

On the identity of the Turkish species of the *Eriogaster rimicola*-group (Lasiocampidae)

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Abstract. *Bombyx rimicola inspersa* Staudinger, 1879 **stat. rev.** is raised from the rank of subspecies of *Eriogaster rimicola* ([Denis & Schiffermüller], 1775) to the rank of a separate species, with a new synonym *Eriogaster nippei* de Freina, 1988 **syn. n.** A lectotype for *Bombyx Rimicola* Hb. var. *Inspersa* Staudinger, 1879 is designated from the collection of the Museum für Naturkunde, Humboldt-Universität, Berlin. A new subspecies, *Eriogaster rimicola cahama* **ssp. n.** is described (type locality: Western Turkey, Kizilcahaman). Distribution data are given for the species of the *rimicola*-group in Turkey.

Zusammenfassung. *Bombyx rimicola inspersa* Staudinger, 1879 **stat. rev.** wird aus dem Rang einer Unterart von *Eriogaster rimicola* ([Denis & Schiffermüller], 1775) in den Rang einer eigenen Art erhoben. Damit ergibt sich folgende neue Synonymie: *Eriogaster nippei* de Freina, 1988 **syn. n.** Eine Lectotypus von *Bombyx Rimicola* Hb. var. *Inspersa* Staudinger, 1879, wird aus dem Material des Museums für Naturkunde, Humboldt-Universität zu Berlin designiert. Eine neue Unterart, *Eriogaster rimicola cahama* **ssp. n.**, wird aus [Asia minor] Westtürkei, Kizilcahaman, hier beschrieben. Verbreitungsdateien werden für die Arten der *rimicola*-Gruppe der Türkei angegeben.

Резюме. *Bombyx rimicola inspersa* Staudinger, 1879, изымается из подвидов к *Eriogaster rimicola* ([Denis & Schiffermüller], 1775) и рассматривается в ранге самостоятельного хорошего вида, что приводит к установлению новой синонимии: *Eriogaster nippei* de Freina, 1988, **syn. n.** Для *Bombyx Rimicola* Hb. var. *Inspersa* Staudinger, 1879, обозначен лектотип из коллекции университета имени А. Гумбольдта в Берлине. Описан новый подвид *Eriogaster rimicola cahama*, **ssp. n.** с типовым местонахождением: Asia min., Kizilcahaman. Для видов группы *rimicola* фауны Турции даны данные по распространению.

Introduction

The type series of *Eriogaster rimicola inspersa* (Staudinger) was investigated in August 2005 during my revisional work of the type specimens of the Lasiocampidae of the collection of the Museum für Naturkunde, Humboldt Universität, Berlin (ZMHB). This study led to two quite unexpected results. Firstly, the type series of *inspersa* is not conspecific with *Eriogaster rimicola* ([Denis & Schiffermüller], 1775) from Europe, but is conspecific with *Eriogaster nippei* de Freina, 1988. This means that the subspecies of *Eriogaster rimicola* from Turkey, which is distinct from that of Europe, is yet unnamed. Thus *Bombyx rimicola* var. *inspersa* Staudinger is removed here from the rank of a subspecies of *rimicola* and raised to the rank of a separate species, *E. nippei* de Freina is synonymized with it, and a new subspecies of *E. rimicola* is described from Turkey.

Abbreviations

CAHU	collection of Armin Hauenstein (Untermühkheim-Schöneberg, Germany)
CMSW	collection of Manfred Ströhle (Weiden, Germany)
MWM	Entomologisches Museum Thomas Witt (München, Germany)
SMNK	Staatliches Museum für Naturkunde (Karlsruhe, Germany).
ZMHB	Museum für Naturkunde, A. Humboldt-Universität, Berlin (Germany)

Eriogaster inspersa* Staudinger, 1879, stat. rev.*Figs 7–10, 16**

Bomb. Rimicola Hb., var. *Inspersa* Staudinger, 1879: 356. Type locality: “bei Mersin”. Lectotype: male (ZMHB), here designated.

