

This muscle in the Pelobatidæ has retained its embryonic relations to the larynx, and has only in a very slight degree acquired the secondary relation to the thyrohyal. Precisely the same thing is figured by Ridewood for *Xenopus* and *Pipa*. The long extension backwards of the œsophageal muscle, universally characteristic of the Pelobatidæ (as far as our information goes), and its relation to the pelvis is possibly to be compared with the also very largely developed and apparently corresponding muscle in the Aglossa.

5. *Microlepidoptera* of Tenerife. By the Right Hon.  
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(Plates LI–LIII. and Text-figures 241–243.)

In the *Annalen* of the K.-k. Naturhistorische Hofmuseum (Vienna) Professor Dr. H. Rebel has published a series of very interesting and instructive papers on the Lepidopterous Fauna of the Canary Islands; I desire now to record the result of a short visit to Tenerife, during which I was able to devote a good deal of attention to the *Microlepidoptera* of the island: a large proportion of these having been bred, it is satisfactory to be able to add some information upon their food-plants and larval habits. In the last of the papers above referred to, published in Vienna in 1906, Prof. Rebel gives a revised systematic catalogue and enumerates 87 species of *Microlepidoptera* (10 of which are merely indicated without special names under the genera to which they belong), 4 out of the remaining 77 not being recorded from Tenerife; we have therefore a residue of 73 species, to which the additions following in this paper may now be made, raising the total to 173 species (of which 70 are here described) distributed among 84 genera (seven of which are new). It is proposed to add some critical notes upon Rebel's List, where these seem to be required through the acquisition of additional information: the species not met with are merely inserted to facilitate reference.

I desire to express my very grateful thanks to Dr. George Perez, and to Dr. O. Burchard, for the great assistance they gave me in naming many plants which I should otherwise have been at a loss to determine; as also to the Rev. A. E. Eaton for numerous additions to my cabinet included in this paper.

I had moreover the great advantage of being allowed to examine Mr. W. W. White's collection at Guimar, enabling me more fully to appreciate the value of Dr. Rebel's work; nor can I forget that that author had already most kindly dealt with some material originally submitted to him from my collection. Without the encouragement offered by the complete and systematic manner in

which he undertook and continued his studies I could scarcely yet have ventured to work out my present collection.

In addition to the species named in the following pages a few others may be usefully indicated with a view to their identification by future collectors. I have still a number of living larvae in swelled shoots of *Lycium afrum*, collected at Puerto Orotava on April 27th. They are white with black heads, and were found on two only of several bushes growing along the narrow track leading eastward from the town along the middle of the rocky, abrupt slopes overhanging the sea. They feed in the interior of the base of the long thorn-like shoots which arise from the main branches, at some distance from the stem, causing them to swell perceptibly, but not distorting them. (Writing on September 1st: "None have yet changed to pupæ, some have died.")

A larva found at Guimar on April 1st was very long and attenuated, of an ivory-white colour, burrowing along the pith in the interior of a stem of *Salvia canariensis*: this larva was alive a few days ago, but showed no sign of feeding or pupating.

Another larva, which gave me several days of fruitless work, mines the minute leaflets of *Plocama pendula*, hollowing them out, and leaving them white and transparent—a condition in which they rapidly become shrivelled, when all trace of the larval work is lost, except the little brown desiccated point of the leaflets. I found unmistakable traces at Santa Cruz, in January, at the Barranco di Honda, between Santa Cruz and Guimar, in February, and again in a small barranco, close to Guimar, in March, where I secured, at last, one living larva. It was of a very pale amber-yellow, and might have been a *Nepticula*; I failed to rear it.

A larva (possibly a *Phycid*) burrowing under the woolly clothing of the stems of *Phagnalon saxatile* is very abundant at Guimar, and was collected at sundry intervals during my stay there in March and April, producing only repeated disappointment.

During my visit to Tenerife a considerable number of *Macrolepidoptera* were collected which have been placed in the hands of others more competent than myself to deal with them; it may, however, be interesting to mention that I bred a specimen of *Eucrostis simonyi* Rbl. (= *Omphacodes \*divincta* Holt-White, *neq* Wkr.), *Geometridae* Stgr-Rbl. I. 2899, from a conspicuous red larva found on *Frankenia ericifolia* on the coast near Guimar, 6. III, excl. 15. IV. 1907.

## I. PTEROPHORINA.

Being of opinion that in Entomology "A special type must be a zoological entity in its imaginal form" (Merton Rules, 36), on which text a sermon has yet to be preached, I find myself unable to regard as of generic value embryonic characters unsupported



by imaginal differences, and thus obliged to discard no small portion of the generic nomenclature of Vol. V. of Mr. Tutt's 'British Lepidoptera.'

## I. PTEROPHORIDAE.

### 1. (207) BUCKLERIA Tutt.

=\**TRICHOPTILUS* Meyr.; Stgr-Rbl. (nec Wlsm.).

I adopt Tutt's geneonym here as I entirely agree with him in separating *paludum* Z. and *siceliota* Z. from the Californian *pygmaeus* Wlsm., the type of *Trichoptilus* Wlsm., which has the fissure of the fore wings differently shaped, the lobes being more divergent.

#### 1. (1311) BUCKLERIA (STANGEDIA) SICELIOTA Z.

*Pterophorus siceliota* Z. Isis 1847. 907 no. 450<sup>1</sup>. *Pterophorus (Aciptilia) siceliota* Z. Lin. Ent. VI. 401 no. 59 (1852)<sup>2</sup>. *Aciptilia siceliota* Mill. Ann. Soc. Linn. Lyon XXIX. 173-4. Pl. 4. 3-5 (1882)<sup>3</sup>: Nat. Sic. V. 224 (1886)<sup>4</sup>. *Trichoptilus siceliota* Meyr. Ent. Mo. Mag. XXVI. 12 (1891)<sup>5</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 71 no. 1311 (1901)<sup>6</sup>. *Stangeia siceliota* Tutt Br. Lp. V. 492 (1906)<sup>7</sup>.

*Hab.* S. EUROPE—⊕ *Cistus salviaefolius*, *monspeliensis*, III-IV, excl. V-VI. SW. ASIA. N. AFRICA<sup>5-6</sup>. CANARIES—TENERIFE: Guimar, 14. IV., ⊕ *Cistus monspeliensis*, 28. III, excl. 24. IV-6. V. 1907.

Taken and bred at Guimar from larvae similar to those which I used to find, and have reared successfully, on the same plant at Cannes.

### 2. (208) OXYPTILUS Z.

CROMBRUGGHIA Tutt Br. Lp. V. 449-51 (1906).

#### 2. (1314) OXYPTILUS (CROMBRUGGHIA) DISTANS Z.

*Pterophorus distans* Z. Isis 1847. 902-3 no. 441<sup>1</sup>. *Pterophorus (Oxyptilus) distans* Z. Lin. Ent. VI. 345-6 no. 13 (1852)<sup>2</sup>. *Oxyptilus distans* Rbl. Ann. KK. Hofmus. IX. 16, 18 no. 137 (1894)<sup>3</sup>: XXI. 43 no. 173 (1906)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 71 no. 1314 (1901)<sup>5</sup>. *Crombrughia distans* Tutt Br. Lp. V. 451-67 Pl. 4. 1-10 (1906)<sup>6</sup>.

*Hab.* S. and C. EUROPE. WC. ASIA. CANARIES<sup>3-6</sup>—TENERIFE: Guimar, 25. III-14. IV., ⊕ *Andryala pinnatifida*, 9-25. III, excl. 7. IV-3. V. 1907; Puerto Orotava, 27. IV-3. V. 1907 (Wlsm.); Forest de la Mina, 8. IV. 1894 (*Eaton*); La Laguna, 21. V. 1889 (*Krauss*)<sup>3</sup>.

Prof. Rebel [Ann. KK. Hofmus. VII. 262-3 (1892)] records *Oxyptilus lactus* from Tenerife, La Palma, and Gran Canaria; he subsequently [Ann. KK. Hofmus. IX. 81 (1894)] records a single

specimen from Tenerife as *O. distans*, suggesting that it may be a spring form of his Canarian *laetus*, and in Staudinger and Rebel's Catalog (II. 1314) he treats *laetus* plus *distans* as two broods under one special name. In his last paper [Ann. K.K. Hofmus. XXI. 43 (1906)] he retains both names, possibly through being unable to refer to the single specimen which he had recorded as *laetus*.

I found larvae at Guimar, feeding in March on the crowns of young plants of *Andryala pinnatifida*, completely covering themselves with the woolly debris of the consumed leaves; these produced up to the beginning of May typical forms of *Oxyptilus distans*, which I have compared satisfactorily with the actual types described by Zeller from Syracuse. They are, to all appearance, similar to all that I have previously bred from flowers and leaves of *Andryala sinuata* at Cannes and elsewhere. I have preserved specimens of the larvae for comparison with others from Europe.

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*Pterophorus laetus* Z. Isis 1847. 903 no. 442<sup>1</sup>. *Pterophorus* (*Oxyptilus*) *laetus* Z. Lin. Ent. VI. 346 no. 11 (1852)<sup>2</sup>. *Oxyptilus laetus* Rbl. Ann. K.K. Hofmus. VII. 262-3, 282 no. 36 (1892)<sup>3</sup>: IX. 16, 81 no. 138 (1894)<sup>4</sup>: XXI. 43 no. 174 (1906)<sup>5</sup>. *Oxyptilus distans* Z. (II) *laetus* Stgr-Rbl. Cat. Lp. Pal. II. 71 no. 1314<sup>a</sup> (1901)<sup>6</sup>. *Crombrugghia laetus* Tutt Br. Lp. V. 459-60 (1906)<sup>7</sup>.

Hab. S. EUROPE. WC. ASIA. N. AFRICA. **Canaries**<sup>3-7</sup>—LA PALMA, 25. VIII. 1889 (*Simony*)<sup>3</sup>—TENERIFE: Bajomar, 25. V. 1907 (*Wlsm.*); 10. VIII. 1889 (*Simony*)<sup>3</sup>—GRAN CANARIA: Bco. de los Chorros (San Mateo), 1. VIII. 1890; Mogan, Bco. de los Hornos (Mogan), 4-20. VIII. 1890 (*Simony*)<sup>3</sup>.

The only examples apparently agreeing with Zeller's type of *Oxyptilus laetus* were met with at Bajomar, on the sea-coast, where they were easily disturbed from flowering plants of *Andryala pinnatifida*; I brought home only three specimens, some full boxes being lost in my hurry to return to a waiting conveyance. These specimens are uniformly characterised by their slightly smaller size, by the lighter brown, rather than greyish, shade of the forewings, and by the notably bronzy brown tint of the hindwings, not to be found in my series of *distans* from the higher elevations. Tutt (Br. Lp. V. 450-1, 454-9) very strongly contends that there are two distinct species under the above names, and certainly seems to prove his case, but except perhaps by a careful examination of the genital segments, not yet undertaken, I confess to being unable to distinguish them with certainty through an extensive series, bred and captured from many remote localities. It seems indeed quite possible that these Tenerife specimens, obviously attached to the same plant, but at different dates and altitudes, may represent successive broods rather than truly distinct species. I suggest this without in any way disputing Mr. Tutt's conclusions, founded as they

are on differences in the genital segments, and on Dr. Chapman's very critical and careful study of the different larvae.

### 3. (209) PLATYPTILIA Hb.

#### 3. (1339) PLATYPTILIA (AMBLYPTILIA Hb.) ACANTHODACTYLA Hb.

*Alucita acanthodactyla* Hb. Smlg. Eur. Schm. IX. Pl. 5. 23-4 (1812?)<sup>1</sup>. *Pterophorus acanthodactylus* Stn. Ann-Mag. NH. (3 s.). III. 214 (1859)<sup>2</sup>. *Platyptilia acanthodactyla* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 538 no. 1 (1894)<sup>3</sup>. *Amblyptilia acanthodactyla* Rbl. Ann. KK. Hofmus. XI. 115, 146 no. 149 (1896)<sup>4</sup>. *Platyptilia acanthodactyla* Rbl. Ann. KK. Hofmus. XXI. 36, 43 no. 175 (1906)<sup>5</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 73 no. 1339 (1901)<sup>6</sup>; Fruld. Bull. US. Nat. Mus. 52. 443 no. 4939 (1902)<sup>7</sup>. *Amblyptilia cosmოდactyla* Tutt Br. Lp. V. 273-99, Pl. 1. A<sup>1-9</sup> (1906)<sup>8</sup>.

*Hab.* EUROPE. W. ASIA. N. and S. AFRICA. **Madeiras**<sup>2-4</sup>—**MADEIRA**<sup>2</sup>; Funchal<sup>3</sup>. **Canaries**<sup>4-8</sup>—**TENERIFE**: Santa Cruz, 8. II. 1907 (*Wlsm.*), 3. V. 1895 (*Hedemann*)<sup>5</sup>; La Laguna, 8. III. 1904 (*Eaton*), 13. V. 1907 (*Wlsm.*); Guimar, 10. IV. 1907 (*Wlsm.*); Puerto Orotava, 14-22. IV. 1895 (*Hedemann*)<sup>5</sup>, 23. IV - 8. V. 1907 (*Wlsm.*)—**GRAN CANARIA** (*Hedemann*)<sup>5</sup>. **UNITED STATES**<sup>7</sup>.

I must point out that I adopt this name for the Tenerife species in the same sense as it is used by Zeller, and Rebel, and not as referring to *punctidactyla* Hw., being at present unable to agree with Tutt (l. c. 3) in his interpretation of Hübner's figures 23-24, and 35-36 respectively.

### 4. (210) ALUCITA L.

= *ACIPTILIA* Hb.; *PTEROPHORUS* Meyr. HB. Br. Lp. 435 (1895).

#### 4. (1356-1) ALUCITA BYSTROPOGONIS, sp. n. (Plate LI, fig. 2.)

*Antennae* brownish grey. *Palpi* short, slender, porrect; brownish grey. *Head* and *Thorax* brownish grey, the latter becoming hoary grey posteriorly. *Forewings* brownish grey, the fissure extending approximately to half the wing-length; the apical lobe shows two narrow, elongate, smoky blackish cloud-spots on its costal margin, one about the middle of the lobe, the other half-way between this and the base of the fissure; between them the costa is white, and beyond them the lobe is white, with a small black dorsal spot before the apex; the tornal lobe is white, from the base of the fissure to its apex, its costal cilia white on the basal half and smoky black on the distal half of the lobe; the dorsal cilia of the apical lobe whitish beyond the fissure to two-thirds, thence smoky black below the apex; the dorsal cilia of the tornal lobe whitish, with a black spot a little before the middle of the lobe, their tips

slightly grey-shaded. *Exp. al.* 16–20 mm. *Hindwings* brownish grey; cilia slightly paler throughout, especially along their base on the dorsum of the toral lobe. *Abdomen* brownish grey, with slender white lines along either side of the dorsum. *Legs* white, with smoky black patches at the base of each pair of white spurs.

*Type* ♀ (98768); ♂ (98769); ⊕ (98801) Mus. Wlsm.

*Hab.* TENERIFE: Forest de la Mina, 7. IV. 1904 (*Eaton*); Guimar, ⊕ *Bystropogon plumosus*, 28. III, excl. 4. IV – 29. V. 1907 (*Wlsm.*); La Laguna, 23. IV. 1907 (*Wlsm.*). Forty-three specimens.

Some varieties assume a decidedly browner tint than the type, and in these the white cilia are often so modified by the extension of the brown suffusion, especially within and below the fissure, as to alter considerably the general appearance of the insect: there are several intermediate degrees of such modification in a bred series.

The larva feeds on *Bystropogon plumosus*, drawing together the leaves and young flower-buds on the leading shoots; it attains a length of 11 mm., and is very pale glaucous green, covered with short and somewhat spatulate hairs, among which longer diverging hairs, arising each from a minute brownish pimple, are ranged in groups along either side of a faint greyish dorsal shade and along the spiracular line; the head is very pale amber-brown. The pupa, which has a line of elongate black spots along the dorsum, is covered with scattered groups of hairs of varying length, the shorter ones not spatulate as in the larva. It is attached posteriorly to the leaf of its food-plant without any encircling band.

I received this insect first from the Rev. A. E. Eaton, taken in the Forest of La Mina, and lately found it abundant above Guimar, but, like its food-plant, it is somewhat local. It reminds one closely of *Gypsochares baptodactyla* Z., and is very similarly coloured, but the lobes of the hindwings are more slender and the fissure of the forewings somewhat deeper. There is a very noticeable difference also in the pupa: that of *Gypsochares baptodactyla* has a line of conspicuous elongate black spots on either side of the dorsum, whereas the pupa of *bystropogonis* has but one medio-dorsal line of spots.

5. (1365-1) ALUCITA PARTICILIATA, sp. n.  
(Plate LI. fig. 3.)

=\**Acipitilia tetradactyla* Rbl. Ann. K.K. Hofmus. VII. 263, 280 no. 39 (1892): XXI. 43 no. 177 (1906).

*Antennae* white, speckled above with brownish grey. *Palpi* perfect, slender; whitish, with a dark spot at the base of the terminal joint, which extends a little beyond an obtuse short frontal tuft. *Head* and *Thorax* brownish ochreous. *Forewings* brownish ochreous at the base, blending to pale straw-whitish beyond; costa narrowly smoky blackish, this colour suffusing the whole of the costal cilia, except about the extreme apex; the



fissure extends to a little more than the wing-length; the cilia of the tornal lobe, and of the lower margin of the apical lobe, distinctly straw-white on their basal half and smoky blackish on their outer half (this distinct division in the basal and distal colouring of the cilia is in itself amply and uniformly sufficient to separate *particiliata* from *tetradactyla* L., in which the cilia are darkened throughout). *Exp. al.* 20-22 mm. *Hindwings* brownish ochreous; cilia of all the lobes smoky fuscous on their costal margins, whereas on their dorsal margins the basal two-thirds are straw-white, the distal third only fuscous. *Abdomen* whitish, especially at the base, with a narrow dorsal, and wider lateral brownish grey lines. *Legs* white.

*Type* ♂ (98810); ♀ (98816) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 23. XII - 12. II. 1907; Puerto Orotava, 21. IV. 1907. Fifteen specimens.

Having mistaken this species in the field for *tetradactyla* L., no special search for the larva was undertaken, but I strongly suspect that two green and slightly hairy larvae found on *Larandula abrotanoides* at Santa Cruz, which I unfortunately failed to rear, must have belonged to it.

Rebel records worn specimens of *Aciptilia tetradactyla* from Pedro Gil (Tenerife, 1600 m., 30. VII. 1889—*Simony*), and from Gran Canaria (*Richter*). As Pedro Gil is on very high ground the date is not surprising, but it is at least probable that these specimens (which I have not seen) belong to the same species which occurs so abundantly at Santa Cruz in January and February, and of which I have a single specimen taken at Puerto Orotava on April 21st. I certainly thought the species was *tetradactyla* when I took it, indeed I should have secured more specimens had I then recognised it as new.

#### 6. (1365·2) ALUCITA HESPERIDELLA, sp. n.

*Antennae* pale brown, speckled with white. *Palpi* short, porrect, slender, scarcely projecting beyond the face; pale brown. *Head* and *Thorax* pale buff-brown. *Forewings* pale buff-brown, the costa narrowly white, more conspicuously before the apex, a small, oblique, inverted darker greyish streak a little beyond the middle (sometimes obsolete); the fissure extends approximately to half the wing-length, the tornal lobe being white along its upper half from the base of the fissure to its apex, the cilia tinged with brownish grey, as also are those of the apical lobe. *Exp. al.* 16-18 mm. *Hindwings* pale greyish brown; cilia the same, becoming whitish at the apex of the tornal lobe. *Abdomen* pale greyish brown, with whitish dorsal line. *Legs* white, a slender greyish line along their outer sides.

*Type* ♀ (98825); ♂ (98827); ⊕ (98829) Mus. Wlsm.

*Hab.* TENERIFE: IV. 1884 (*Leech*); Santa Cruz, 13-31. I. 1907 (*Wlsm.*); Guimar, 21. III. 1904 (*Eaton*), 2. III - 14. IV. 1907, ⊕ *Micromeria varia*, 23. III, excl. 16-26. IV. 1907 (*Wlsm.*); Puerto

Orotava, 27. IV - 8. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Fifty-nine specimens.

Common at Guimar, Santa Cruz, Orotava, etc. The larva is slightly hairy, the hairs arranged in small divergent fascicules; it is of a dull glaucous green, with narrow, parallel, paler dorsal and spiracular lines; head pale brown; it tapers slightly toward the anal segments; all the legs uniformly of the same colour as the body. It feeds on the leaves of *Micromeria varia*, from which it is not difficult to sweep or beat it into the net.

Text-fig. 241.



*Atucita hesperidella*  
(98829).

The species greatly resembles *Gypsochares olbiadactyla* Mill., to which it is precisely similar in the distribution of the white margins. Some specimens are distinguishable by the possession of a costal spot, but the uniformly more slender apical lobe of the forewings at once distinguishes it from the more robust *Gypsochares* which in other respects it might almost be said to mimic. Many years ago I received two specimens from the late Mr. J. H. Leech, which stood in my cabinet as doubtfully distinct from *olbiadactyla* until I bred that species.

## 5 (213) GYPSOCHARES MEYR.

### 7. (1381) GYPSOCHARES OLEBIADACTYLA Mill.

**n. syn.** = *hedemanni* Rbl.; [= *leptodactyla* Stgr. *LN.*<sup>10</sup>].

*Pterophorus olbiadactylus* Mill. *IC.* Chen-Lp. I. 89-91. Pl. 5 · 1-3 (1859)<sup>1</sup>. *Aciptilia olbiadactyla* Stgr-Wk. *Cat. Lp. Eur.* 344 no. 3199 (1871)<sup>2</sup>; Mill. *Cat. Lp. Alp-Mar.* 382-3 (1875)<sup>3</sup>; Hrtm. *MT. Münch. Ent. Ver. IV.* 68 no. 1399 (1880)<sup>4</sup>; Mill. *Nat. Sic. V.* 224 no. 3199 (1886)<sup>5</sup>. *Gypsochares hedemanni* Rbl. *Ann. K.K. Hofmus. XI.* 115-6. 146 no. 156, Pl. 3 · 3 (1896)<sup>6</sup>; XXI. 43 no. 178 (1906)<sup>7</sup>; Stgr-Rbl. *Cat. Lp. Pal. II.* 75 no. 1382 (1901)<sup>8</sup>. *Gypsochares olbiadactyla* Stgr-Rbl. *Cat. Lp. Pal. II.* 75 no. 1381 (1901)<sup>9</sup>; *Wlsm. Ent. Mo. Mag. XXXVII.* 234-5 (1901)<sup>10</sup>.

*Hab.* S. FRANCE<sup>1-5, 9</sup>—Hyères, ⊕ [*lichen on rocks?*<sup>11</sup>] 25. III<sup>1-4</sup>, excl. IV - V<sup>4</sup>; l'Estérel, 30. IV. 1877<sup>5</sup>; S. SPAIN<sup>10</sup>: Malaga<sup>10</sup>, 28. I., 15-17. IV. 1901 (*Wlsm.*); Chiclana, ⊕ *Phagnalon rupestre*<sup>10</sup>, e. II, excl. 27. III - 1. IV. 1901 (*Wlsm.*). CANARIES—TENERIFE: Santa Cruz, ⊕ *Phagnalon saxatile*, 21. I - 3. II, excl. 18. II - 12. IV. 1907 (*Wlsm.*); La Laguna, 23. II. 1904 (*Eaton*); Puerto Orotava, 15-22. IV. 1895 (*Hedemann*)<sup>6</sup>, 27. IV. 1907 (*Wlsm.*); Guimar, 2. III - 12. IV. 1907, ⊕, 27. II, excl. 28. IV. 1907 (*Wlsm.*).

Prof. Rebel described his *Gypsochares hedemanni* from specimens

collected at Orotava in April; I found the same quite abundant in the larval stage on *Phagnalon saxatile* at Santa Cruz and Guimar, and saw traces of it in other localities where its food-plant occurs. Many years ago Millière gave me a specimen of his *olbiadactylus*, taken in the Estérel (vide Nat. Sic. V. 224): I was therefore well-acquainted with his species, which I have taken in Spain and reared from *Phagnalon rupestre* there. Millière figures and describes the larva and pupa, but he omits to mention whether he actually bred or captured the imago. He suggests that the larvae feed on lichens growing on the rocks where they were found, but he adds that they did not eat in captivity, and quickly pupated. I know that *Phagnalon saxatile* is common in the locality where he discovered the species, and where I have myself searched for it unsuccessfully when in ignorance of its food-plant. His figure of the larva shows no black dorsal spots, nor does he describe them.

Text-fig. 242.



*Gypsochares olbiadactyla*  
(98902).

but the Tenerife larvae (and, if I rightly remember, the Spanish larvae also) possessed a line of such spots, one on each segment. It is open to doubt whether the larvae recorded by Millière on rocks were not those of *Alucita tetradactyla* L., which is abundant on the same spot. After very careful comparison of specimens with Millière's figure, and with the exponent received from him there remains no possible doubt that *Gypsochares hedemanni* as figured and described by Rebel, and represented by a named specimen in Mr. W. W. White's collection, is the same as *Pterophorus olbiadactylus* Mill. I have received the same species from Spain from Dr. Staudinger under the logonym "*leptodactyla*." The traces of the larva are easily recognised by the curling-back of the woolly underside of the leaves from which it has eaten the upper surface and parenchyma, thus exhibiting small white spots distributed about the plants on which it has fed: this is similar to the effect produced by larvae of *Alucita adamas* Cnst., on *Stachelinus*—a noticeable sign of its presence, to which I called my late friend's attention before he was himself acquainted with the larva, and before we had either of us seen the imago.

#### 6. (214) PTEROPHORUS Geoffr.

= *ALUCITA* MEYR. HB. Br. Lp. 438i (1895); *EMMELINA* TUTT Br. Lp. V. 97 (1906).

#### 8. (1387) PTEROPHORUS MONODACTYLUS L.

*Phalaena Alucita monodactyla* L. Syst. Nat. ed. X. 542 no. 300 (1758)<sup>1</sup>. *Pterophorus monodactylus* Alphk. Mem. Lp. V. 231

no. 57 (1889)<sup>2</sup>; Holt White B. & M. Ten. 95 (1894)<sup>3</sup>. *Alucita monodactyla* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 539 no. 3<sup>4</sup>. *Pterophorus monodactylus* Rbl. Ann. K.K. Hofmus. VII. 263, 282 no. 38 (1892)<sup>5</sup>; IX. 16, 81 no. 140 (1894)<sup>6</sup>; XI. 115, 146 no. 153 (1896)<sup>7</sup>; XXI. 43 no. 179 (1906)<sup>8</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 75 no. 1387 (1901)<sup>9</sup>; Fruld. Bull. US. Nat. Mus. 52. 446 no. 4981 (1902)<sup>10</sup>.

*Hab.* EUROPE. W. ASIA. N. AFRICA. N. AMERICA. **Madeira**<sup>1-9</sup>—MADEIRA: (*Wollaston*)<sup>4</sup>. **Canaries**<sup>2-8</sup>—HIERRO: 28. VIII. 1889 (*Speyer*)<sup>5-8</sup>—TENERIFE<sup>2-8</sup>: ⊕ *Convolvulus floridus*<sup>6</sup>; IV. 1884 (*Leech*); Santa Cruz, 28. I. 1907 (*Wlsm.*), 3. V. 1885 (*Hedemann*)<sup>7</sup>, 25. V. 1907 (*Wlsm.*); Puerto Orotava, 1887 (*Sievers*)<sup>2</sup>; 3. V. 1907 (*Wlsm.*); Bajomar, 25. V. 1907 (*Wlsm.*)—GRAN CANARIA: Las Palmas, 7. V. 1895 (*Hedemann*)<sup>7-8</sup>.

This species occurred everywhere in Tenerife.

#### 9. (1393) PTEROPHORUS (LIOPTILUS Wlgrn.) INULAE Z.

*Pterophorus* (*Pterophorus* Z.) *inulae* Z. Lin. Ent. VI. 384-6 no. 41 (1852)<sup>1</sup>. *Pterophorus inulae* Stgr-Rbl. Cat. Lp. Pal. II. 76 no. 1393 (1901)<sup>2</sup>. *Leioptilus* sp. Rbl. Ann. K.K. Hofmus. IX. 16, 81 no. 141 (1894)<sup>3</sup>; XXI. 43 no. 176 (1906)<sup>4</sup>.

*Hab.* GERMANY. AUSTRIA. **Canaries**—TENERIFE: IV. 1884 (*Leech*); Santa Cruz. ⊕ *Inula viscosa*, 10. I, excl. 24. I-14. II., 29. IV. 1907 (*Wlsm.*); Guimar, 13. III-10. IV., ⊕ *Inula viscosa*, III, excl. 23. III-7. IV. 1907 (*Wlsm.*); Puerto Orotava, 29. IV-4. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*).

Prof. Rebel records an "unbestimbares Fragment" of a species of *Leioptilus* from Guimar, 16. V. 1889 (*Krauss*); this was probably *inulae* Z., which is common and widely distributed in Tenerife. It seems to occur wherever *Inula viscosa* is abundant, as at Guimar, Santa Cruz, Puerto Orotava, etc. I bred specimens from larvae boring the leading shoots; they were easily distinguished by their dull glaucous green colour, and by a conspicuous series of blackish dorsal spots.

#### 10. (1395.1) PTEROPHORUS (LIOPTILUS) MELANOSCHISMA, sp. n. (Plate LI. fig. 1.)

*Antennae* smoky bone-colour. *Palpi* slender, correct, projecting less than the length of the head beyond it; smoky fuscous above, pale beneath. *Head* smoky fuscous; face straw-whitish. *Thorax* pale, or sometimes brownish, straw-colour. *Forewings* pale straw, sometimes darker brownish straw—in both cases fading somewhat on the dorsal half; a very narrow fuscous line along the costa to two-thirds from the base; the fissure extends to two-fifths of the wing-length; the cilia within the fissure are uniformly fuscous, connected with a dark fuscous spot at the base of the fissure, which is distinctly visible on the underside; the dorsal cilia are also fuscous. *Exp. al.* 16-17 mm. *Hindwings* and cilia brownish



grey, the surface of the lobes somewhat shining. *Abdomen* concolorous with the hindwings. *Legs* straw-white, or straw-brownish, unspotted.

*Type* ♂ (98934); ♀ (98935) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 21. I - 9. II., ⊕ *Phagnalon saxatile*, 31. I, excl. 27-29. III. 1907; Guimar, 12. III. 07; Puerto Orotava, 29. IV. 07. Seven specimens.

