **New for Spain and the Iberian Peninsula.**

Coleophora hiberica Baldizzone, 1985 (Fig. 2)

SPAIN: "Málaga, Spain, e. l. *Marrubium* sp. ex 14-VI-1901", 1 ♂; idem, 4-VI-1901, 1 ♂, coll. BMNH.

Note: The species is only known to be found in Spain. The food plant is still unknown, so it is

interesting to note that a Walsingham specimen was bred from *Marrubium* sp. Unfortunately, there was no larval case.

Coleophora lineolea (Haworth, 1828)

BULGARIA: 5 km N Sandanski, 150-200 m, 23-27-V-2010, 1 ♂, leg. Karsholt, coll. ZMUC.

Distribution: Almost all of Europe, Morocco, S Siberia, heading east towards the Altai. **New for Bulgaria.**

Coleophora praecursella Zeller, 1847 (Fig. 3)

GREECE: "Corfu, IV-1872, Wlsm. 84601", 1 ♀, coll. BMNH.

Distribution: Very rare and localized species, known to be found only in a few localities of southern France, central Italy, Sicily. **New for Greece.**

Coleophora klimeschiella Toll, 1952

BULGARIA: 5 km N Sandanski, 150-200 m, 23-27-V-2010, 1 ♀, leg. Karsholt, coll. ZMUC; 15 km N Sandanski, 5 km E Ilidentsi, 900 m, 27-V-2010, 1 ♀, leg. Karsholt, coll. ZMUC.

Distribution: Hungary, Romania, Greece, Southern Russia, Turkey, Caucasus, Turkmenistan, Pakistan, USA (introduced). **New for Bulgaria.**

Coleophora moehringiae Burmann, 1967 (Fig. 4)

SLOVENIA: Julijske Alpe, Velo Polje pod Triglav, 1690 m, 7-VII-2013, 1 ♂, leg. Rekelj, coll. Gomboc.

Distribution: Up to now, the known locations were situated within a limited mountainous area between Lombardy and Trentino, in the eastern Italian Alps. **New for Slovenia.**

Coleophora aleramica Baldizzone & Stübner, 2007

SLOVENIA: Pohorje, Uršija gora, Smrekov, 950 m, 16-VII-2004, 1 ♂, leg., coll. Gomboc.

Distribution: Italy, Sicily, Austria, Slovakia, Hungary, Croatia, Montenegro, Macedonia, Greece, Turkey, Jordan. **New for Slovenia.**

Coleophora variicornis Toll, 1952

SLOVENIA: Notranjska, Unec, Cerje, Stari grad, 9-VII-2009, 1 ♂, leg., coll. Gomboc.

Distribution: Spain, Italy, Switzerland, Germany, Slovakia, Poland, Hungary, Ukraine, Croatia, Macedonia, Albania, Bulgaria, Greece, Turkey. **New for Slovenia.**

Coleophora pulchripennella Baldizzone, 2011

MONTENEGRO: Sveti Stefan, Crvena glavica kamp, 12-VII-2010, 1 ♀, leg., coll. Bassi.

Distribution: Widespread throughout the Mediterranean region, from France and the Iberian Peninsula, to Italy, Croatia, Greece (including Crete and several smaller islands) and Turkey; it is also known to be found in Malta and Tunisia. **New for Montenegro.**

Coleophora serpylletorum E. Hering, 1889

BULGARIA: 10 km NE Balich, Topola, 100 m, 29-30-V-2010, 1 ♂, leg. Karsholt, coll. ZMUC.

Distribution: Almost all of Europe (with the exception of Scandinavia), Turkey, S Siberia. **New for Bulgaria.**

Coleophora flaviella Mann, 1857

BULGARIA: 15 km N Sandanski, 5 km E Ilidentsi, 900 m, 27-V-2010, 1 ♀, leg. Karsholt, coll. ZMUC.

Distribution: Portugal, Spain, France, Italy, Sicily, Germany, Austria, Czech Republic, Slovakia, Croatia, Hungary, Romania, Greece, Turkey, Iran, Libya. **New for Bulgaria.**

Coleophora vicinella Zeller, 1849

BULGARIA: 5 km E Balich, Tuzlata, 10-100 m, 29-30-V-2010, 1 ♀, leg. Karsholt, coll. ZMUC.

