

## Some considerations on the genus *Thetidia* and description of a new genus: *Antonechloris* gen. nov.

(Lepidoptera, Geometridae)

by

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**Summary:** Because *plusiaria* not representing well all the other species belonging to the previous genus *Euchloris* and now included in *Thetidia*, the new genus *Antonechloris* (type species *smaragdaria*) is described for them.

**Riassunto:** Viene descritto il nuovo genere *Antonechloris* poichè la specie tipo *Euchloris* non rappresenta in maniera valida tutte le specie incluse precedentemente nel genere *Euchloris* ed ora appartenenti a *Thetidia*.

### Introduction

The genus *Thetidia* was described by BOISDUVAL (1840) in *Genera Ind. meth. eur. Lepid.* p. 189 (type species *Thetidia plusiaria* BOISDUVAL, 1840, l.c., by designation by DESMAREST, 1857, in CHENU's *Encyclopedia*, vol. 2, p. 153). This name has been used as a replacement name for *Euchloris* HÜBNER, [1823] (type species *Phalaena smaragdaria* FABRICIUS, 1787, *Mantissa Insect.* 2:192 by monotypy), a junior homonym of *Euchloris* BILLBERG, 1820, *Enumeratio Insect. Mus. G. J. BILLBERG*, p. 23 (Coleoptera).

PROUT (1912:212) noted that *Euchloris* was heterogeneous and described a new genus *Aglossochloris* (type species by original designation: *Phorodesma fulminaria* LEDERER, 1870) closely related to *Euchloris* (i.e. *Thetidia*).

Reading the description of the genus *Euchloris* made by PROUT (1912) one could notice that only the species *plusiaria* presents characters different from others included in *Euchloris* and common to those of *Aglossochloris*. In accordance to the general appearance of species (i.e. ground colour, general wing pattern, nervation) *plusiaria* does not represent well the other species belonging to the previous genus *Euchloris* and now included in *Thetidia*.

### Description

To clarify this situation, and since *Phorodesma* BOISDUVAL, 1840 being not available because it is a synonym of *Comibaena* HÜBNER, [1823], I propose the following situation:

- *Thetidia* BOISDUVAL, 1840 (type species *Thetidia plusiaria* BOISDUVAL, 1840)
- *Aglossochloris* PROUT, 1912 (type species *Phorodesma fulminaria* LEDERER, 1870)
- ***Antonechloris*** gen. nov. (type species *Phalaena smaragdaria* FABRICIUS, 1787)

**Diagnosis** (regarding wing venation I follow COMSTOCK): antenna in male bipectinate to two-thirds with long branches, apically serrate. Tongue short and slender. Hind tibia in male not dilated, sometimes with a small pencil of hairs in the femero-tibial joint; in male and female with two sets of spurs. Frenulum is wanting in both sexes. Fore- and hindwing bright green. Forewing with white wavy fasciae and with costa gently arched. Dc more or less curved becoming rather oblique, r1 from cell, free or anastomosing with sc, r2 sometimes anastomosing with r1, m1 connate or approximated, cu1 approximated or rarely connate; hindwing with termen fully rounded. Dc usually little incurved, sc approximated to cell for some distance then little divergen, r2 connate or short stalked, cu1 connate or approximate. Male genitalia: uncus bifid with pointed socii, vinculum square, penis like a long fine needle. Female genitalia: a sclerotized rhomboidal plate under the ostium bursae. Derivatio nominis: the name of the genus is compound by the first part (*Antone*) that is an abbreviation of my wife's name (*Antonella*) and by a second part (*chloris*) that is the name of the goddess of flowers.

This genus includes all the species previously included in *Thetidia* (of course with the exclusion of *plusiaria*). I give also a short diagnosis of the other genera *Thetidia* and *Aglossochloris*.

*Thetidia*: Antenna in male bipectinate to two-thirds with long branches, apically serrate; tongue short and slender. Hindtibia in male and female with all spurs; frenulum is wanting in both sexes. Forewing with broadened zigzag white lines and a series of large white sub-marginal wedge-spots; hindwing in great part white with a green discal spot in both wings. R1 never anastomoses with r2, m1 short-talked, cu1 well separate. Male genitalia: uncus bifid, gnathos terminating in a point, vinculum rounded, penis as a long a fine needle. Female genitalia: an irregular folding plate under the ostium bursae.

