

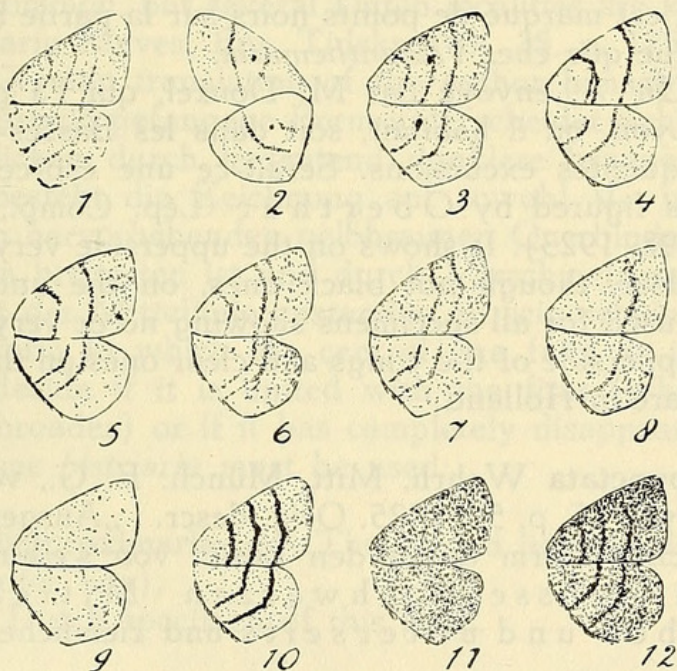
Cabera exanthemata Scop. and its forms

by

B. J. LEMPKE.

In the Belgian periodical *Lambillionea*, vol. 39, p. 143—148, plate IX, 1939, I gave a summary of the forms of *Cabera pusaria* L. Its relative, *Cabera exanthemata* Scop., is as a rule not so strongly marked and therefore shows not so many characteristic forms. Yet a careful study of sufficiently long series makes it clear, that *C. exanthemata* too is an interesting species and that it presents more forms than most collectors are aware of.

I shall always give the original descriptions of those forms which have already been described by previous authors, the only means to avoid a wrong interpretation of their names.



1. f. *exanthemata* Scop.; 2. f. *pellagraria* Gn.; 3. f. *suprapunctata* Wehrli;
4. f. *approximaria* Hw.; 5. f. *bistriaria* Meves; 6. f. *pseudapproximaria* Lpk.;
7. f. *reducta* Lpk.; 8. f. *linearia* Lpk.; 9. f. *inornata* Lpk.; 10. f. *crassesignata*
Lpk.; 11. f. *irrorata* Lpk.; 12. f. *arenosaria* Hw.

1. f. *exanthemata* Scopoli, *Entomologia Carniolica*, p. 218, 1763.
Orig. descr.: "Alba; strigis ut in priore, sed obsoletissimis punctilis-
que copiosis ferrugineis utrinque variagatas alas gerens.

In salicetis...

Variat puncto sub alis nigro."

The preceding species, to which Scopoli refers, is *Phalaena*

Strigata (= *Cabera pusaria* L., 1758), of which he writes: "alis anticis strigis transversis tribus, posticis duabus subferrugineis". It appears from his description that he knew both the form without and with a black point on the underside. As the latter was later on described by Guenée under the name of f. *pellagraria*, the typical form is restricted to that without black points on the underside of the wings and, according to Scopoli's description, with three not very distinct transverse lines on the fore wings and two on the hind wings, the most common form of the species. It was figured by Esper under the name of *exanthemaria* (Schmett. in Abb., vol. 5, p. 187, pl. 33, fig. 3, ♂, 1799; the ♀, fig. 4, shows clear discal points on the underside of the wings) and by Hübner as *striaria* (Samml. Eur. Schm., Geometrae, fig. 88, 1796—1799).

2. f. **pellagraria** Guenée, *Spécies général des Lépidoptères*, vol. 10, p. 55, 1857. Orig. descr.: „Plus grande. Ailes supérieures ayant l'apex plus prolongé et le bord plus droit. La couleur est blanche et moins salie d'atomes. Les lignes me paraissent moins tremblées. Celle du milieu est traversée de part et d'autre, mais surtout en dessous, par un petit trait cellulaire bien noir, visible aux quatre ailes. Le front est marqué de points noirs sur la partie brunâtre, qui est plus étendue que chez l'*Exanthemaria*."

Coll. Gn. Un ♂, envoyé par M. Donzel, qui l'a pris soit aux environs de Lyon, où il habitait, soit dans les Basses-Alpes, où il faisait de fréquentes excursions. Serait-ce une espèce distincte?"

The type is figured by Oberthür (Lép. Comp., vol. 20, pl. DLIII, fig. 4698, 1923). It shows on the upperside very faint discal points, and clear, though not black ones, on the underside. The name may be used for all specimens showing no or very faint discal spots on the upperside of the wings and clear ones on the underside. The form is rare in Holland.