Distribution: Central and Southern Europe, Ukraine, Russia (Lower Volga), Turkey, Armenia, Northern Africa, Iran. **New for Bulgaria.**

Coleophora vibicigerella Zeller, 1839

SLOVENIA: Črni Kal, Soceb, 330 m, 17-V-1999, 1 ♂, leg., coll. Lasan.

Distribution: Present throughout most of Europe, Ukraine, Russia, North Africa, Kazakhstan, Kyrgyzstan, Altai, China, Korea. **New for Slovenia.**

Coleophora vulnerariae Zeller, 1839

BOSNIA & HERZEGOVINA: Sarajevo, surroundings Bjelašnica, 1208 m, 5-VI-2009, 5 ♂♂, 1 ♀, leg., coll. Gomboc.

Distribution: Throughout most of Europe, Russia (Lower Volga), Morocco. **New to Bosnia & Herzegovina.**

Coleophora glaseri Toll, 1961 (Fig. 5)

CROATIA: Strahinšica, Strahinje Radobojsko forest, 356 m, 20-VII-2014, 1 ♀, leg., coll. Gomboc.

Distribution: Found in Austria, Czech Republic, Slovakia, Hungary and Bulgaria. **New for Croatia.**

Coleophora tauricella Staudinger, 1880

MACEDONIA: Ohrid, 9-16-VI-1959, 1 ♀ leg. Klimesch, coll. Baldizzone.

Distribution: Localized species known to be found in southern Italy, Croatia, Bulgaria, Greece, Turkey, Palestine, Syria, Jordan. **New for Macedonia.**

Coleophora insulicola Toll, 1942

GREECE: Peloponnesos, Zachlorou (Kalavryta) 20-30-VI-1958, 1 ♀; ibidem, 26-VI-3-VII-1963, 2 ♂♂, 1 ♀; ibidem, 14-VII-1963, 1 ♀, leg. Klimesch, coll. ZMS.

Distribution: Portugal, Spain, France, Italy, Sicily, Sardinia, Croatia, Albania. **New for Greece.**

Coleophora sternipennella (Zetterstedt, 1839)

MONTENEGRO: Durmitor, dint. of Zabljak, 1700-2000 m, 15-VII-2010, 1 ♀, leg. coll. Bassi.

Distribution: Throughout most of Europe, Caucasus, Russia (Lower Volga, Siberia, Transbaikalia), Korea, Japan. **New for Montenegro.**

Coleophora dentiferella Toll, 1952

CROATIA: Istra, Barban, Melnica, 175 m, 2-V-2003, 1 ♂, leg., coll. Lasan.

Distribution: France, Italy, Austria, Slovakia, Czech Republic, Hungary, Montenegro, Macedonia, Bulgaria, Greece. **New for Croatia.**

Coleophora anitella Baldizzone, 1985 (Fig. 6)

CORSICA: "Corte, Corsica, 22-V-1896, Wlsm. 83637", 1 ♂, coll. BMNH.

Distribution: Rare and localized species, known only to be found in Spain, southern France, Italy, Sardinia. **New for Corsica.**

Coleophora depunctella Toll, 1961 (Fig. 7)

CROATIA: Dalmatia, Makarska, Topiæi, 3-15-VIII-1988, 1 ♀, leg., coll. Wolschrijn, det. van det Wolf. BULGARIA: Kresna, 21-22-VI-2000, 1 ♂, leg., coll. Junnilainen, det. Tabell.

Distribution: Known to be found only in Macedonia and Greece, recently reported in Croatia (Southern Velebit) (RICHTER & PASTORÁLIS, 2015). **New for Bulgaria.**

Only the female of this species was known. Below is the description of the male genitalia.

Male genitalia (Fig. 14, 16, 17): Oval gnathos knob. Tegumen restricted in the middle with long pedunculi. Transtilla narrow at the base and wide at the apex in a clavate form. Very small valvula, with rounded ventral edge. Cucullus short and stout. Sacculus with a rounded horn-shaped protuberance in the ventral angle, a very hollow outer edge and a sharper protuberance in the dorsal angle. Phallosome with two thin and different juxta rods, the longer one featuring a pointed tooth at the apex, the other in the distal half being divided into two parts, which then gather at the apex. Cornutus, in the form of a harpoon, consisting of 2-3 spines of different lengths.