Eriogaster nippei de Freina, 1988: 379, figs 2, 3. **syn. n.** Locus typicus: [Turkey] Kleinasien, Prov. Isparta, westl. Taurus, Kovada gölü, 1000 m. Holotype: male (MWM).

Material. Lectotype ♂ and 1♂, 2♀ paralectotypes of *Bombyx rimicola inspersa* Staudinger (see Taxonomic notes below). Holotype ♂ of *E. nippei* de Freina, **Turkey**, Anatolia, Taurus, Kovada göl, 1000 m, iv.1971, Czipka leg. (MWM); 1♂ paratype of *E. nippei* de Freina, Taurusgebirge (Türkei), 30 km S von Antalya, 5.iii.1985, ex l., leg. Nippe (MWM); 2♂, Türkei, Prov. Hakkari, 37°29'N, 43°06,5'E, Tanin Daglari, 1250 m, 3 km Ö Mutluca, 0,5 km W Basharan Köy, 23.iv.1987, LF, leg. W. Wolf (MWM); 1♀, Antalya Umg., 10 hm, 50 m, 29.iii.1989, leg. S. Ortner (MWM); 2♂, Prov. Adana, ca 20 km N Kozen, 37°39'27"N, 35°51'60"E [sic!], 600 m, 27.–28.iii.2000, leg. H. & P. Kautt (CAHU); 2♂, Türkei, Antalya, Umg. Antalya, 50 m, 25.iii.1986, leg. H. Ortner (CAHU); 2♂, Taurus, Anatolia, Kovada-göl, iv.1971, Czipka leg. (SMNK); 39♂, 6♀, Prov. Mersin, Güllmar, 10 km südl., 800 m, 8.–10.iii.1972 (CMSW); 1♂, Türkei, Prov. Bilecik, Bilecik, 700 m, 25.iii.1997, M. Ströhle leg. (CMSW); 6♂, 1♀, Prov. Burdur, Yesilova, Güney, 1200 m, 26.iii.1972 (CMSW); 2♂, Prov. Corum, Corum, 800 m, 27.iii.1993, M. Ströhle leg. (CMSW); 10♂, 15♀, Prov. Kizilcahaman, Ankara, 700 m, 10.iii.1994 ex ovo, M. Ströhle leg. (CMSW).