The larva feeds in the flowers of *Phagnalon saxatile*, but the species is not abundant. It is closely allied to *pectodactylus* Stgr. (= *chrysocomae* Rgt.), but differs especially in the darkened cilia of the fissure reaching fully to the base; these are very conspicuous.

## 7. (215) STENOPTILIA Hb.

### 11. (1406) STENOPTILIA (ADKINIA Tutt) BIPUNCTIDACTYLA Sc.

*Phalaena bipunctidactyla* Sc. Ent. Carn. 257 no. 673 (1763)<sup>1</sup>. *Pterophorus (Pterophorus Z.) serotinus* Z. Lin. Ent. VI. 361-4 no. 27 (1852)<sup>2</sup>. *Mimaeseoptilus serotinus* Rbl. Ann. KK. Hofmus. VII. 263, 282 no. 37 (1892)<sup>3</sup>: XXI. 43 no. 180 (1906). *Stenoptilia bipunctidactyla* Stgr-Rbl. Cat. Lp. Pal. II. 76 no. 1406 (1901)<sup>3</sup>. *Adkinia bipunctidactyla* Tutt Br. Lp. V. 97, 334-60 (1906)<sup>4</sup>.

*Hab.* EUROPE. WC. ASIA. N. AFRICA. Canaries—TENERIFE<sup>3-6</sup>: 2. VIII. 1889 (*Simony*)<sup>3</sup>; Santa Cruz, 8-16. II. 1907 (*Wlsm.*); Guimar, 14. III - 12. IV. 1907 (*Wlsm.*); Puerto Orotava, 4. V. 1907 (*Wlsm.*); La Laguna, ⊕ *Bartsia trichago*, 12. VI, excl. 1. VII. 1907 (*Wlsm.*).

Common at Santa Cruz, Guimar, and Orotava. Two specimens were bred on July 1st from larvae found feeding on *Bartsia trichago*, at La Laguna, on June 12th. These larvae were noted as pale green, with purplish dorsal line; with groups of hair distributed evenly on each segment, and with minute black tubercular spots above the spiracles: they agreed well with Tutt's description of the larva of *bipunctidactyla* (Br. Lp. V. 350), to which species I have no doubt the Tenerife specimens are rightly referred.

## II. AGDISTIDAE.

### 8. (216) AGDISTIS Hb.

Rebel records only two species, *tamaricis* Z. and *canariensis* Rbl.; I am now able to add *frankeniae* Z., *salsolae* sp. n., and *statioides* Mill.

### 12. (1420) AGDISTIS FRANKENIAE Z.

*Adactyla frankeniae* Z. Isis 1847. 900-2 no. 439<sup>1</sup>. *Agdistis frankeniae* Z. Lin. Ent. VI. 321 no. 1 (1852)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 77 no. 1420 (1901)<sup>3</sup>; Chpm. & Tutt Br. Lp. V. 128-30, 131-2 (1906)<sup>4</sup>; Wlsm. Ent. Rec. XIX. 53-5 (1907)<sup>5</sup>.

*Hab.* S. EUROPE<sup>1-5</sup>—SICILY<sup>1</sup>. CORSICA: Punta Parata, 5. V.

1896 (*Wlsm.*). SPAIN: CADIZ: Chiclana,  $\oplus$  *Frankenia pulverulenta*, 27. I, excl. 2. II. 1901 (*Wlsm.*). N. AFRICA<sup>5</sup>—ALGERIA: Biskra, Hammam-es-Salahin, 5. III - 2. IV. 1903, 14. V. 1903.  $\oplus$  *Frankenia*, 10-22. III, excl. 13. III. 1906, 19. III - 23. IV. 1903 (*Wlsm.*). CANARIES—TENERIFE: Guimar, 6. III. 1907,  $\oplus$  *Frankenia ericifolia*, 6. III, excl. 6-24. IV. 1907 (*Wlsm.*); Puerto Orotava, 11. III. 1904 (*Eaton*), 21. IV - 14. V. 1907 (*Wlsm.*); Tejina, 18. III. 1902 (*Eaton*); Bajomar, 25. V. 1907 (*Wlsm.*).

This is very common on the coast on *Frankenia ericifolia* and possibly on other species of the genus; the larvae are extremely similar to those of what I must (*pace* Tutt) regard as the very closely allied *Agdistis* (*Ernestia* Tutt) *lerinensis* Mill., but, like the perfect insects, considerably smaller. Although variable in size the Tenerife specimens agree better with Zeller's original types from Sicily than with the uniformly larger specimens which I found at Biskra (Algeria). I took and bred many specimens, including a single example at light at Guimar, 1200 ft. above the sea-level, at which alone its food-plant grows.

### 13. (14201) AGDISTIS SALSOLAE, sp. n.

*Antennae* stone-grey, a dark spot on the basal joint. *Palpi* very short, the median joint rough, hoary grey; terminal joint blackish, not projecting beyond the frontal clothing. *Head* and *Thorax* hoary stone-grey. *Forewings* hoary stone-grey, minutely speckled with black, except on the more thinly clothed, slaty grey, triangular fold-space; the outer third of the costa narrowly white, showing four strong, black, oblique spots, the apex of the wing also black, including the apical cilia; on the lower edge of the fold-space are two strong, elongate, black spots, preceded by a smaller one at the angle of the fold, and followed by another, more conspicuous, and including the cilia at the tornus, before the base of which it is produced upward along the termen; terminal cilia greyish white, a slender blackish line along their middle. *Exp. al.* 16-18 mm. *Hindwings* slaty grey, with some black speckling on their lower half; cilia whitish grey, a slender shade-line along their middle. *Abdomen* brownish grey, with slender white dorsal and lateral lines. *Legs*, posterior pair white, thickly sprinkled with greyish fuscous scales—less thickly on the anterior extremities of the joints.

*Type* ♂ (98356) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava,  $\oplus$  *Salsola oppositifolia*, 30. IV - VI, excl. 5. VI - 16. VII. 1907. Six specimens.

The larva is yellowish brown, varying to grey-brown (precisely the colour of dead leaves and stalks of the food-plant); it has a group of four small tubercular excrescences on the prothorax, followed by two much larger and more elevated humps on the mesothorax, each tipped with a black spot; a much shorter pair, also black-tipped, and rather wider apart on the metathorax; on

the first abdominal somite are four black dots in two pairs, one behind the other, while on the anterior half of the remaining somites are some more or less strongly indicated slender, blackish, oblique lateral lines; the ninth abdominal somite with two short black protuberances above. Type  $\oplus$  (98418) Mus. Wlsm.

Text-fig. 243.



*Agdistis salsolae*  
(98418).

This larva differs in structure from others of the genus, and especially by its much higher metathoracic humps from that of *frankeniae* Z., although in

the imago the two species can scarcely be distinguished.

*Agdistis salsolae* is more easily recognised by a glance at the underside than in any other way, for here *frankeniae* shows only some rather obscure spots on its dull costa, the ternal and apical shades being also insignificant, whereas in *salsolae* the white costa of the forewings shows very clearly on the under side, making the four costal spots very distinct; the apical and ternal patches in the cilia are also very clear, and the limbus of the hindwings is thickly sprinkled with black scales, a raised brush of the same along the cubitus. In *salsolae* the legs are also somewhat stouter and more distinctly mottled, while scarcely any trace is shown of the subcostal spot at the end of the plical space which is always to be found in *frankeniae*; the spots are also usually larger and more conspicuous, but in bred specimens of both species this is scarcely a reliable character.

The larva is extremely difficult to rear, and I was successful with only six out of some sixty collected.

#### 14. (1425) AGDISTIS CANARIENSIS Rbl.

*Agdistis canariensis* Rbl. Ann. KK. Hofmus. XI. 114-5, 146 no. 148 (1896)<sup>1</sup>; XIII. 380 no. 161 (1899)<sup>2</sup>; XXI. 36, 43 no. 181 (1906)<sup>3</sup>; Stgr.-Rbl. Cat. Lp. Pal. II. 78 no. 1425 (1901)<sup>4</sup>.

*Hab. Canaries*<sup>1-4</sup>—TENERIFE<sup>1-4</sup>: Santa Cruz, 3. V. 1895 (*Hedemann*)<sup>1</sup>; Puerto Orotava, 20. IV - 3. V. 1907 (*Wlsm.*). FUERTEVENTURA<sup>3</sup>: 15. V. 1905 (*Polatzek*)<sup>3</sup>.

I have but little to add to what has been already published: a specimen in Mr. White's collection is probably correct, and exhibits the white unspotted costa, beyond the middle of the forewing, specially noted in the original description, and sufficing to separate this from others of the genus. I had at first regarded it as probably a mere variety of some other species, but the distinguishing character is very clearly shown in a specimen (98415) taken at Puerto Orotava, 3. V. 1907, which can only be compared with the nearly allied *adactyla* Hb.

I met with a single small larva (98417) at Guimar, on March 11th, on *Phagnalon saxatile*, the flowers of which it continued to eat very sparingly until it died on May 25th: persistent efforts to find other specimens were unsuccessful. The brownish larva, less than  $\frac{1}{4}$  inch in length, has a pair of small projecting pronotal tubercules, and a metanotal pair, larger and more erect, also an anal tubercule; on all the segments are short, reflexed, bristles, arising from pairs of small tubercular excrescences. It differs somewhat from the larva of the allied *satanas* Mill., and I had regarded it as probably that of *adactyla* Hb., with which I am not personally acquainted, until observing the close alliance of the imago of *canariensis* Rbl. to that species. There can be little doubt that this was the larva of *canariensis*, although I so unfortunately failed to rear it.

## (1426) AGDISTIS SATANAS Mill.

*Agdistis satanas* Mill. Bull. Soc. Ent. Fr. XLIV. (5 s. V : 1875). p. clxvii (1875)<sup>1</sup>; Cat. Lp. Alp-Mar. 377-8. Pl. 2. 9 (1875)<sup>2</sup>; Nat. Sic. V. 221-2 no. 3114<sup>bis</sup> (1886)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1426 (1901)<sup>4</sup>; Wlsm. Ent. Rec. XIX. 53 (1907)<sup>5</sup>.

*Hab.* S. FRANCE<sup>1-5</sup>: Cannes, ♂ *Scabiosa candicans* VI, excl. VII<sup>4</sup>.

In Mr. Tutt's recently published 'British Lepidoptera' [V. 129, 136 (1906)] some doubt is expressed as to whether a larva which I submitted to Dr. Chapman as that of *Agdistis satanas* Mill. is really an *Agdistis* at all: this opportunity may be taken to record the evidence upon which the identification rests. My experience in attempting to rear *canariensis* was precisely similar to that of Millière, and the failure may probably be attributed to the hibernating habits of the larvae of this group coming into premature practice through the necessity of keeping the bottles containing them in a comparatively cool temperature. I extract the following abridged notes from my voluminous correspondence with my late friend Monsieur Millière:—In 1885 Millière had two larvae which he believed to be those of *Agdistis satanas*. He was taking great care of them—one disappeared, the other fixed itself up for pupation, but did not change, drying up, but preserving its form, so that he could figure it. In his letter to me, of August 19th, 1885, he mentions this fact and adds "car je crois avoir acquis la preuve que c'est bien la chenille de *Satanas*." The proof appears in the following translation: 'One female of this *Agdistis* has had the good thought to lay ten fertile eggs, but I have not been able to feed the little caterpillars, which have not touched anything and have died of hunger. I have preserved in spirit some of these young larvae, which, under a strong lens, seem to me to have all the characters of the caterpillar which you have prepared for your collection. I can send you these larvae obtained *ab ovo*.' I have empty egg-shells, sent at that time, but cannot find the larvae in spirit.

In June 1886 Millière published (Nat. Sic. V. 221-2) the following additional information on *Agdistis satanas*:—

"*Obs.* Au dernier moment je trouve à l'habitat de la *Satanas*, la chenille de cette *Agdistis* qui, du 15 au 25 juin, est parvenue à son entier développement. Elle se nourrit sur la *Scabiosa candicans* dont elle ronge les feuilles, et sans doute sur d'autres plantes sous-ligneuses.

"Cette larve rappelle la chenille de sa congénère *Heydenii*, mais elle est plus courte, avec les caroncules dorsales moins développés et les poils longs et raides, dont elle est couverte, dépourvus, à l'extrémité, du petit renflement spatulifère qu'on remarque chez sa voisine.

"L'état léthargique dure à peine un mois.

"L'*Agd. Satanus* qui n'a que génération pond rarement en captivité, cependant une ♀ enfermée en un tube de verre, ayant pondu une 30<sup>e</sup> d'œufs, j'ai pu les étudier. Ces œufs sont relativement gros, elliptiques, blanchâtres, et profondément cannelés en long; leur éclosion eut lieu 15 jours après.

"La jeune ch. se montre alors à peu près ce qu'elle sera à ses divers âges. Elle passe l'hiver fixée à une tige sèche, dissimulée dans les brindilles herbacées."



## 15. (1428) AGDISTIS (HERBERTIA Tutt) TAMARICIS Z.

*Adactyla tamaricis* Z. Isis 1847. 899 no. 438 · 1<sup>1</sup>. *Agdistis tamaricis* Z. Lin. Ent. VI. 325-6 no. 7 (1852)<sup>2</sup>; Meyr. Ent. Mo. Mag. XXII. 106 (1885)<sup>3</sup>; B-Bkr. Tr. Ent. Soc. Lond. 1894. 50<sup>4</sup>; Rbl. Ann. KK. Hofmus. XI. 115 (1896)<sup>5</sup>; XIII. 376, 380 no. 162 (1898)<sup>6</sup>; XXI. 43 no. 182 (1906)<sup>7</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1428 (1901)<sup>8</sup>. *Herbertia tamaricis* Chpm. & Tutt Br. Lp. V. 129-30, 132, 135, 253 (1906)<sup>9</sup>. *Agdistis tamaricis* Wlsm. Ent. Rec. XIX. 54, 55 (1907)<sup>10</sup>.

*Hab.* S. EUROPE<sup>1-2, 3</sup>. WC. ASIA<sup>8</sup>. AFRICA—EGYPT: Alexandria<sup>4</sup>—ALGERIA<sup>10</sup>: Biskra, Hammam-es-Salahin, 6. III - 28. IV. 1903, 3. IV. 1904, ⊕ *Tamarix*, 9. III, excl. 10. IV. 1904 (*Wlsm.*). CANARIES<sup>6-8</sup>—TENERIFE: Santa Cruz, 30. IV. 1898 (*Hintz*)<sup>6</sup>; ⊕ *Tamarix gallica*, 14. I, excl. 27. II - 8. IV. 1907, ⊕ 24. V, excl. 13-15. VI. 1907 (*Wlsm.*). CAPE DE VERDES: St. Vincent<sup>3, 5-6, 10</sup>.

Abundant in many parts of the Island, and no doubt thus widely distributed owing to the prevailing custom of planting *Tamarix* along the sides of the main roads so far as these extend. Preserved larvae compared with European and Algerian specimens show a curious modification in form, the tuberculous excrescences on the prothorax and mesothorax, and on the second, fifth, and ninth abdominal somites, although similarly placed, are distinctly exaggerated, being at least one-third longer than in European specimens, a peculiarity in which they are at least closely approached by larvae from Algeria. I am unable to find any difference in the imago.

## 16. (1430) AGDISTIS (ADACTYLUS Crt.) STATICIS Mill.

*Agdistis staticis* Mill. Bull. Soc. Ent. Fr. XLIV. (5 s. V: 1875). p. clxvii (1875)<sup>1</sup>; Cat. Lp. Alp-Mar. 375-6. Pl. 2 · 4-8 (1875)<sup>2</sup>; Wlsm. Ent. Mo. Mag. XXVII. 141 (1891)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1430 (1901)<sup>4</sup>. *Adactylus staticis* Chpm. & Tutt Br. Lp. V. 128-30 (1906)<sup>5</sup>. *Agdistis staticis* Wlsm. Ent. Rec. XIX. 53-4 (1907)<sup>6</sup>.

*Hab.* S. FRANCE<sup>1-6</sup>: Ile Ste Marguerite<sup>1-2</sup>; Beaulieu<sup>3</sup>; ⊕ *Statices cordata*, III, excl. 15. V. 1890<sup>3</sup>; ⊕ V, excl. VIII<sup>1-2</sup>. ALGERIA<sup>6</sup>: Ain-Oumash<sup>6</sup>, Biskra<sup>6</sup>, Hammam-es-Salahin<sup>6</sup>, ⊕ *Statices limonium*<sup>6</sup>, 2. III - 5. IV, excl. 28. IV. 1903, 23. III - 13. VI. 1906 (*Wlsm.*). CANARIES—TENERIFE: Puerto Orotava, ⊕ *Statices pectinata*, 8. V, excl. 29. V - 13. VI. 1907 (*Wlsm.*).

The moths bred at Puerto Orotava from larvae on *Statices pectinata* are of a distinctly darker shade than those from Cannes and Biskra, but perhaps this may be partially due to fading in the older specimens; the larvae are similar.

The larvae of *lerinensis* Mill. could not be found among those of *staticis* as they were at Cannes and Biskra.

## II. ORNEODINA.

### I. ORNEODIDAE.

#### 9. (217) ORNEODES Ltr.

##### 17. (1438) ORNEODES HÜBNERI Wlgrn.

*Alucita hexadactyla* Hb. Smlg. Eur. Schm. IX. Pl. 6·30-1 (1818)<sup>1</sup>.  
*Alucita hübnerei* Wlgrn. Kngl. Vet-Ak. Hndl. III. (7). 24 (1859)<sup>2</sup>.  
*Orneodes hübnerei* Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1438 (1901)<sup>3</sup>:  
 Rbl. Ann. K.K. Hofmus. XXI. 36, 43 no. 183 (1906)<sup>4</sup>.

*Hab.* EUROPE<sup>1-3</sup>. Canaries<sup>4</sup>—TENERIFE: Guimar (W. W. White)<sup>4</sup>.

Prof. Rebel records *hübneri* from Guimar on the authority of Sir George Hampson. My only knowledge of this species in Tenerife is derived from specimens in Mr. White's collection.

## III. TINEINA.

### I. GELECHIADAE.

#### 10. (297) METZNERIA Z.

##### 18. (2487·1) METZNERIA INSIGNIFICANS, sp. n.

*Antennae* snow-white, faintly annulate with greyish fuscous. *Palpi* moderately recurved, the median joint somewhat coarsely scaled, but scarcely roughened beneath; stone-whitish, sprinkled with fawn-brown and greyish fuscous. *Head* and *Thorax* stone-whitish, sprinkled with fawn-brown. *Forewings* stone-whitish, profusely sprinkled with pale fawn-brown and pale greyish fuscous scales; there is a faint indication of a small spot at the end of the cell, preceded by another in the middle of the wing, and the line of the fold is sometimes slightly tinted with ochreous; cilia speckled as on the wing-surface, and with a scarcely perceptible oblique shade-line before their tips. *Exp. ad.* 10-11 mm. *Hindwings* iridescent pale bluish grey, with rosy reflections; cilia very pale brownish cinereous. *Abdomen* iridescent, bluish grey. *Legs* pale brownish cinereous.

*Type* ♂ (14145) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 1700 ft., 20. III. 1904 (*Eaton*); Santa Cruz, 3. IV. 1904 (*Eaton*). Two specimens.

I did not meet with this species.

##### 19. (2488·1) METZNERIA INFELIX, sp. n.

*Antennae* stone-whitish, faintly annulate with greyish fuscous. *Palpi* stone-whitish, shaded with fuscous along their outer sides. *Head* and *Thorax* stone-whitish, sprinkled with fawn-grey. *Forewings* stone-whitish, with a slight ochreous tinge, freely sprinkled with fawn-grey, especially along the costa, along the upper edge

of the outer end of the fold, and about the termen; a small fuscous spot in the fold, scarcely before the middle of the wing, is followed by a larger more elongate discal spot, scarcely beyond the middle, another lying at the end of the cell; a few of the scales along the termen are tipped with fuscous, a slight sprinkling also occurring along the middle of the greyish ochreous cilia. *Exp. al.* 11-15 mm. *Hindwings* pale bluish grey; cilia pale greyish ochreous. *Abdomen* fawn-grey; anal tuft stone-whitish. *Legs* stone-whitish.

*Type* ♂ (98962) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 8-14 II. 1907; Puerto Orotava, 23. IV, 10. V. 1907. Five specimens, but only one in good condition.

This species differs from *tristella* Rbl. in having the antennae annulate, and in the paler colour of its somewhat narrow forewings; moreover, although the spots are in the same position they are unaccompanied in this species by the yellowish, or ochreous, streaks which in *tristella* tend to connect and emphasise them. The palpi appear to be also a little more slender.

20. (2489-1) METZNERIA DICHROA, sp. n. (Plate LI. fig. 4.)

*Antennae* whitish ochreous, speckled with black above. *Palpi* whitish ochreous, more brownish ochreous on their outer sides. *Head* whitish ochreous. *Thorax* pale ochreous. *Forewings* whitish ochreous, longitudinally smeared with pale brownish ochreous below, above, and beyond the cell; an elongate black discal spot lies on the middle of the wing, followed by a smaller one at the end of the cell and preceded by two, even less conspicuous, groups of black scales on the fold and at the upper edge of the cell respectively; cilia whitish ochreous, with a slender brownish line running through their middle. *Exp. al.* 14-16 mm. *Hindwings* tawny grey; cilia pale brownish ochreous. *Abdomen* shining, pale greyish. *Legs* whitish ochreous.

*Type* ♂ (98304) Mus. Wlsm.

*Hab.* TENERIFE: Villa Orotava, ⊕ in seed-heads of *Carlina salicifolia*, 25. IV - 7. VII, excl. 3. VI - 18. VII. 1907. Four specimens.

*Larva* white, without markings. *Head* olivaceous blackish, rather broadly edged with white on either side of the suture; pronotal plate indistinct, pale olivaceous. Long. 6 mm. *Type* ⊕ (98308: 7. VII.) Mus. Wlsm.

Bred from larvae, collected April 25th, feeding in old seed-heads of *Carlina salicifolia* Cav. in barrancos above Villa Orotava. Allied to *castiliella* Mschl.

21. (2490-1) METZNERIA MONOCHROA, sp. n.  
(Plate LI. fig. 5.)

*Antennae* pale ochreous. *Palpi* ochreous; brownish ochreous on their outer sides. *Head* and *Thorax* pale ochreous, slightly

smearred with pale brownish ochreous. *Forewings* whitish ochreous, suffused with very pale brownish ochreous, leaving the neuration faintly indicated by slender lines of the paler ground-colour, scarcely noticeable, except towards the apex; a slight suffusion of fawn-brown from the base of the costa reaches to about one-third, with a group of scales, indicating a spot, below the costa near its termination; a plical spot is placed below and a little beyond this, and there is also a similar fawn-brown spot, rather more conspicuous, at the end of the cell; cilia pale ochreous, with a very faint dividing shade-line. *Exp. al.* 23 mm. *Hindwings* tawny grey; cilia very pale brownish ochreous. *Abdomen* grey. *Legs* pale ochreous; tarsi unspotted.

*Type* ♂ (98309); ♀ (98310) Mus. Wlsm.

*Hab.* TENERIFE: La Laguna, 11. V. 1907. Two specimens.

The ♂ in fine condition, the ♀ not quite so good; found below the large leaves of wild Artichoke (*Cynara cardunculus*), sheltering on the ground from a high wind. It is near *torridella* Mn., but much paler and quite distinct.

#### 11. (321) SITOTROGA Hnm.

#### 22. (2902) SITOTROGA CEREALELLA Oliv

*Alucita cerealella* Oliv. Enc. Méth. IV. (Ins. I.). 121 no. 15 (1789)<sup>1</sup>. *Sitotroga cerealella* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 32<sup>2</sup>; Rbl. Ann. KK. Hofmus. IX. 18, 89 no. 172 (1894)<sup>3</sup>; XXI. 44 no. 215 (1906)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 157 no. 2902 (1901)<sup>5</sup>; Busck Bull. US. Nat. Mus. 52. 496 no. 5552 (1902)<sup>6</sup>; Meyr. Pr. Lin. Soc. NSW. XXIX. 286 no. 50 (1904)<sup>7</sup>; Jr. Bomb. NH. Soc. XVI. 591 (1905)<sup>8</sup>.

*Hab.* EUROPE<sup>1-4</sup>. ASIA—CEYLON<sup>8</sup>—JAPAN (*Pryer*: Mus. Wlsm.). AUSTRALIA<sup>7</sup>. N. AMERICA<sup>6</sup>. MADEIRAS<sup>2</sup>—MADEIRA<sup>2</sup>: Funchal (*Hollaston*)<sup>2</sup>. CANARIES<sup>2-5</sup>—TENERIFE<sup>3-4</sup>: IV. 1884 (*Leech*); Santa Cruz, 31. I. 1907 (*Wlsm.*); Puerto Orotava, 24. III. 1902 (*Eaton*); "on board SS. 'Gando,'" 15. VI. 1907 (*Wlsm.*).

Taken at Santa Cruz, and on board ship when coming home.

#### 12. (3201) PRAGMATODES, gn. n.

(πρᾶγματῶδες = troublesome.)

Type *Pragmatodes fruticosella* Wlsm.

*Antennae*  $\frac{4}{5}$ , slightly serrate, somewhat thickened in ♂; basal joint without pecten. *Maxillary Palpi* very short, connivent. *Labial Palpi* recurved, moderate, median joint smoothly scaled; terminal joint shorter than median. *Haustellum* moderate. *Head* and *Thorax* smooth. *Forewings* elongate, gradually tapering to apex; *neuration* 12 veins; 7 and 8 stalked, to costa, 6 out of 7; rest separate, 1 furcate at base. *Hindwings* (-1), costa and dorsum almost parallel, apex strongly produced, termen oblique;



cilia 3, costal cilia somewhat bristly towards base: *neuration* 8 veins; 2 to 5 remote; 6 and 7 stalked, 6 weak. *Abdomen* moderate. *Legs*, hind tibiae clothed with loose hairs.

I am unable to refer this somewhat obscure species to any described genus. In the combined characters 3 and 4 remote, 6 and 7 stalked in the hindwings; and 6 out of 7, beyond its furcation with 8, in the forewings, this agrees with *Sitotroga* Hnm., which however differs in having a pecten on the basal joint of the antennae. *Schistophila* Chrét. and *Glauce* Chmb. differ in having broader hindwings, with 3 somewhat approximated to 4, and the latter has long, flattened, broad, black subcostal bristles. *Ptocheuusa* Hnm. has 3 and 4 of the hindwings connate, and 3 and 4 of the forewings coincident. The group of *Approaerema* Dnt., having 6 and 7 of the hindwings stalked, differs in having 3 and 4 connate; *Apodia* Hnm. agrees with *Pragmatodes* in the *neuration* of the forewings, but like other allies of *Aristotelia* Hb., with 3 and 4 of the hindwings remote, differs in having 6 and 7 separate, not stalked.

23. (2901·1) PRAGMATODES FRUTICOSELLA, sp. n.

(Plate LI. fig. 10.)

*Poecilia* (*Stenolechia*) sp. Rbl. Ann. KK. Hofmus. XI. 128, 146 no. 192 (1896)<sup>1</sup>. *Stenolechia* (*Poecilia*) sp. Rbl. Ann. KK. Hofmus. XXI. 44 no. 214 (1906)<sup>2</sup>.

*Antennae* dirty whitish, obscurely annulate with fuscous. *Palpi* dirty whitish, dusted with fuscous, a black band before the apex on the median and terminal joints. *Head* and *Thorax* whitish, speckled with fuscous. *Forewings* dirty stone-whitish, dusted with fuscous; a basal patch, with convex outer margin, reaches to nearly one-fifth from the base and is thickly bestrewn with fuscous, the space beyond it forming a narrow fascia of the pale ground-colour, followed by a transverse blackish band, also irregularly convex, but ill-defined on its outer side; this again is followed along the dorsum and costa by somewhat profuse blackish dusting, a small dark discal spot lying in the middle of the wing; beyond the middle an inverted and rather angulated fascia of the pale ground-colour is ill-defined and followed by profuse blackish speckling, reaching to the apex and termen; cilia pale brownish grey, with a shade-line before their outer ends. *Exp. al.* 6·5–7·5 mm. *Hindwings* deeply sinuate, but not squarely excised below the apex; grey; cilia pale brownish grey. *Abdomen* greyish. *Legs* pale brownish grey, with fuscous bands on tibiae and tarsi.

*Type* ♀ (98969); ♂ (98970) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz. 31. I – 21. II, 29. V. 1907, ⊕ *Rubia fruticosa*, 13. II, excl. 19–20. III. 1907; Guimar, 28. II – 4. III. 1907. Ten specimens.

Bred in March from larvae found mining the leaves of *Rubia fruticosa* in February. The moth was also taken on the wing from January to March, and in May, at Santa Cruz and Guimar.

I feel very little doubt that the *Poecilia* (*Stenolechia*) *sp.*, which Rebel described from a worn ♀, taken by von Hedemann, in a barranco near Santa Cruz among *Tamarix*, 5. V. 1895, was the species now described as *fruticosella*, the larvae of which, although difficult to rear, are very common on *Rubia* in all the barrancos west of the town.

### 13. (320) APODIA Hnm.

#### 24. (2900·4) APODIA GUIMARENSIS, sp. n. (Plate LI. fig. 6.)

*Antennae* cinereous. *Palpi* whitish cinereous. *Head* and *Thorax* whitish cinereous, the latter with a pale fawn-brown patch above. *Forewings* pale fawn-brown, with whitish cinereous lines and streaks, placed longitudinally and obliquely, but not transversely; one along the costa from base to apex, one along the cell from the base, branching to the costa beyond the middle, and again before the apex; another along the upper edge of the fold as far as the middle of the wing, nearly touching the outer end of an oblique dorsal patch arising before the middle, a similar patch arising before the tornus and angulated outward toward the apex; cilia whitish cinereous, dusted with fawn-brown scales on their basal half. *Exp. al.* 7·5-9 mm. *Hindwings* pale grey; cilia pale brownish cinereous. *Abdomen* brownish grey. *Legs* pale cinereous.

*Type* ♂ (98979) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 13-28. III. 1907 (*Wlsm.*), 20. III. 1904 (*Eaton*). Four specimens.

