Four Olethreutinae new to the Italian fauna from Tuscan-Romagnol Appennines (Lepidoptera, Tortricidae)

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Abstract

*Lobesia andereggiana* (Herrich-Schäffer, 1851), Ancylis rhenana (Müller-Rutz), Eucosma agnatana (Christoph) and Lathronympha balearici Diakonoff (Lepidoptera, Olethreutinae) are reported for first time from the Italian fauna. The four species of Lepidoptera Tortricidae were collected from the Tuscan-Romagnol Appennines in the upper Acerreta Valley.

Introduction

Our report focuses on four Lepidoptera Tortricidae species from the Olethreutinae subfamily that are new to the Italian fauna: *Lobesia andereggiana* (Herrich-Schäffer, 1851), Ancylis rhenana Müller-Rutz, 1920, Eucosma agnatana (Christoph, 1872) and Lathronympha balearici Diakonoff, 1972. The four species were captured by Adelmo Usvelli, an Italian naturalist and entomologist, from around the Badia Valley, in the province of Florence in the upper Acerreta Valley. The territory, located in the northern side of the Apennines, is administratively assigned to the province of Florence but biogeographically falls in Romagna (Zangheri P., 1966-70) (Figure 1).

In order to list the different species, we follow the arrangement adopted by Razowski (2003) and Brown (2005); biology, hosts and distribution are from Trematerra (2003) above all, with some modifications suggested by Aarvik (2013).

*Lobesia andereggiana* (Herrich-Schäffer, 1851)

Olethreutinae, tribe Olethreutini

MATERIAL EXAMINED. 1 male, Romagna Marradi Fl, Badia Valle, m. 430, L. Usvelli, 1.VII.91; 1 male, *idem*, 5.VII.99.

DIAGNOSIS. Externally *Lobesia andereggiana* is similar to *L. virulentata mieana* (Falck & Karsholt, 1998) (Figure 2); however, the male genitalia differ. In *L. andereggiana*, male genitalia present sacculus concave in middle ventrally, then strongly convex to form a finger like a spiny process; incision before angle of sacculus distinct, this last with a group of longer spines anteriorly (Figure 3).

DISTRIBUTION. *L. andereggiana* is a Western Palaearctic species known in Central and Southern Europe (France, Switzerland, Austria, Slovenia, Croatia, Slovakia, Romania), the Taurus Mountains and the Asia Minor.

BIOLOGY. An univoltine species; moths are collected in June-July. In Crimea, it flies in early May-June (Budashkin, 1993). Larva feeds in the leaves, flowers and fruits of the *Dianthus carthusianorum* L.

Ancylis rhenana Müller-Rutz, 1920

Olethreutinae, tribe Enarmonini

MATERIAL EXAMINED. 1 male, Romagna Marradi Fl, M. Bruno, m.

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Figure 1. Schematic representation of the study area.
700, L. Usvelli, 26.VII.00; 1 female, Romagna Marradi Fl, Badia Valle, m. 430, L. Usvelli, 28.VII.00; 1 female, idem, 21.VIII.00; 1 female, idem, 24.VIII.00.

DIAGNOSIS. Ancylis rhenana is similar to A. badiana (Denis & Schiffermüller, 1775) and A. paludana (Barrett, 1871) (Figure 4). Compared to the A. paludana, the male genitalia of the A. rhenana cucullus are shorter, ventro-anteriorly more expanding, the termination of the sacculus sharper, and the female anteostial sterigma and colliculum are shorter (Figure 5).

DISTRIBUTION. Europe (Finland, Estonia, Latvia, Germany, Switzerland, Austria).

BIOLOGY. Adults collected in April-May and in July; in our case A. rhenana was also captured in July and August. Host unknown; according to Razowski (2003) Ancylis larvae spin leaves from deciduous trees, often from the Betulaceae and Salicaceae, or they feed on fruits.

Eucosma agnatana (Christoph, 1872)

Olethreutinae, tribe Eucosmini

MATERIAL EXAMINED. 1 female, ROMAGNA: RA, M. Mauro, L.G. Fiumi, 6,9.88; 1 male, Romagna Marradi Fl, Badia Valle, m. 430, L. Usvelli, 24.VIII.00.

DIAGNOSIS. The Eucosma agnatana adult is similar to the E. fericitana (Zeller, 1847) (Figure 6). E. agnatana is reported by Razowski (2003) among E. albipulana (Herrick-Schäffer, 1851) and E. apocrypha (Falkovitch, 1964). In male genitalia of E. agnatana the caudal angle of the sacculus is rather weakly rounded; the neck of the valve is moderately broad; the ventral incision is distinct; the ventral lobe of the cucullus is short; the caudal edge of cucullus convex medially (Figure 7). In female genitalia the postostial part of the sterigma is rather large; cingulum median; the signa pair are large and rather equal (Figure 8).

DISTRIBUTION. Southern part of East Europe, Central and Southern Europe, Russia, Asia Minor, Kazakhstan, Kirgizia, Mongolia.

BIOLOGY. Moths collected in August-September. Larvae recorded in Artemisia fragrans Willd., A. nutants Willd. and A. monogyna Waldst. & Kit. (Razowski, 2003).

Lathronympha balearici Diakonoff, 1972

Olethreutinae, tribe Grapholitini

MATERIAL EXAMINED. 1 female, Romagna Marradi Fl, Badia Valle, m. 430, L. Usvelli, 24.VII.91; 1 female, idem, 30.VII.91; 1 male, idem, 3.VIII.91; 1 female, idem, 20.VIII.92; 1 male, idem, 16.VI.94; 2 males, idem, m. 500, 28.VII.97; 1 female, Romagna Marradi Fl, Ponte Valle, m. 500, L. Usvelli, 29.VII.97; 1 male, idem, 08.VI.1999, A. Usvelli legit; 1 male, idem, 26.VII.99; 1 female, idem, 05.VIII.1999, A. Usvelli legit; 1 male, idem, 31.VII.2000, idem; 1 male, idem, 03.VII.2000, idem; 2 males, idem, 26.VII.2000, idem; 1 male, idem, 05.VI.2003, idem; 1 male, idem, 23.VII.2003, idem.

DISTRIBUTION. Balearic Islands (Mallorca) (Diakonoff, 1982); in the list of Fauna Europaea, a record in Estonia (Aarvik, 2013) was also reported.

BIOLOGY. Moths collected in May and October, in our case adults of L. balearici, were also found in June-July and August. Larva beaten from Hypericum balearicum L. (Diakonoff, 1982). According to the distribution of the species food plants need more information.

DIAGNOSIS. Lathronympha balearici is similar to L. sardinica Trematerra, 1995 (Figure 9). L. balearici can be identified in male genitalia by slender, tapering and terminally curved aedeagus (Figure 10); in female genitalia sterigma is short, with an expanding distal part, and rounded proximally (Figure 11).
Figure 6. *Eucosma agnata* (Christoph): adult.

Figure 7. *Eucosma agnata* (Christoph): male genitalia.

Figure 8. *Eucosma agnata* (Christoph): female genitalia.

Figure 9. *Lathronympha balearici* Diakonoff: adult.

Figure 10. *Lathronympha balearici* Diakonoff: male genitalia.

Figure 11. *Lathronympha balearici* Diakonoff: female genitalia.
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