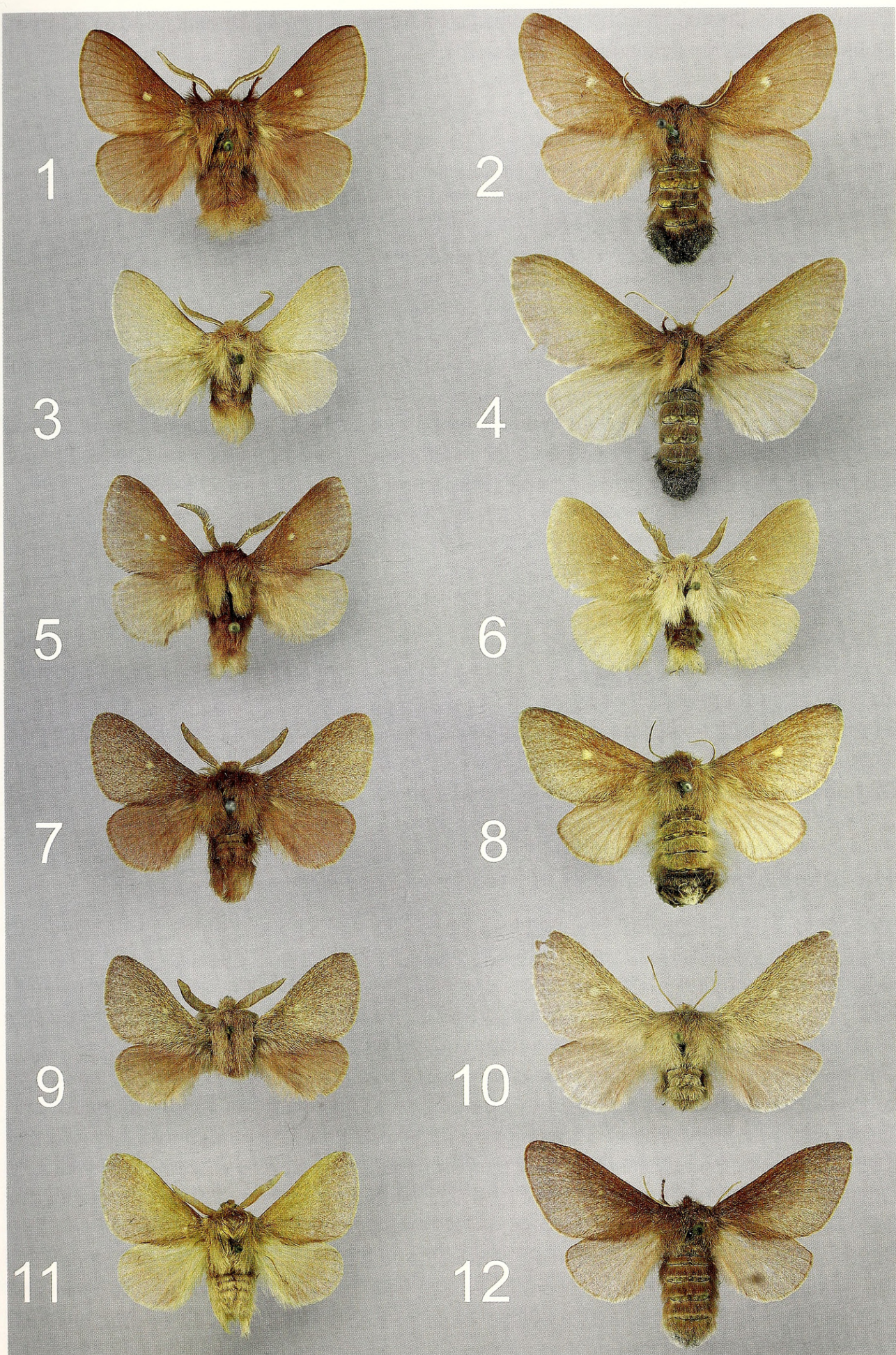
Diagnosis. The species differs externally from the European *E. rimicola* as well as from its Turkish subspecies in being darker and stouter, with a shagreen ground color and an indistinct discal spot. It is slightly but constantly larger (wingspan: 31–33 mm in males and about 37–38 mm in females), and darker (especially in the coloration of the hind wing) than *rimicola*. The differential features between both species are given by J. de Freina (1988) in his description of *nippei*.

Male genitalia (Fig. 16). Without tergal appendages, with short bilobed valvae and flattened, broad, plate-like vinculum with rudimentar saccus. Phallus tubular, slightly curved, with dorsal opening of vesica, without cornuti.

Taxonomic notes. In the original description of *inspersa* Stgr., four specimens were mentioned as “Ich besitze hiervoor zwei Paare” (Staudinger, 1879: 356). Both pairs are preserved in ZMHB. From these, a male bearing the following labels is designated as the lectotype: ‘Mersina | Ld’ <hand-written on yellowish paper>, ‘Origin.’ <printed on pink paper>, ‘ex coll. Staudinger’ <printed on white paper>, ‘Coll. HU-Berlin | Lasiocampidae | V. Zolotuhin prep. | GU 2005-18’ <printed within a black frame on white paper>, and ‘Lectotype | *Bombyx Rimicola* | *Inspersa* Stgr, 1879 | V. Zolotuhin des.’ <printed on red card stock>. The other three specimens are designated paralectotypes and were given appropriate red labels.