### 14. (310) ARISTOTELIA Hb.

#### 25. (2797·1) ARISTOTELIA ANCILLULA, sp. n.

*Antennae* pale fawn, broadly barred with dark fuscous above, almost obliterating the paler colour, except a noticeable spot at the outer end of the basal joint. *Palpi* pale cinereous; the median joint coarsely clothed beneath, speckled externally with fuscous; terminal joint much sprinkled with fuscous externally. *Head* rosy fawn, shaded with fuscous. *Thorax* rosy fawn, a strong dark fuscous shade anteriorly between the tegulae. *Forewings* rosy fawn, thickly sprinkled with fuscous, and with some dark fuscous, almost black, spots—one on the costa near the base, another, larger, on the dorsum below it, and a smaller one between them—these more or less confluent; opposite the middle spot is a larger one at about one-sixth, its lower edge resting on the fold; again, a little before the middle, is a similar spot on the disc, more or less confluent with a smaller one slightly preceding it on the fold, and these again are followed by a smaller and less conspicuous spot at the end of the cell; cilia rosy fawn, sprinkled with fuscous along their base. *Exp. al.* 13 mm. *Hindwings* (1); shining, somewhat iridescent, pale bluish grey; cilia fawn-

brownish. *Abdomen* greyish. *Legs* pale fawn-ochreous, somewhat speckled with pale fuscous.

*Type* ♀ (98982) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 25. III. 1907. Unique.

Agreeing precisely in the form of the hindwing with *servella* Z., but differing from this, and so far as I am aware from all other species of the genus, in the form and distribution of the more or less distinct spots.

26. (2811·1) *ARISTOTELIA CACOMICRA*, sp. n.

*Antennae* brownish grey. *Palpi* with the median joint slightly ruffled beneath; pale cinereous, dusted with brownish grey, with a fuscous band around the middle of the terminal point. *Head* and *Thorax* brownish grey. *Forewings* brownish grey, with a slight sprinkling of pale cinereous scales, some of which about the apex are tipped with brownish fuscous; three brownish fuscous spots are indistinctly indicated, one on the middle of the fold, one before the outer end of the fold, and one above and between these, on the cell, forming with them an almost equilateral triangle; cilia brownish cinereous. *Exp. al.* 7-8 mm. *Hindwings* iridescent, dark bluish grey; cilia brownish cinereous. *Abdomen* greyish fuscous. *Legs* brownish cinereous, the tarsi spotted whitish at the joints.

*Type* ♂ (98983) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 26. I - 21. II. 1907, 29. IV. 1907; Puerto Orotava, 14. V. 1907. Seven specimens.

Near *rumicetella* Hfm., but without any indication of pale opposite spots before the apex; also differing noticeably in the absence of the shade-line which runs through the cilia in that species, and gives a rounded appearance to the otherwise almost evenly pointed wing.

15. (319) *CHRYSOPORA* Cms.

27. (2894·1) *CHRYSOPORA BOSEAE*, sp. n. (Plate LI. fig. 7.)

*Antennae* golden yellow, annulate with black. *Palpi* black, medial and terminal joints tipped with yellow. *Head* shining, brassy yellowish. *Thorax* black, with a few yellow scales. *Forewings* black; a bright golden fascia, at one-fourth from the base, descends obliquely inward from costa to dorsum, and is followed on the middle of the dorsum by two yellow spots, the first preceded by some raised black scales and having at its upper edge a tinge of coppery chestnut which is repeated in a strong spot at the end of the cell, above and beyond which is a triangular pale yellow spot on the costa; cilia pale brownish ochreous, thickly sprinkled, except on their outer ends, with black. *Exp. al.* 7-8 mm. *Hindwings* deeply excised below the apex; grey; cilia brownish grey, a slender pale cinereous line marking their base. *Abdomen*

blackish. *Legs* black, with pale ochreous spurs; hind tarsi with about five pale ochreous annulations.

*Type* ♂ (98991); ♀ (98992) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, 27. IV – 8. V. 1907, ⊕ mining leaves of *Bosea yerramora*, 21. IV, excl. 11–29. V. 1907. Thirty specimens.

The larva makes blotch-like mines in the leaves of *Bosea yerramora*, an indigenous shrub (which also occurs in the West Indies), on which it is by no means uncommon at Orotava; probably to be found elsewhere, as I believe I recognised the old mines between La Laguna and Tegeste.

#### 16. (311) APROAEREMA Drnt.

= \**ANACAMPSIS* Stgr-Rbl. (nec Crt.).

#### 28. (2838) APROAEREMA PSORALELLA Mill.

n. syn. = \**albipalpella* (p.) Wlsm. (nec HS.); = *infestella* Rbl.; = \**anthyllidella* (p.) Stgr-Rbl.

*Gelechia psoralella* Mill. Ic. Chen-Lp. II. 83–6. Pl. 61 · 1–6 (1865)<sup>1</sup>; III. 460 (1874)<sup>2</sup>. *Anacamopsis psoralella* Stgr-Wk. Cat. Lp. Eur. 299 no. 2079 (1871)<sup>3</sup>; Mill. Cat. Lp. Alp-Mar. 335 (1875)<sup>4</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 24 no. 2079 (1880)<sup>5</sup>. *Anacamopsis* \**albipalpella* (p.) Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 33 (1894)<sup>6</sup> [excl. 'Porto Santo, Stn.']. *Anacamopsis infestella* Rbl. Ann. KK. Hofmus. XI. 128, 146 no. 195 (1896)<sup>7</sup>; XXI. 44 no. 212 (1906)<sup>8</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 154 no. 2838 (1901)<sup>9</sup>. *Anacamopsis* \**anthyllidella* (p.) Stgr-Rbl. Cat. Lp. Pal. II. 153 no. 2835 (1901)<sup>10</sup> [excl. "Mad."].

*Hab.* S. FRANCE: Amélie-les-bains; Cannes; Fréjus. ⊕ *Psoralea bituminosa*, X–IV, excl. V–VIII. **Madeiras**<sup>6</sup>—MADEIRA<sup>6</sup>: (Wollaston)<sup>6</sup>. **Canaries**<sup>7</sup>—TENERIFE<sup>7</sup>: Guimar, 14. III. 1907, ⊕ *Psoralea bituminosa*, 3–9. IV, excl. 6. IV – 6 V. 1907 (Wlsm.); Puerto Orotava, 14–30. IV. 1895 (*Hedemann*)<sup>7</sup>; 26. IV – 14. V. 1907 (Wlsm.); Bajomar, 25. V. 1907 (Wlsm.).

Stainton [Ann-Mag. NH. (3 s.). III. 213] recorded \**anthyllidella* Hb. from Porto Santo (Madeiras), and described *elachistella*, sp. n., from Northern Deserta (Madeiras). In 1894 (l. c. 6) I referred Stainton's supposed \**anthyllidella* to \**albipalpella* HS., and recorded as the same species a single specimen (13617) from Madeira. Rebel (l. c. 7) suggests the possibility that the species recorded by me as \**albipalpella* HS. (= \**anthyllidella* Stn.) might be the species which he proceeds to describe as *infestella* Rbl. I think this extremely probable, so far as the specimen from Madeira (13617) is concerned, for I have now before me more reliable exponents of *albipalpella* HS., and this Madeiran specimen does not completely agree with them; but it does agree with *psoralella* Mill., which Rebel (l. c. 10) sinks as a synonym of the true *anthyllidella* Hb. As we are all seeking for the truth, and as



one good turn deserves another, may I, in thanking Prof. Rebel for the hint, suggest that his *infestella* is *psoraella* Mill.? In support of this theory, without seeing Rebel's type, I can only say that *psoraella* Mill. is very common on *Psoralea bituminosa* in Tenerife, and the larvae from which I reared it there are the same as those pointed out to me by Millièrè himself at Cannes many years ago. Rebel's specimens of *infestella* were taken at Orotava 14-30. IV. 1895; I have specimens of *psoraella* labelled Orotava, 26. IV - 14. V. 1907.

In any case I must admit that the Madeira specimen (13617) is *psoraella* Mill., while Stainton's specimen from Porto Santo, recorded as *\*anthyllidella* (no. XXVIII) has a white face and white palpi, and is a finer specimen of *elachistella* Stn. than is the unsexed type (no. XXIX, ♂) from Northern Deserta.

28<sup>a</sup>. (2846) APROAEREMA ELACHISTELLA Stn.

=*\*anthyllidella* Stn. (nec Hb.); =*\*albipalpella* (p.) Wlsm. (nec HS.).  
*Gelechia \*anthyllidella* Stn. Ann-Mag. NH. (3 s.). III. 213 no. 19 (1859)<sup>1</sup>.  
*Gelechia elachistella* Stn. Ann-Mag. NH. (3 s.). III. 213 no. 20 (1859)<sup>2</sup>; Wkr. Cat. Lp. BM. XXIX. 628 no. 307 (1864)<sup>3</sup>.  
*Anacampsis \*albipalpella* (p.) Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 33 (1894)<sup>4</sup>.  
*Anacampsis elachistella* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 34 (1894)<sup>5</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 154 no. 2846 (1901)<sup>6</sup>.

*Hab.* Madeiras<sup>2-6</sup>—NORTHERN DESERTA: (*Wollaston*)<sup>2, 3, 5</sup>.—PORTO SANTO: (*Wollaston*)<sup>1</sup>. CANARIES—GRAN CANARIA: Las Palmas, 15. VI. 1907 (*Wlsm.*).

Stainton [Ann-Mag. NH. (3 s.). III. 213] recorded *\*anthyllidella* Hb. from Porto Santo, and described *elachistella*, sp. n., from Northern Deserta. In 1894 (l. c. 4) I referred Stainton's supposed *\*anthyllidella* to *\*albipalpella* HS., and recorded as the same species a single specimen (13617) from Madeira. Having now before me more reliable exponents of *albipunctella* HS., I find that this specimen from Madeira does not completely agree with them; but it does agree with *psoraella* Mill., which I have bred from *Psoralea bituminosa* at Cannes and in Tenerife. I have again examined Stainton's specimens and find that his *\*anthyllidella* from Porto Santo (no. XXVIII) has white palpi and white face, and is a finer specimen of *elachistella* Stn. than is the unsexed type (no. XXIX, ♂) from Northern Deserta. I took two specimens of this species at Las Palmas on June 15th. The locality "*Mad.*" (Stgr-Rbl. Cat. Lp. Pal. II. 153 no. 2835) pertains to *elachistella* Stn. (= *\*anthyllidella* Stn.)—the true *anthyllidella* Hb. has not yet been recognised as occurring in the Madeiras or Canaries.

29. (2847-01) APROAEREMA GENISTAE, sp. n. (Plate LI. fig. 8.)

*Antennae* black, with white annulations. *Palpi* white, with a slender black line along the under side of the acute terminal joint. *Head* white. *Thorax* brownish olivaceous. *Forewings* pale brownish olivaceous at the base, blending to blackish about the middle, and on the dorsum nearly to the base; beyond the middle is a straight, well-defined, oblique white fascia, of even width, pointing slightly outward from dorsum to costa; beyond it the terminal portion of the wing is profusely sprinkled with some brownish, many blackish, and a few elongate shining steely grey scales, the latter prevailing around the margin and at the base of the tawny greyish cilia. *Exp. al.* 8 mm. *Hindwings* leaden grey; cilia tawny grey. *Abdomen* leaden grey. *Legs* white, with broad tawny fuscous bands around the hind tibiae.

*Type* ♀ (98993); ♂ (98994) Mus. Wlsm.

*Hab.* TENERIFE: La Laguna, ⊕ in shoots of *Genista canariensis*, 18. V, excl. 21. V - 9. VI. 1907. Thirty-three specimens.

Closely allied to *captivella* HS. and *acanthyllidis* Wlsm. [Ent. Mo. Mag. XLI. 40 (1905)], differing from the former in the white fascia being more outwardly oblique from dorsum to costa, and from the latter in the form of this fascia, which is consistently of even width throughout, throwing no projection toward the termen on its outer side; it is also slightly larger and has darker hindwings.

30. (2847·2) APROAEREMA THAUMALEA Wlsm. (Plate LI. fig. 9.)

*Aproaerema thaumalea* Wlsm. Ent. Mo. Mag. XLI. 41 no. 2847·2 (1905)<sup>1</sup>.

*Hab.* ALGERIA<sup>1</sup>: Hammam-es-Salahin, ⊕ *Astragalus gombo*, III-V, excl. IV-VI.<sup>1</sup> CANARIES—TENERIFE: Guimar, ⊕ *Lotus sessilifolius*, 6. III, 16-27. IV, excl. 10-29. IV, 20. V. 1907.

Thirteen specimens, bred from larvae forming sand-galleries beneath the trailing shoots of *Lotus sessilifolius*, on the coast near Puerto Guimar, are not in any way distinguishable from my Algerian specimens bred from *Astragalus gombo*. The food-plants are not very nearly allied, but they both grow on hot sandy soil, and the habits of the larvae are almost similar, but the larvae themselves, or at least the specimens which I preserved, believing them to belong to this species, are totally different, so much so that I am led to doubt whether the Algerian specimen (97110) does not rightly belong to some other species feeding on the same plant. About the Tenerife larva there can be no mistake: it is a curious, long, attenuated larva, with the thoracic somites slightly swelled; the head pale yellow-brown, pronota' plate broad, but very faintly indicated; abdominal claspers short almost rudimentary. It is creamy white, with a slender reddish line on either side of the dorsum, running from the mesothorax to the anal extremity. Long. 13 mm. ⊕ (98996) Mus. Wlsm. It descends into the sand in a silken tube, coming up to feed on the leaves of the plant, and again retiring below ground. So far as I observed, the Algerian larva did not descend below the surface of the soil, the sand-tubes being among the trailing branches.

The specimen figured (98995, ♀) is from Guimar.

31. (2847·1) APROAEREMA MERCEDELLA, sp. n.  
(Plate LI. fig. 11.)

*Antennae* yellow, annulate with black. *Palpi* pale yellowish, the median joint black nearly to its apex, except a narrow line of white along its upper side; terminal joint with a broad blackish shade before its apex. *Head* yellowish white. *Thorax* pale yellowish, with a diffused greyish fuscous median shade above. *Forewings* blackish, with pale yellowish patches and lines occupying almost as much space as the ground-colour, which is accom-

panied, around their edges, by some rust-brown suffusion, especially noticeable on the apical portion of the wing; at the extreme base a short yellow streak, which follows the fold, is quickly diverted and dilated to the dorsum; a large pale yellow patch, commencing above its outer extremity on the costa, is attenuated obliquely outward along the cell, ending in a pale ocellate spot at the end of the cell, containing an elongate black dot, a little beyond which an outwardly angulate, narrow, pale yellow fascia crosses the wing; this is produced at either extremity along the margins and around the apex, forming thus a narrow yellowish band enclosing a space of the shape of a blunt arrow-head; cilia pale yellowish, with two parallel black lines running through them and emphasising the obtusely rounded appearance of the apex; the pale costal patch throws a slight excrescence across the fold before the middle, but does not reach the dorsum. *Exp. al.* 10 mm. *Hindwings* leaden grey; cilia brownish grey. *Abdomen* grey; anal tuft ochreous. *Legs* ochreous, the tarsi banded with leaden grey.

*Type* ♂ (14107) Mus. Wlsm.

*Hab.* TENERIFE: Las Mercedes, ⊕ on dead moss-grown bark of *Laurocerasus lusitanica*, 7. III, excl. 24. VIII. 1904 (*Eaton*). Unique.

Among described species this is most nearly allied to *nigratomella* Chms. and *concinusella* Chmb., from both of which it differs in the presence of dark dorsal markings; the pattern is found also in other allied American genera. A single specimen was bred by the Rev. A. E. Eaton from a larva found on dead moss-grown bark of *Laurocerasus lusitanica*, 7. III., near the Casa del Agua, in the forest of Las Mercedes, 2050 ft. (near La Laguna), on August 24th, 1904.

#### 17. (303'01) TELPHUSA Chmb.

= *XENOLECHIA* Meyr.

TELPHUSA Chmb. Can. Ent. IV. 132 (1872); Busck Bull. US. Nat. Mus. 52. 496-7 (1902); Busck Pr. US. Nat. Mus. XXV. 773, 783-9. Pl. 28·5 (1903).

XENOLECHIA Meyr. HB. Br. Lp. 583 (1895).

#### 32. (2743) TELPHUSA CISTI Stn.

*Gelechia cisti* Stn. Tin. S-Eur. 211-12 (1869)<sup>1</sup>. *Teleia cisti* Mill. Cat. Lp. Alp-Mar. 331 (1875)<sup>2</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 20 no. 1983 (1880)<sup>3</sup>; Wlsm. Ent. Mo. Mag. XXVII. 145 (1891)<sup>4</sup>; Rbl. Verh. ZB. Ges. Wien XLI. (1891). 630 no. 45 (1891)<sup>5</sup>. *Gelechia (Teleia) cisti* Stgr-Rbl. Cat. Lp. Pal. II. 150 no. 2743 (1901)<sup>6</sup>.

*Hab.* S. EUROPE<sup>1-6</sup>—S. FRANCE<sup>1-6</sup>: ⊕ *Cistus salviaefolius*<sup>1, 3</sup>, *C. albidus*<sup>1</sup>, III-VI<sup>3</sup>, excl. IV-VIII.<sup>3</sup>—DALMATIA<sup>3-6</sup>—CORSIKA: Corté, ⊕ *Cistus salviaefolius*, excl. 18-27. VII. 1898 (*Wlsm.*). N. AFRICA—TUNIS: Aine-Draham, 21. VII. 1896 (*Eaton*)—

ALGERIA: Port National, Algiers, 1. XI. 1892 (*Eaton*); Azagga, 2. IX. 1893 (*Eaton*); Lac Houbeira, 3. VII. 1896 (*Eaton*).  
 CANARIES—TENERIFE: Guimar,  $\oplus$  *Cistus monspeliensis*, 26. II. excl. 4. V - 3. VI. 1907 (*Wlsm.*).

33. (2749-1) TELPHUSA SCHIZOGYNAE, sp. n. (Plate LI. fig. 12.)

*Antennae* black, dotted with white throughout. *Palpi*, terminal joint longer than the smoothly and compactly clothed median; pinkish white, with two slender black lines running throughout the length of the terminal, and a black patch on the outer side of the median joint at its base. *Head* iridescent, steely whitish. *Thorax* black, shaded with brownish ochreous at the sides. *Forewings* steely whitish, suffused with bluish grey to two-thirds from the base, and again narrowly around the apex; at the extreme base is a short brownish ochreous patch, externally bounded by a black dorsal streak, and separated from the costa by black; there are two black discal spots, one before the middle, one at the end of the cell—the first of these preceded by a similar spot on the fold below it; the outer edge of the blue-grey shading is straight, except for the outer discal spot projecting through it; apex and cilia white, the latter with a faint median shade. *Exp. al.* 14-16 mm. *Hindwings* abruptly and deeply excised below apex, veins 3 and 4 separate, 5 approximate to 4, discoidal weak, 6 and 7 stalked; tawny grey; cilia paler, with a lighter line along their base. *Abdomen* and *Legs* tawny grey, the tarsi pale-spotted.

*Type* ♂ (98997); ♀ (98998) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava,  $\oplus$  in galls on stems of *Schizogyne sericea*, 21. IV - 16. V, excl. 25. IV, 10-30. V, 3-30. VI, 2-10. VII, 19. VIII. 1907. Fourteen specimens.

A distinct species, perhaps most resembling *fugitivella* Z. + *lyellella* Crt., but larger. The median joint of the palpi is too smooth to be described as "thickened with rough scales beneath," but the clothing of this joint is variable in the genus *Telphusa*. Bred from larvae feeding in a swelling on the stems of *Schizogyne sericea*: these galls are abundant on the plant, but their numbers are likely to be somewhat misleading as to the abundance of the species, for not only are they for the most part empty galls belonging to many previous seasons, but a very large proportion of the living larvae are affected by parasites—indeed I have been able to rear only fourteen specimens from at least 150 galls collected.

34. (2749-2) TELPHUSA CANARIENSIS, sp. n. (Plate LI. fig. 15.)

*Antennae* mealy white, annulate with fuscous. *Palpi* mealy white, with two blackish annulations on the terminal joint, and two oblique blackish bars on the outer side of the median. *Head* and *Thorax* mealy white, the latter slightly sprinkled with fuscous. *Forewings* mealy white, sprinkled, and almost suffused locally,



with greyish fuscous; an oblique costal spot, at one-sixth from the base, points downward to a similar one on the fold a little beyond it, which again points to another on the dorsum, each containing some raised scales, there is also a small spot at the extreme base of the fold; another costal spot occurs before the middle and is somewhat diffused outward and downward toward a small dark discal spot, beyond which, transversely placed, are two small spots at the end of the cell, these and the preceding being partially surrounded by pale ochreous scaling; there is a faint indication of a transverse shade beyond the end of the cell, throwing an acute angle outward towards the apex from below its middle, the space beyond this shade being of the paler ground-colour, but succeeded by more shady suffusion around the apex and termen; cilia mealy white, dusted with greyish fuscous. *Exp. al.* 16 mm. *Hindwings* pale grey; cilia pale brownish grey. *Abdomen* brownish ochreous. *Legs* whitish ochreous.

*Type* ♀ (98999) Mus. Wlsm.

*Hab.* CANARIES—TENERIFE: Guimar, 12. IV. 1907. Unique. Taken at light.

#### 18. (303) GELECHIA Hb.

##### 35. (2533) GELECHIA DOMESTICA Hw.

35+a. (2533+a) DOMESTICA Hw. + DOMESTICA Hw.

*Recurvaria domestica* Hw. Lp. Br. 551 no. 18 (1828)<sup>1</sup>. *Bryotropha domestica* Stgr-Rbl. Cat. Lp. Pal. II. 142 no. 2533 (1901)<sup>2</sup>.

*Hab.* EUROPE—ENGLAND—GERMANY—AUSTRIA—ITALY—SPAIN. WC. ASIA.

35+b. (2533+b) DOMESTICA Hw. + SALMONIS, var. n.

*Bryotropha domestica* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 31 (1894)<sup>1</sup>; Rbl. Ann. K.K. Hofmus. XXI. 38, 44 no. 208 (1906)<sup>2</sup>.

*Hab.* ALGERIA: Hammam-es-Salahin, 18. IV. 1903 (Wlsm.); Constantine, 20. V. 1895 (Eaton); El-Kantara, 25. V. 1903 (Wlsm.). MADEIRAS<sup>1</sup>—MADEIRA: (Wollaston)<sup>1</sup>. CANARIES<sup>2</sup>—TENERIFE: (White)<sup>2</sup>; Guimar, 4. IV. 1907 (Wlsm.). Five specimens.

*Type* ♂ (99000) Guimar, Mus. Wlsm.

I have already recorded this species from Madeira, and Prof. Rebel mentions a Tenerife specimen which I have seen in Mr. White's collection. I took a fine ♂ at Guimar on April 4th. These specimens have a salmony pink hue in the ground-colour of the forewings, which is wanting in European specimens. I have three specimens, taken in Algeria, which resemble the Canary form, and to which I had given the MS. name "*salmonis*": as all the markings correspond with those of English *domestica* Hw., it is perhaps sufficient to indicate these and the Canary and Madeiran specimens under this varietal name, taking my Guimar ♂ (99000) as the Type of this variety.

36. (2584) *GELECHIA PLUTELLIFORMIS* Stgr.

= *olbiaella* Mill.; = *siewersiellus* Chr. (nec *siewersi* Stgr., sp. alt., 2584·01).

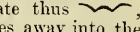
*Gelechia plutelliformis* Stgr. Stett. Ent. Ztg. XX. 239 no. 79 (1859)<sup>1</sup>; Stn. Tin. S-Eur. 141, 147 no. 18, 360 (1869)<sup>2</sup>. *Alucita olbiaella* Mill. Ic. Chen-Lp. I. 193-6. Pl. 1·1-6 (1861)<sup>3</sup>; Stn. Tin. S-Eur. 167, 182-5 no. 10 (1869)<sup>4</sup>. *Hypsolophus siewersiellus* Chr. Stett. Ent. Ztg. XXVIII. 239-40 (1867)<sup>5</sup>. *Gelechia plutelliformis* Stgr. Berl. Ent. Zts. XIV. 309-10 no. 91 (1870)<sup>6</sup>; Stgr.-Wk. Cat. Lp. Eur. 290 no. 1832 (1871)<sup>7</sup>; Mill. Cat. Lp. Alp-Mar. 326 (1875)<sup>8</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 16 no. 1832 (1880)<sup>9</sup>; Curo Cat. Lp. Ital. VI. 38 (1882)<sup>10</sup>; Rouast Cat. Chen. Eur. 155 (1883)<sup>11</sup>; Chr. Mém. Lp. Rmhf. II. 158 no. 316 (1885)<sup>12</sup>; Rbl. Ann. KK. Hofmus. VII. 274, 283 no. 56 (1892)<sup>13</sup>; XIII. 377, 381 no. 203 (1898)<sup>14</sup>; XXI. 44 no. 209 (1906)<sup>15</sup>; Stgr.-Rbl. Cat. Lp. Pal. II. 144 no. 2584 (1901)<sup>16</sup>.

*Hab.* S. SPAIN<sup>1-2, 6-7, 10, 13, 16</sup>.—S. FRANCE<sup>3-4, 7-8, 10, 13, 16</sup>.—SE. RUSSIA: Sarepta<sup>5, 7, 10, 16</sup>, 23. V. 1866, 1. VII. 1866, 11. VIII. 870 (*Christoph.*). PONTUS<sup>13, 16</sup>.—SYRIA<sup>10</sup>.—TURA<sup>12, 13, 16</sup>: ⊕ *Tamarix*<sup>1-5, 8-11</sup>: *gallica*<sup>3-4, 8-11</sup>: *laxa*<sup>5, 9</sup>: *pallasii*<sup>5, 9</sup>, III-IV<sup>9</sup>; VI-VIII<sup>5, 9</sup>; IX<sup>5</sup>; autumn<sup>3, 4, 11</sup>, excl. V<sup>9</sup>-VI<sup>1, 2, 5</sup>; VII<sup>3-4, 5, 8</sup>; VIII<sup>3-4, 8-9</sup>-IX<sup>9</sup>. CANARIES<sup>13-16</sup>.—TENERIFE<sup>13-15</sup>: Guimar, 15. I. 1898 (*Hintz*)<sup>14</sup>; Santa Cruz, 17. I - 2. II. 1907, ⊕ *Tamarix gallica*, XII-I, excl. 20. II - 17. IV. 1907 (*Wlsm.*); Monte de Aguirre, 800 m., 21. VII. 1889 (*Simony*)<sup>13</sup>.

Among a series of fifteen specimens, bred from *Tamarix gallica*, near Santa Cruz, one pale variety approaches somewhat closely in colour to the Algerian *sinuatella*, Wlsm. [Ent. Mo. Mag. XL. 223 (1904)], but the form of the markings is distinctly that of *plutelliformis*, which it resembles also in its smaller size.

The larva feeds on *Tamarix gallica*, in December and January, the moth flying in January, February, and March.

*Larva*, somewhat attenuate to either extremity, greenish yellow, with reddish patches on the anterior portion of each segment, and a few, sparsely distributed, bristly hairs; there is a single black dot on either side of each thoracic somite. Head pale green; no distinguishable pronotal plate; legs and claspers long, blackish.

In 1859 Staudinger described *Gelechia plutelliformis* (Stett. Ent. Ztg. XX. 239) from two ♀♀ bred from larvae taken at Chiclana, and in 1870 he described *Gelechia siewersi* Chr. in litt. (Berl. Ent. Zts. XIV. 309-10), pointing out the differences between the two species, and adopting Christoph's name, apparently overlooking Christoph's description of *Hypsolophus siewersiellus* (Stett. Ent. Ztg. XXVIII. 239-40). The two species are quite distinct and easily separated: in *plutelliformis* the dark streak reaches to the base, and is sinuate thus , being clearly defined beneath by whitish ochreous, but above it fades away into the ground-colour of the wing; at the extremity of the dark sinuate line is a dark extension, sometimes separated from it. In *siewersi* the longitudinal dark marking may be best described as a cuneate streak commencing at half the wing-length and attenuate towards the base, which it does not reach; this streak is sharply edged with whitish above, and slightly beyond its outer extremity, in line with its upper

edge, is an elongate dark streak, also edged above with whitish; at the base is a black limbal streak which does not occur in *plutelliformis*. When describing *siewersiellus*, Christoph had before him (unwittingly) specimens of both *plutelliformis* and *siewersi*, both taken at Sarepta, and apparently both bred from *Tamarix*. His description of *siewersiellus* was obviously taken from *plutelliformis*, and Staudinger und Wocke (Cat. Lp. Eur. 290) give the synonymy correctly thus:

1831. *siewersi* Stgr.

1832. *plutelliformis* Stgr.; = *olbiaëlla* Mill.; = *siewersiellus* Chr.

Christoph's collection contains six specimens and a larva labelled "*siewersi* Stgr."; and four specimens labelled "*plutelliformis* Stgr." These are all from Sarepta, and are correctly determined, except that the third specimen of *plutelliformis* is a worn example of an allied species distinct from both. The name *siewersiellus* does not occur in the collection: the larva labelled "*siewersi*" appears to be distinct from, but closely allied to, that of *plutelliformis* (*siewersiellus*), and probably fed on *Tamarix laxa* or *pallasii* (vide Chr. l. c.).

Christoph sent Zeller two specimens, which constitute Zeller's series of "*plutelliformis* Stgd." The first, received from Christoph in 1860, is labelled by Zeller "*Gelechia plutelliformis* Stgd. E. Z. 59, 239": this determination is incorrect, it is *siewersi* Stgr. The second specimen is not specially labelled, not being regarded as distinct from the first; it is, however, truly *plutelliformis* Stgr. (= *siewersiellus* Chr.). When describing *siewersi*, Staudinger observes that, owing to its similarity to *plutelliformis*, he had at first thought it that species, but, recognising its distinctness, he retains for it the name given by Christoph in honour of the now unfortunately deceased entomologist Sievers. It is therefore presumable that Christoph sent Staudinger *siewersi* Stgr., labelled "*siewersiellus* Chr." On the other hand, Christoph sent Hofmann, in 1871, four specimens of "*siewersiella* Chr.", which are rightly determined by Hofmann as *plutelliformis* Stgr.

In Staudinger and Rebel's Catalog (II. 114) we find both species united thus:—  
2584. *plutelliformis* Stgr.; = *olbiaëlla* Mill.; = *siewersiellus* Chr.; = *siewersi* Stgr. [ab.].

The confusion caused by both species occurring at Sarepta, and both species being distributed by Christoph as "*siewersiellus*," has doubtless suggested the erroneous idea that the verbal variants *Hypsolophus siewersiellus* Chr. and *Gelechia siewersi* Stgr. pertained to mere varieties of one species. Staudinger's two species are undoubtedly distinct, and we must revert to the synonymy of Staudinger and Wocke's Catalog, correcting that of Staudinger and Rebel thus.—

2584-01. GELECHIA SIEWERSI Stgr.

(nec *siewersiellus* Chr., = 2584. *plutelliformis* Stgr.)

