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TWO INTERESTING SPECIES OF ELACHISTID MOTH:
DEPRESSARIA ERYNGIELLA, NEW TO ITALY,
AND *DEPRESSARIA HALOPHYLELLA*
(Lepidoptera, Elachistidae)

INTRODUCTION

We reported two interesting records for Italian Microlepidoptera fauna. *Depressaria eryngiella* Millière, 1881 was recorded for the first time in Italy, while *Depressaria halophylella* Chretien, 1908, is new for the Continental Italy.

We documented approaches and case scenarios for identifying the specimens and discussed them in the following text.

Depressaria eryngiella Millière, 1881

RECORDS. Italy, Pescina (AQ), 29.IX.2005, M. Pinzari leg.

MATERIAL AND METHODS. Singleton male was collected by Mario Pinzari on the 29th September 2005 near Pescina (L'Aquila), 1000 m, in Central Italy (fig. 1). The individual was attracted to lamp Mixed Light 160 W.

The species was identified by dissection of the genitalia using for the taxonomic identifications characters reported by Lvovsky (1996, 2001). Genital parts were mounted on microscopic slide (1 ♂, gen. praep. DEPRE 70, Manuela Pinzari) that was shown in fig. 1. The specimen was preserved in the private collection of Mario Pinzari (Roma, Italy).

DISTRIBUTION. *D. eryngiella* was known from France, Spain, Ukraine, Turkmenistan, Uzbekistan, Kazakhstan, Iran, Iraq (Lvovski, 2001), but it was considered absent in Italy (Lvovsky, 1995, 2001; Karsholt & Nieuwerkerken, 2011).

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Fig. 1 – *Depressaria eryngiella* Millière, 1881: adult (up); male genitalia (low, gen. slide DEPPE 70, Manuela Pinzari). Scale bar = 5 mm.

BIOLOGY. Larvae feed on leaves lower side of *Eryngium campestre* (L.) (Hannemann, 1953; Lvovsky, 2001).

DISCUSSION AND CONCLUSIONS. *Depressaria eryngiella* Millière, 1881 is a *veneficella*-group species that includes twelve species (Lvovsky, 1996). In Italy only three *veneficella*-group species are already mentioned in Lvovsky (1995): *D. discipunctella* Herrich-Schäffer, 1854, known in the Northern Italy and in Sicily and found recently in the Central Italy (Pinzari et al., 2010); *D. cervicella* Herrich-Schäffer, 1854, known in the Northern Italy; *D. veneficella* Zeller, 1847, found in Sicily and Sardinia.

The key for the determination of *Depressaria* species of the *veneficella*-group based on male genitalia was published in Lvovsky (2001). Here, specimens from Russia and neighboring countries were considered, while the mediterranean species, as *D. pentheri* Rebel, 1904 (male unknown), *D. deverrella*



Fig. 2 – *Depressaria halophylella* Chretien, 1908: adult (up), male genitalia (low, gen. slide DEPRE 205, Manuela Pinzari). Scale bar = 5 mm.

Chrétien, 1915, *D. erzurumella* Lvovsky, 1995 and *D. ivinskisi* Lvovsky, 1990 were not examined.

Our specimen has the aedeagus with a single cornutus; this is equal to 3/4 of aedeagus length; moreover, at the vinculum, saccus is long, noticeably exceeding its basal width. On the basis of these features we can exclude the three species mentioned for Italy and identify the species as *eryngiella* Millière, 1881. In fact, this species cannot be confused with:

- a) *discipunctella* Herrich-Schäffer, 1854 and *veneficella* Zeller, 1847, because these species have long saccus but cornutus is less than half as long as aedeagus;
- b) *cervicella* Herrich-Schäffer, 1854, because this species has short cornutus and short saccus, not exceeding its basal width.

Additionally, on the basis of the length of saccus we can leave out all other *veneficella*-group species not mentioned in Lvovsky (2001). In fact, in the

key for the determination of *Depressaria* proposed by Lvovsky in the 1996, *D. deverrella*_Chrétien, 1915 was separated from *D. campestrella* Chrétien, 1896 (*eryngiella* synonym, Hanneman, 1983) on the basis of saccus and valva length. In *D. deverrella*, saccus is long 2/3 of valva length, while in *D. campestrella* and in our specimen, it is half as long as valva. Instead, *D. campestrella* is distinct from *Depressaria erzurumella* Lvovsky, 1995, because this species shows very small cornutus comparing with aedeagus.

In the end, *D. ivinskisi* Lvovsky, 1990 was separated from *D. campestrella*, because the first has the top of valva obtuse, while the second has the top of valva sharp (Lvovsky, 1996).

Therefore, we considered the specimen collected as *D. eryngiella* Millière, 1881.

***Depressaria halophylella* Chretien, 1908**

RECORDS: Casale dei Contumaci, Tenuta di Castelporziano (RM), 1 ♂, 14-21.IV.2005, P. Maltzeff leg.

MATERIAL AND METHODS. Singleton male was collected by Paolo Maltzeff on 14-21 April 2005 on roman coast within the Presidential estate of Castelporziano (Rome) in Central Italy (fig. 2-A). The individual was attracted to lamp Mixed Light 160 W.

The species was identified by dissection of male genitalia using for the taxonomic identifications characters reported by Hannemann (1953) and Laar (1964). Genital parts were mounted on microscopic slide (1 ♂, 14-21.IV.2005, gen. slide DEPRE 205, Manuela Pinzari that was shown in fig. 2. The specimen was preserved in the private collection of Mario Pinzari (Roma, Italy).

DISTRIBUTION. *Depressaria halophylella* Chretien, 1908 was recorded in France and in Italy limited to Sicily (Lvovsky, 1995; Karsholt & Nieuwerkerken, 2011).

BIOLOGY. The host plant is the Sea Fennel, *Crithmum maritimum* L., as reported by Hannemann (1953). This plant is widely distributed in Italy from North to South at 0-10 m of altitude and it was recorded on the dunes within the Presidential estate of Castelporziano.

DISCUSSION AND CONCLUSIONS. *Depressaria halophylella* Chretien, 1908, is a *heracliana*-group species which includes about ten species (Hannemann, 1953). *D. halophylella* is closely related to *D. ultimella* Milliere, 1981, but the second is considered absent in Italy although is widely distributed in Europe from Spain to Iraq. Hannemann (1953) gave the key of determination for *hera-*

cliana-group species based on male genitalia. This allows to tell apart the two species. In particular, *D. ultimella* shows inside vesica five cornuti, while *D. halophylella* a greater number of cornuti.

Our specimen has fourteen cornuti that are located inside the vesica in two parallel rows; cornuti are different in dimensions within the same row: basal cornuti are larger than distal ones.

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SUMMARY

Two interesting Elachistid moths were collected in Italy. *Depressaria eryngiella* Millière, 1881 is recorded for the first time in Italy, while *Depressaria halophylella* Chretien, 1908, known only for Sicily, is new for the Continental Italy.

RIASSUNTO

Due interessanti specie di Elachistidi: Depressaria eryngiella, nuova per l'Italia, e Depressaria halophylella (Lepidoptera, Elachistidae).

Due interessanti Elachistidi sono stati raccolti in Italia: *Depressaria eryngiella* Millière, 1881, nuova per l'Italia e *Depressaria halophylella* Chretien, 1908, nota solo per la Sicilia, nuova per l'Italia continentale.

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