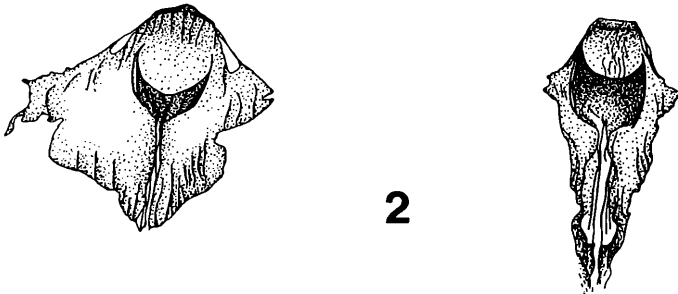
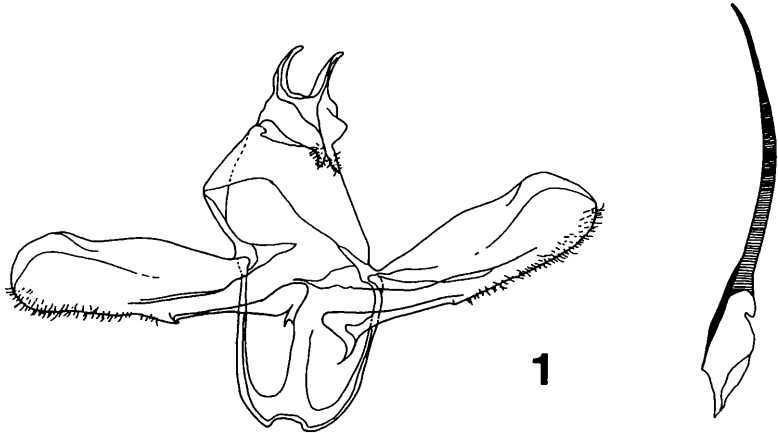
*Aglossochloris*: Antenna in male bipectinate with rather long branches, a rather short apical portion nearly simple; in female shortly bipectinate. Tongue wanting or quite vestigial. Hindtibia in male rough-csaled, median spurs aborted or absent. cell nearly one-half, Dc somewhat curved, r1 free, r2 sometimes quite shortly stalked, m1 short-stalked, connate or closely approximated, cu1 separate.

In hindwing sc approximated to cell for some distance near base, rather gradually diverging. Forewing green with strong white ante- and postmedian lines, the last one strongly zigzag in some species; terminal white wedge marks. The distal half of hindwing more or less marked with green.