*Gelechia siewersi* Stgr. Berl. Ent. Zts. XIV. 309-10 no. 91 (1870)<sup>1</sup>; Stgr-Wk. Cat. Lp. Eur. 290 no. 1831 (1871)<sup>2</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 16 no. 1831 (1880)<sup>3</sup> [\*in syn. *plutelliformis* Stgr.-Rbl. Cat. Lp. Pal. II. 144 no. 2584 (1901)<sup>4</sup>].

*Hab.* SE. RUSSIA: Sarepta<sup>1-4</sup>, 29. VI. 1859, 16. VI. 1866, 1. VII. 1866, 14. VIII., 18. VIII. 1866, 20. VIII. 1879 (*Christoph*), ⊕ *Tamarix*<sup>1</sup>.

37. (2611-2) GELECHIA LUNARIELLA, sp. n. (Plate LI. fig. 13.)

*Antennae* shortly biciliate in ♂; blackish, spotted with rosy reddish above. *Palpi* moderately biserrate beneath; rosy whitish, speckled and ringed with black, the terminal joint having a black ring before its middle, and a broader band before its minutely pale apex; the intermediate space pale rosy. *Head* steely greyish, with rosy iridescent scale-tips. *Thorax* black, mixed with rosy reddish. *Forewings* cinereous, varying to rosy reddish; sprinkled and suffused with tawny grey and black scaling, the latter for the most part slightly raised, and exhibited, especially on the base of the dorsum, in an outwardly oblique, narrow, partially interrupted, transverse fascia at about one-sixth from the base; in a patch on the middle of the cell, another, toward the end of the cell, produced downward to the dorsum at

the outer end of the fold; above it a blackish costal patch, preceded by an elongate costal shade, the intermediate spaces bright rosy red; the terminal portion of the wing is much mottled with similar colouring, tending to indicate marginal spots, radiating through the tawny greyish cilia, which have two narrow shade-lines running through them before their ends. *Exp. al.* 15-17 mm. *Hindwings* tawny grey, with a rosy tinge; cilia pale brownish cinereous. *Abdomen* and *Legs* brownish cinereous, the latter spotted externally with tawny fuscous.

*Type* ♂ (99001); ♀ (99002) Mus. Wlsm.

*Hab.* TENERIFE: San Andres, ⊕ *Rumex lunarius*, 23. I, excl. 27 II - 9. III. 1907; Guimar, ⊕ 12. IV, excl. 11-24. V. 1907; Puerto Orotava, ⊕ 24. IV, excl. 23. V. 1907. Thirteen specimens.

Bred from pale glaucous green larvae collected on *Rumex lunarius* in January and April; these larvae turned to rosy reddish before pupating (99003 Mus. Wlsm.).

I met with this species first at San Andres, near Santa Cruz, and subsequently observed it near Guimar, and again at Orotava. It contorts and attaches together the young terminal leaves of its food-plant, and probably occurs wherever this indigenous shrub is to be found on the island. It is closely allied to *nigrorosea* Wlsm., but is a darker and rather broader winged insect: it is also very near to the European *diffinis* Hw.

### 38. (2635) GELECHIA EPITHYMELLA Stgr.

*Gelechia epithymella* Stgr. Stett. Ent. Ztg. XX. 242 no. 89 (1859)<sup>1</sup>; Stn. Tin. S-Eur. 141, 150 no. 28, 332 (1869)<sup>2</sup>. *Lita epithymella* Mill. Ic. Chen-Lp. III. 392-4. Pl. 149. 8-10 (1874)<sup>3</sup>; Cat. Lp. Alp-Mar. 329 (1875)<sup>4</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 18 no. 1914 (1880)<sup>5</sup>. *Gelechia (Lita) epithymella* Stgr-Wk. Cat. Lp. Pal. II. 146 no. 2635 (1901)<sup>6</sup>.

*Hab.* S. FRANCE<sup>3-6</sup>: Cannes<sup>3, 4</sup>, Monaco<sup>3</sup>, Mentone<sup>4</sup>, ⊕ *Solanum nigrum*. VIII-IX<sup>3-5</sup>, excl. IX-XI<sup>3-5</sup>—S. SPAIN<sup>1-2, 5-6</sup>: Chiclana, 14. III<sup>1-2</sup>. CANARIES—TENERIFE: Puerto Orotava, ⊕ *Hyoscyamus albus*, 10. V, excl. 6-16. VI. 1907 (Wlsm.).

After persistently searching plants of *Hyoscyamus albus* in the expectation of finding *Gelechia hyoscyamella* Mill., I at last found larvae mining the leaves of two or three plants only, among several, in a lane east of Puerto Orotava. To my surprise these produced rather dark varieties of *Gelechia epithymella* Stgr., which has been recorded as feeding on *Solanum nigrum* in the south of France, but which has not hitherto been observed in Tenerife.

### 39. (2636-1) GELECHIA MICRADELPHA Wlsm.

*Gelechia micradelpha* Wlsm. Ent. Mo. Mag. XXXVI. 217-8 no. 1916-3 (1900)<sup>1</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 264 no. 2694<sup>ter</sup> (1901)<sup>2</sup>.



*Hab.* S. FRANCE<sup>1-2</sup>: Perpignan, ⊕ *Lycium europaeum*, 22. V, excl. 7-9. VI. 1899 (*Wlsm.*)<sup>1</sup>. ALGERIA: Biskra, 13. II - 7. IV. 1903, ⊕ *Lycium europaeum*, 12. I, excl. 6. III. 1904 (*Wlsm.*): Hammam-es-Salahin, 22. III - 30. IV. 1904 (*Wlsm.*). CANARIES—TENERIFE: Santa Cruz, 10. I. 1907 (*Wlsm.*); Puerto Orotava, 27. IV. 1904 (*Wlsm.*).

This obscure little species is common among *Lycium afrum*, west of Santa Cruz, and east of Orotava. It has not hitherto been known to occur in the Canaries, unless it be the same as the worn specimen, taken by von Hedemann at Orotava, 14. IV. 1895, recorded as *Lita sp.*, by Rebel, Ann. K.K. Hofmus. XI. 127, 146 no. 191 (1896): XXI. 44 no. 211 (1906).

40. (2712-1) GELECHIA SCIURELLA, sp. n. (Plate LI. fig. 14.)

*Antennae* dark grey, with blackish annulations. *Palpi* hoary, much sprinkled and suffused with black and chestnut-brown, except on the inner side of the median joint, which appears slightly serrate beneath. *Head* and *Thorax* steely grey. *Forewings* whitish grey, mottled, suffused, and blotched with chestnut-brown and black; the former prevailing especially along the costal area, from the base to beyond the middle, and in a diffused patch a little beyond the upper angle of the cell; the latter especially in a roundish spot on the fold near the base, in a large reniform patch before the middle, its lower edge crossing the fold, and in an inverted, upwardly attenuate, oblique patch resting on the outer end of the fold; the apex and termen are also speckled with black; cilia smoky greyish, with some pale brown around the apex. *Exp. al.* 10-12 mm. *Hindwings* subiridescent, bluish grey; cilia tawny grey. *Abdomen* grey. *Legs* greyish fuscous, pale cinereous at the joints.

*Type* ♀ (14290) Funchal Mus. *Wlsm.*

*Hab.* MADEIRAS—MADEIRA: Funchal, 2600 ft., 8. III. 1902 (*Eaton*). CANARIES—TENERIFE: Guimar, 27. II - 12. IV. 1907 (*Wlsm.*); Arafo, 13. IV. 1907 (*Wlsm.*). Seven specimens.

Most nearly allied to *provinciella* Stn., but smaller and more glossy; the darker shades are greyer, and the ground-colour is more cinereous, less ochreous. I have had the type in my collection for some years: the capture of six worn specimens in Tenerife has induced me to describe it.

19. (300) PLATYEDRA MEYR.

41. (2509) PLATYEDRA VILELLA Z.

*Gelechia vilella* Z. Isis 1847. 846-7 no. 393<sup>1</sup>. *Platyedra vilella* Meyr. HB. Br. Lp. 605 (1895)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 141 no. 2509 (1901)<sup>3</sup>.

*Hab.* WC-C. and S. EUROPE—SPAIN: SEVILLA: Corrio del Rio, 10. XII. 1900; Alcalar, 12. XII. 1900 (*Wlsm.*); CADIZ: Jerez de la Frontera, 18. XII. 1900; Chiclana, 22-25. II. 1901

(*Wlsm.*): MALAGA: Malaga, 2: I. 1901 (*Wlsm.*). WC. ASIA. N. AFRICA—MOROCCO: Tangier, 13. IV. 1901 (*Wlsm.*).—ALGERIA: Biskra, 7. III. 1903 (*Wlsm.*). CANARIES—TENERIFE: Villa Orotava, 19. II. 1907 (*Wlsm.*); near Tacaronte, 29. IV. 1907 (*Wlsm.*).

Two specimens: one taken at Villa Orotava, the other between Villa Orotava and Tacaronte.

## 20. (300'1) PHTHORIMAEA Meyr.

PHTHORIMAEA Meyr. Ent. Mo. Mag. XXXVIII. 103-4 (1902)<sup>1</sup>; Buseck Bull. US. Nat. Mus. 52. 502 (1902)<sup>2</sup>; Pr. US. Nat. Mus. XXV. 773. 821-3. Pl. 30. 19 (1903)<sup>3</sup>; Meyr. Pr. Lin. Soc. NSW. XXIX. 259. 315-6 no. 20 (1904)<sup>4</sup>.

"Antennae  $\frac{4}{5}$ , in ♂ simple, basal joint elongate, without pecten. Labial Palpi long, recurved, second joint expanded with rough projecting scales beneath, terminal joint as long as second, acute. Forewings: 2 and 3 parallel, 7 and 8 stalked, 7 to costa. Hindwings 1, trapezoidal, apex produced, acute, termen bisinuate, cilia  $1\frac{3}{4}$ ; in ♂ with long pencil of hairs lying along costa from base beneath forewings; 3 and 4 connate, 5 somewhat approximated to 4, 6 and 7 remote, nearly parallel.

"A North American genus of several species, of which one has been artificially introduced with its food-plant into widely separated regions; it is a derivative of *Gnorimoschema* Buseck. Imago with forewings elongate, pointed." (*Meyrick*, l. c. 4.)

## 42. (2509'1) PHTHORIMAEA OPERCULELLA Z.

=§ *terrella* Wkr.; = *solanella* Bdv.; = *tabacella* Rgt.; = *sedata* Btl.; = *piscipellis* Hwrd. (nec Z.).

*Gelechia terrella* Wkr. Cat. Lp. BM. XXX. 1024 (1864)<sup>1</sup>. *Gelechia* († *Bryotropha*) *operculella* Z. Verh. ZB. Ges. Wien XXIII: 1873. Abh. 262-3. Pl. 3. 17 (1873)<sup>2</sup>. *Bryotropha solanella* Bdv. J. B. Soc. Centr. Hort. (XI. 1874)<sup>3</sup>. *Gelechia tabacella* Rgt. Bull. Soc. Ent. Fr. XLVIII (4 s. IX: 1879) pp. cxlvi-vii (1880)<sup>4</sup>. *Gelechia sedata* Btl. Cist. Ent. II. 560 no. 88 (1880)<sup>5</sup>. *Litha solanella* Alph. Mém. Lp. Rnhf. V. 231 no. 56 (1889)<sup>6</sup>; Holt White B. & M. Ten. 95 no. 20 (1894)<sup>7</sup>. *Litha solanella* Rbl. Ann. KK. Hofmus. VII. 274-5, 282 no. 57 (1892)<sup>8</sup>; IX. 18, 89 no. 171 (1894)<sup>9</sup>; XI. 127, 146 no. 190 (1896)<sup>10</sup>; XIII. 381 no. 204 (1899)<sup>11</sup>; XXI. 44 no. 210 (1906)<sup>12</sup>. *Gelechia* (*Litha*) *solanella* Stgr-Rbl. Cat. Lp. Pal. II. 146 no. 2636 (1901)<sup>13</sup>. *Phthorimaea operculella* Meyr. Ent. Mo. Mag. XXXVIII. 103-4 (1902)<sup>14</sup>; Buseck Bull. US. Nat. Mus. 52. 502 no. 5616 (1902)<sup>15</sup>; Pr. US. Nat. Mus. XXV. 821-2. Pl. 30. 19 (1903)<sup>16</sup>; Meyr. Pr. Lin. Soc. NSW. XXIX. 316 no. 94 (1904)<sup>17</sup>; *Wlsm.* Fn. Hawaii. I. 483-5, 731, 745, 757, 758 no. 21. Pl. 13. 27 (1907)<sup>18</sup>.

*Hab.* WEST INDIES. UNITED STATES. HAWAIIA. TAHITI. AUSTRALIA. NEW ZEALAND. S. EUROPE—SPAIN. N. AFRICA—ALGERIA. ⊕ mining leaves, shoots, stems, tubers: *Lycopersicum esculentum*; *Nicotiana tabacum*; *Solanum carolinense*, *melongena*, *tuberosum*, I–XII, excl. I–XII. **Canaries**<sup>6-13, 15</sup>—TENERIFE<sup>6-12, 15</sup>: IV. 1885 (*Leech*); Guimar, 2. III–16. IV. 1907 (*Wlsm.*); La Laguna, 3–23. V. 1907 (*Wlsm.*); Puerto Orotava, IX (*Alpheraky*)<sup>6-7</sup>.—FUERTEVENTURA<sup>6-12, 13</sup>: Rio Palma, 20. X. 1890 (*Simony*)<sup>5</sup>.

Not uncommon in March and April at Guimar, and at La Laguna in May; often, but not exclusively, near potato-fields.

[For Index to full list of references *vide* *Wlsm.* l. c. 18.]

## 21. (306·01) TRICHOTAPHE Clms.

TRICHOTAPHE Clms. Pr. Ac. Nat. Sc. Phil. XII. 166 (1860)<sup>1</sup>: Clms-Stn. Tin. N. Am. 121 (1872)<sup>2</sup>; Busck Bull. US. Nat. Mus. 52. 505–7 (1902)<sup>3</sup>: Pr. US. Nat. XXV. 772, 906–16. Pl. 32·33 (1903)<sup>4</sup>.

“*Antennae* serrate, often more or less ciliated. *Labial Palpi* long, recurved; second joint thickened with scales, appressed and smooth in front and laterally, smooth, or more or less long-haired above (on the inner side); terminal joint long, but shorter than second joint, slender, smooth, pointed. *Forewings* elongate, apex obtuse; 12 veins, 7 and 8 stalked, 2 and 3 stalked. *Hindwings* broader than forewings, slightly sinuate below apex, trapezoidal, anal angle rounded; 8 veins, 3 and 4 connate with a tendency to become short-stalked, 5 approximate to 4, 6 and 7 connate with a tendency to become short-stalked. Discal vein in several species with a tendency to become obsolete.” (*Busck*, l. c. 3.)

## 43. (2270·01) TRICHOTAPHE LAMPROSTOMA Z.

= *zulu* *Wlsm.*

*Gelechia lamprostoma* Z. Isis. 1847. 851–2 no. 400<sup>1</sup>. *Gelechia zulu* *Wlsm.* Tr. Ent. Soc. Lond. 1881. 261–2. Pl. 12·30<sup>2</sup>. *Anacamptis lamprostoma* Stgr-Rbl. Cat. Lp. Pal. II. 154 no. 2848 (1901)<sup>3</sup>. *Aproaerema lamprostoma* *Wlsm.* Ent. Mo. Mag. XXXVII. 236 (1901)<sup>4</sup>. *Onebala lamprostoma* *Wlsm.* Ent. Mo. Mag. XL. 267–8 no. 2770·1 (1904)<sup>5</sup>. *Anacamptis (Onebala) lamprostoma* Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 213 (1906)<sup>6</sup>.

*Hab.* SW. ASIA<sup>3, 5</sup>: VI<sup>5</sup>. S. EUROPE<sup>1, 3, 5</sup>—SICILY, V<sup>1, 3, 5</sup>—SPAIN, V<sup>3-5</sup>. AFRICA—ALGERIA: IV<sup>5</sup>—GAMBIA: XI<sup>5</sup>.—NATAL: VII; XII<sup>4</sup>. **Canaries**—TENERIFE<sup>6</sup>: (*White*, 1905)<sup>6</sup>: Puerto Orotava, 10. V. 1907, ⊕ *Convolvulus althaeoides*, 10. V, excl. 15. VI. 1907 (*Wlsm.*).

I bred a single specimen from a larva found at Puerto Orotava; this did not emerge until June 5th, although I captured five

specimens on the same spot on May 10th, when I found the larva feeding on *Convolvulus althaeoides*: the food-plant of this species was hitherto unknown.

44. (2270-02) TRICHOTAPHE CONVOLVULI, sp. n.  
(Plate LI. fig. 16.)

= *Ceratophora* sp. Rbl. Ann. KK. Hofmus. VII. 275, 283 no. 58 (1892)<sup>1</sup>. *Brachmia* (*Ceratophora*) sp. Rbl. Ann. KK. Hofmus. XXI. 44 no. 216 (1906)<sup>2</sup>.

*Antennae* dark tawny fuscous. *Palpi* dull whitish ochreous, unspotted; the median joint clothed with closely appressed scales. *Head* whitish ochreous. *Thorax* dark tawny fuscous. *Forewings* dark tawny fuscous, with a small, narrow, elongate, pale ochreous costal spot at four-fifths from the base; on the cell, at one-third from the base, is an elongate blackish spot, followed by another at two-thirds—each rather obscurely annulate with chestnut-brown scales; a similar spot lies in the fold, straight below the first discal, and a row of minute ochreous spots precedes the dark tawny grey cilia. *Exp. al.* 13–15 mm. *Hindwings* brownish grey, with a slender pale ochreous line along the base of the otherwise unicolorous cilia. *Abdomen* fuscous. *Legs* dark tawny fuscous; the spurs and joints of the tarsi pale cinereous.

This species (which is obviously the same as *Ceratophora* sp. Rbl.) is closely allied to *juncidella* Clms., but differs in its darker face and palpi: the median joint of the palpi is more roughly scaled, and the pale costal spot is distinctly visible on the under side of the forewings.

*Type* ♀ (99004); ♂ (99005); ⊕ (99006) Mus. Wlsm.

*Hab.* CANARIES—TENERIFE: Santa Cruz, 19–22. I. 1907, ⊕ *Ipomoea quinquefolia*, 19. I. excl. 20. II – 2. III. 1907 (Wlsm.). —GRAN CANARIA: (*Richter*)<sup>1-2</sup>. Thirty-two specimens.

Bred from larvae reminding one much of those of *Brachmia rufescens* Hw. in their black and white oblique striping. Head honey-yellowish, edged with blackish; pronotal plate honey-yellow, posteriorly broadly black-margined lunately, suture honey-yellow; mesothorax, metathorax, and abdominal somites I–II blackish, mesothorax conspicuously separated by white from the metathorax and prothorax, the latter similarly separated from the head; abdominal somites III–IX white, with blackish markings—the lateral markings are oblique, as in *rufescens*, but having no pale dorsal stripe to interrupt them. anteriorly above, they form on each segment a complete arcuate band, followed on somites III–VII by a transverse bar of the same colour, but on V this bar is not apparent, owing to dark dorsal suffusion; normal spots distinct. black; legs black, abdominal claspers tipped with blackish; *long.* 15 mm. (99006 Mus. Wlsm.). The larvae roll the leaves of *Ipomoea quinquefolia* in January, and are extremely abundant on this introduced plant at Santa Cruz, especially on a wall below the Quisisana Hotel.



## 22. (349'1) APATEMA Wlsm.

APATEMA Wlsm. Ent. Mo. Mag. XXXVI. 219-20 (1900); Stgr-Rbl. Cat. Lp. Pal. II. 265 no. 348<sup>bis</sup> (1901).

## 45. (3050'1) APATEMA FASCIATUM Stn.

n. synn. = \**quadripuncta* Stn. (nec Hw.); = *coarctella* Rbl.; = *mediopallidum* Wlsm.

*Gelechia fasciata* Stn. Ann-Mag. NH. (3 s.). III. 213 no. 18 (1859)<sup>1</sup>; Wkr. Cat. Lp. BM. XXIX. 628 (1864)<sup>2</sup>. \**Oegoconia* \**quadripuncta* Stn. Tin. Syr. As-Min. 41 no. 23 (1867)<sup>3</sup>. *Hypatima fasciata* Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 554 no. 56 (1894)<sup>4</sup>. *Lampros coarctella* Rbl. Ann. KK. Hofmus. XI. 129-30, 147 no. 198, Pl. 3 · 11 (1896)<sup>5</sup>. *Apatema mediopallidum* Wlsm. Ent. Mo. Mag. XXXVI. 220 no. 2223 · 1 (1900)<sup>6</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 265 no. 3049<sup>bis</sup> (1901)<sup>7</sup>. *Hypatima fasciata* Stgr-Rbl. Cat. Lp. Pal. II. 164 no. 3073 (1901)<sup>7</sup>. *Borkhausenia coarctella* Stgr-Rbl. Cat. Lp. Pal. II. 178 no. 3380 (1901)<sup>8</sup>; Rbl. Ann. KK. Hofmus. XXI. 44 no. 229 (1906)<sup>10</sup>.

*Hab.* WC. ASIA—PALESTINE<sup>1</sup>: Plains of Jordan, 1865 (*O. P. Cambridge*)<sup>1</sup>. S. EUROPE—CORSIKA<sup>2,7</sup>: Ajaccio, 6. V. 1896 (*Wlsm.*)<sup>2</sup>; Ile Rousse. 5. VI. 1898 (*Wlsm.*)<sup>9</sup>—S. SPAIN: GRANADA: Granada, 13-17. VI. 1901 (*Wlsm.*)—GIBRALTAR: 3. VI. 1903 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, 14. IV - 18. V. 1902 (*Wlsm.*)—ALGERIA: Bi-kira, 9. IV. 1903 (*Wlsm.*). **Madeiras**<sup>1-2, 4-5, 8</sup>—MADEIRA<sup>4-7</sup>: Funchal<sup>4</sup>, The Mount (*Wollaston*)<sup>4</sup>—DESERTA GRANDE<sup>1, 4</sup>: (*Wollaston*)<sup>1, 4</sup>. **Canaries**<sup>7, 9-10</sup>—TENERIFE<sup>5, 10</sup>: Santa Cruz, 2. I - 20. II. 1907 (*Wlsm.*); Guimar, 20. III. 1904 (*Eaton*), 9. III - 18. IV. 1907 (*Wlsm.*); La Laguna, 27. III. 1904 (*Eaton*), 23. V. 1907 (*Wlsm.*); Puerto Orotava. 26-30. IV. 1895 (*Hedemann*)<sup>5</sup>, 21. IV - 2. V. 1907 (*Wlsm.*).—GRAN CANARIA<sup>5, 10</sup>: Las Palmas, 9. V. 1895 (*Hedemann*)<sup>5</sup>.

Having placed this species in the *Oecophoridae*, through failing to observe that veins 6 and 7 of the hindwings were stalked, Prof. Rebel not unnaturally overlooked my genus *Apatema* (*Gelechiadae*, 1900), allied to *Oecogenia* (= *Oegoconia*) Stn., and *Symmoca* Hb.; and when describing *mediopallidum*, from Corsica, I overlooked the Madeiran *Gelechia fasciata* Stn., which I had erroneously referred to *Hypatima* Stgr-Wk. (nec Hb.) in 1894. The specimen which Stainton recorded as *Oegoconia quadripuncta* Hw., from the Jordan (9212 Mus. Wlsm.), is *Apatema fasciata* Stn., badly worn.

It should be observed that HYPATOPA Wlsm. Pr. US. Nat. Mus. XXXIII. 200, 211 (1907) = \**Hypatima* HS. (nec Hb.) type *Oecophora inunctella* Z., and that HYPATIMA Hb. (nec HS.) = *Chelaria* Hw.]

## 46. (3050'2) APATEMA LUCIDUM, sp. n. (Plate LII. fig. 3.)

*Antennae* greyish ochreous; basal joint black above. *Palpi*

pale ochreous, the median joint shaded on its basal half with black, and with a black spot on its distal half externally. *Head* and *Thorax* pale ochreous, the latter slightly shaded with fawn-brown anteriorly. *Forewings* pale ochreous, partially shaded with umber-brown, especially below the fold, on the outer half of the costa, and around the apex where the dark scales project more or less through the pale ochreous cilia; the extreme base of the costa is narrowly black, a few black scales being scattered along the base of the dorsum; at one-third from the base are two small black spots placed obliquely in the cell, sometimes confluent, and beneath the outer one is a stronger black spot in the fold; beyond these, at the end of the cell and preceded by a small elongate spot at its upper edge, is an oblique reniform patch, covering the discoidal and produced inward from the upper angle—these markings are subject to more or less modification, and are less distinct in some specimens than in others, but their position is uniformly maintained. *Exp. al.* 13–14 mm. *Hindwings* pale straw-whitish; cilia pale ochreous. *Abdomen* and *Legs* pale ochreous, the tibiae and tarsi slightly shaded with brownish on their outer sides.

*Type* ♂ (98242); ♀ (98241) Mus. Wlsm.

*Hab.* TENERIFE: Forest de la Mina, 7. IV. 1904 (*Eaton*); Realejo, 7. V. 1907 (*Wlsm.*); Las Mercedes, 19. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Thirteen specimens.

This species is somewhat larger on the average than *Apatema fasciatum*, and the forewings are uniformly broader; their invariably ochraceous ground-colour and the distribution of the black spots, with the absence of any distinct shade across the base, serve to distinguish it from its ally—like the forewings the hindwings are also of an entirely different hue. It does not appear to be a common species.

### 23. (349'2) AMBLOMA, gn. n.

(ἄμβλωμα = abortion.)

*Type* *Ambloma brachyptera* Wlsm.

*Antennae* without pecten; a little longer than the forewings; simple in ♂. *Maxillary Palpi* short. *Labial Palpi* bent upwards, reaching to vertex; median joint moderately clothed with slightly projecting scales below at apex; terminal joint short, smooth. *Head* and *Thorax* smooth. *Forewings* very short, tapering rapidly to a slightly depressed, obtusely pointed apex; costa evenly convex, flexus rather squarely developed, dorsum straight beyond the flexus: *neuration* 12 veins; 7 and 8 stalked, to costa; 6 out of stalk of (7+8); cell short. *Hindwings*  $\frac{2}{3}$ , much shorter, but of the same shape as the forewings; cilia  $1\frac{1}{2}$ : *neuration* 8 veins; 6 and 7 stalked; 3 and 4 stalked. *Abdomen* smooth. *Legs*, hind tibiae moderately hairy.

Allied to *Apatema* Wlsm. and *Symmoca* Hb., but differing in

its curiously aborted appearance, which recalls the form of *Embryonopsis* Etn. and *Hodegia* Wlsm., both insular forms, and, in the European fauna, the ♀ of *Chinabacche* Hb.

47. (3050·3) AMBLOMA BRACHYPTERA, sp. n.

(Plate LI. fig. 18.)

*Antennae* dark greyish fuscous, the basal joint hoary white. *Palpi* greyish fuscous externally, hoary white on their inner sides, and around the apex of the median joint. *Head* and *Thorax* hoary white, the latter with grey sprinkling. *Forewings* hoary white, profusely sprinkled with dark stone-grey scales, but devoid of pattern; a slight spot of ochreous suffusion on the cell a little before the middle of the wing; cilia hoary whitish, with a slight admixture of grey, especially about the tornus. *Exp. al.* 9 mm. *Hindwings* whitish grey; cilia pale grey. *Abdomen* ochreous; anal tuft hoary white. *Legs* whitish, dusted with brownish grey, the tarsi faintly banded.

*Type* ♂ (99007) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 6. III. 1907. Unique.

Found under leaves of *Lotus sessilifolius*, on the black sand of the coast near Puerto Guimar. No other specimen seen.

24. (348'01) CHERSOGENES, gn. n.

(χερσογενής = bred on dry land.)

*Type* *Chersogenes victimella* Wlsm.

*Antennae* 1, simple in ♂; without pecten. *Maxillary Palpi* moderate. *Labial Palpi* extending fully three times the length of the head beyond it; median joint thickly clothed above and beneath, the lower scales projecting nearly half the length of the slender, erect terminal joint, beyond its base. *Haustellum* moderate. *Head* and *Thorax* moderately smooth. *Forewings* narrow, elongate, lanceolate, with straightened costa and slightly curved dorsum tapering to a point: *neuration* 12 veins; 7 and 8 stalked, 7 to termen; rest separate. *Hindwings* as broad as the forewings, considerably shorter, but much the same shape; cilia  $1\frac{1}{2}$ : *neuration* 8 veins; 6 and 7 long-stalked; 3 and 4 long-stalked. *Abdomen* smooth, somewhat flattened; uncus and claspers strongly developed. *Legs*, hind tibiae slightly hairy.

This genus is most nearly allied to *Epanastasis* Wlsm., but differs in the structure of the palpi.

48. (3022·01) CHERSOGENES VICTIMELLA, sp. n.

(Plate LI. fig. 17.)

*Antennae* dark brownish fuscous. *Palpi* hoary whitish, sprinkled with fuscous scales on their outer sides. *Head* and *Thorax* cinereous, dusted with fuscous. *Forewings* pale cinereous,

densely sprinkled with fuscous throughout, except along a narrow line running from the base to the lower angle of the cell, with a slight break about its middle; on either side of this break is a small spot of raised dark fuscous scales, two similar spots appearing on either side of the outer end of the pale line, the lower spot in each case being a little further from the base than the one above it; there is also an indication of a small group of dark fuscous scales resting on the upper edge of the cell at its base; cilia cinereous, sprinkled with fuscous. *Exp. al.* 12 mm. *Hindwings* and cilia dark tawny brown. *Abdomen* brownish cinereous. *Legs* pale cinereous, slightly dusted with fuscous.

*Type* ♂ (99008) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 29. IV. 1907. Unique.

The most persistent efforts to secure another specimen of this very distinct species were unsuccessful.

25. (348'02) EPANASTASIS, gn. n.

(ἐπανάστασις = rebellion.)

*Type* *Holcopogon sophroniellus* Rbl.

*Antennae* nearly as long as the forewings, slightly serrate; without pecten. *Maxillary Palpi* short, dependent. *Labial Palpi* clothed with projecting scales beneath, these extending beyond the base of the terminal joint; terminal joint not more than half the length of median, smooth. *Haustellum* well-developed. *Head* and *Thorax* smooth. *Forewings* elongate, lanceolate, the dorsum slightly more convex than the costa: *neuration* 12 veins; 7 and 8 stalked, 7 to termen; rest separate. *Hindwings* 1, apex slightly depressed, termen very oblique, almost sinuate, flexus moderately developed; cilia 1: *neuration* 8 veins; 6 and 7 long-stalked: 3 and 4 stalked. *Abdomen* smooth. *Legs*, hind tibiae slightly hairy above.