Note: The genitals are similar to those of *C. solitariella* Zeller, 1849, with evident differences especially in the structure of the outer edge of the sacculus, which is much hollower and with larger and longer protuberances.

Coleophora scabrida Toll, 1959

BULGARIA: 5 km N Sandanski, 150-200 m, 23-27-V-2010, 1 ♀, leg. Karsholt, coll. ZMUC.

Distribution: Sweden, Baltic States, Denmark, Portugal, Spain, France, Italy, Germany, Poland, Croatia, Macedonia, Romania, Russia (Lower Volga). **New for Bulgaria.**

Coleophora galatellae M. Hering, 1942 (Fig. 8)

SPAIN: Prov. Burgos, Villaquirán de los Infantes, Santa Barbara, 885 m, 5-VI-2009, 1 ♂, leg., coll. Lasan.

Distribution: France, Italy, Germany, Czech Republic, Slovakia, Hungary, Ukraine, Russia (Crimea, Southern Urals). **New for Spain and the Iberian Peninsula.**

Coleophora peribenanderi Toll, 1943

GREECE: Ftiotis, 2 km N Kamena Vourla, 5-VII-1985, 1 ♂, leg. Skou & Skule, coll. Baldizzone; Peristeron E of Saloniki, Volvi sea, 25-V-1995, 1 ♂, leg. Baisch, coll. Baldizzone.

Distribution: Northern and Central Europe, Great Britain, Belgium, France, Italy, Romania, Ukraine, Russia (Lower Volga), Caucasus, Korea. **New for Greece.**

Coleophora kyffhusana Petry, 1898

BULGARIA: Balgarevo, 3 km E, 95 m, 25-26-VII-2018, 1 ♂, leg., coll. Tokár.

Distribution: Sweden, Latvia, Germany, Poland, Italy, Slovakia, Hungary, Greece, Southern Russia. **New for Bulgaria.**

Coleophora striatipennella Nylander, 1848

CROATIA: Bedekovščina, Lug Poznanovečki, 182 m, 27-VIII-2016, 1 ♂, leg., coll. Gomboc.

Distribution: Almost all of northern and central Europe, Portugal, Spain, France, Italy, Slovenia, Montenegro, Macedonia, Caucasus, Russia (Kola, Lower Volga, Urals, Siberia, Altai). **New for Croatia.**

Coleophora nutantella Mühlgr. & Frey, 1857

BULGARIA: 15 km N Sandanski, 5 km E Ilidentsi, 900 m, 27-V-2010, 1 ♀, leg. Karsholt, coll. ZMUC.

Distribution: Baltic countries, central and southern Europe, Turkey, Armenia, Iran, southern Siberia as far as Altai, Morocco. **New for Bulgaria.**