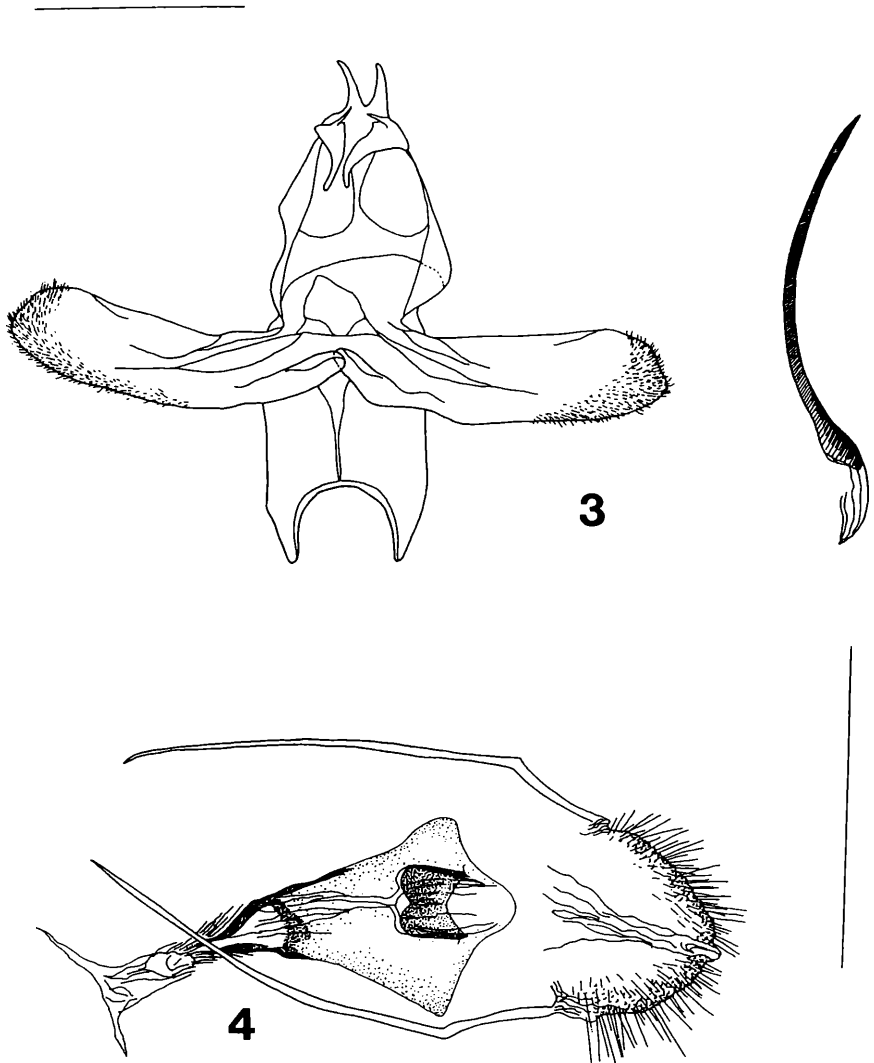
#### Key to genera, distribution

Here is a simple key to discriminate between the three genera:

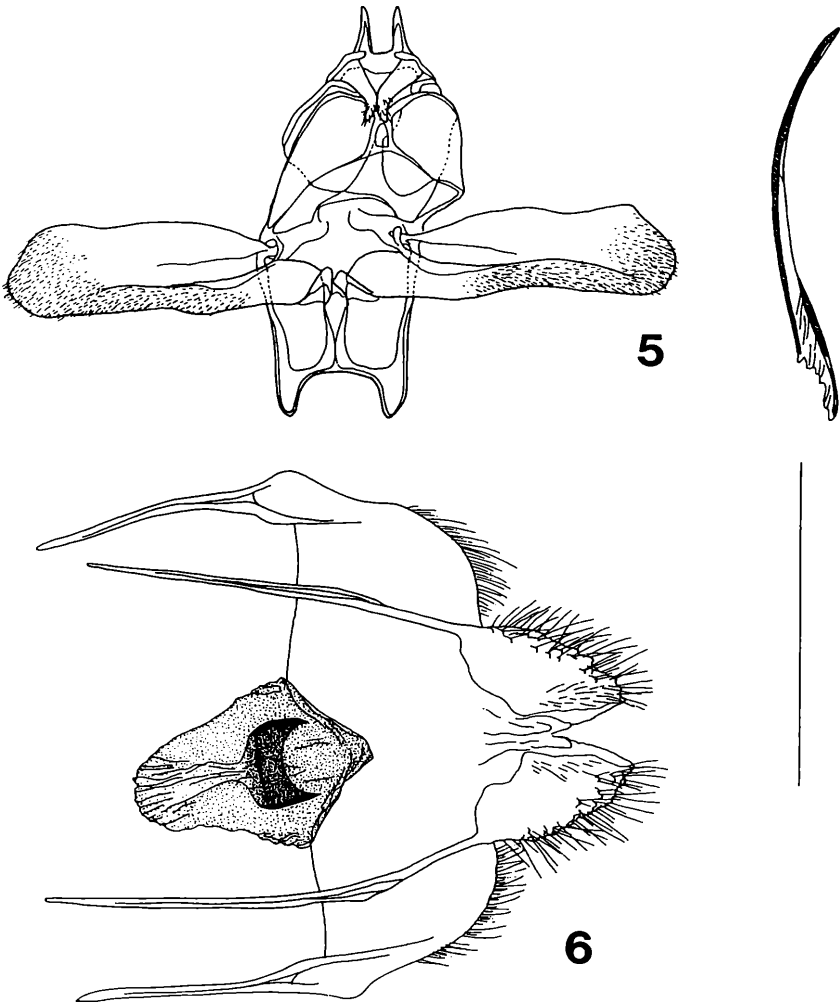
- |   |                                                                                                    |                                          |
|---|----------------------------------------------------------------------------------------------------|------------------------------------------|
| 1 | In forewing m1 connate or approximated; cu1 approximated or rarely connate<br><i>Antonechloris</i> |                                          |
|   | In forewing m1 short stalked, cu1 well separate                                                    | 2                                        |
| 2 | Tongue absent or vestigial<br>Tongue developed                                                     | <i>Aglossochloris</i><br><i>Thetidia</i> |