Has much the appearance of *Apiletria* Ldr., to which it is closely allied, but differs in having vein 7 of the forewings to termen, in which it agrees with *Symmoca* Hb.; differing from *Symmoca*, as also from *Apiletria*, in its more roughly clothed palpi, with much shorter terminal joint.

49. (3022'02) EPANASTASIS SOPHRONIELLA Rbl.

*Holcopogon sophroniellus* Rbl. Ann. KK. Hofmus. IX. 18, 89-90 no. 174 (1894)<sup>1</sup>; XI. 128-9, 147 no. 196, Pl. 3 · 10-10<sup>a</sup> (1896)<sup>2</sup>; XIII. 381 no. 210 (1899)<sup>3</sup>; XXI. 44 no. 217 (1906)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 160 no. 2980 (1901)<sup>5</sup>.

*Type* ♂ (61057) Mus. Wlsm.

*Hab.* CANARIES<sup>1-5</sup> — TENERIFE<sup>1-5</sup>: IV. 1885 (*Leech*)<sup>1</sup> — GRAN CANARIA<sup>2-5</sup>: TEROR, 10. V. 1895 (*Hedemann*)<sup>2</sup>.

Despite persistent search I did not meet with this species.



## 26. (348) SYMMOCA Hb.

## 50. (3035·1) SYMMOCA CANARIENSIS Rbl. (Plate LII. fig. 1.)

*Symmoca canariensis* Rbl. Ann. KK. Hofmus. XXI. 38-9, 44 no. 218 (1906)<sup>1</sup>.

*Hab.* TENERIFE<sup>1</sup>: 1905 (*W. W. White*)<sup>1</sup>: Santa Cruz, 4-29. II. 1907 (*Wlsm.*), 3. IV. 1904 (*Eaton*), 29. IV. 1907 (*Wlsm.*); Guimar, 2. III - 14. IV. 1907 (*Wlsm.*); Arafo, 13-14. IV. 1907 (*Wlsm.*); Puerto Orotava, 21. IV - 10. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*).

I carefully examined the single specimen, in Mr. White's collection, at Guimar, which is the type of *Symmoca canariensis* Rbl., and bearing in mind the appearance of *Holcopogon sophroniellus* Rbl., at first imagined they must be the same, but, although I cannot agree with Prof. Rebel in placing *sophroniellus* in the genus *Holcopogon* Stgr. (which has been wrongly included in the *Gelechiidae*, and must be removed to the *Hyponomeutidae*), the shorter terminal joint of the palpi, even without other more important characters, is at once sufficient to separate it from the *Symmoca*. I found *S. canariensis* almost the commonest insect in the Island; it was abundant at Santa Cruz and Guimar, but I have no clue to the habits of the larva.

A fine series of 64 specimens exhibits considerable variation: in some the costal margin is broadly and conspicuously darkened, in contrast to the dull white ground-colour; in others a suffusion extends more or less over the whole wing; while in others again there is a yellowish streak along the cell, or sometimes two pairs of obliquely placed fuscous spots, before and beyond the middle, recalling vividly the pattern of *oxybiella* Mill., but more obliquely placed than in that species, and exhibiting scarcely any of the yellowish scales which are there to be found on the outer edge of the spots. Some of the smaller and more suffused varieties show a faint indication of these spots and approach very closely, except in colour, the only two specimens which I am obliged to eliminate from my series and to describe under another name (*aegrella*, sp. n.). *S. canariensis* was not found at the time and place where the new species occurred.

## 51. (3035·2) SYMMOCA AEGRELLA, sp. n. (Plate LII. fig. 2.)

*Antennae* and *Palpi* sandy ochraceous. *Head* and *Thorax* pale ochreous. *Forewings* sandy ochreous, dusted with fawn-brownish scales, slightly more thickly above and below than upon the cell; *cilia* pale sandy ochreous. *Exp. al.* 13-14 mm. *Hindwings* shining, pale straw-ochreous, a little more brownish toward the apex; *cilia* very pale sandy ochreous. *Abdomen* and *Legs* pale sandy ochreous.

*Type* ♂ (99009) Mus. Wlsm.

*Hab.* TENERIFE: La Laguna. 9. VI. 1907. Two specimens.

This species, which agrees with *canariensis* in having veins 3

and 4 of the forewings short-stalked, differs in its ochreous, rather than whitish, or greyish, colouring; in its paler and more ochreous hindwings, and in the absence of a dark shade along the outer side of the median joint of the palpi, which are also somewhat more slender in appearance.

27. (347) EPIDOLA Stgr.

52. (3019) EPIDOLA STIGMA Stgr.

*Epidola stigma* Stgr. Stett. Ent. Ztg. XX. 244 no. 93 (1859)<sup>1</sup>; Stn. Tin. S-Eur. 141, 152 no. 32 (1869)<sup>2</sup>; Stgr.-Rbl. Cat. Lp. Pal. II. 162 no. 3019 (1901)<sup>3</sup>.

*Hab.* S. EUROPE—CORSIKA: Punta Parata, ⊕ *Frankenia pulverulenta*, 7. VI, excl. 1. IX. 1899 (*Wlsm.*); Ajaccio, ⊕ *Crithmum maritimum*, 10. VI, excl. 7. IX. 1899 (*Wlsm.*)—S. SPAIN<sup>1-3</sup>: Chiclana, ⊕ *Quercus coccifera*, IV, excl. VI (*Stgr.*)<sup>1-2</sup>; Coto, Granada, ⊕ *Cistus*, *Helianthemum*, IV-V. 1901 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, ⊕ 29. II. 1902 (*Wlsm.*); Cape Spartel, ⊕ on palings, 14. IV. 1902 (*Wlsm.*)—ALGERIA: Constantine (*Stgr.*). CANARIES—TENERIFE: Santa Cruz, ⊕ on rocks, 30. I - 10. V. 1907 (*Wlsm.*).

I found, at different dates, six cases of this species on the rocks, above the Hotel Quisisana at Santa Cruz, but failed to rear any of them, repeating my previous experience as to the difficulty of breeding it. From more than a hundred cases, collected at Granada, not a single specimen emerged; but the few cases previously found in Corsica all produced the moth in due course. I am quite at a loss to account for the failures. Similar cases are made by species of the Australian genus *Ocystola* Meyr. (*Oecophoridae*).

## II. BLASTOBASIDAE.

28. (351) BLASTOBASIS Z.

Prof. Rebel recorded the occurrence of *Blastobasis roscidella* Z. in the Canaries [Ann. K.K. Hofmus. IX. 18, 90 no. 177 (1894)], on the strength of a specimen (61060) received from me in 1893. This was one of a series of seven specimens (61058-64) taken in Tenerife, by the late Mr. J. H. Leech, in April 1885, and is now recognised as *Scythris fasciatella* Rgt. (3536), *vide* no. 86, p. 973.

53. (3054) BLASTOBASIS PHYCIDELLA Z.

*Oecophora* (*Scythris*) *phycidella* Z. Isis 1839. 193 no. 35<sup>1</sup>. *Blastobasis phycidella* Stgr.-Wk. Cat. Lp. Eur. 309 no. 2303 (1871)<sup>2</sup>; Mill. Cat. Lp. Alp-Mar. 346 (1875)<sup>3</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 33 no. 2303 (1880)<sup>4</sup>; Srñgn. Kleinschm. MBrndbg. 221-2 no. 305 (1886)<sup>5</sup>; MP-FT. Nat. Sic. VIII. 187 (1889)<sup>6</sup>; Meyr. Ent. Mo. Mag. XXVII. 59 (1891)<sup>7</sup>. *Blastobasis* ? *phyci-*

della Rbl. Ann. K.K. Hofmus. VII. 276, 283 no. 60 (1892)<sup>8</sup>.  
*Blastobasis phycidella* Rbl. Ann. K.K. Hofmus. IX. 18, 90 no. 176  
 (1894)<sup>9</sup>: XXI. 44 no. 220 (1906)<sup>10</sup>; Sbid. Deutsche Ent. Zts.  
 Iris XI. 317 (1898)<sup>11</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 163 no. 3054  
 (1901)<sup>12</sup>.

*Hab.* WC. ASIA<sup>2, 9, 12</sup>. S. EUROPE<sup>1-4, 6, 8-9, 12</sup>—GERMANY<sup>1-2, 4-5, 12</sup>—S. AUSTRIA<sup>2, 12</sup>—SWITZERLAND<sup>12</sup>—ITALY<sup>2</sup>: San Remo, 2. IV. 1893 (*Wlsm.*); Rome, 10-25. IV. 1893 (*Wlsm.*)—SICILY<sup>4, 6</sup>—CORSIKA: Ajaccio, 4-6. V. 1896, 16. VI. 1899 (*Wlsm.*)—S. FRANCE<sup>3</sup>: Cannes, 20. IV. 1890, 1. VI. 1892, ⊕ *Rubia peregrina*, excl. V. 1881 (*Wlsm.*); Napoule, 24. V. 1892 (*Wlsm.*); Thués-les-bains, 18-21. VI. 1900 (*Wlsm.*)—SPAIN<sup>11</sup>: GRANADA: Granada, 17. VI. 1901 (*Wlsm.*): GIBRALTAR, 3. VI. 1903 (*Wlsm.*). N. AFRICA—ALGERIA<sup>7-9, 12</sup>: El-Biar, 21. IV. 1893 (*Eaton*); Bône, 11. V. 1896 (*Eaton*); Azazga, 2. IX. 1893 (*Eaton*)—MOROCCO: Tangier, 2-4. V. 1902 (*Wlsm.*). CANARIES<sup>8-10, 12</sup>—TENERIFE<sup>9-10</sup>: IV. 1885 (*Leech*)<sup>9</sup>; La Laguna, 23. V - 9. VI. 1907 (*Wlsm.*)—GRAN CANARIA<sup>8-10</sup>: (*Richter*)<sup>8-10</sup>.

Five ♂ from La Laguna at the end of May and the beginning of June: one of these specimens (♂ 98233), with broader and more pointed wings, taken on May 23rd, is abnormally large (*exp. al.* 19.5 mm.) for a representative of this species, but it cannot otherwise be separated.

Rebel mentions a single worn ♂, with notched antennae and hindwings similar to those of *phycidella* Z., as taken at Orotava, 20. IV [*Blastobasis sp.* Rbl. Ann. K.K. Hofmus. XI. 132 no. 201<sup>b</sup> (1896)]. He apparently regarded it as distinct from both *phycidella* and *rubiginosella*.

#### 54. (3056) BLASTOBASIS RUBIGINOSELLA Rbl.

= *sp.* 179 Rbl.

*Blastobasis sp.* Rbl. Ann. K.K. Hofmus. IX. 18, 91 no. 179 (1894)<sup>1</sup>: XXI. 44 no. 223 (1906)<sup>2</sup>. *Blastobasis rubiginosella* Rbl. Ann. K.K. Hofmus. XI. 130-1, 147 no. 200, Pl. 3·12 (1896)<sup>3</sup>: XXI. 44 no. 221 (1906)<sup>4</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 163 no. 3056 (1901)<sup>5</sup>.

*Hab.* TENERIFE<sup>1-5</sup>: IV. 1885 (*Leech*)<sup>1</sup>; Guimar, 4. III-16. IV. 1907 (*Wlsm.*); La Laguna, 8. IV. 1904 (*Eaton*), 7. VI. 1907 (*Wlsm.*); Puerto Orotava, 21. IV. 1895 (*Hedemann*)<sup>3</sup>, 30. IV. 1907 (*Wlsm.*); Las Mercedes, 29. V - 7. VI. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*).

Twenty-eight specimens were taken at Guimar, Tacaronte, Puerto Orotava, Las Mercedes, and La Laguna, from March 4th to June 7th, but the larva remains unknown.

The specimen mentioned by Rebel as *Blastobasis sp.* 179 (*l. c.* 1) is in my collection (♂ 61053); it is undoubtedly a worn ♂ of *rubiginosella*; the type of the species, when subsequently described, having been a ♀.

55. (3056·1) *BLASTOBASIS VELUTINA*, sp. n. (Plate LII. fig. 4.)

*Antennae* and *Palpi* ash-grey, the latter sprinkled with black scales. *Head* and *Thorax* ash-grey. *Forewings* ash-grey, with a short square patch of black scales at the base of the costa, followed at a distance equal to its own length by a broad transverse band of black scales, some conspicuously raised, especially along its outer edge, which is convex and reaches nearly to the middle of the wing; its inner edge approaches nearer to the base on the dorsum than on the costa; beyond this patch, which in some specimens appears divided into two fasciae, the wing is much more sparingly bestrewn with black scales, which however are somewhat thickened on the margins at three-fourths, and around the apex; cilia brownish cinereous. *Exp. al.* 11–14 mm. *Hindwings* brownish grey; cilia brownish cinereous. *Abdomen* ash-grey, shaded at the sides and posteriorly with black; pale cinereous beneath. *Legs* brownish cinereous, the tarsi blackish, with whitish cinereous annulations.

*Type* ♂ (98258); ♀ (98263) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 9–30. III. 1907; Tacaronte, 31. V. 1907; La Laguna, 9. VI. 1907. Four specimens.

Allied to *rubiginosella* Rbl., but distinguished by the broad, dark, transverse band before the middle of the wing. The antennae are deeply notched in the ♂.

56. (3060) *BLASTOBASIS FUSCOMACULELLA* Rgt.

= *seeboldiella* Kreithn.<sup>4</sup>; = \**marmarosella* Rbl. (nec Wlsm.)<sup>3-4</sup>.

*Oecophora fuscomaculella* Rgt. Bull. Soc. Ent. Fr. XLVIII. (5 s. IX: 1879). p. cxli (1880)<sup>1</sup>. *Oecophora seeboldiella* Kreithner Verh. ZB. Ges. Wien XXXI. SB. 20–1 (1881)<sup>2</sup>. *Blastobasis marmarosella* Rbl. Ann. KK. Hofmus. VII. 276–8, 283 no. 61. Pl. 7·6–6<sup>a</sup> ♀ (1892)<sup>3</sup>; IX. 18, 90–1 no. 178 (1894)<sup>4</sup>. *Blastobasis fuscomaculella* Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 549 no. 47 (1894)<sup>5</sup>; Rbl. Ann. KK. Hofmus. XI. 130, 147 no. 199 (1896)<sup>6</sup>. Sbd. Deutsche Ent. Zts. Iris XI. 317. Pl. 11·15 (1898)<sup>7</sup>. *Blastobasis fuscomaculella* Rbl. Ann. KK. Hofmus. XIII. 377, 381 no. 213 (1899)<sup>8</sup>; XXI. 44 no. 224 (1906)<sup>9</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 163 no. 3060 (1901)<sup>10</sup>.

*Hab.* SPAIN<sup>2-5, 7, 10</sup>: Bilbao<sup>2-4, 7</sup>, V<sup>7</sup>, VII<sup>2</sup>, VIII<sup>7</sup>—PORTUGAL<sup>1, 5, 10</sup>: Coimbra<sup>1</sup>. MADEIRAS — MADEIRA<sup>5, 10</sup>. CANARIES<sup>3-6, 8-10</sup>—TENERIFE<sup>3-4, 6, 8-9</sup>: IV. 1885 (*Leech*)<sup>4</sup>; La Laguna, 23. V–7. VI. 1907 (*Wlsm.*), VI. (*Cabrera*)<sup>4</sup>; Puerto Orotava, IX. 1889 (*Simony*)<sup>3, 8</sup>—HIERRO<sup>8</sup>: Valverde, 9–14. II. 1898 (*Hintz*)<sup>8</sup>.

This is apparently a scarce species, I only met with three specimens. Valverde is in Hierro, not in Tenerife.



## 29. (351·1) PROSTHESIS, gn. n.

(πρόσθεσις = an addition.)

Type *Prosthesis excluda*, sp. n.

*Antennae* with pecten; ♂ simple, or minutely ciliate, not notched, nor attenuate at the base. *Maxillary Palpi* short, converging. *Labial Palpi* recurved, reaching above the vertex, closely clothed; terminal joint shorter than median. *Haustellum* scaled at the base. *Head* and *Thorax* smooth. *Forewings* narrow, elongate, evenly lanceolate: *neuration* 12 veins; 7 and 8 stalked, to costa. *Hindwings* nearly as broad as the forewings, acutely lanceolate, the costa straighter than the dorsum: *neuration* 7 veins (3 and 4 coincident); (3+4) and 5 stalked; 6 and 7 remote, almost parallel. *Abdomen* smooth. *Legs*, hind tibiae moderately hairy.

This genus agrees with *Blastobasis* Z., *Epistetus* Wlsm., and *Zenodochium* Wlsm. in having 3 and 4 of the hindwings coincident, stalked, or connate, with 5. It differs from *Epistetus* and *Zenodochium* in having a pecten instead of a conchoidal shield of scales on the basal joint of the antennae, and from *Blastobasis*, with which it agrees in having a pecten on the basal joint, in the absence of a notch.

## 57. (3067·1) PROSTHESIS EXCLUSA, sp. n. (Plate LIII. fig. 5.)

*Antennae* stone-whitish. *Palpi* stone-greyish, sprinkled with fuscous; the median joint fuscous on its outer side nearly to the apex. *Head* and *Thorax* stone-grey. *Forewings* pale stone-grey, sparsely sprinkled with fuscous and rust-brown scales; a small spot at the base of the costa, a narrow fascia at one-third from the base, much mixed with rust-brown and strongly angulated outward on the cell, whence it runs nearer to the base on the dorsum than on the costa; at two-thirds a rather strong group of fuscous and brownish scales, on the dorsum, is more or less connected by scattered scales across the wing to a smaller costal spot a little nearer to the apex, and these again are more or less connected with each other by a chain of six or seven obscure marginal spots running around the apex; cilia pale brownish grey. *Exp. al.* 12-14 mm. *Hindwings* grey; cilia brownish grey. *Abdomen* greyish fuscous, with narrow, shining, pale steely grey, transverse bands. *Legs* stone-greyish, thickly speckled with brownish fuscous on their outer sides.

*Type* ♂ (98291); ♀ (98298) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, 25. IV - 3. V. 1907; La Laguna, 23. V - 9. VI. 1907; Las Mercedes, 29. V - 7. VI. 1907. Nineteen specimens.

## 30. (352·1) ZENODOCHIUM Wlsm.

ZENODOCHIUM Wlsm. Ent. Mo. Mag. XLIV. 49 (1908).

Type *Zenodochium monopetali* Wlsm.

## 58. (3069·2) ZENODOCHIUM POLYPHAGUM, sp. n.

(Plate LII. fig. 6.)

= *Blastobasis* sp. Rbl. Ann. KK. Hofmus. XI. 131, 147 no. 201<sup>a</sup> (1896)<sup>1</sup>: XXI. 44 no. 222 (1906)<sup>2</sup>.

*Antennae* brownish fuscous. *Palpi* brownish fuscous, the distal end of the median joint narrowly whitish. *Head* and *Thorax* whitish, sprinkled, or sometimes entirely suffused, with brownish fuscous. *Forewings* usually dirty whitish, but varying from clear white to dull ash-colour, with brownish fuscous streaks and blotches; the usually paler basal third of the wing has a small spot at the base of the costa, one or two short length-streaks on and above the fold, and another near the dorsum, and is sometimes also profusely sprinkled with brownish fuscous scales; at one-third occurs a slightly inverted triangular costal spot, between which and an ill-defined, outwardly oblique, dorsal patch the paler ground-colour asserts itself in a narrow, oblique, separating band; on the median area is a short length-streak along the upper edge of the cell, and much sprinkling (sometimes considerable suffusion) of brownish fuscous; at three-fourths is a transverse, narrow, brownish fuscous band, slightly inverted from costa to dorsum, and sometimes interrupted below the costa, and beyond is another short median length-streak and a series of about six dentate streaks around the margin; cilia hoary, faintly sprinkled and narrowly striated with brownish grey. *Exp. al.* 13–20 mm. *Hindwings* brownish grey; cilia shining, yellowish brown along their base, greyer beyond. *Abdomen* grey. *Legs* brownish grey.

*Type* ♂ (98227); ♀ (98221); *PT.* var. ♂ (98210) Mus. Wlsm.

*Hab.* TENERIFE<sup>1-2</sup>: Puerto Orotava, 24. IV. 1895 (*Hedemann*)<sup>1</sup>, 23. IV – 7. V. 1907, ⊕ in refuse on *Artemisia canariensis*, 27. III, excl. 4. VI – 2. VIII. 07, ⊕ *Allagopappus dichotomus*, 4. IV, excl. 4. V – 4. VII. 07, ⊕ *Senecio kleinia*, IV<sup>e</sup>, excl. 13–31. V. 07, ⊕ *Sonchus gunnifer*, 23. IV, excl. 23. VI. 07, ⊕ *Pinus canariensis*, 20. IV, excl. 19. V – 11. VI. 07, ⊕ *Rubia fruticosa*, II, excl. 18. V. 07, ⊕ *Cytisus proliferus*, 22. IV, excl. 29. IV – 10. VI. 07, ⊕ *Rhus coriaria*, 28. IV, excl. 6. VI. 07 (*Wlsm.*); Bajomar, 26. V. 1907 (*Wlsm.*). Thirty-six specimens (33 bred, 3 captured).

The species varies much in the amount of sprinkling, or suffusion, of brownish fuscous on the ashy ground-colour, some of the whiter varieties being more plainly marked than others, but all possess the oblique pale separating line between the costal triangle and dorsal blotch. In appearance it reminds one rather of *Tecmerium anthophagum* Stgr., but its nearest ally is *Zenodochium xylophagum* Wlsm., a much darker species with indistinct

markings. I bred thirty-six specimens from accumulated refuse on *Artemisia canariensis* (3), *Allagopappus dichotomus* (13), *Senecio kleinia* (4), and *Sonchus gummiifer* (1)—**Compositae**; *Pinnus canariensis* (6)—**Coniferae**; *Rubia fruticosa* (1)—**Rubiaceae**; *Cytisus proliferus* (4)—**Leguminosae**; and *Rhus coriaria* (1)—**Terebinthaceae**; these are, I believe, all plants indigenous to the Island. The larva frequently bores into the stem of the food-plant before pupation, leaving a hole from which the imago escapes.

### III. OECOPHORIDAE.

#### 31. (369·01) AGONOPTERYX Hb.

*Forewings*: 2 and 3 stalked; 7 and 8 stalked.

Type *Pyralis ocellana* F.

= †*AGONOPTERYX* Hb. (Type *ocellana* F.); = *PINARIS* Hb. (Type *arenella* S.-D.); = *TICHONIA* Hb. (Type *atomella* S.-D.); = *EPELEUSTIA* Hb. (Type *liturella* Hb.); = *HAEMYLLIS* Tr. (Type *assimilella* Tr.); = \**VOLUCRA* Z. (*conterminella* Z.), nec Ltr.; = *DEPRESSARIA* (A) Meyr.

Wallengren [Entomologisk Tidskrift II. 81 (1881)] described the new genus *Siganorosis* for species agreeing with *heracleiana* DG. in having veins 2 and 3 of the forewings separate, thus restricting the use of *Depressaria* Hw. to species with 2 and 3 stalked. Unfortunately he overlooked the fact that in 1828 Curtis had cited *heracleana* as the type of *Depressaria* Hw., and figured its neuriation. *Siganorosis* Wlgrn. must therefore sink as a synonym of *Depressaria* Hw., and also of *Volucra* Ltr. The species having 2 and 3 of the forewings stalked form a natural and easily recognisable genus and should be known as *Agonopteryx* Hb.

#### 59. (3193·1) AGONOPTERYX CINERARIAE, sp. n. (Plate LII. fig. 7.)

*Antennae* ochraceous, much clouded beyond the base with smoky fuscous. *Palpi* pale ochreous, the terminal joint minutely tipped with black, and having a black band around it above the middle. *Head* and tufted *Thorax* pale ochreous. *Forewings* with the costa moderately convex, apex depressed, termen oblique; pale ochreous, with a few darker fawn-ochreous shades tending to define the neuriation; more or less profusely sprinkled with scattered black dots, some being placed along the termen, some on the costa, one on the costa beyond the middle, in position to form an equilateral triangle with two others on the disc, above and near the first of which is sometimes a blackish patch; a small black marginal spot also lies near the base of the dorsum. *Exp. al.* 17–20 mm. *Hindwings* very pale, shining, whitish ochreous; cilia still paler. *Abdomen* and *Legs* pale straw-ochreous.

*Type* ♂ (99011); *PT.* var. ♂ (99012) Mus. Wlsm.

*Hab.* TENERIFE: Arafo, 13. IV. 1907 (*Wlsm.*); Barranco Lorez, near Orotava, ⊕ *Senecio (Cineraria) populifolius*, 7. V, excl. 11-20. VI. 1907 (*Wlsm.*). Seven specimens.

Larvae found in April and May, at Guimar and near Orotava, on *Senecio (Cineraria) populifolius* and *heritieri*, mining between the upper and under surfaces of the leaves, causing a slightly puckered appearance, but very difficult to detect owing to their pale greenish white colour. Six specimens bred in June, and a single ♂ taken on the wing above Arafo, April 13th.

Allied to *assimilella* Tr., but easily separated by the distinct black spotting on the under side of the costa of the forewings, which are, as are also the hindwings, much paler than in that species.

#### 60. (3201·1) AGONOPTERYX CONCILIATELLA Rbl.

*Depressaria conciliatella* Rbl. Ann. K.K. Hofmus. VII. 272-4, 283 no. 55. Pl. 17 · 14 ♀ (1892)<sup>1</sup>; *Wlsm.* Tr. Ent. Soc. Lond. 1894. 538, 546 no. 40 (1894)<sup>2</sup>; *Stgr-Rbl. Cat. Lp. Pal. II.* 171 no. 3223 (1901)<sup>3</sup>; *Rbl. Ann. K.K. Hofmus. XXI.* 44 no. 226 (1906)<sup>4</sup>.

*Hab.* SICILY<sup>1-3</sup>: Palermo<sup>1</sup>. *Madeiras*<sup>2-3</sup>—MADEIRA<sup>2</sup>: Funchal; The Mount (*Wollaston*)<sup>2</sup>. *Canaries*<sup>1-4</sup>—TENERIFE<sup>1</sup>: Agua Mansa and Pedro Gil, ⊕ *Cytisus proliferus*, 20. IV, excl. 20-23. V. 1907 (*Wlsm.*); Pedro Gil, 1420 m., 30. VII. 1889 (*Simony*)<sup>1</sup>—GRAN CANARIA<sup>1</sup>: San Mateo, 805 m., 7. VIII. 1890 (*Simony*)<sup>1</sup>.

The only named species, of the unrestricted genus *Depressaria*, recorded by Rebel in his complete list (1906) is *conciliatella*. In 1894 (*l. c.* 2), I wrote that if I had rightly identified this species it was very variable. I have now two specimens, bred from larvae feeding in the leading shoots of *Cytisus proliferus*, from Pedro Gil and Agua Mansa respectively, which are much darker than the Madeiran examples, but not distinguishable in the position and character of the markings. Professor Rebel, throughout his description, compares *conciliatella* with "*yeatiana* F.," but it is much more nearly allied to *scopariella* Hnm., from which indeed some of the less speckled varieties are almost indistinguishable. The easiest way to separate them is by the costal markings on the underside: in *conciliatella* there is a wide pale band around costa and termen, much peppered and streaked with fuscous along the basal half of the costa: in *scopariella* the pale band is narrower and decidedly less speckled.

#### 61. (3222) AGONOPTERYX YEATSANA F.

= † *yeatiana* F., ‡ *yeatsana*. (T. P. Yeats, *nom. pr.*)

*Purialis yeatiana* F. Sp. Ins. II. 286 no. 60 (1781)<sup>1</sup>. *Depressaria yeatiana* Rbl. Ann. K.K. Hofmus. VII. 272-4 (1892)<sup>2</sup>; *Stgr-Rbl. Cat. Lp. Pal. II.* 171 no. 3222 (1901)<sup>3</sup>.

*Hab.* C-S. EUROPE<sup>1-3</sup> — CORSICA: Corté, ⊕ *Heloscyadium*



*sp.*, 7. VI, excl. 20. VI. 1898 (*Wlsm.*)—S. FRANCE: R. Var, ⊕ *Peucedanum palustre*, 10. IV, excl. 18. VI. 1896 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, ⊕ *Heracleum sp.?*, 24 IV, excl. 19. V. 1902 (*Wlsm.*). CANARIES—TENERIFE: Puerto Orotava, 4. V. 1907, ⊕ *Umbellifer*, 9. V, excl. 10. VI. 1907 (*Wlsm.*).

Six specimens taken, and one bred from an *Umbellifer*, growing under dripping rocks on the sea-coast, near Orotava. The plant appeared to be the same as that from which I bred this species in Corsica, in 1898, and which was named for me at the time "*Helosecyadium sp.*", but I am not sure that the species occurs in Tenerife: in any case my botanical knowledge is quite inadequate to decide the point from such specimens as were available at the date on which the larva was found near Orotava. My experience is, that this species occurs only on marshy ground; I have also bred it from *Peucedanum palustre*, gathered at the mouth of the Var, on the Riviera, and from *Heracleum sp.*, at Tangier.

62. (3232·1) AGONOPTERYX PEREZI, sp. n. (Plate LII. fig. 8.)

=\**applana* *Wlsm.* (nec F.).

*Depressaria applana* *Wlsm.* Tr. Ent. Soc. Lond. 1894. 538, 546 no. 41 (1894)<sup>1</sup>.

*Antennae* smoky fuscous. *Palpi* cinereous, the median joint thickly sprinkled with black and tawny on the outer side, except in a narrow band around its upper end; terminal joint with a narrow black band around its base, a broader one before its apex, and the extreme apex minutely black. *Head* and *Thorax* cinereous, more or less tinged with fuscous; the latter with an elevated crest posteriorly. *Forewings* tawny reddish fuscous, with smoky black suffusion and speckling; a pale ochreous patch at the extreme base, its outer edge straight and black-margined to the upper edge of the cell, above which it is angulated and produced outward along the costa, and gradually absorbed in the darker ground-colour; on the cell, at one-third, are two clearly defined, almost contiguous, but obliquely diverging, black spots, the lower one slightly beyond the upper—both followed by a few ochreous scales, produced and broken into two spots, in line with the lower one on the cell; the slightly paler costa is obscurely spotted with dark fuscous throughout, and the termen is also narrowly spotted, the fuscous shading on the wing tending to follow and indicate the venation; cilia corresponding in colour to the wing-surface; underside shining, sericeous, the costa and termen strongly speckled with fuscous. *Exp. al.* 16–20 mm. *Hindwings* and cilia shining, pale cinereous, the cilia with slender parallel shade-lines running through them; underside shining, sericeous, the costa and termen strongly speckled with fuscous. *Abdomen* and *Legs* pale cinereous, the tarsi with four fuscous bands.