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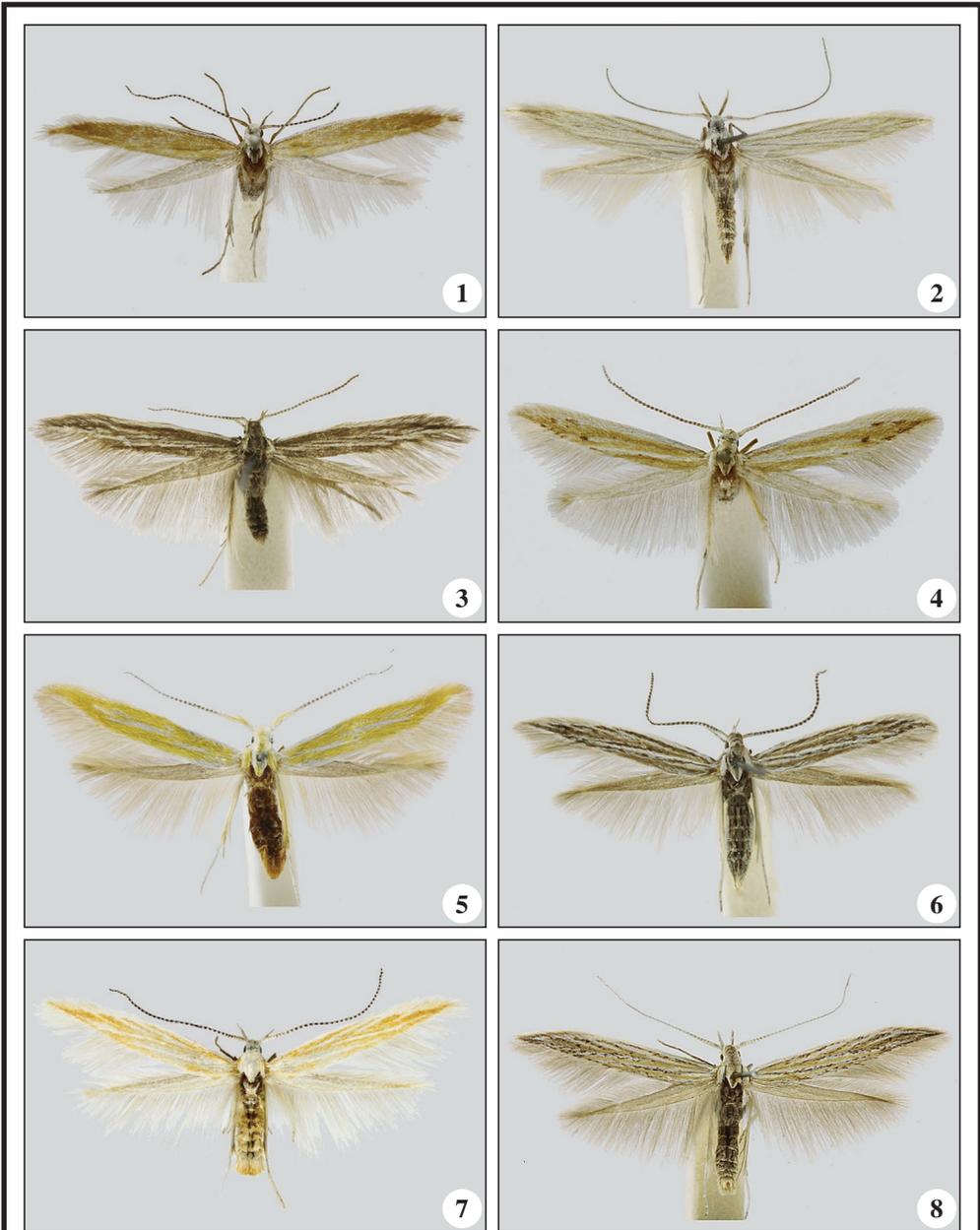
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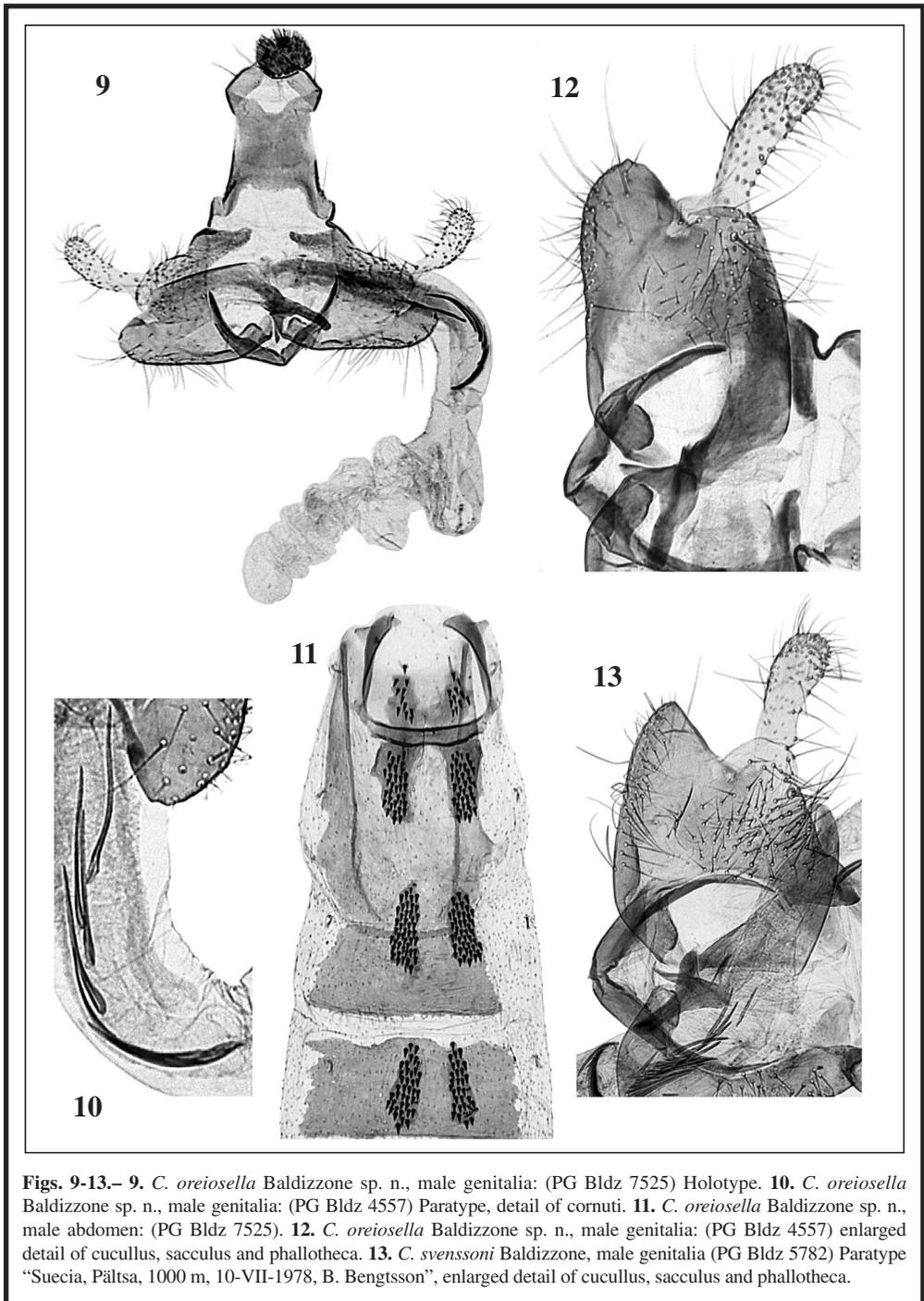
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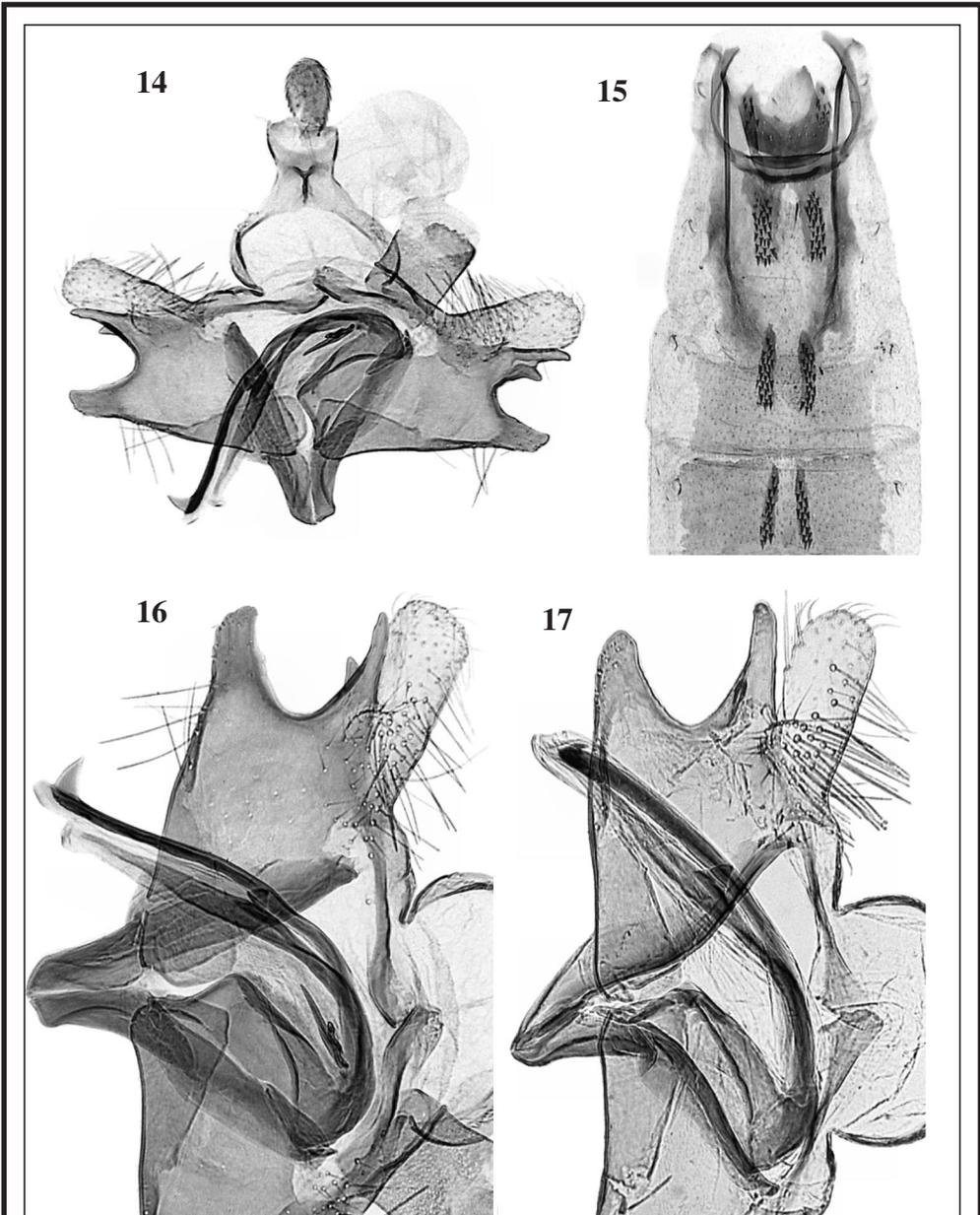
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Figs. 1-8.– 1. *Coleophora oreiosella* Baldizzone sp. n., Holotype ♂ (abdomen dissected). 2. *C. hiberica* Baldizzone ♀ (wingspan 13 mm). 3. *C. praecursella* Zeller ♀ (12 mm). 4. *C. moehringiae* Burmann ♀ (adomen dissected, 11 mm). 5. *C. glaseri* Toll ♀ (12 mm). 6. *C. anitella* Baldizzone ♀ (10 mm). 7. *C. depunctella* Toll ♂ (12 mm) [photo Richter]. 8. *C. galatellae* E. M. Hering, ♂ (13 mm).