Figs. 1, 2: *Thetidia plusiaria* BOISDUVAL, 1840. 1) ♂ prep. V. RAINERI no. 953, dint. Tortosa, 24.VII.90, leg. A. ZILLI (coll. Campi RAINERI). 2) ♀ (left) prep. V. RAINERI no. 1436, Albarracin, 1.VIII.1983, leg. L. A. CASSULO (coll. CASSULO); (right) prep. V. RAINERI no. 951, Candanos HU, 29.IV.1990, leg. J. DANTART (coll. Campi RAINERI). scale bar 1 mm.



Figs. 3, 4: *Aglossochloris fulminaria* (LEDERER, 1870). 3) ♂ Prussia, 1874, leg. STAUDINGER (Naturhist. Mus. Wien), prep. V. RAINERI no. 1467. 4) ♀ prep. V. RAINERI no. 1483, Souljunki, 26.V.1898 (Naturhist. Mus. Wien). scale bar 1 mm.



Figs. 5, 6: *Antonechloris smaragdaria* (FABRICIUS, 1787). 5) ♂ prep. V. RAINERI no. 766, Crocetta d'Orero (GE), 9.VII.1983, leg. V. RAINERI (coll. Campi RAINERI). 6) ♀ prep. V. RAINERI no. 790, Crocetta d'Orero (GE), 27.VIII.1982, leg. V. RAINERI (coll. Campi RAINERI). scale bar 1 mm.