*Type* ♂ (99018); ♀ (99019) *Mus. Wlsm.*

*Hab.* Madeiras<sup>1</sup>—MADEIRA<sup>1</sup>. CANARIES—TENERIFE: Puerto Orotava, ⊕ *Ruta pinnata*, 14. V, excl. 4. VI - 1. VII. 1907 (Wlsm.). Twenty-four specimens.

The pale green larva rolls the leaves of *Ruta pinnata*, an indigenous and somewhat local plant, to which my attention was specially called by my friend Dr. George Perez, after whom I have named this *Agonopteryx*, and whose great assistance in the botanical work connected with my study of the Tenerife Lepidoptera. I gratefully acknowledge.

As compared with *Agonopteryx applana* F., the chief points of difference noticeable in *perezi* are that the pale basal patch is sharply angulate (not curved outward) at the radius, along and above which are some distinctly ochreous scales; the discal spots are yellowish, not white, and the antennae are shorter. Looking again at the rather poor specimen which I recorded from Madeira, as *applana*, in 1894, I am now inclined to regard this as *perezi*.

### 32. (369) DEPRESSARIA Hw.

*Forewings*: 2 and 3 separate; 7 and 8 stalked.

Type *Phalaena Tortrix heracleana* (L.) DG., F., Hw.

DEPRESSARIA Hw. (Type *heracleana* Hw.); = *PYRALIS* F. (II.) Ltr.; [= *PIESTA* Blbg. (Type *heracleana* L.) LN.]; = †“*PYRALE, VOLUCRE*” Ltr. (Type *heracleana* F.); = *VOLUCRA* Ltr. (Type *heracleana* F.); = *SIGANOROSIS* Wlgrn. (Type *heracleana* L., Wlgrn.); = *DEPRESSARIA* (B) MEYR.

63. (3299-1) DEPRESSARIA TENERIFAE, sp. n. (Plate LII. fig. 9.)  
= *Depressaria* sp. Rbl. Ann. KK. Hofmus. XXI. 39, 44 no. 227 (1906)<sup>1</sup>.

*Antennae* smoky fuscous. *Palpi* cinereous, densely speckled with smoky fuscous externally, and with a fuscous ring above the middle of the terminal joint. *Head* and *Thorax* pale slaty greyish, more or less sprinkled with tawny fuscous. *Forewings* slaty greyish, suffused, and obscurely blotched, with smoky fuscous; a very dark patch at the base, below the fold, leaving a narrow pale margin within it, is diluted upward and outward, and followed by two clouds of a similar colour on the cell, one before and one beyond the middle, of which the first is the darker, owing to black scaling continued from its lower edge in a series of two or three small spots reaching to the end of the cell; beyond the cell is a strong, outwardly curved, dark fuscous shade, preceding the speckled margin and cilia, the latter are delicately rosy-tipped. *Exp. al.* 17-19 mm. *Hindwings* and cilia pale, shining, rosy cinereous. *Abdomen* and *Legs* shining, cinereous; the tarsi with four fuscous bands.

Type ♀ (99020); ♂ (99021); ⊕ (99022) Mus. Wlsm.

*Hab.* TENERIFE: 1905 (*White*)<sup>1</sup>; Santa Cruz, ⊕ *Artemisia cana-*

*riensis*, 11. II, excl. 19. III - 3. IV. 1907 (*Wlsm.*); Guimar,  $\oplus$  *Artemisia canariensis*, 25. III, excl. 9. IV - 23. V. 1907 (*Wlsm.*). Sixteen specimens.

Bred from a rather stout green larva, feeding in the leading shoots of *Artemisia canariensis*, at Santa Cruz and Guimar. As compared with the European species which feed on *Artemisia*, it is distinctly more suffused in its colouring, the darker patches being unaccompanied by any lines of whitish scales; indeed the whole insect has a much more silky, smooth appearance, with some gloss, not only in the hindwings, but also on the anterior pair. It is perhaps nearest to *absinthivora* Frey, but the absence of any outward elongation of the median shade is a good character by which it may readily be distinguished.

#### 64. (3306) DEPRESSARIA APIELLA Hb.

=*nervosa* Hw.; =\**heracliana* Wlsm. (nec DG.).

*Tinea apiella* Hb. Smlg. Eur. Schm. VIII. (Tin.). 39. Pl. 14. 94 (1796)<sup>1</sup>. *Depressaria nervosa* Hw. Lp. Br. 506 no. 4 (1811)<sup>2</sup>. *Pinaris apiella* Hb. Verz. Schm. 411 no. 3966 (1826)<sup>3</sup>. *Depressaria nervosa* Wlsm. Pr. Z. Soc. Lond. 1881. 317 (1881)<sup>4</sup>. *Depressaria* \**heracliana* Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 546 no. 42 (1894)<sup>5</sup>. *Depressaria nervosa* Stgr-Rbl. Cat. Lp. Pal. II. 174 no. 3306 (1901)<sup>6</sup>; Busck, Pr. US. Nat. Mus. XXIV. 747 no. 34 (1902)<sup>7</sup>; Dyar Bull. US. Nat. Mus. 52. 522 no. 5887 (1902)<sup>8</sup>.

*Hab.* EUROPE<sup>1-3</sup>. N. AFRICA—MOROCCO: Tangier,  $\oplus$  *Ferula* sp., excl. 19. V. 1902 (*Wlsm.*);  $\oplus$  *Oenanthe peucedanifolia*, 6. V, excl. 7-15. VI. 1902 (*Wlsm.*);  $\oplus$  *Thapsia garganica*, 9. V, excl. 7. VI. 1902 (*Wlsm.*). MADEIRAS<sup>5</sup>—MADEIRA: (*Wollaston*)<sup>5</sup>. CANARIES—TENERIFE: Guimar,  $\oplus$  *Bupleurum aciphyllum*, 6. III, excl. 16. IV. 1907 (*Wlsm.*);  $\oplus$  *Umbellifer*, 14. IV, excl. 22. V. 1907 (*Wlsm.*). UNITED STATES<sup>4, 7-8</sup>—OREGON<sup>4, 7-8</sup>: GRANT CO.: Camp Watson, IV<sup>m</sup>. 1872 (*Wlsm.*); JACKSON CO.: near Rogue River, 4-6. V. 1872 (*Wlsm.*).

For more than half a century *apiella* Hb. (1796) has been sunk as a synonym of *nervosa* Hw. (1811): so long as these two names are held to pertain to the same species, it is obvious that that species must be named *apiella* Hb.

Two specimens bred from an *Umbellifer*, found at Guimar, and one from the rare *Bupleurum aciphyllum* (= *salicifolium*) appear to be inseparable from this species: they agree exactly with specimens bred in Morocco, in 1902, from *Ferula*, *Oenanthe peucedanifolia*, and *Thapsia garganica*, and are only distinguished from my European series by their slightly larger size and darker colour, partly due to the freshness of the specimens. This species has not been met with in the United States since 1872, when I took two specimens in Oregon. I again refer to these two specimens to give the exact localities, viz., (91970) Camp Watson,

Grant Co., in Northern Oregon, taken in April 1872, and (91971) taken in Jackson Co., in Southern Oregon, 4-6 June 1872, when near Rogue River. These two American specimens have vein 5 of the hindwings out of the stalk of 3 and 4, in which they agree with Canary, Tangier, Madeira, and European specimens which have 5 connate with, or out of the stalk of 3 and 4; a character which occurs also in *discipunctella* HS. (= \**pastinacella* Stn.). The specimen recorded by me from Madeira in 1894 (*l. c.* 5) as "*Siganorosis heracliana* DG." is a bleached example of *apiella* Hb.

### 33. (365) ETHMIA Hb.

= *PSECADIA* Hb., Stgr-Rbl.

#### 65. (3143) ETHMIA BIPUNCTELLA F.

*Alucita bipunctella* F. Ent. Syst. 668 no. 7 (1775)<sup>1</sup>. *Psecadia bipunctella* Rbl. Ann. KK. Hofmus. VII. 272, 283 no. 54 (1892)<sup>2</sup>: IX. 18, 89 no. 168 (1894)<sup>3</sup>: XIII. 377, 381 no. 201 (1899)<sup>4</sup>: XXI. 44 no. 225 (1906)<sup>5</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 167 no. 3143 (1901)<sup>6</sup>.

*Hab.* W. ASIA<sup>2-3, 6</sup>. C. and S. EUROPE<sup>1-3, 6</sup>—S. SPAIN: HUELVA: Coto, 23. IV. 1901 (*Wlsm.*). N. AFRICA<sup>2-3, 6</sup>—MOROCCO: Tangier, 11. II. 1902 (*Wlsm.*)—ALGERIA: Le Tarf, 29. VI. 1896 (*Eaton*). CANARIES<sup>2-6</sup>—TENERIFE<sup>3-5</sup>: Santa Cruz, 6-12. I. 1907, ⊕ *Symphytum*, 14. I - 13. II, excl. 5. IV. 1907 (*Wlsm.*), 30. IV. 1898 (*Hintz*)<sup>4</sup>; Las Mercedes, 7-29. III. 1904 (*Eaton*); La Laguna, 12. VI. 1889 (*Krauss*)<sup>3</sup>—GRAN CANARIA<sup>2-5</sup>: (*Richter*)<sup>2-5</sup>.

Taken on the wing, and bred at Santa Cruz.

### 33<sup>a</sup>. (376) HARPELLA Schrk.

#### 65<sup>a</sup>. (3329) HARPELLA FORFICELLA Sc.

*Phalaena forficella* Sc. Ent. Carn. 248 no. 638 (1763)<sup>1</sup>. *Harpella forficella* Rbl. Ann. KK. Hofmus. VII. 276, 283 no. 59 (1892)<sup>2</sup>: XXI. 44 no. 228 (1906)<sup>3</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 176 no. 3329 (1901)<sup>4</sup>.

*Hab.* C-S. EUROPE<sup>1-4</sup>. CANARIES<sup>2-4</sup>—(? GRAN CANARIA<sup>2</sup>).

I did not meet with this species in Tenerife.

## IV. HYPONOMEUTIDÆ.

### 34. (412) COLEOPHORA Hb.

#### 66. (3713) COLEOPHORA OROTAVENSIS Rbl.

*Coleophora orotavensis* Rbl. Ann. KK. Hofmus. XI. 137-8, 147 no. 214, Pl. 3 · 16 ♀ (1896)<sup>1</sup>: XXI. 44 no. 234 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 193 no. 3713 ((1901)<sup>3</sup>).

*Hab.* TENERIFE<sup>1-3</sup>: Santa Cruz, 26. XII - 26. I. 1907 (*Wlsm.*); Guimar, 28. II - 12. IV. 1907 (*Wlsm.*), 24. III. 1904 (*Eaton*); Tacaronte, 1. IV. 1902 (*Eaton*); Puerto Orotava, 21-30. IV. 1905 (*Hedemann*)<sup>1</sup>, 21. IV. 1907 (*Wlsm.*).



Exceedingly common everywhere. It seems to be attached to *Chenopodium*, and to appear in successive broods almost continuously.

67. (3713·1) *COLEOPHORA MICROMERIAE*, sp. n.

*Antennae* white, annulate with greyish fuscous; the basal joint roughly clothed, but not tufted. *Palpi* white, a broad greyish fuscous band spreading around the apex of the median, and base of the terminal joint, including some slightly projecting scales from the former. *Head* white, slightly shaded along the middle with greyish fuscous. *Thorax* white above; tegulae touched with greyish fuscous. *Forewings* greyish fuscous, the costa narrowly pure white from the base, widening outward, and continued to the apex, before which the costal cilia are slightly touched with grey; there is a less conspicuous line of white scaling along the fold and slightly diffused downward across the space beneath it to the dorsum, the base of the terminal cilia being also white, forming a streak which runs out through those of the apex; with this exception the cilia are pale brownish grey; the marginal white lines are clearly visible on the underside. *Exp. al.* 8–11 mm. *Hindwings* very pale bluish grey; cilia pale brownish grey, becoming whitish at their tips around the apex. *Abdomen* brownish grey above, white beneath; anal clothing whitish. *Legs* white, the hind tarsi faintly speckled.

*Type* ♀ (99023); ♂ (99024) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, 19. II. 1907, 5.V. 1907 (Wlsm.); Guimar, 27. II – 14. IV. 1907 (Wlsm.), ⊕ *Micromeria varia*, 23. II, excl. 10. V. 1907 (Wlsm.); Cruz de Afur, 5. IV. 1904 (Eaton); Forest de la Mina, 7. IV. 1904 (Eaton). Sixteen specimens, one bred.

The case is brown, short and cylindrical, sprinkled with short whitish hairs, like the leaf-surface of the food-plant; the mouth is slightly oblique. It was found on *Micromeria varia*, among which plant I took several specimens, at Guimar, at about 1200 ft. I also met with the species at Puerto Orotava, in February, and in May, and received three specimens from Mr. Eaton, taken in April 1904, at Cruz de Afur, and in the Forest de la Mina.

68. (3773) *COLEOPHORA CONFLUELLA* Rbl.

*Coleophora confluenta* Rbl. Ann. K.K. Hofmus. VII. 278–9, 283 no. 63, Pl. 17 · 15 ♂ (1892)<sup>1</sup>: XXI. 44 no. 235 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 195 no. 3773 (1901)<sup>3</sup>.

*Hab.* Canaries<sup>1-3</sup>—LA PALMA<sup>1, 3</sup>: Pico del Berigoya, 1400–1500 m., 21. VIII. 1889 (Simony)<sup>1</sup>—TENERIFE: Guimar, ⊕ *Helianthemum guttatum*, 27. III, excl. 25. IX – 1. X. 1907 (Wlsm.); La Laguna, ⊕ *Helianthemum guttatum*, 3. V. 1907 (Wlsm.).

Larvae were common, in cases made of leaves (similar to those of *helianthemella* Mill.), on *Helianthemum guttatum*, and also on

*Cistus monspeliensis*. I found numerous cases at Guimar, at the end of March, from which I bred two specimens only at the end of September and the beginning of October. I have always found *helianthemella* an extremely difficult species to rear, under the conditions to which a travelling entomologist is restricted, and *confluella* presents similar difficulties, for I bred only the two specimens mentioned, although larvae were collected subsequently at La Laguna in the beginning of May.

68<sup>a</sup>. COLEOPHORA SP. ?

Three cases found on *Adenocarpus foliolosus*, at Guimar, 26th February, were extremely similar to those of *confluella*, and might have been taken for stray specimens from the *Helianthemum*, had I not observed traces of their feeding on the leaves. They were slightly smaller than the others, but would not feed in captivity and I failed to rear them.

69. (3815·1) COLEOPHORA AEGYPTIACAE Wlsm.

*Coleophora aegyptiacae* Wlsm. Ent. Mo. Mag. XLIII. 148 no. 3815·1 (1907)<sup>1</sup>.

*Hab.* ALGERIA: Hammam-es-Salahin, ⊕ *Salvia aegyptiaca*, III – IV, excl. IV.<sup>1</sup> CANARIES—TENERIFE: Santa Cruz, ⊕ *Salvia aegyptiaca*, 16. I – II. 1907.

Several cases of this Algerian species were found at Santa Cruz, at different dates in January and February, on *Salvia aegyptiaca*, but were not reared.

70. (3840·1) COLEOPHORA TEIDENSIS, sp. n.

*Antennae* pale grey, with very faint paler annulations; basal joint smooth. *Palpi* greyish white; smooth, a few scales projecting from the end of the median, before the base of the short terminal joint. *Head* and *Thorax* pale silky grey. *Forewings* narrow; pale silky grey, without any ochreous or brownish scaling; a faint greyish white line, along the costa, is a little widened about the middle, but thence touches only the outer ends of the greyish costal cilia; other still fainter greyish lines running throughout the wing-length, one along the upper edge of the cell throwing three slender branches to the costa along the principal veins; one along the middle of the cell leaves the costa near the base, approaching and running parallel to the termen. another lying below it along the fold; cilia pale stone-grey. *Exp. al.* 13 mm. *Hindwings* very pale bluish grey; cilia pale stone-grey. *Abdomen* dark leaden grey. *Legs* whitish grey.

*Type* ♂ (99026); ♀ (99027) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, 14. V. 1907; Tacaronte, 31. V. 1907; La Laguna, 5. VI. 1907. Three specimens.

The nearest approach to this species in our European lists is *algidella* Stgr., which it greatly resembles in colouration and in

the faint whitish longitudinal lines; it differs, however, decidedly in its much narrower forewings. I should place it between *algidella* Stgr. and *murinipennella* Dp.: its scarcely annulated antennae and more silky grey colour separate it from the latter.

71. (3852) *COLEOPHORA ATLANTICELLA* Rbl.

*Coleophora atlanticella* Rbl. Ann. K.K. Hofmus. XI. 138-9, 147 no. 215 (1896)<sup>1</sup>; XXI. 44 no. 236 (1906)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 198 no. 3852 (1901)<sup>3</sup>.

*Hab.* CANARIES<sup>1-3</sup>—TENERIFE<sup>1-2</sup>: Santa Cruz, 22. I - 10. II. 1907 (*Wlsm.*); Guimar, 12-30. III. 1907 (*Wlsm.*); Puerto Orotava, 27. IV. 1895 (*Hedemann*)<sup>1</sup> — GRAN CANARIA<sup>1-2</sup>: Las Palmas, 7. V. 1895 (*Hedemann*)<sup>1</sup>.

A good series taken at Santa Cruz; I also met with it at Guimar.

72. (3895) *COLEOPHORA ARTEMISIAE* Mhlg.

*Coleophora artemisiae* Mhlg. Stett. Ent. Ztg. XXV. 163-5 (1864)<sup>1</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 199 no. 3895 (1901)<sup>2</sup>.

*Hab.* GERMANY<sup>1-2</sup>—AUSTRIA<sup>2</sup>. CANARIES—TENERIFE: Guimar 12. IV. 1907; Puerto Orotava, 21. IV. 1907.

Six specimens taken at Puerto Orotava, and two at Guimar, among *Artemisia canariensis*.

73. (3904.1) *COLEOPHORA POECILELLA* Wlsm.

*Coleophora poecilella* Wlsm. Ent. Mo. Mag. XLIII. 129 no. 3904.1 (1907)<sup>1</sup>.

*Hab.* ALGERIA: Biskra, Hammam-es-Salahin, ⊕ *Suaeda vermiculata*, IV, excl. IV - V, X.<sup>1</sup> CANARIES—TENERIFE: Puerto Orotava, ⊕ *Salsola oppositifolia*, 4. VI. 1907.

Three of the easily-recognisable, long, tapering, cylindrical cases, found on *Salsola oppositifolia*, at Orotava, are undistinguishable from those taken in Algeria on the allied *Suaeda vermiculata*; but again I was unable to rear them.

35. (389) *BATRACHEDRA* Stn.

74. (3562) *BATRACHEDRA LEDERERIELLA* Z.

*Cosmopteryx ledereriella* Z. Stett. Ent. Ztg. XI. 198 no. 220 (1850)<sup>1</sup>. *Batrachedra ledereriella* Wlsm. Ent. Mo. Mag. XXVII. 149 (1891)<sup>2</sup>; Rbl. Ann. K.K. Hofmus. XI. 132, 147 no. 205 (1896)<sup>3</sup>; XXI. 44 no. 232 (1906)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3562 (1901)<sup>5</sup>; Wlsm. Ent. Mo. Mag. XXXIX. 167 (1903)<sup>6</sup>.

*Hab.* WC. ASIA<sup>6</sup>. S. EUROPE<sup>1-6</sup>—S. FRANCE: Cannes,

⊕ in webbed rubbish on *Mimosa*, excl. 20. IV. 1879, ⊕ in webs of Spiders and Larvae, II–III, excl. IV. 1881, ⊕ *Juniperus oxycedrus*, III, excl. 24. V. 1890, ⊕ *Rosmarinus officinalis*, III, excl. 16. V. 1890, ⊕ old fruit of *Mespilus germanica*, excl. 12. V. 1892 (*Wlsm.*); Beaulieu, ⊕ rubbish in leafy galls on *Salix pendula*, 6. IV, excl. 5. V – 17. VIII. 1890 (*Wlsm.*)—SPAIN: MALAGA: Malaga, ⊕ in seed-heads of *Anthyllis cytisoides*, XII, excl. 2. IV. 1901, ⊕ *Genista umbellata*, 28. I, excl. 1. IV. 1901, ⊕ *Cistus albidus*, 27. I, excl. 5–8. IV. 1901 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, 11. I., 8. III., 2. V. 1902 (*Wlsm.*), ⊕ *Cistus ladaniferus*, 9. XII, excl. 30. VII. 1902 (*Wlsm.*); Cape Spartel, ⊕ seeds of *Cistus sp.*, excl. 16. VIII. 1902 (*Wlsm.*). CANARIES<sup>3-5</sup>—TENERIFE<sup>3</sup>: La Laguna, 2. III. 1904 (*Eaton*), 7. VI. 1907 (*Wlsm.*); Guimar, 2. III – 14. IV. 1907 (*Wlsm.*); Puerto Orotava, 11. IV. 1895 (*Hedemann*)<sup>3</sup>, ⊕ old seeds *Senecio kleinia*, 26. IV, excl. 29. IV – 10. VI. 1907, ⊕ diseased stems *Cytisus proliferus*, 24. IV, excl. 13. V. 1907, ⊕ *Pinus canariensis*, 20. IV, excl. 24–29. V. 1907, ⊕ *Mangifera indica*, 14. V, excl. 25. VI – 14. VII. 1907, ⊕ *Sonchus leptcephalus*, 30. IV, excl. 7. VII. 1907 (*Wlsm.*); Arafo, 13. IV. 1907 (*Wlsm.*)—GRAN CANARIA<sup>3</sup>: Las Palmas, 9. V. 1895 (*Hedemann*)<sup>3</sup>.

Taken commonly at Guimar, and bred from *Senecio*, *Cytisus*, *Pinus*, *Mangifera*, and *Sonchus*, bearing out my previous experience of the habits of the species in Europe and Morocco, where it is invariably a rubbish-feeder, among débris of spiders' webs, and frass of other larvae on numerous plants as enumerated above.

### 36. (388) COSMOPTERYX Hb.

75. (3550·1) COSMOPTERYX CORYPHEA, sp. n. (Plate LII. fig. 10.)  
= *Cosmopteryx sp. n.* *Wlsm.* Ent. Mo. Mag. XXXVII. 237 (1901)<sup>1</sup>.

*Antennae* pale buff, spotted with white along their outer sides, two black, and two white annulations occurring before a darker band, which precedes the four or five yellowish distal joints. *Palpi* white, with pale buff lateral lines throughout. *Head* olivaceous brownish, with a short central, and two longer lateral lines. *Thorax* olivaceous brown, with a central white line, and one along the inner edge of each of the tegulae. *Forewings* olivaceous brown to about three-fifths of their length, on which colour are five slender silvery white lines; one from the base of the costa, slightly diverging, and terminated below the costa at about one-third; another, above it along the costa, slightly widened towards its outer end; a third, from the middle of the base, extending to the outer margin of the olive-brown space, whence a shorter, inverted, streak diverges, terminating opposite to the outer end of the first costal; the fifth streak is from the base, along the dorsum, and is rather shorter than the first costal;



beyond the brown space, and therefore a little beyond the middle of the wing, commences a pale lemon-yellow patch, which is continued toward the apex, bearing the following markings: first, two bright silver spots, each touching the brown preceding space, and each carrying a jet-black dot on the side opposite to it; beyond these, at a distance equal to about the middle of the wing, are two corresponding spots of bright silver scales, but with only one or two black scales attached, the yellow ground-colour extends between and beyond these, blending to creamy white along the costa and dorsum to the apex, the margins being separated by a short olive-brown dash reaching the extreme apex; cilia brownish grey. *Exp. al.* 9-10 mm. *Hindwings* pale grey; cilia brownish grey. *Abdomen* yellowish. *Legs* white, shaded externally with oblique olivaceous brownish bands.

*Type* ♂ (99029); ♀ (99030) *Santa Cruz*, Mus. Wlsm.

*Hab.* SPAIN: MALAGA: Malaga, 29. IV. 1901 (Wlsm.)<sup>1</sup>. CANARIES—TENERIFE: Santa Cruz, 12-16. II. 1907. Eight specimens.

Nearest to *similis* Wlsm., but differing in the continuation of the yellow band beyond the outer pair of silver spots, giving the wing a much lighter appearance; in this respect it agrees with *quadrilineella* Chmb., but differs in having five white lines in the dark basal area of the wing, of these the subcostal, the median, and the dorsal arise from the base.

#### 76. (3553) COSMOPTERYX ATTENUATELLA Wkr.

**n. syn.** = *flavofasciata* E. Wlsm.; = *lespedezae* Wlsm.

*Gelechia attenuatella* Wkr. Cat. Lp. BM. XXX. 1019 (1864)<sup>1</sup>. *Cosmopteryx flavofasciata* E. Wlsm. Ann-Mag. NH. (5 s.), III. 438 (1879)<sup>2</sup>; Lp. St. Helena 53 (1879)<sup>2</sup>. *Cosmopteryx lespedezae* Wlsm. Tr. Am. Ent. Soc. X. 198 (1882)<sup>3</sup>. [? = *Cosmopteryx* (? *gemniferella* Clms.) Mschl. Ab. Senck. Nat. Ges. XV. 345, 354 (1890)<sup>4</sup>; Wlsm. Pr. Z. Soc. Lond. 1891. 536, 548 (1892)<sup>5</sup>]. *Cosmopteryx lespedezae* Riley, Smith's List Bor-Am. 107 no. 5771 (1891)<sup>6</sup>. *Gelechia attenuatella* Wlsm. Pr. Z. Soc. Lond. 1891. 519, 545 (1892)<sup>7</sup>. *Cosmopteryx lespedezae* Wlsm. Pr. Z. Soc. Lond. 1891. 536, 548 (1892)<sup>8</sup>. *Cosmopteryx flavofasciata* Rbl. Ann. KK. Hofmus. IX. 91-2 (1894)<sup>9</sup>; XI. 133-4, 147 no. 208 Pl. 3·13 (1896)<sup>10</sup>; XXI. 44 no. 230 (1906)<sup>11</sup>. *Cosmopteryx attenuatella* Wlsm. Pr. Z. Soc. Lond. 1897. 105-6 no. 123 (1897)<sup>12</sup>. *Cosmopteryx flavofasciata* Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3553 (1901)<sup>13</sup>. *Cosmopteryx lespezia* Dyar Pr. Ent. Soc. Wash. IV. 478 (1901)<sup>14</sup>. *Cosmopteryx attenuatella* Dyar Bull. US. Nat. Mus. 52. 535 no. 6068 (1902)<sup>15</sup>; Busek Pr. US. Nat. Mus. XXX. 710 (1906)<sup>16</sup>.

*Hab.* UNITED STATES<sup>3, 6, 12, 15-16</sup>—TEXAS<sup>8, 12, 16</sup>: ⊕ *Lespedeza*<sup>3, 8, 12</sup>—N. CAROLINA<sup>8, 12</sup>—FLORIDA<sup>14-16</sup>: II-III<sup>14</sup>. WEST INDIES<sup>1, 4-5, 7-8, 12, 16</sup>—JAMAICA<sup>1, 7, 12</sup>: Constant Springs, 18.

XII - 2. I. 1905 (*Wlsm.*); Runaway Bay, 17. II - 13. III. 1905 (*Wlsm.*)—HAYTI<sup>12, 16</sup>; V<sup>12</sup>; San Domingo<sup>16</sup>—[? PORTORICO<sup>4-5, 12</sup>]—ST. CROIX: V<sup>12</sup>—ST. VINCENT<sup>7, 12</sup>—GRENADA: III-IV<sup>12</sup>—St. Helena<sup>2, 9, 13</sup>. **Canaries**<sup>10-11, 13</sup>—TENERIFE<sup>10-11</sup>: Guimar, 19. III - 12. IV. 1907 (*Wlsm.*); Puerto Orotava, 1895 (*Hedemann*)<sup>10</sup>, 29. IV. 1895 (*Hedemann*); 14. V. 1907 (*Wlsm.*)—GRAN CANARIA<sup>10-11</sup>: Las Palmas, 7-9. V. 1895 (*Hedemann*)<sup>10</sup>.

Professor Rebel (l. c. 10) records and discusses *flavofasciata* E. Wlsth., of which I have one of the examples (7244) collected by von Hedemann in the Botanical Gardens at Puerto Orotava, 29. IV. 1895, and six taken by myself at Puerto Orotava, 14. V., and Guimar, 19. III - 12. IV. 1907. I have now re-examined Mrs. Wollaston's type from St. Helena, and am convinced that it is the same as the species identified by Rebel under this name from Tenerife, but the possession of more specimens has now enabled me to correct the synonymy as follows:—*attenuatella* Wkr. (1864); = *flavofasciata* E. Wlsth. (1879); = *lespedezae* Wlsm. (1882)—thus proving that the species is widely distributed.

#### 77. (3555) COSMOPTERYX TURBIDELLA Rbl.

*Cosmopteryx* sp. Rbl. Ann. KK. Hofmus. IX. 18, 91-2 no. 183 (1894)<sup>1</sup>. *Cosmopteryx turbidella* Rbl. Ann. KK. Hofmus. XI. 135-6, 147 no. 209. Pl. 3·14 ♀ (1896)<sup>2</sup>: XXI. 44 no. 231 1906<sup>3</sup>: Stgr.-Rbl. Cat. Lp. Pal. II. 185 no. 3555 (1901)<sup>4</sup>.

*Hab.* **Canaries**<sup>1-4</sup>—TENERIFE<sup>1-4</sup>: Guimar, 5. II - 17. III. 1907 (*Wlsm.*), 20. III. 1904 (*Eaton*), ⊕ *Parietaria vulgaris*, 5. II, excl. 17-18. III. 1907 (*Wlsm.*); Puerto Orotava, ⊕ *Parietaria*, excl. 15-25. III. 1904 (*Eaton*), 16-30. IV. 1895 (*Hedemann*)<sup>2</sup>; Forest de la Mina, 17. III. 1902 (*Eaton*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Las Mercedes, 28. V. 1907 (*Wlsm.*), VI. (*Cabrera*)<sup>1</sup>; Barranco del Loro (nr. Realejo Alto), ⊕ *Parietaria arborea*, 7. V, excl. 11-12. VI. 1907 (*Wlsm.*).

*Cosmopteryx turbidella* feeds on *Parietaria vulgaris*, near Guimar, in great abundance; it was found there by Mr. Eaton, who also observed the larvae where I have taken and bred it. An intimate acquaintance with the form of the mine caused me to suspect that a large, broad-leaved, shrub growing in the Barranco del Loro, above Realejo Alto, was *Parietaria arborea*; and this turned out to be correct.