Figs. 9-13.– 9. *C. oreiosella* Baldizzone sp. n., male genitalia: (PG Bldz 7525) Holotype. 10. *C. oreiosella* Baldizzone sp. n., male genitalia: (PG Bldz 4557) Paratype, detail of cornuti. 11. *C. oreiosella* Baldizzone sp. n., male abdomen: (PG Bldz 7525). 12. *C. oreiosella* Baldizzone sp. n., male genitalia: (PG Bldz 4557) enlarged detail of cucullus, sacculus and phallosome. 13. *C. svenssoni* Baldizzone, male genitalia (PG Bldz 5782) Paratype “Suecia, Pältsa, 1000 m, 10-VII-1978, B. Bengtsson”, enlarged detail of cucullus, sacculus and phallosome.



Figs. 14-17.– 14. *C. depunctella* Toll, male genitalia: (PG Bldz 14148) Greece, Larissa, Olympos Mts., 11 km NE Kalvia, 1850 m, 20-VII-1998, B. Skule & D. Nillson leg. 15. *C. depunctella* Toll, abdomen genitalia. 16. *C. depunctella* Toll, male genitalia, enlarged detail of cucullus, sacculus and phallosome. 17. *C. depunctella* Toll, male genitalia: (PG JT 3346), Bulgaria, Kresna, 21-22-VI-2000, J. Junnilainen leg., enlarged detail of cucullus, sacculus and phallosome.