

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

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Abstract

Lobesia andereggiana (Herrich-Schäffer), *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).

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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 FI, Badia Valle, m. 430, L. Usvelli, 1.VII.91; 1 male, *idem*, 5.VII.99.

DIAGNOSIS. Externally *Lobesia andereggiana* is similar to *L. virulenta 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 Enarmoniini

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



Figure 1. Schematic representation of the study area.

700, L. Usvelli, 26.VII.00; 1 female, Romagna Marradi FI, 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 FI, Badia Valle, m. 430, L. Usvelli, 24.VIII.00.

DIAGNOSIS. The *Eucosma agnatana* adult is similar to the *E. fervidana* (Zeller, 1847) (Figure 6). *E. agnatana* is reported by Razowski (2003) among *E. albidulana* (Herrich-Schäffer, 1851) and *E. apocrypha* (Falkovitsh, 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 FI, Badia Valle, m. 430, L. Usvelli, 24.VII.91; 1 female, *idem*, 30.VII.91; 1 male, *idem*, 3.VIII.91; 1 male, *idem*, 23.VIII.91; 1 female, *idem*, 20.VIII.92; 1 male, *idem*, 16.VI.94; 1 female, *idem*, 8.VI.96; 2 males, *idem*, m. 500, 28.VII.97; 1 female, Romagna Marradi FI, 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.V.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 2. *Lobesia andereggiana* (Herrich-Schäffer): adult.



Figure 3. *Lobesia andereggiana* (Herrich-Schäffer): male genitalia.



Figure 4. *Ancylis rhenana* Müller-Rutz: adult.



Figure 5. *Ancylis rhenana* Müller-Rutz: male genitalia.



Figure 6. *Eucosma agnatana* (Christoph): adult.



Figure 9. *Lathronympha balearici* Diakonoff: adult.

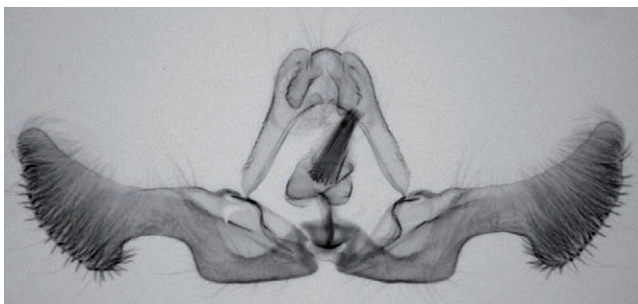


Figure 7. *Eucosma agnatana* (Christoph): male genitalia.

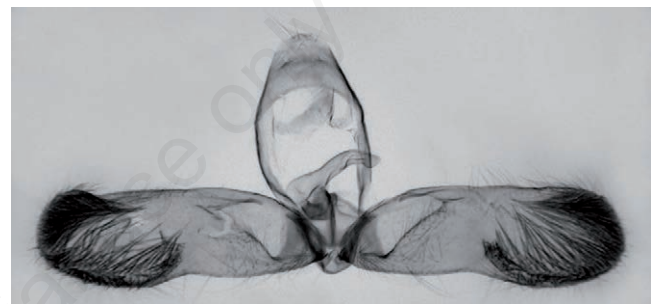


Figure 10. *Lathronympha balearici* Diakonoff: male genitalia.

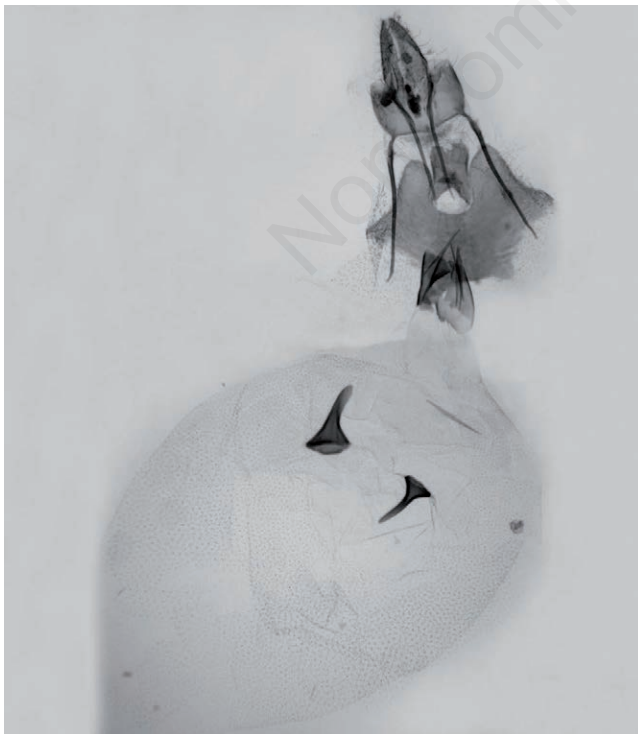


Figure 8. *Eucosma agnatana* (Christoph): female genitalia.

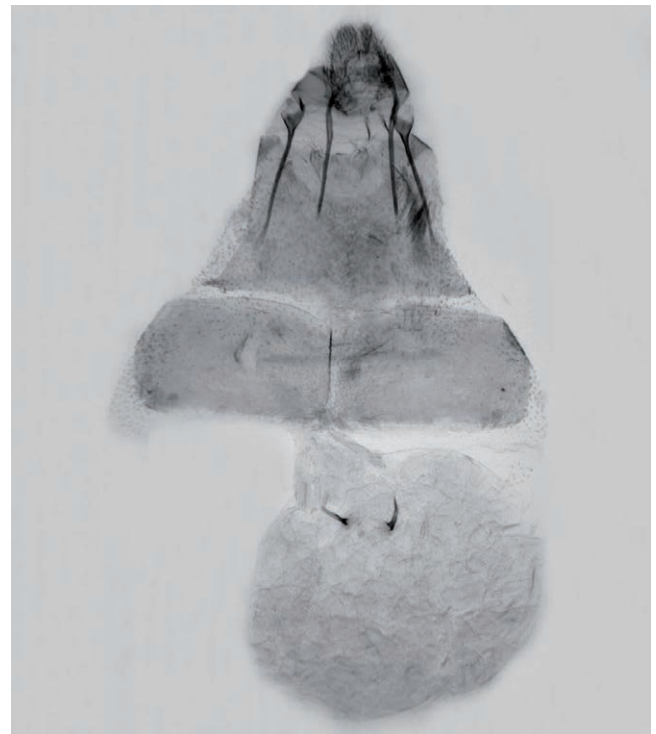


Figure 11. *Lathronympha balearici* Diakonoff: female genitalia.

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