*C. turbidella* Rbl. differs from *pulcherrimella* Chmb. in the possession of a black dot, a little above the middle of the wing, contiguous to the golden metallic band which precedes the yellow fascia; also in having the silver apical streak undivided, whereas in *pulcherrimella* it is broken into two short lines; moreover, the outer golden fascia does not commence in a pure white costal spot, as in the somewhat smaller American species. After re-

examining my series of *pulcherrimella*, collected in Madeira by Wollaston, with the addition of specimens subsequently received from Eaton, and my own from Tenerife, I am surprised to find that there is not a specimen of *turbidella* from Madeira. Mr. Eaton notes (MS., 16. IV. 1904) that "The *Cosmopteryx* so common at Guimar, and Puerto (de la Cruz) Orotava [i. e. *turbidella* Rbl.], was also plentiful on *Parietaria*, at Funchal, in the garden of the Carmo Hotel"; but his specimens of *pulcherrimella* were taken at "Funchal: at altitude of about 600 ft., 26. II. 1902: out of *Eupatorium adenophorum* Spreng.," one of the *Compositae*. This plant should be searched, but it is not a probable food-plant for *pulcherrimella* Chmb., which in the United States feeds on *Pilea pumila*, one of the *Urticaceae*.

*Cosmopteryx turbidella* is by no means consistent in the colour of the yellow fascia; this, in some specimens, is almost obsolete through the strength of the brownish suffusion; in others the colour is only slightly influenced in tone, while rarely it is of a clear orange-yellow, without partial shading or suffusion. I have again carefully compared all the specimens, without being able to detect any difference between the American and Madeiran specimens of *pulcherrimella*.

### 37. (405) STAGMATOPHORA HS.

#### 78. (3564) STAGMATOPHORA (PYRODERCES) ARGYROGRAMMOS Z.

*Cosmopteryx argyrogrammos* Z. Isis 1847. 37-8 no. 177<sup>1</sup>. *Pyroderces argyrogrammos* Cnst. Ann. Soc. Ent. Fr. LII. 20 (1883)<sup>2</sup>; Rbl. Ann. KK. Hofmus. XI. 132, 147 no. 207 (1896)<sup>3</sup>: XXI. 44 no. 233 (1906)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3564 (1901)<sup>4</sup>.

*Hab.* WC. ASIA<sup>1, 5</sup>—HALEB: Shar Devesy, 1893 (*Nat. Coll.*: *Leech*). S-MC. EUROPE<sup>1-5</sup>—ITALY: Rome, 10-25. IV. 1893 (*Wlsm.*)—CORSICA: Corté, 19-21. V. 1896; Ile Rousse, 5. VI. 1898; Ajaccio, 16. VI. 1899 (*Wlsm.*)—FRANCE: ⊕ *Compositae*—*Carlina corymbosa*, *Kentrophyllum lanatum*, *Centaurea aspera*, *Pycnomon acarna*, etc.<sup>2</sup>; Monte Carlo, 5. V. 1882 (*Wlsm.*); Beau-lieu, ⊕ *Carduus*, excl. 12. VII. 1889 (*Wlsm.*)—S. SPAIN: MALAGA: Malaga, 14. III. 1901; GRANADA: Granada, 22. V-20. VI. 1901; CADIZ: Chiclana, ⊕ *Centaurea*, excl. 10. VI. 1902 (*Wlsm.*). N. AFRICA<sup>5</sup>—ALGERIA: Bône, 21. IV. 1896 (*Eaton*)—MOROCCO: Tangier, IV. 1902 (*Wlsm.*); Rabat, IV. 1902 (*Wlsm.*). CANARIES<sup>3-4</sup>—TENERIFE<sup>3-4</sup>: Guimar, III<sup>e</sup>. 1907 (*White*); Puerto Orotava, 14. IV. 1895 (*Hedemann*)<sup>3</sup>; La Laguna, 5. VI. 1907 (*Wlsm.*).

Mr. White took a good specimen of this at Guimar, when collecting with me, at the end of March; I subsequently met with a worn example, at La Laguna, in June.

## 38. (417) APHELOSETIA Stph.

=\**ELACHISTA* (Tr. p.) Z., Stn., Stgr-Rbl., etc.

Type *Phalaena Tinea argentella* Cl. (Wstwd. 1840).

APHELOSETIA Stph. Ill. Br. Ent. Haust. IV. 287 (1834); Wstwd. Syn. Gn. Br. Ins. 112-3 (1840).

ELACHISTA Tr. (C. ELACHISTA) Z. Isis 1839. 211, 212-3.

When describing *Elachista*, Treitschke [Schm. Eur. IX. (2). 177 (1833)] wrote as part of his generic diagnosis: "Die Raupen leben auf der Unterseite der Baumblätter oder minirend zwischen den Häuten derselben. Sie verpuppen sich in festen Hülsen." This restricted the possible type to species with such larval habits (i. e. *Bucculatrix* Z. and *Phyllonorycter* Hb.) with whose life-history Treitschke was acquainted, and rendered it impossible for any of the grass-mining species (*Elachista* Auct.) to be regarded as a potential type. Treitschke quotes the life-history of *Bucculatrix frangulella* Göze and *Phyllonorycter (Lithocolletis) tremulae* Z. from Fischer von Röslerstamm (*in litt.*), but he was personally acquainted with the larvae of *ulmifoliella* Hb. and *blancarvella* (F., *mespilella* Hb. 272) Tr. *Elachista* Tr. must therefore sink as a synonym of *Phyllonorycter* Hb., and *ulmifoliella* Hb. should be taken as the type. Duponchel [HN. Lp. Fr. XI. 25, 499-502 no. 30 (1836)] cited *complanella* Hb. as the type of *Elachista* Tr., but Treitschke was unacquainted with the larva of *complanella*, and this species is not indicated as specially typical. Zeller's restriction to the grass-feeding species is also invalid for the same reason.

## 79. (3994·1) APHELOSETIA HYPOLEUCA, sp. n.

(Plate LII. fig. 11.)

*Antennae* fuscous, the basal joint pale ochreous. *Palpi* whitish ochreous. *Head* and *Thorax* whitish ochreous, the latter faintly shaded with fawn-grey. *Forewings* pale ochreous (whitish ochreous if worn), sprinkled and suffused with fawn-brown, especially above the fold beyond the middle, with some deeper brownish fuscous shades, notably along the costa and about the tornus; three black spots, one below the costa at two-thirds; a smaller one, a little beyond and below it, about the end of the cell; a third, more conspicuous, on the fold at about half the wing-length; a strong blackish shade-line runs along the middle of the brownish ochreous cilia. *Exp. al.* 8-9·5 mm. *Hindwings* rather dark leaden grey; cilia tawny greyish. *Abdomen* grey, anal tuft ochreous. *Legs* pale brownish ochreous, shaded with fuscous externally.

*Type* ♂ (99036); ♀ (14312) Mus. Wlsm.

*Hab.* TENERIFE: Forest de la Mina, 17. III. 1902, 7. IV. 1904 (Eaton); Realejo, 7-10. V. 1907 (Wlsm.); Puerto Orotava,



14. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*). Nineteen specimens.

Not uncommon, on the higher ground, in the barranco above Realejo and elsewhere; first taken by Mr. Eaton, in the forest of La Mina. It is very near to *albidella* Tngstr. (1847; = *rhynchosporella* Stn., 1848), but differs in the possession of two extra spots beyond the conspicuous plical one: the European species having no spot at the end of the cell or below the costa. Vein 5 is absent in both wings.

39. (417'01) POLYMETIS, gn. n.

(*πολύμητις* = of-many-counsels.)

Type *Polymetis carlinella* Wlsm.

*Antennae*  $\frac{3}{4}$ , slightly serrate towards apex; basal joint with strong pecten. *Maxillary Palpi* short. *Labial Palpi* smooth, usually dependent, but capable of upward movement; terminal joint shorter than median, rather obtusely pointed. *Haustellum* small. *Head* and face coarsely, almost roughly, scaled. *Thorax* smooth. *Forewings* evenly lanceolate: *neuration* 12 veins; 7 and 8 stalked, 7 to costa; 6 out of 7, to termen; 5 out of stalk of (6+7+8); rest remote, 3 slightly approximate to 4; 1° distinct, 1 furcate at base. *Hindwings* nearly  $\frac{2}{3}$ , tapering evenly to an acute apex; cilia 2-2 $\frac{1}{2}$ : *neuration* 7 veins, 5 and 4 coincident; 6 and 7 stalked, enclosing apex; 2 remote from 3, which is somewhat approximate to (4+5); above 5 the discoidal recedes to radius. *Abdomen* smooth. *Legs*, hind tibiae hairy.

Almost corresponding in *neuration* with some species of *Apheloseitia* Steph. and *Stagmatophora* HS.; separated from the former by the basal furcation of vein 1 of the forewings, as well as by the shorter and less recurved palpi, and from the latter by the same characters, and by the coincidence of veins 5 and 4 of the hindwings. The habits of the larva afford additional reason for separating *Polymetis* from *Apheloseitia* (*Elachista* Auct.), of which the larvae of all known species feed on the *Gramineae*, or *Cyperaceae*.

80. (3920'1) POLYMETIS CARLINELLA, sp. n.

(Plate LII. fig. 13.)

*Antennae* and *Palpi* whitish cinereous. *Head* white. *Thorax* whitish cinereous. *Forewings* white, profusely and evenly dusted throughout with pale greyish brown scales; the outer half of the cilia whitish cinereous. *Exp. al.* 10-11 mm. *Hindwings* grey; cilia pale brownish cinereous. *Abdomen* greyish. *Legs* whitish, with faint greyish shade-bands on their outer sides.

*Type* ♂ (99037); ♀ (99038) Mus. Wlsm.

*Hab.* TENERIFE—Tacaronte, and Guimar, ⊕ *sup.* *Carlina salicifolia*, 19. II - III, excl. 13. III - 23. IV. 1907; Puerto Orotava, 27. IV. 1907. Eight specimens.

The larva feeds in mines, reminding one of those of the bramble-feeding *Tischeria marginata* Hw. on the upper surface of leaves of *Carlina salicifolia*. I found it near Tacaronte, at Guimar, and near Orotava—seven specimens were bred and one captured.

40. (274'1) MENDESIA Joannis.

MENDESIA Joann. Bull. Soc. Ent. Fr. LXXI: 1902. 230-1 (1902);  
Mendes Brotéria III. 249-51 (1904).

81. (2343'2) MENDESIA SYMPHYTELLA, sp. n.  
(Plate LII. fig. 14.)

*Antennae* brownish fuscous; basal joint white, with strong pecten. *Palpi* slightly recurved, white; terminal joint less clothed, and therefore apparently rather more slender than median. *Head* coarsely scaled above; white. *Thorax* smooth, white. *Forewings* white, sparsely dusted with brownish scales; a brown spot in the fold at about half the wing-length, and another at the end of the cell; a brown streak along the termen, running out through the white apical cilia; cilia white, very sparsely dusted with brown along their base. *Exp. al.* 12-14 mm. *Hindwings* of the ♂ white; of the ♀ inclining to greyish; cilia of both sexes yellowish white. *Abdomen* greyish fuscous, except along the margins of the segments. *Legs* white; hind tibiae with long white hairs.

*Type* ♀ (99045); ♂ (99046) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 12. I - 10. II. 1907, ⊕ *Symphytum* sp., 7-25. I, excl. 25. I - 20. II. 1907 (Wlsm.); Forest de la Mina, 17. III. 1902 (Eaton); Guimar, 19. III - 10. IV. 1907 (Wlsm.); La Laguna, 1-6. IV. 1904 (Eaton). Thirty-three specimens.

Twelve specimens were bred from larvae, found at Guimar, mining leaves of *Symphytum*; the mine almost undistinguishable from that of *Acrocercops scalarisella* Z., but the pupa enveloped in a white, silken, rather flat, ovate cocoon. Mr. Eaton caught a single specimen of this species in the Forest de la Mina, in 1902; in 1904 he met with it again, at La Laguna, and I took it on the wing at Santa Cruz and Guimar.

41. (415) PERITTIA Stn.

82. (3919'2) PERITTIA CEDRONELLAE, sp. n.  
(Plate LII. fig. 12.)

*Antennae* tawny fuscous above, pale cinereous beneath; a pale spot at the outer end of the short, and rather thickened, basal joint. *Palpi* slender, drooping; tawny fuscous. *Head* dull yellowish white, the face shaded with fuscous. *Thorax* tawny fuscous. *Forewings* tawny fuscous, with some faint pale sprinkling; an oblique yellowish white dorsal streak, arising at

about one-fourth, extends across the fold to the cell; beyond the middle of the dorsum is another, yellowish white, upright streak, broad at its base, slightly inverted, and attenuate to its apex on the cell; this is succeeded by an ill-defined, and much diffused, streak along the termen; a dark fuscous line runs through the tawny greyish cilia, falsely indicating a tornus, more defined than in the wing itself. *Exp. al.* 6.5-7 mm. *Hindwings* dark grey; cilia tawny greyish. *Abdomen* greyish fuscous. *Legs* yellowish white, broadly banded on tibiae and tarsi with dark tawny fuscous.

*Type* ♂ (99047); ♀ (99048) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 3000 ft., ⊕ *Cedronella triphylla*, 3. I, excl. 24. I - 1. II. 1907 (*Wlsm.*); Puerto Orotava, 10. III. 1904 (*Eaton*); Cruz de Afur, 10. III. 1904 (*Eaton*). Fifteen specimens.

The larva feeds, in December and January, in a broad blotchmine, on leaves of *Cedronella triphylla*, and is abundant at the head of the Barranco del Bufadero, near Santa Cruz, and probably on all the high ground, where this plant occurs, along the outskirts of the forests of *Erica arborea*. Mr. Eaton met with the species near the same locality, in 1904, and also in the Barranco Martianez, Puerto Orotava.

The Tenerife species of *Perittia*, here described, have the palpi slightly longer than those of *obscorepunctella* Stn., but this slight difference is not of generic value.

### 83. (3919'3) PERITIA LAVANDULAE, sp. n.

*Antennae* fuscous. *Palpi* fuscous, tipped with whitish. *Head* hoary whitish, with fuscous speckling. *Thorax* fuscous, with some whitish scales on the tegulae. *Forewings* dark fuscous, profusely sprinkled with rather yellowish white scales, by concentration of which the dorsal streak arises at one-fourth, pointing outward, and diffused upward to the costa; a larger, upright, streak arises before the tornus and extends nearly to the costa, a further patch spreading over the upper half of the termen and apex; a line of dark fuscous scales runs through the greyish fuscous cilia. *Exp. al.* 4.5-6 mm. *Hindwings* and cilia greyish fuscous. *Abdomen* dark fuscous. *Legs* whitish, broadly banded with dark tawny fuscous on the tibiae and tarsi.

*Type* ♂ (99071); ♀ (99072) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 14. I - 21. II. 1907, ⊕ *Lavandula abrotanoides*, 20. I - 22. II, excl. 13. II - 28. III. 1907; Guimar, 28. II. 1907; La Laguna, ⊕ *Lavandula staechas*, 3. VI, excl. 19. VII. 1907. Thirty-six specimens.

The larva is common, at Santa Cruz, on *Lavandula abrotanoides*, hollowing out the ends of the slender leaflets, and leaving them bleached, when passing from one to another (after the manner of the larvae of *Epermenia* on *Umbelliferae*); it also feeds on *Lavandula staechas*.

It is extremely difficult to describe the differences between this species and *cedronellae*: its smaller size, more sprinkled appearance, and slightly yellower-white markings may alone be relied on to separate them.

I have, what I believe to be, yet a third, intermediate, species of *Perittia*, (*bystropogonis*), from Guimar, feeding on *Bystropogon plumosus*, in March, and emerging towards the end of April.

*Hab.* TENERIFE: Guimar, ⊕ *Bystropogon plumosus*, 27. III, excl. 21-26. IV. 1907. Six specimens (99076-81).

#### 42. (384) SCYTHRIS Hb.

##### 84. (3478·02) SCYTHRIS ARACHNODES, sp. n.

(Plate LII. fig. 16.)

*Antennae* black. *Palpi* slender, porrect; hoary greyish, mixed with black. *Head* and *Thorax* black; face greyish. *Forewings* short, obtusely lanceolate; black, a few greyish white scales at the base, and two transverse bands of the same, one before, the other beyond the middle; the first narrower than the second, and running a little obliquely outward from the costa; the second moderately straight, both being ill-defined, with a few scattered whitish scales between them, others forming a patch at the apex; cilia greyish fuscous. *Exp. al.* 7-10 mm. *Hindwings* dark leaden grey; cilia greyish fuscous. *Abdomen* steely grey. *Legs* greyish fuscous, the tarsi shaded with black.

*Type* ♂ (99082); ♀ (99083); ⊕ (99084) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 12-20. II. 1907 (*Wlsm.*), 4. IV. 1904 (*Eaton*), ⊕ in webs on rocks, 6. I, excl. 15. II - 28. III. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Guimar, ⊕ in webs on rocks, 1. III - 4. IV, excl. 11. VIII. 1907 (*Wlsm.*). Twenty-seven specimens.

The larva feeds, probably on small lichens, on the surface of rocks, and rough stones in walls, and is very widely distributed in the Island, where its webs are to be seen forming numerous small patches on the face of almost every rock by the roadside. They have the appearance of rather opaque spiders' webs, and as they endure long after the moth has left them they are much more numerous than the larvae themselves. Nearly allied to *bubaniae* Wlsm. [Ent. Mo. Mag. XLI. 6-7 no. 3478·1 (1907)], but smaller, and the fasciae are much more distinct.

##### 85. (3533·1) SCYTHRIS PETRELLA, sp. n. (Plate LII. fig. 17.)

*Antennae* greyish fuscous. *Palpi* slender, porrect; ash-grey. *Head* and *Thorax* ashy grey. *Forewings* greyish fuscous, mottled with ashy white, the base sprinkled with ashy white scales; an outwardly angulate, ill-defined fascia at two-fifths, followed by more sprinkled scales, especially towards the costa, the whole



outer third of the wing mottled with the same, a spot at the end of the cell, a costal patch before the apex, and a streak along the termen being of the plain dark ground-colour; cilia ashy greyish. *Exp. al.* 8-9 mm. *Hindwings* grey; cilia brownish grey. *Abdomen* fuscous. *Legs* pale ashy grey.

*Type* ♂ (99085) ♀ (99086) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, 23-30. IV. 1907; Las Mercedes, 29. V. 1907; La Laguna, 5. VI. 1907. Twelve specimens.

The distribution of the ashy white scaling varies considerably, and in some specimens occupies a much larger proportion of the wing-surface than in others. It appears to be more variable than the larger, and perhaps allied, *cicadella* Z., and is paler and less uniform in its ill-defined marking than *arachnodes*.

86. (3536) SCYTHRIS FASCIATELLA Rgt. (Plate LII. fig. 15.)

= \**roscidella* Rbl. (nec Z.).

*Butalis fasciatella* Rgt. Bull. Soc. Ent. Fr. XLIX. (5 s. X: 1880). pp. cxxi-ii (1881)<sup>1</sup>. \**Blastobasis* \**roscidella* Rbl. Ann. K.K. Hofmus. IX. 18, 90 no. 177 (1894)<sup>2</sup>: XXI. 44 no. 219 (1906)<sup>3</sup>. *Butalis fasciatella* Sbl. Deutsche Ent. Zts. Iris XI. 319 (1898)<sup>4</sup>. *Scythris fasciatella* Stgr-Rbl. Cat. Lp. Pal. II. 183 no. 3536 (1901)<sup>5</sup>.

*Antennae* cinereous beneath, fuscous above. *Palpi* whitish cinereous. *Head* and *Thorax* pale cinereous, a brownish band crossing the latter, including the outer part of the tegulae. *Forewings* hoary whitish, dusted with fuscous and pale rust-brown scales; a much sprinkled basal patch, extending to one-third, is obliquely margined outwardly by a band of the pale ground-colour, the sprinkling being condensed in a small costal spot near the base, and in a costal shade a little beyond this—both accompanied by rust-brown; an oblique fuscous fascia, about the middle, is shaded with rust-brown along its ill-defined outer side and on the costa, the paler apical area beyond it much sprinkled and mottled with the same colours, in which a fuscous, condensed, spot above the tornus is distinguishable; cilia greyish fuscous, with some hoary scales. *Exp. al.* 10.5-11 mm. *Hindwings* brownish grey; cilia pale greyish fuscous. *Legs* hoary whitish, the hind tibiae with two greyish fuscous bands across their outer sides; the hind tarsi also suffused with fuscous externally.

*CT.* ♂ (99087); ♀ (99088); ⊕ (99089) Mus. Wlsm.

Larva brownish grey; head pale brownish; a pale, ill-defined, dorsal line, interrupted by brownish fuscous spots on each of the abdominal somites; all the somites laterally shaded with brownish fuscous, and stippled with minute pale ocellated dots; underside, up to the spiracular line, pale whitish ochreous; thoracic legs dotted with fuscous. *Long.* 12 mm.

*Hab.* SPAIN<sup>1, 4-5</sup>: VALENCIA: Alicante, ⊕...?..., excl. 15. XI. 1879 (*Rgt.*)<sup>1</sup>: ANDALUSIA<sup>4-5</sup>: III<sup>4</sup>. CANARIES<sup>2-3</sup>—TENERIFE: IV. 1885 (*Leech*)<sup>2</sup>; Puerto Orotava, 26. IV - 10. V. 1907 (*Wlsm.*),

⊕ *Salsola oppositifolia*, 27. IV, excl. 19. V - 2. VI. 1907 (*Wlsm.*),  
 ⊕ *Atriplex parvifolius*, 10. V, excl. 3. VI. 1907 (*Wlsm.*).

When describing *fasciatella*, Ragonot states that he took and bred several specimens, but omits to mention the food-plant. I found this species on the wing, and the larva feeding among shoots of *Salsola oppositifolia*, and on *Atriplex parvifolius* in a slight web, in April and May; the moths emerged in May and June. This is the species wrongly identified by Rebel as "*Blastobasis roscidella* Z.", which, apart from the generic differences, it does not greatly resemble. I fear the specimen I sent him must have been a very poor one. The type of *Blastobasis roscidella* is in the Zeller Collection, and I have also a Cotype of *Butalis fasciatella* received from the late M. E. Ragonot.

#### 43. (383) EPERMENIA Hb.

##### 87. (3413) EPERMENIA DAUCELLA Peyr.

*Chauliodes daucellus* Peyr. Pet. Nouv. Ent. I. 57-8 (1870)<sup>1</sup>; Hrtm. MT. Münch. Ent. Ver. IV. 44 no. 2564 (1880)<sup>2</sup>; *Wlsm.* Ent. Mo. Mag. XXVII. 147 (1891)<sup>3</sup>; Tr. Ent. Soc. Lond. 1894. 538, 554 no. 59 (1894)<sup>4</sup>. *Epermenia daucella* Stgr-Rbl. Cat. Lp. Pal. II. 179 no. 3413 (1901)<sup>5</sup>.

*Hab.* S. EUROPE: *Daucus carota*<sup>1-2</sup>; *Thapsia villosa*<sup>3</sup>—GIBRALTAR, ⊕ *Thapsia*, III, excl. 7. IV - 21. V. 1901 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, 30. I. 1902 (*Wlsm.*). **Madeiras**<sup>4</sup>—MADEIRA<sup>4</sup>: (*Wollaston*)<sup>4</sup>. **Canaries**—TENERIFE: La Laguna, 31. V. 1907 (*Wlsm.*).

A single specimen occurred at La Laguna, at the end of May; this species had already been recorded by me from Madeira, but had not been observed in Tenerife.

#### 44. (283) PRAYS Hb.

##### 88. (2382) PRAYS CITRI Mill.

*Acrolepia citri* Mill. Pet. Nouv. Ent. I. 310 (1873)<sup>1</sup>. *Prays citri* Stgr-Rbl. Cat. Lp. Pal. II. 133 no. 2382 (1901)<sup>2</sup>; Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 206 (1906)<sup>3</sup>.

*Hab.* CORSICA<sup>1-3</sup>—SICILY<sup>1-3</sup>—S. FRANCE<sup>3</sup>: ⊕ *Citrus decumana*<sup>3</sup>. **Canaries**<sup>3</sup>—TENERIFE<sup>3</sup>: Guimar, 1896 (*White*)<sup>3</sup>; Puerto Orotava, 10. III. 1904 (*Eaton*).

Mr. Eaton took a single specimen, at light in the hotel, in March 1904: I did not myself meet with this species.

#### 45. (281) HYPONOMEUTA Ltr.

##### 89. (2361) HYPONOMEUTA GIGAS Rbl.

*Hyponomeuta gigas* Rbl. Ann. KK. Hofmus. VII. 271-2, 283 no. 52, Pl. 17. 17 ♂ (1892)<sup>1</sup>; IX. 18, 89 no. 166 (1894)<sup>2</sup>; XI.

126-7, 146 no. 185 (1896)<sup>3</sup>: XIII. 377, 381 no. 199 (1898)<sup>4</sup>. *Yponomeuta gigas* Rbl. Ann. K.K. Hofmus. XXI. 44 no. 205 (1906)<sup>5</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 132 no. 2361 (1901)<sup>6</sup>.

*Hab. Canaries*<sup>1-6</sup>—TENERIFE<sup>2-6</sup>: Realejo, ⊕ *Salix canariensis*, 25. IV, excl. V - VI. 1895 (*Hedemann*)<sup>3</sup>, ⊕ 25. IV - 7. V, excl. 10. V - 2. VI. 1907 (*Wlsm.*); La Laguna, ⊕ *Populus alba*, 21. V, excl. 30. V. 1907 (*Wlsm.*); Santa Cruz, 1. VI. 1889 (*Krauss*)<sup>2</sup>—GRAN CANARIA<sup>1-6</sup>: 1890 (*Richter*)<sup>1</sup>; ⊕ *Salix, Populus, Ocotea (Oreodaphne) foetens*, excl. 29. IV - 25. V. 1893 (*Lowe*); nr. Teror, ⊕ *Populus*, excl. 10. V. 1895 (*Hedemann*)<sup>3</sup>; Santa Brigida, ⊕ *Salix canariensis*, excl. IV<sup>e</sup> - V<sup>b</sup>. 1898 (*Hintz*)<sup>4</sup>.

Many years ago I received a considerable number of larvae of this species from Dr. John Lowe, who wrote as follows:—

“The larvae occur in countless myriads on the Willow, Poplar, and ‘Till’ trees (Laurel: *Oreodaphne foetens*). They spin a fine silken web over the entire tree, even to its ultimate branches, which makes them look white and silvery. The underwood and stones at the base are also covered with the silk tissue, which is so closely woven that there are no visible openings. I was able to strip off pieces five or six feet in length.” . . . . “It is just possible that there may be more than one species, but I am doubtful about this. If it is so one will be found in the box, with a pin through it, which I took from *Salix*—the rest were from *Oreodaphne*. I am sending you some of the silk, which is most remarkable. The brushwood under the trees was completely covered by it, also the grasses and large stones. The tree-trunks were so closely covered that one could not see even a pinhole on the smooth trunks of the ‘Till’—every branch was covered, and scarcely a leaf remained on any of the infested trees, which were 60 or 70 ft. high. At the base of the trunks the appearance of the web was most singular—large reticulations, like pulmonary cells, seemed to open one into the other, but on closer examination the apparent openings were found to be closed by a membrane of perfect continuity, but so transparent that until something was passed through it one could not perceive that it existed.” (Dr. Lowe, *in litt.*, 29. IV., 20. V. 1893.)

I first met with *Hyponomeuta gigas* on three large trees of *Salix canariensis*, at the first branching of the large barranco above Realejo Alto: the ends of the branches were entirely covered with the colonies of larvae, in dense web, having a seriously denuding effect upon the foliage. Subsequently I found it, in less abundance, on *Populus alba*, in the Eucalyptus avenue, running north-east from La Laguna. There is no difference between the specimens reared from *Salix* and *Populus* respectively; the larvae also were undistinguishable. Rebel originally described *gigas* (*l. c.* 1) as sexually dimorphic, having “*alis plumbeis, anterioribus ♂ punctis nigris triseriatis, ♀ innotatis*”; subsequently, however, he came to the conclusion that both sexes occurred in both forms, and that the spotless form was characteristic of Gran Canaria, appearing

only as an aberration in Tenerife. It may be convenient to name the spotless form *innotata*, var. n., and then to enumerate in series each variety as represented in my collection.

I have 129 (= *gigas* 93 + 36 *innotata*) specimens, of which 103 (= *gigas* 91 + 12 *innotata*) are from Tenerife, and 26 (= *gigas* 2 + 24 *innotata*) are from Gran Canaria. The series of 103 specimens from Tenerife is composed of 91 (= 66 ♂♂ + 25 ♀♀) *gigas*, of which 55 (= 42 ♂♂ + 13 ♀♀) were bred from *Populus alba*, and 36 (= 24 ♂♂ + 12 ♀♀) were bred from *Salix canariensis*; and 12 (6 ♂♂ + 6 ♀♀) *innotata*, 8 (= 4 ♂♂ + 4 ♀♀) of which were bred from *Populus* and 4 (= 2 ♂♂ + 2 ♀♀) from *Salix*.

The 26 (= 9 ♂♂ + 17 ♀♀) specimens from Gran Canaria were bred by Dr. Lowe from *Ocotea foetens*; 24 (9 ♂♂ + 15 ♀♀) are *innotata*, while 2 (♀♀) are *gigas*.

#### 46. (424) PHYLLONORYCTER Hb.

= *LITHOCOLLETIS* Hb.; = *EUCESTIS* Hb.; = *ELACHISTA* Tr. (nec\*Z.).

(φύλλον = a leaf; ὄρυκτηρ = a miner.)

Type *Phalaena Tinea rajella* L., Hb. 200.

PHYLLONORYCTER Hb. Tent. p. [2] (1806). *LITHOCOLLETIS* Hb. Verz. Schm. 423 no. 4117-20 (1826); Stgr-Rbl. Cat. Lp. Pal. II. 210-16 (1901); Dyar Bull. US. Nat. Mus. 52. 549-57 (1902); Meyr. Pr. Lin. Soc. NSW. XXXII. 49, 51-2 (1907); etc.

*Lithocolletis* Hb. is a synonym of *Phyllonorycter* Hb., the type of both being *rajella* Hb. Tin. Pl. 29. 200.

#### 90. (4113) PHYLLONORYCTER HELIANTHEMELLUS HS.

*Lithocolletis helianthemella* HS. Neue Schm. 20 no. 89, Pl. 18. 115 (1860)<sup>1</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 211 no. 4113 (1901)<sup>2</sup>.