Remarks. In contrast to the other species of the group, which are active from late autumn to early winter, *E. inspersa* is on the wing in March–April. As far as known, the range of

Figs 1–12. *Eriogaster* species. **1.** *E. rimicola rimicola* Den. et Schiff., male, Wien, e. l. IX 1935, Fr. Popp (MWM). **2.** *E. rimicola rimicola* Den. et Schiff., female, München, Allach, 25.IX 1917, leg. Dr. Schneider (MWM). **3.** *E. rimicola cahama* ssp. nov., male, holotype (MWM). **4.** *E. rimicola ?hackeri* de Freina, female, Iraq, Zawita Dohuk, 1–3.XII 1977, leg. Topal & Zilahy (MWM). **5.** *E. rimicola hackeri* de Freina, male, Turkey, Prov. Icel, 7 km NW of Kayaci, 1000 m, 34°10'E, 36°42'N, 21.X 1993, leg. Gy. Fábíán, B. Herczig, Gy. László and K. Szeőke (MWM). **6.** *E. rimicola hackeri* de Freina, male, holotype (MWM). **7.** *E. inspersa* Stgr., male, lectotype of *Bombyx Rimicola* Hb. var. *Inspersa* Staudinger (ZMHB). **8.** *E. inspersa* Stgr., female, paralectotype of *Bombyx Rimicola* Hb. var. *Inspersa* Staudinger (ZMHB). **9.** *E. inspersa* Stgr., male, holotype of *Eriogaster nippei* de Freina (MWM). **10.** *E. inspersa* Stgr., female, Türkei N, Antalya Umg., 10 hm, 50 m, 29.III 1989, leg. S. Ortner (MWM). **11.** *E. philipsi* Bartel, male, Pal[ästina], Tel-Aviv, e. l. 12.XI [19]52, Byt.-Salz (MWM). **12.** *E. philipsi* Bartel, female, Palästina, 1907, Sohaw (MWM).



E. inspersa is limited to Turkey (Provinces of Adana, Antalya, Bilecik, Burdur, Corum, Hakkari, Isparta, Kizilcahaman, and Mersin).

***Eriogaster rimicola cahama* ssp. n.**

Figs 3, 14

Material. Holotype ♂, 'Asia min[or]. | Kizilcahaman | 10.10.1977 | Friedel leg. | coll. Th. Witt | München/Weiden', 'Holotype | *Eriogaster* | *rimicola* | *cahama* sp. n. | des. V. Zolotuhin' <printed on red card stock> (MWM). – Paratypes: 39 ♂ with same data as holotype (MWM); 1 ♂, [Turkey] Anatolien, Kizilcahaman, x.1970, Pinker leg. (MWM); 1 ♂, Asia min., Kizilcahaman, 11.–13.xi.1977, Friedel leg. (MWM); 1 ♂, Turkey, Prov. Ankara, Camlidere, 1500 m, 32°25'E, 40°26'N, 8.x.1988, Szaboky leg. (MWM).

Description. Adult male (Fig. 3). Wingspan 23–28 mm. Wings and body light brownish rosy, fore wings short and broad, with rounded outer margin and with slightly darker costal edge and indistinct round discal spot sometimes absent. Cilia dull brownish-rosy, uninterrupted.

Male genitalia (Fig. 14). Without tergal appendages, with narrow vinculum and slender saccus; valvae short and compact, with lower membranous setose lobe. Phallus tubular, slightly curved, with short apical spur, vesica without cornuti.

Diagnosis. This subspecies differs from the nominate subspecies by its smaller size (wing-span: 23–26 mm, rarely reaching 28 mm, in contrast to the 25–31 mm of the nominate subspecies), softer and lighter ground colour, and remarkable reduction of the whitish discal spot of the forewing. There are no significant differential features in the male and female genitalia from the nominate subspecies (Fig. 14). From *E. inspersa* it can be differentiated easily by the narrow (not plate-like) vinculum and distinct, slender (not rudimental) saccus, and more compact valvae.