3. f. **suprapunctata** Wehrli, Mitt. Münch. E. G., vol. 14, pl. I, fig. 30, 1924, vol. 15, p. 59, 1925. Orig. descr.: „Ausgezeichnet von der gewöhnlichen Form durch den Besitz von sehr hervortretenden grossen schwarzen Mittelpunkten aller Fl. ober- und unterseits und ziemliche Bestreuung der Fl."

The type was a ♂ from Maroggia, Tessin; a trans. from Raimeux in the Jura. The name must be used for all specimens with clear discal spots on upper- and underside of the wings. The form is very rare in Holland, but Wehrli writes in Seitz, vol. 4, suppl., p. 307, 1939, that it is common in Tessin.

4. f. **approximaria** Haworth, *Lepidoptera Britannica*, p. 289, 1809. Orig. descr.: „G. (The twin-striped Wave) alis sordide albidis, valde fusco atomosis arenosisve, strigis duabus communibus flavicantibus in medio, antica anticarum geminata."

Geometra approximaria. Prod. Lep. Brit. 23. 68."

In this form the first (basal) and the second line are cuose together, almost (but not quite) united to one. The author adds, that he has only seen three specimens of it, and that it only differs from his *arenosaria* (see no. 13) in the character of the lines. Of course the name is used for all exemples having the two lines „almost united to one". A fine one is figured by O b e r t h ü r (Lép. Comp., vol. 20, fig. 4697, 1923).

S t e p h e n s (Haustellata, III, p. 197, 1829) writes : „in some examples the central one is almost or totally united to the first — forming the *Ge. approximaria* of Haworth". B a r r e t t (Lep. Brit. Isles, vol. 6, p. 360, 1900) says : „Dr. Mason possesses a specimen in which two lines coalisce just as is the case in the var. *rotundaria* of *C. pusaria*, and others in which they tend in the same direction". Only the last are true *approximaria*, the first specimen is a *bistriaria* (no. 5). S o u t h (Moths Br. Isles, II, p. 267, 1907) spells the name of the form *approximata* and writes that he has seven examples in which the first and second lines are „more or less confluent". The definition of P r o u t in Seitz, IV, p. 318, 1915 : „die beiden ersten Linien dicht genähert, fast zusammenfliessend", is excellent. The form is not common, but several Dutch localities are known.

5. f. **bistriaria** Meves, Ent. Tidskr., vol. 35, p. 125, 1914. Orig. descr. (the German translation of the author himself on p. 138) : „Eine auf Värmdö gefangene Form unterscheidet sich auffällig von der gewöhnlichen durch bedeutend dunklere braune Bestäubung. Ausserdem besteht die Zeichnung auf sowohl V.- wie Hfln. aus nur zwei sich hervorhebenden gelbbraunen Querbinden, von denen die innere am breitesten ist und durch Verschmelzung der inneren Querlinie mit der Mittellinie entstanden zu sein scheint....."

It is the form in which the central line fails. It is not always possible to decide if it is united with the first (which is in this case a little broader) or if it has completely disappeared. For both cases the name *bistriaria* must be used.

6. f. **pseudapproximaria** nov. The second line stands close to the third (the outer one).

I saw one Dutch specimen of this form.

7. f. **reducta** nov. The basal line on the fore wings is wanting.

8. f. **linearia** nov. The basal and the central line are wanting, the outer one only remains.

9. f. **unicolorata** Teich, Ent. Z., Stettin, vol. 53, p. 356, 1892. Orig. descr. : „Die betreffenden Exemplare sind reiner weiss als typische Stücke der *Exanthemata*, was in der spärlichen gelben Bestäubung seinen Grund hat; die Querlinien sind zu einer undeutlichen, in unbestimmte gelbliche Flecke aufgelösten Binde zu-

sammengeflossen. Die Unterseite ist viel heller als bei gewöhnlichen Exemplaren, bei einem fast ganz weisz".

The form was described after specimens from Kemmern in Livonia. The name is sometimes used for specimens without any trace of the transverse lines, but this is of course incorrect. I have not seen an example answering to the description.

10. f. **inornata** nov. All transverse lines are wanting, otherwise typical.

Although the species is as a rule rather feebly marked, examples without any trace of the lines, but the ground colour not darkened, are decidedly rare.

11. f. **crassesignata** nov. The transverse lines on fore and hind wings much darker than usual and sharply contrasting with the ground colour.

I saw a fine Dutch specimen. Osthelder (Die Schmetterl. Südbayerns, p. 495, 1931) mentions a ♂ with very strong, large transverse lines under the name of var. *arenosaria* Hw. Barrett (Lep. Brit. Isles, vol. 6, pl. 274, fig. 1 b, 1900), figures a ♂ with strong transverse lines e coll.-Porritt.

12. f. **irrorata** nov. The wings are covered with numerous short stripes of the colour of the transverse lines, which are not or hardly visible. The wings look much darker than with normal specimens.

In typical specimens the wings are also covered by dark atoms. In *irrorata* they are much intensified both in colour and in number. The form is mentioned by Haworth (l.c.) as „*Geometra arenosaria* β. Strigis omnibus omnino oblitteratis".