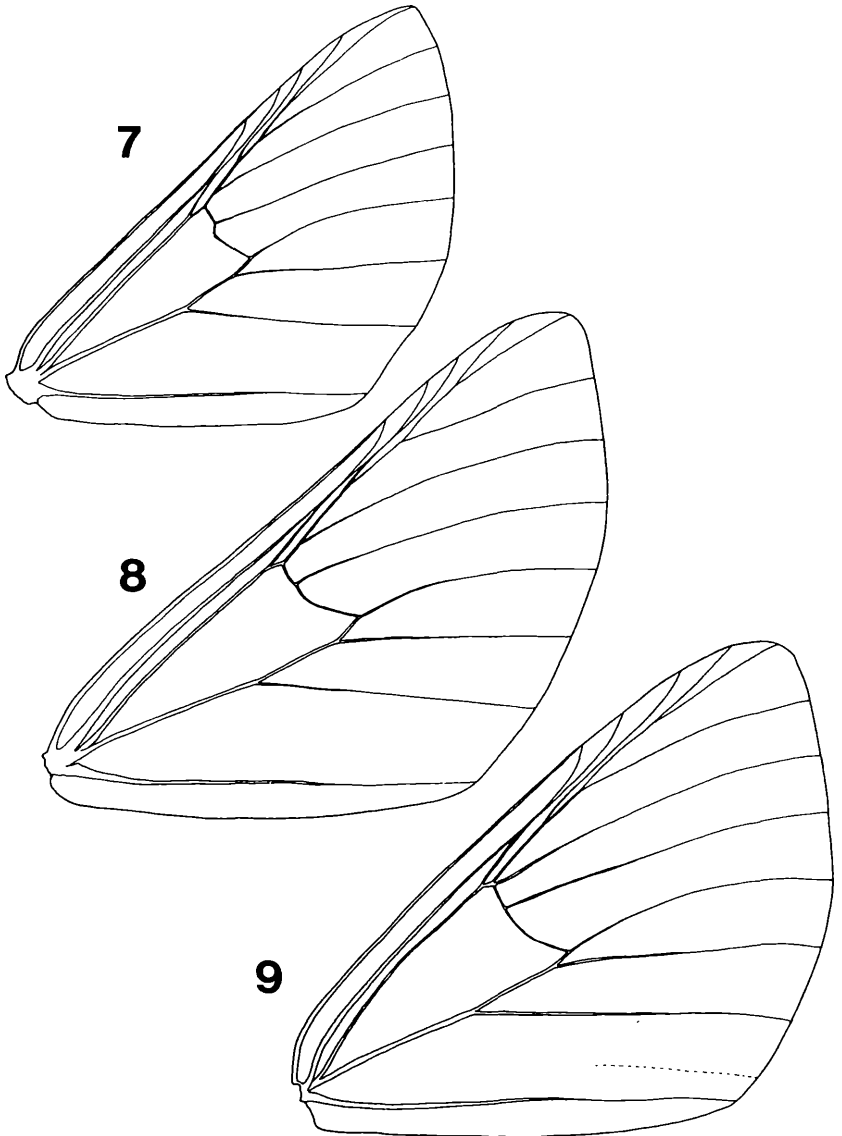


Fig. 7: Forewing of *Thetidia plusiaria*.

Fig. 8: Forewing of *Aglossochloris fulminaria*.

Fig. 9: Forewing of *Antonechloris smaragdaria*.

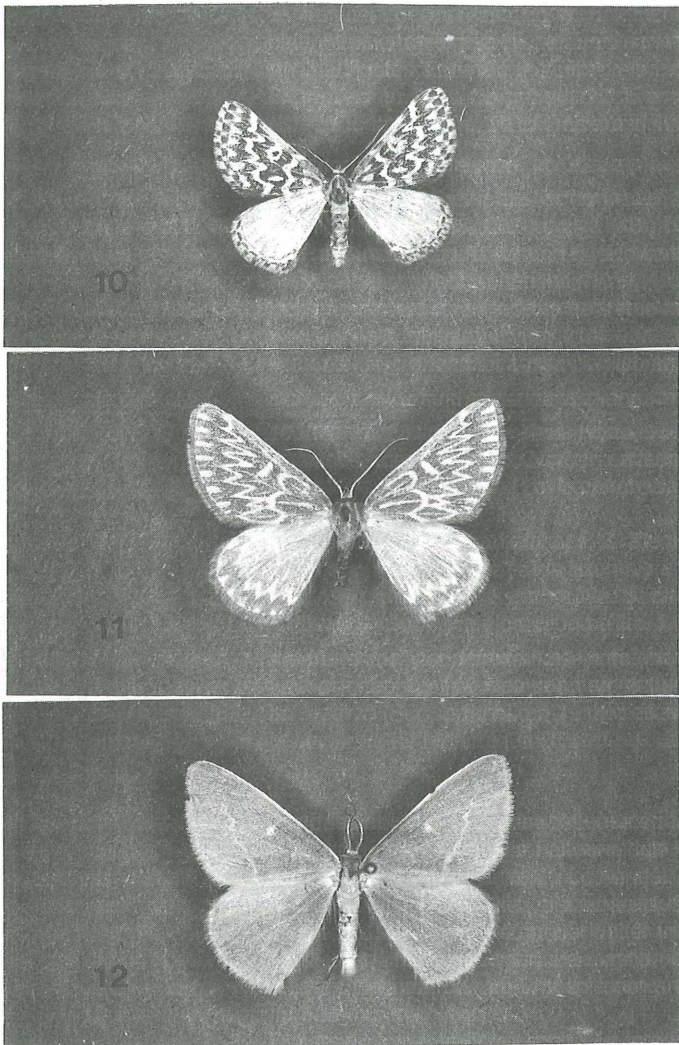


Fig. 11: *Thetidia plusiaria* BOISDUVAL, 1840. ♂ Spain, Lleida, 18.V.1991, leg. J. DANTART (coll. Campi RAINERI).

Fig. 12: *Aglossochloris fulminaria* (LEDERER, 1870). ♂ Prussia, 1874, leg. STAUDINGER (Naturhist. Mus. Wien).

Fig. 13: *Antonechloris smaragdaria* (FABRICIUS, 1787). ♂ Val di Susa (TO), 4.VII.1991, leg. A. ZILLI (coll. Campi RAINERI).

*Thetidia* is widespread in the Iberian Peninsula, in North-West Africa (Morocco and Algeria) with the sole known species *plusiaria*.

*Aglossochloris* is known from Jordania, Iran, the West Transcaspian Region, West Thian Shan, Turkmenistan and North India. The absence of species belonging to this genus from some other countries of North Africa may be due to the lack of collecting.

*Antonechloris* is widespread in the Palaearctic region, from the Iberian Peninsula to Japan and it is absent from North Africa.

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