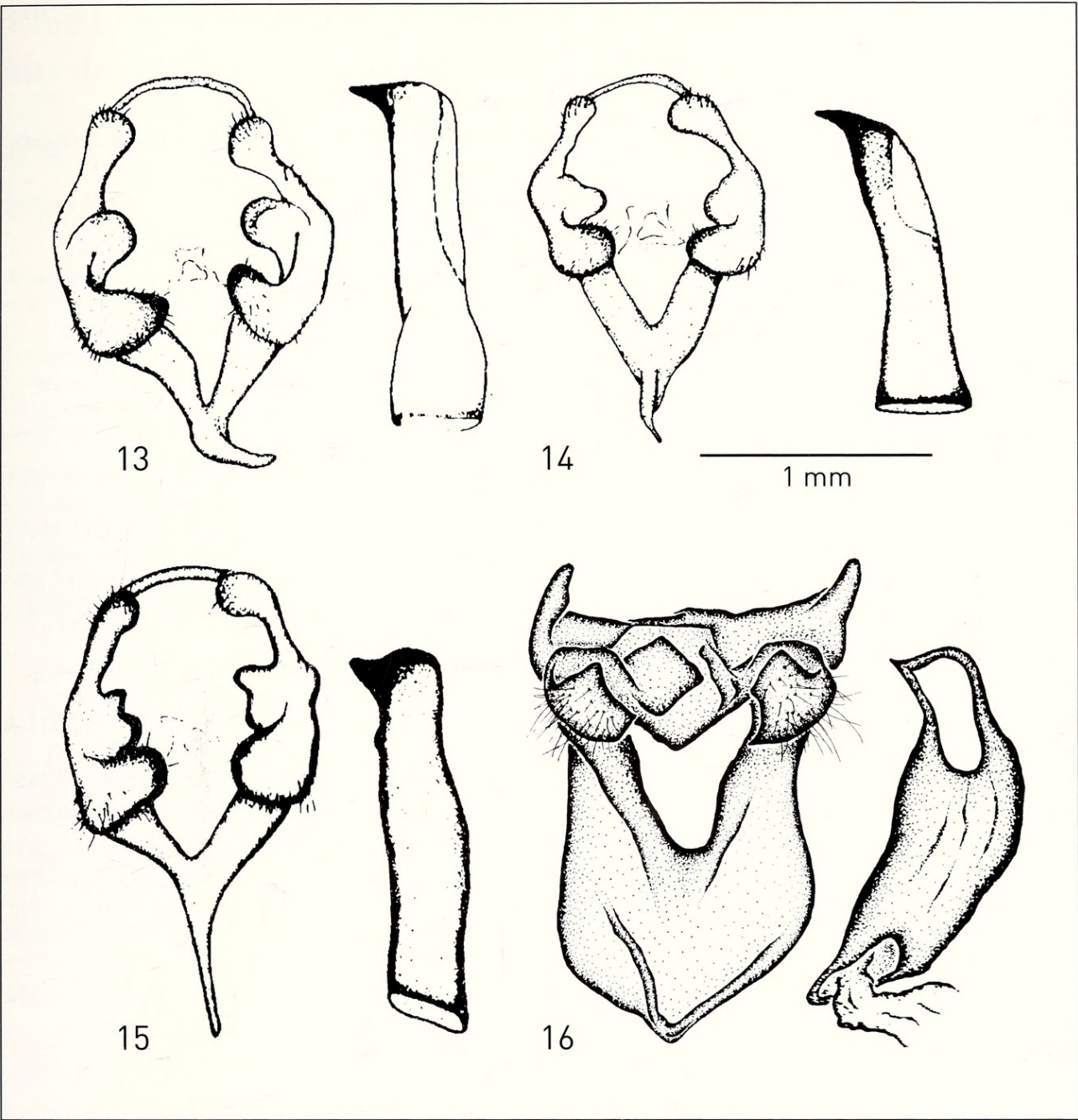
Etymology. The epithet “cahama” originates from “Kizilcahaman”, the name of the type locality.

Distribution. Western, northern, and central Turkey.