13. f. **arenosaria** Haworth, Lep. Brit., p. 289, 1809. Orig. descr.: „G. (The sandy Wave) alis sordide albidis, valde fusco atomosis vel arenosis, strigis tribus in medio undulatis fuscescentibus aequidistantibus ultimis communibus".

It is the form with the wings strongly covered with dark atoms (or short streaks), and the transverse lines still darker, so that they are clearly visible. Prout (Seitz, l.c.) gives *nogentina* Th. Mieg as a synonym, which is not the case. Haworth says of *arenosaria*: „frequens", and indeed, the form is not unusual, whereas *nogentina* is very rare.

14. f. **nogentina** Thierry-Mieg, Ann. Soc. Ent. Belge, vol. 54, p. 388, 1910. Orig. descr.: „Le dessus des 4 ailes étant presque entièrement recouvert d'écailles grises, on n'aperçoit que vaguement la couleur du fond, qui est d'un blanc un peu jaunâtre. Aux ailes supérieures même, ce n'est guère que sur la côte et le long du bord externe qu'on entrevoit un peu de blanc jaunâtre, le reste de l'aile étant presque uniformément gris. Les lignes transverses

ont complètement disparu aux 4 ailes. Franges blanc jaunâtre entremêlées de gris. Dessous des 4 ailes blanc jaunâtre, très fortement pointillé d'écailles grises".

Type a ♂ from Nogent-sur-Vernisson (forêt d'Orléans). The form is no doubt more extreme than *irrorata* and *arenosaria*, the fore wings of which are not „uniformly grey".

There remain some remarkable specimens which cannot be classified under one of the above forms. South (l.c.) mentions a bred specimen which was thinly powdered with ochreous grey, and which had very indistinct lines. Stephens (Haust., III, p. 197, 1829) writes: „I possess one specimen, which I captured at Darenth, entirely of a deep ashy-brown, with scarcely a vestige of strigae". Barrett states (l.c., p. 360, 1900): „another, obtained from Tilgate Forest, has the portion of the fore wings outside the second line blackened".

Only one geographical form has been described:

subsp. *hamica* Wehrli, Seitz, vol. 4, Suppl., p. 307, pl. 23 e, fig. 2, 1939. Orig. descr.: „ist eine kleinere, ziemlich dicht dunkel besprenkte Rasse aus Hami, Nord-Mongolei, ausgezeichnet durch das meist ganz braune Gesicht (bei *exanthemata* ist nur die obere Partie gebräunt, die untere weisz) und die verloschene Zeichnung. Am ♂ Kopulationsapparat ist der Unkus schmaler, die Cornuti dünner, kürzer und an der Zahl vermindert (ca. 8)".

Résumé. De vormen van *Cabera exanthemata* Scop. kunnen als volgt gerangschikt worden:

1. f. *exanthemata* Scop. Witachtig, met zwakke donkerder schrapjes, vvl. met 3, avl. met 2 zwakke dwarslijnen.
2. f. *pellagraria* Gn. Onderzijde der vls. met duidelijke middenstip, op de bovenz. zwak of ontbrekend.
3. f. *suprapunctata* Wehrli. Onder- en bovenz. met duidelijke donkere middenstippen.
4. f. *approximaria* Hw. De tweede dwarslijn der vvl. staat dicht bij de eerste, is er bijna mee samengevloeid.
5. f. *bistriaria* Meves. Tweede dwarslijn vvl. ontbreekt.
6. f. *pseudapproximaria* Lpk. Tweede dwarslijn vvl. staat dicht bij de derde.
7. f. *reducta* Lpk. Op de vvl. ontbreekt de eerste dwarslijn.
8. f. *linearia* Lpk. Eerste en tweede dwarslijn ontbreken.
9. f. *unicolorata* Teich. Alle dwarslijnen samengevloeid tot een onduidelijke uit geelachtige vlekken bestaande band, donkere besprenkeling der grondkleur ontbreekt vrijwel geheel.
10. f. *inornata* Lpk. Alle dwarslijnen ontbreken.
11. f. *crassesignata* Lpk. Dwarslijnen veel sterker dan gewoonlijk, scherp afstekend.

12. f. *irrorata* Lpk. Vleugels dicht bedekt met donkere schrapjes, dwarslijnen niet of nauwelijks zichtbaar.

13. f. *arenosaria* Hw. Als 12, maar dwarslijnen duidelijk zichtbaar.

14. f. *nogentina* Th. Mieg. De donkere besprenkeling is zoo dicht, dat de vvl. vrijwel eenkleurig grijs geworden zijn. Bijna al deze vormen komen in ons land voor. Alleen van de nos. 9 en 14 zag ik nog geen inlandsche exemplaren.



Lempke, B J. 1947. "Cabera exanthemata Scop. and its forms." *Tijdschrift voor entomologie* 88, 347–352.

View This Item Online: <https://www.biodiversitylibrary.org/item/89185>

Permalink: <https://www.biodiversitylibrary.org/partpdf/65740>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.