The other *Eriogaster* species of Turkey

Eriogaster is represented in the fauna of Turkey by five more members of the *pfeifferi*-group and the *lanestris-catax*-group. Surprisingly, so far no species of subgenus *Autosphylla* Rambur, 1866 are known from Turkey whereas *E. (A.) neogena* F. de Waldheim [1823] 1823-1824 and *E. (A.) henkei* Staudinger, 1879 are known from neighboring territories where they have been found in late autumn in arid biotopes.

One more subspecies of *Eriogaster rimicola* Hbn. is known from Turkey, *E. r. hackeri* de Freina, 1999. It is characterized by a larger size (wingspan: 32–34 mm in males) and darker brownish-rosy ground color (Figs 5, 6). Its distribution is limited to eastern Turkey (Prov. Tokat, Icel, Konya, Erzurum, Erzincan, Kütahya) and Iraq (based on 17 males, 2 females, Iraq, Zawita Dohuk, 1-3.XII.1977, leg. Topal & Zilahy in MWM). Probably this was the subspecies that was mentioned by Wiltshire (1957: 43) as “*Eriogaster philippsi* Bart. ? subsp. n.” with the following comment: “Inhabits oak woods in the mountains. Univoltine, probably flying in early November. The larva feeds on oaks (*Quercus*) and is gregarious in flat webs usually at the roots of trees. Their position is thus different from that of the typical *philippsi* of the Lebanon, whose webs are high in oak branches.



Figs 13–16. Male genitalia of *Eriogaster* species (from de Freina, 1988 and 1999, with changes). **13.** *E. rimicola rimicola* Den. & Schiff., Hungary. **14.** *E. rimicola cahama* ssp. nov., western Turkey. **15.** *E. rimicola hackeri* de Freina, male, Turkey, Erzurum. **16.** *E. dispersa* Stgr., male, holotype of *Eriogaster nippei* de Freina.

The larval coloration differs. Unfortunately efforts to rear the adults from larvae at Shaqlawa and Salah-ud-Din were unsuccessful and the adult has not yet been captured”. *Eriogaster philippsi* Bartel, 1904 is the smallest member of the group; it has the forewing with a light ash-rose ground color and a dark yellowish costal field. It is known from Palestine, Syria, Israel, and Jordania, and flies between November and January. It is yet unknown in Iraq, where only *E. rimicola hackeri* appears to be native. Similar moths, but probably not belonging to ssp. *hackeri* are also known from south-western Iran (Fars: Kazerun).

Thus, the complex of species of the *Eriogaster rimicola*-group can be considered as consisting of the following members in Turkey:

Eriogaster rimicola hackeri de Freina, 1999: figs 3j–4b; pl. 11, figs 13–15

Type locality: Turkey, Prov. Erzurum, Siganlı Dagl., Ovit-Paß, 10 km NW Ispir, 1450–1500 m. Holotype: male (MWM).

Eriogaster rimicola cahama Zolotuhin, ssp. n.

Type locality: Turkey, Kizilcahaman.

Eriogaster inspersa Staudinger, 1879

Type locality: Turkey, Mersin.

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References

- Freina J., de 1988. 5. Beitrag zur systematischen Erfassung der Bombyces- und Sphinges-Fauna Kleinasien. Eine neue *Eriogaster*-Art, *Eriogaster nippei* spec. n. aus dem Taurus (Lepidoptera, Lasiocampidae). – *Atalanta*, Würzburg **18**: 379–383.
- Freina J., de 1999. 10. Beitrag zur systematischen Erfassung der Bombyces- und Sphinges-Fauna Kleinasien. Weitere Kenntnisse über Artenspektrum, Systematik und Verbreitung der Lasiocampidae, Lemoniidae, Notodontidae, Thaumetopoeidae, Lymantriidae, Arctiidae und Cymatophoridae (Insecta, Lepidoptera). – *Atalanta*, Würzburg **30**: 187–257.
- Staudinger, O. 1879. Lepidopteren-Fauna Kleinasien's. – *Horae Societatis entomologicae Rossicae* **14**: 176–482.
- Wiltshire E. P. 1957. The Lepidoptera of Iraq. – Adlard & Son, Bartholomew Press, Dorking, 162 pp.



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