*Hab.* WC. ASIA<sup>2</sup>. C-S. EUROPE: ⊕ inf. *Helianthemum vulgare*, *guttatum*<sup>1-2</sup>. CANARIES—TENERIFE: Guimar, 25. II - 10. IV. 1907 (*Wlsm.*).

Taken at Guimar: the larvae observed on *Cistus monspeliensis*.

#### 91. (4165) PHYLLONORYCTER MESSANIPELLUS Z.

*Lithocolletis messaniella* Z. Lin. Ent. I. 221-2 no. 21. Pl. 1. 23 (1846)<sup>1</sup>; *Wlsm.* Tr. Ent. Soc. Lond. 1894. 538, 555 no. 65 (1894)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 214 no. 4165 (1901)<sup>3</sup>.

*Hab.* WC. ASIA<sup>3</sup>. WC-S. EUROPE<sup>1-3</sup>; ⊕ inf. *Quercus*, *Castanea*, *Carpinus*<sup>3</sup>—ITALY: Rome, 10-25, IV. 1893 (*Wlsm.*)—SPAIN: MALAGA: Malaga, 17. III. 1901 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, ⊕ inf. *Quercus suber*, XII, excl. 25. I - 11. III. 1902 (*Wlsm.*). MADEIRAS<sup>2</sup>—MADEIRA<sup>2</sup>: (*Wollaston*)<sup>2</sup>. CANARIES—TENERIFE: La Laguna, ⊕ inf. *Quercus suber*, 13. I, excl. 17-30. I. 1907 (*Wlsm.*), 14. III. 1902 (*Eaton*), ⊕ inf. *Quercus* sp. (*decid.*), 23. V, excl. 4. VI. 1907 (*Wlsm.*); Guimar, 25. II. 1907 (*Wlsm.*).



First received from Mr. Eaton: I found it in great abundance at La Laguna and Guimar, on *Quercus suber*—also on a deciduous oak at the former place.

92. (4166) PHYLONORYCTER PLATANI Stgr.

*Lithocolletis platani* Stgr. Hor. Soc. Ent. Ross. VII. 277-9, Pl. 3·18 (1870)<sup>1</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 214. no. 4166 (1901)<sup>2</sup>.

*Hab.* WC. ASIA<sup>2</sup>. S. EUROPE: ⊕ inf. *Platanus orientalis*<sup>1-2</sup>—SPAIN: MALAGA: Malaga, 17. III. 1901 (*Wlsm.*). CANARIES—TENERIFE: Santa Cruz, 8. I - 11. II. 1907, ⊕ inf. *Platanus orientalis*, 1. I, excl. 14-20. II. 1907 (*Wlsm.*).

Extremely abundant at Santa Cruz: the fallen leaves were crowded with mines at Xmas, 1906.

93. (4180) PHYLONORYCTER CYTISELLUS Rbl.

*Lithocolletis cytisella* Rbl. Ann. KK. Hofmus. XI. 140-1, 147 no. 217. Pl. 3·17-17<sup>a</sup> (1896)<sup>1</sup>: XXI. 44 no. 242 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 215 no. 4180 (1901)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: La Laguna, ⊕ *Cytisus proliferus*, 13. I, excl. 16. I - 8. II. 1907 (*Wlsm.*); Guimar, ⊕ *Cytisus proliferus*, 26. II, excl. 3-25. III. 1907, 7. IV. 1907 (*Wlsm.*); Puerto Orotava, 11-26. IV. 1895 (*Hedemann*)<sup>1</sup>, 9. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*).

Common: a long series taken among, and bred from, *Cytisus proliferus*. It is very variable, some forms approaching *juncei*.

94. (4180·1) PHYLONORYCTER JUNCEI, sp. n.

*Antennae* and *Palpi* white. *Head* white, mixed with golden brownish. *Thorax* golden brownish, with white streaks at the sides, and posteriorly. *Forewings* shining, golden brown, with five costal, and two dorsal, white streaks, more or less plainly indicated; the first costal is at about half the wing-length, and further removed from the second than the others are from each other; the first dorsal is larger than the first costal, commencing before it, but approaching it at its apex; the second dorsal is opposite to the second costal; there is also a white basal streak, sometimes produced as far as the first pair, and partially connected with a small white dorsal streak; the outer half of the wing is thickly studded with black scales, which tend to form dark inner margins to the first and second costal, and to the second dorsal streaks, also an outer margin to the inverted costal streak before the apex; there is a conspicuous, elongate patch of similar black scales, also before the middle, forming an inner margin to the first dorsal streak; terminal cilia golden brown at their base, with a dark line dividing this from their paler outer ends. *Exp. al.* 7·5-9 mm. *Hindwings* pale grey; cilia pale brownish grey. *Abdomen* greyish. *Legs* white.

*Type* ♀ (99090); ♂ (99091) Mus. Wlsm.

*Hab.* TENERIFE: Villa Orotava, 6. V. 1907; Puerto Orotava, ⊕ *Genista stenopetala*, 8. V, excl. 13-16. V. 1907; La Laguna, ⊕ *Spartium junceum*, 21. V, excl. 23. V - 6. VI. 1907. Seventy-eight specimens.

This is apparently allied to *cytisellus* Rbl., and, like it, is also very variable in the intensity of its markings, which in some specimens are more or less evanescent, but, whereas in *cytisellus* the white so strongly predominates as to overrun the wing and leave golden markings, in *juncei* the golden ground predominates, leaving white markings. I have a long series of bred specimens of both species, and can never be at a loss to distinguish them.

I first found *juncei* in the garden behind the Hotel Vittoria, Villa Orotava, flying freely about *Genista stenopetala*, and afterwards bred it from leaves of the same, gathered at Puerto Orotava; but it was even more abundant on *Spartium junceum*, by the side of the road from La Laguna to Tegeste, where, in one spot only, for about 100 yards, almost every leaf of these plants was affected by the larvae. The species is described from specimens bred from *Spartium junceum*.

95. (4207·1) PHYLONORYCTER FOLIOLOSI, sp. n.  
(Plate LIII. fig. 8.)

*Antennae* white, with blackish annulations. *Palpi* white. *Head* and *Thorax* pale golden brown. *Forewings* pale golden brown, with four costal and three, or four, more obscure, white dorsal streaks; the first two pairs opposite, and frequently appearing as two fasciae by meeting each other, a slender whitish streak sometimes connecting them along the middle; between the white streaklets, as well as towards the base, the wing is plentifully bestrewn with minute black scale-points; cilia mixed golden and whitish, becoming greyish along the dorsum. *Exp. al.* 4-5·5 mm. *Hindwings* and cilia pale grey. *Abdomen* grey, anal tuft ochreous. *Legs* yellowish white.

*Type* ♂ (99092); ♀ (99093) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 25. II - 6. III. 1907, ⊕ *Adenocarpus foliolosus*, 26. II, excl. 1-10. III. 1907 (Wlsm.); La Laguna, 25. III. 1904 (Eaton), 23. V - 9. VI. 1907, ⊕ *Genista canariensis*, 18. V, excl. 5-15. VI. 1907 (Wlsm.). Fifty-three specimens.

The larva feeds in the tiny leaflets of *Adenocarpus foliolosus*, at Guimar, at about 2000 ft. above sea-level, sometimes giving to the branches a whitened appearance, through the bleaching of innumerable leaves; I found the same species later, at La Laguna, on *Genista canariensis*, where Mr. Eaton had taken it in March 1904.

The species is allied to *parvifoliellus* Rgt., but differs in the more numerous costal streaks.

## 47. (420'01) ACROCERCOPS Wlgrn.

n. syn. = CONOPOMORPHA Meyr.; = DIALECTICA Wlsm.

Type 1. *Tinea brongniardella* F. (Wlgrn. 1881).

ACROCERCOPS Wlgrn. Ent. Tdsk. II. 95 (1881).

Type 2. *Conopomorpha cyanospila* Meyr. (Meyr. 1886).

CONOPOMORPHA Meyr. Tr. NZ. Inst. XVIII. 183 (1886): Pr. Lin. Soc. NSW. XXXII. 49, 54-61 no. 4 (1907).

Type 3. *Gracilaria scalarielli* Z. (Wlsm. 1897).

DIALECTICA Wlsm. Pr. Z. Soc. Lond. 1897. 150-1 no. 93.

In his recent paper [Pr. Lin. Soc. NSW. XXXII. 47-68 (1907)] Meyrick has removed the groups of *Gracilaria* and *Zelleria* from the *Tineidae* to the *Plutellidae*, assigning now "more importance to the smooth posterior tibiae which are a normal attribute of those two groups, than to the rough head which is a frequent characteristic. Moreover, whilst folded maxillary palpi are peculiarly characteristic of the *Tineidae*, the simple porrected maxillary palpi of the *Gracilaria* group are so similar to those of the *Plutella* group, and so different from those of any other *Tineina*, that they would seem to indicate real affinity." He concludes from his study of the *Gracilaria* group that "*Coriscium* Z. cannot be maintained as a distinct or natural genus, the scaling of the palpi being subject to much variation, and not according with true affinity. On the other hand," he has "found it practicable to use the scaling of the legs to break up the whole of the species thus thrown together into four groups which are both natural and strictly definable, and since the number of species known is already very large and destined to be much larger," he has "thought it conducive to clearness to establish them as genera." *Cyphosticha* Meyr. and *Conopomorpha* Meyr., having "Posterior tibiae with bristly hairs above," are separated from *Gracilaria* Hw. and *Macarostola* Meyr., with "Posterior tibiae smooth-scaled." *Dialectica* Wlsm. is sunk as a synonym of *Conopomorpha* Meyr.; but *brongniardellum* F. also has "Posterior tibiae bristly above [Meyr. HB. Br. Lp. 749 (1894)], for which reason Wallengren removed it from *Coriscium* Z., making it the type of ACROCERCOPS Wlgn. (1881), described as having "Tibiae postice setosae," and, consequently, *Conopomorpha* must also sink as a synonym.

## 96. (4082'1) ACROCERCOPS HEDEMANNI Rbl.

*Gracilaria hedemanni* Rbl. Ann. KK. Hofmus. XI. 136-7, 147 no. 211. Pl. 3: 15 ♂ (1896)<sup>1</sup>: XXI. 44 no. 239 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 207 no. 4067 (1901)<sup>3</sup>.

*Hab. Madeiras*—MADEIRA: The Curralhino, Funchal, 9. IV.

1902 (*Eaton*). CANARIES<sup>1-3</sup>—TENERIFE<sup>1-3</sup>: Guimar, 2. III. 1907 (*Wlsm.*); La Laguna, 17. III. 1902 (*Eaton*); Forest de la Mina, 2500–2800 ft., 7. IV. 1904 (*Eaton*); Puerto Orotava, 23. IV. 1907, ⊕ *Malva parviflora*, 23. IV, excl. 11–14. V. 1907 (*Wlsm.*); La Matanza, 2. V. 1895 (*Hedemanni*)<sup>1</sup>; Las Mercedes, 29. V. 1907 (*Wlsm.*).

The publication of Prof. Rebel's figure of *hedemanni* prevented me from describing a very closely allied species, found at Tangier in 1901. I have now a considerable series of each, and am acquainted with their larvae. Both feed on species of *Malvaceae*, making conspicuous blotches on the upper sides of the leaves, and in both instances the larvae assume, before pupating, the beautiful transverse bands of scarlet, or rich carmine, so well known in *Acrocercops brongniardellum* F.

The Tenerife species is exceedingly common, feeding on *Malva parviflora* everywhere, and on *Lavatera arborea* in gardens, at Orotava and elsewhere. I have received *hedemanni* also from Funchal, Madeira (*Rev. A. E. Eaton*); there is no difference between the Tenerife and Madeira specimens.

(4032·2) ACROCERCOPS MALVACEA, sp. n.

=\**hedemanni* Wlsm. (nec Rbl.).

*Dialectica* sp. n. Wlsm. Ent. Mo. Mag. XXXVII. 236 (1901)<sup>1</sup>. *Gracilaria* \**hedemanni* Wlsm. Ent. Mo. Mag. XXXIX. 181 (1903)<sup>2</sup>.

*Hab.* MOROCCO: Tangier<sup>1-2</sup>, ⊕ *Malva* sp.<sup>1</sup>, *Lavatera olbia*<sup>2</sup>, ⊕ [*Malva*? sp.?<sup>2</sup>], XII, excl. 1–11. I. 1902, ⊕ 13. IV, excl. 29. IV – 9. V. 1901. Thirty-six specimens.

*Type* ♂ (88655); ♀ (88669); ⊕ (88688) Mus. Wlsm.

When recording *Gracilaria hedemanni* from Morocco [Ent. Mo. Mag. XXXIX. 181 (1903)], I was somewhat misled by the absence of a pale basal patch in Rebel's figure. Such a patch is distinctly present in *hedemanni*, but barely traceable or entirely absent from the Tangier insect; moreover the dorsal spot beyond the central fascia is also absent from what I may now call *Acrocercops malvacea*, sp. n. There is also a slight difference in the larvae: in *malvacea* the scarlet transverse bands are shorter, extending less far laterally, and the head is brown—not blackish as in *hedemanni*. I recorded the food-plant as *Lavatera olbia* (Ent. Mo. Mag. XXXIX. 181), but I am unable now to verify this by reference to preserved specimens, which is to be regretted, as I had previously [Ent. Mo. Mag. XXXVII. 236 (1901)] thought the plant “a very large mallow”. It was a tall *Malvaceous* plant, sometimes seven or eight feet high, with broad rounded leaves and white, or lilac, flowers.

97. (4082·3) ACROCERCOPS SCALARIELLA Z.

*Gracilaria scalarIELLA* Z. Stett. Ent. Ztg. XI. 160–1 (1850)<sup>1</sup>; Hrtm. Mt. Münch. Ent. Ver. IV. 35 no. 2351 (1880)<sup>2</sup>; Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 555 no. 64 (1894)<sup>3</sup>; Rbl. Ann. KK. Hofmus. IX. 18, 91 no. 181 (1894)<sup>4</sup>; XI. 137, 147 no. 212 (1896)<sup>5</sup>; XXI. 44 no. 240 (1906)<sup>6</sup>. *Dialectica scalarIELLA* Wlsm. Pr. Z. Soc. Lond. 1897. 150–1 (1897)<sup>7</sup>. *Gracilaria scalarIELLA* Stgr-Rbl. Cat. Lp. Pal. II. 208 no. 4081 (1901)<sup>8</sup>.

*Hab.* WC. ASIA<sup>8</sup>. S. EUROPE<sup>1-3</sup>: ⊕ *Echium vulgare*, X–XI, excl. IV–V<sup>2</sup>—CORSIKA: Posso di Borgo, 5. VI. 1889 (*Wlsm.*)



—S. FRANCE<sup>8</sup>: Mentone, ⊕ *Cynoglossum*, excl. 12. III. 1893 (*Wlsm.*); Cannes, ⊕ *Echium*, excl. IV. 1881 (*Wlsm.*); Monte Carlo, ⊕ *Echium*, excl. IV. 1881 (*Wlsm.*)—SPAIN<sup>8</sup>: MALAGA: El-Chorro, ⊕ *Echium*, 5. I, excl. 27. I – 1. II. 1901 (*Wlsm.*); Malaga, ⊕ *Symphytum*, 31. I, excl. 13–14. II. 1901 (*Wlsm.*). N. AFRICA—ALGERIA: Bône, 6–21. IV. 1896 (*Eaton*); Constantine, 26. X. 1895 (*Eaton*)—TUNIS: Tunis, 5. XII. 1893 (*Eaton*). **Madeiras**<sup>3-4, 8</sup>: MADEIRA: (*Wollaston*)<sup>3-4, 8</sup>; Monte, Funchal, 13. IV. 1904 (*Eaton*). **Canaries**<sup>4-8</sup>—TENERIFE<sup>4-6</sup>: IV. 1885 (*Leech*)<sup>4</sup>; Santa Cruz, 1895 (*Hedemann*)<sup>5</sup>, 7–12. I. 1907, ⊕ *Symphytum*, 26. XII, excl. 14. I. 1907 (*Wlsm.*); San Andres, ⊕ *Echium spinosum*, 23. I, excl. 26–28. I. 1907 (*Wlsm.*); Puerto Orotava, IV. 1895 (*Hedemann*)<sup>5</sup>, ⊕ *Echium sp.*, 8. V, excl. 6. V. 1907 (*Wlsm.*); Realejo, 7. V. 1907 (*Wlsm.*)—GRAN CANARIA: 1895 (*Hedemann*)<sup>5</sup>.

This species is common at Santa Cruz, and Guimar, and indeed wherever its food-plants are found. I bred it from at least three different species of *Echium*, as well as from *Symphytum*, in Tenerife, and am able to extend the distribution of the species from captures by Mr. Eaton and myself.

#### 48. (420) GRACILARIA Hw.

##### 98. (4057) GRACILARIA ROSCIPENNELLA Hb.

*Tinea roscipennella* Hb. Smlg. Eur. Schm. VIII. Pl. 29 · 128 (1796)<sup>1</sup>. *Poeciloptilia roscipennella* Hb. Verz. Schm. 427 no. 4167 (1826)<sup>2</sup>. *Gracilaria roscipennella* Rbl. Ann. K.K. Hofmus. VII. 278, 283 no. 62 (1892)<sup>3</sup>; IX. 18, 91 no. 180 (1894)<sup>4</sup>; *Wlsm.* Tr. Ent. Soc. Lond. 1894. 538, 555 no. 63 (1894)<sup>5</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 207 no. 4057 (1901)<sup>6</sup>; Rbl. Ann. K.K. Hofmus. XXI. 44 no. 237 (1906)<sup>7</sup>.

*Hab.* WC. ASIA. C-S. EUROPE: ⊕ *Juglans*—SPAIN: GRANADA: Sierra Nevada, 3 VI. 1901 (*Wlsm.*). **Madeiras**<sup>5-6</sup>—MADEIRA<sup>5</sup>: San Antonio da Serra (*Wollaston*)<sup>5</sup>; Rabaçal, 3430 ft., 29. IV. 1904 (*Eaton*). **Canaries**<sup>3-7</sup>—TENERIFE<sup>3-7</sup>: IV. 1885 (*Leech*)<sup>4</sup>; La Laguna, ⊕ *Laurus canariensis*, 19. V, excl. 9. VI – 21. VII. 1907 (*Wlsm.*); Taganana, 9. VIII. 1889 (*Simony*)<sup>3</sup>.

Prof. Rebel records specimens taken by Professor Simony, above Taganana, among *Woodwardia radicans*; he subsequently recognised a worn specimen, in my own collection (61049), received from the late Mr. J. H. Leech, from Tenerife. I have now succeeded in breeding a few examples from larvae forming conspicuous cones on *Laurus canariensis*, collected in the neighbourhood of La Laguna and Tegeste: after comparing them with a series bred from leaves of *Juglans*, at Cannes, I am quite unable to separate them, but I failed to find any larvae on *Juglans* in Tenerife, although some trees grew at no great distance from the spot where most of my larvae were taken.

## 99. (4057·1) GRACILARIA STAINTONI Wlston. (Plate LIII. fig. 14.)

*Gracilaria staintoni* Wlston. Ann-Mag. NH. (3 s.). I. 122 (1858)<sup>1</sup>; Wkr. Cat. Lp. BM. XXX. 854 no. 24 (1864)<sup>2</sup>; Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 555 no. 62 (1894)<sup>3</sup>; Stgr-Rbl. Cat. Lep. Pal. II. 206 no. 4049 (1901)<sup>4</sup>.

*Antennae* pale brownish yellow. *Labial Palpi* white, smeared with tawny reddish on the outer side of the terminal joint, and toward the apex of the median. *Maxillary Palpi* white, tipped with tawny reddish. *Head* pale yellowish brown; face whitish. *Thorax* bright golden yellow above; the tegulae reddish brown. *Forewings* very long and narrow; shining, bright, pale golden yellow, with a purplish lilac suffusion spreading over the dorsal half and becoming rather darker across the apex; at the upper edge of the purplish shade are two or three slight projections of a rather more intense colour, and, on either side of the middle of the costa above them, are one or more minute black dots; cilia reddish purple above the apex, reddish ochreous below it, dark tawny grey along the dorsum. *Exp. al.* 13-14 mm. *Hindwings* shining, leaden grey; cilia tawny grey. *Abdomen* leaden grey, silvery white beneath. *Legs* pale grey, the tarsi fading to whitish, and very faintly spotted.

*Type* ♂ (no. XL) Mus. Br.; *CT.* ♂ (99127); ♀ (14175) Mus. Wlsm.

*Hab. Madeiras*<sup>1-4</sup> — MADEIRA<sup>1-4</sup>: Funchal, 16. IV. 1904 (*Eaton*); The Mount, 1855 (*Wollaston*)<sup>1, 3</sup>. *Canaries*—TENERIFE: Las Mercedes, 30. III. 1904 (*Eaton*); Taganana, 27. V. 1907; Agua Garcia, Tacaronte, 31. V. 1907 (*Wlsm.*); La Laguna, ⊕ *Laurus canariensis*, 19. V, excl. 12. VI. 1907 (*Wlsm.*).

This species was captured at Taganana, and at Agua Garcia, near Tacaronte, and subsequently bred from larvae feeding in large cones on the leaves of *Laurus canariensis*, which were undistinguishable from the cones made by *rosqipennella* on the same tree. Mr. Eaton took this species at Funchal, and at Las Mercedes, in 1904.

100. (4057·2) GRACILARIA SCHINELLA, sp. n.  
(Plate LIII. fig. 13.)

*Antennae* pale brownish ochreous, faintly dark-barred above. *Palpi* brownish ochreous, smeared with rust-brown externally. *Head* and *Thorax* brownish ochreous; the tegulae touched with purplish. *Forewings* pale ochreous, suffused with reddish lilac, more strongly at the base of the costa than elsewhere, and notably less on a pale, elongate, mediocostal patch extending to the fold, which, however, like the rest of the wing-surface, is distinctly iridescent; the more suffused portions exhibit every possible variety of iridescence, from purple to green, and cupreous, according to the incidence of light; there is a purplish shade in the cilia below the apex, but the dorsal cilia are pale, iridescent, bronzy greyish. *Exp. al.* 11-14 mm. *Hindwings*  $\frac{1}{2}$ ; pale leaden

grey; cilia iridescent, greyish cupreous. *Abdomen* grey, anal tuft ochreous. *Legs* cinereous; the femora and tibiae of the anterior and median pairs thickly clothed with tawny reddish fuscous.

*Type* ♂ (99130); ♀ (99131) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 3. I. 1907, ⊕ *Schinus molle*, 27. XII - 11. I, excl. 22. I - 7. III. 1907. Fifteen specimens.

This species is exceedingly common at Santa Cruz, where the young larva mines the leaflets of *Schinus molle*. It subsequently forms a blister, like that of a *Phyllonorycter*, and eventually rolls a whole leaflet into a compact cone, sometimes pupating within it, but frequently leaving it and forming a smooth, silken cocoon under another leaf. It is remarkable that this species should have escaped observation so long, the tree on which it lives being so commonly introduced in all parts of the south of Europe. It is probably not indigenous in Tenerife, but, if this be the case, it is one of the very rare instances of the introduction of an exotic insect with an imported plant.

101. (4057·3) GRACILARIA AURANTIACA Wlsm.  
(Plate LIII. fig. 12.)

*Gracilaria? aurantiaca* Wlsm. Ann-Mag. NH. (3 s.). I. 122 (1858)<sup>1</sup>; Wkr. Cat. Lp. BM. XXX. 854 no. 25 (1864)<sup>2</sup>. *Blastobasis(?) aurantiaca* Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 552 no. 53 (1894)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 164 no. 3066 (1901)<sup>4</sup>. *Gracilaria sp.* Rbl. Ann. KK. Hofmus. XXI. 39, 44 no. 238 (1906)<sup>5</sup>.

*Antennae* ochreous, faintly barred above with chestnut-brown. *Palpi* ochreous, the median joint chestnut-brown on its outer side. *Head* ochreous. *Thorax* brownish ochreous; tegulae tinged with reddish. *Forewings* rich brownish ochreous, suffused with tawny red toward the apex; with a broad, rich tawny red, triangular patch, commencing at the base of the costa and extending two-thirds the length of the wing, its lower angle slightly crossing the fold before the middle; from the tornus arises an inverted, short, diffused streak of the same colour, the cilia also are tawny reddish, except on the costa before the apex, where they are pale cinereous. *Exp. al.* 11-15 mm. *Hindwings* shining, pale grey; cilia pale cinereous. *Abdomen* cinereous. *Legs* pale cinereous, unspotted.

*Type* ♂ (no. XXXIX) Mus. Br.; *CT.* ♂ (99145); ♀ (99146) Mus. Wlsm.

*Hab.* **Madeiras**<sup>1-4</sup>—MADEIRA<sup>1-3</sup>: 1855 (*Wollaston*)<sup>1-3</sup>. **Canaries**—TENERIFE: 1905 (*White*)<sup>5</sup>: Villa Orotava, 19. II. 1907; Guimar, ⊕ *Hypericum grandifolium*, 19. III, excl. 5-26. IV. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Arafo, 13. IV. 1907; Puerto Orotava, 23. IV - 10. V. 1907; Realejo, 7. V. 1907; Taganana, 27. V. 1907; Las Mercedes, 31. V. 1907; La Laguna, 3. VI. 1907 (*Wlsm.*).

This species is extremely common in all the barrancos about Guimar, and Villa Orotava, and probably everywhere from 1000–3000 ft. It forms cones on at least two species of *Hypericum* (*grandifolium*, *canariense*, etc.). It is the *Gracilaria* sp., no. 238 of Rebel's List, and on comparison proves to be the species described as *Gracilaria? aurantiaca* by Wollaston, from Madeira, which I erroneously listed as *Blastobasis? aurantiaca* (l. c. 3).

## 49. (423) BEDELLIA Stn.

## 102. (4107) BEDELLIA SOMNULENTELLA Z.

n. syn. = \**daphneella* Wlsm. (nec Stgr.).

*Lyonetia somnulentella* Z. Isis 1847. 894–5 no. 432<sup>1</sup>. *Bedellia somnulentella* Stn. Ann-Mag. NH. (3 s.). III. 214 (1859)<sup>2</sup>; Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 542 no. 24 (1894)<sup>3</sup>. \**Phyllobrostis? daphneella* Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 555 no. 66 (1894)<sup>4</sup>. *Bedellia somnulentella* Rbl. Ann. K.K. Hofmus. XI. 137, 147 no. 213 (1896)<sup>5</sup>; Busck Pr. US. Nat. Mus. XXIII. 243–4 (1900)<sup>6</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 210 no. 4107 (1901)<sup>7</sup>; Dyar Bull. US. Nat. Mus. 52. 557 no. 6337 (1902)<sup>8</sup>; Wlsm. Fn. Hawaii. I. 723–4 no. 430. Pl. 25·28 (1907)<sup>9</sup>.

Hab. C-S. EUROPE<sup>1, 7, 9</sup>: ⊕ *Convolvulus* spp. (*althaeoides*, *arvensis*, *cantabrica*, *mauretunica*, *sepium*)<sup>9</sup>, *Ipomoea purpurea*<sup>9</sup>—SPAIN: MALAGA: Malaga, ⊕ *Convolvulus althaeoides*, 30. XII, excl. 16. II. 1901 (Wlsm.); Torremolinos, 29. I, excl. 3. III. 1901 (Wlsm.). N. AFRICA—ALGERIA: Biskra, 5–12. III. 1903 (Wlsm.), 21. IV. 1895, 3. VI. 1893 (Eaton); El-Guerrah, 27. V. 1903 (Wlsm.). MADEIRAS<sup>2, 5, 7, 9</sup>—MADEIRA<sup>2-5</sup>: The Mount (Wollaston)<sup>4</sup>. CANARIES<sup>5, 7, 9</sup>—TENERIFE<sup>5</sup>: Santa Cruz, ⊕ *Convolvulus althaeoides*, 10. I, excl. 22. I–10. III. 1907 (Wlsm.); Guimar, 2. III. 1907 (Wlsm.); Puerto Orotava, 23. IV. 1895 (Hedemann)<sup>5</sup>. UNITED STATES<sup>3, 5-9</sup>: ⊕ *Ipomoea*, *Pharbitis*<sup>9</sup>. HAWAIIA<sup>9</sup>. AUSTRALIA<sup>9</sup>. N. ZEALAND<sup>9</sup>.

Common on various species of *Convolvulus*: I have recognised the mines on *Convolvulus floridus*, and bred it from *C. althaeoides*.

The record of the occurrence of "*Phyllobrostis daphneella* Stgr." in the Madeiras [Wlsm. Tr. Ent. Soc. Lond. 1894. 538, 555 no. 66] must be corrected: examining again the fragment, thus identified at the time, I find it to be a remnant of *Bedellia somnulentella* Z., which Stainton had already recorded from Madeira.

## 50. (426) TISCHERIA Z.

## 103. (4210·1) TISCHERIA TANTALELLA, sp. n.

*Antennae* pale fawn-ochreous. *Palpi*, *Head*, and *Thorax* pale fawn-ochreous. *Forewings* pale fawn-ochreous, thickly sprinkled with yellowish, and some fawn-brownish, scales, the latter condensed in a narrow streak along the base of the costa, and in a small, but conspicuous tornal spot; cilia brownish grey. *Exp. al.*



8 mm. *Hindwings* pale grey; cilia brownish grey. *Abdomen* grey above, pale yellowish at the sides and beneath. *Legs* shining, fawn-whitish.

*Type* ♂ (98990) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 2. III. 1907. Unique.

The most persistent searching failed to secure a second specimen; there was no oak anywhere near where it occurred. It appears to be more nearly allied to North American than to European species.

#### 104. (4215) TISCHERIA LONGICILIATELLA Rbl.

*Tischeria longiciliatella* Rbl. Ann. KK. Hofmus. XI. 141-2, 147 no. 218 (1896)<sup>1</sup>: XXI. 44 no. 243 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 217 no. 4215 (1901)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: Villa Orotava, ⊕ *Rubus fruticosus*, 19. II, excl. 27. II - 22. III. 1907 (Wlsm.); Guimar, 28. II - 19. III. 1907, ⊕ *Rubus fruticosus*, 27. II, excl. 17. III - 13. IV. 1907 (Wlsm.); Las Mercedes, 2000 ft., 7. III. 1904 (Eaton); Forest de la Mina, 7. IV. 1904 (Eaton); Puerto Orotava, 15-17. IV. 1895 (Hedemann)<sup>1</sup>, 3-14. V. 1907 (Wlsm.); La Laguna, 8. IV. 1904 (Eaton), 9. VI. 1907 (Wlsm.).

I have bred this species from *Rubus fruticosus*, amongst which it was found by von Hedemann, and Eaton. Rebel described his type as dark brownish, remarking that his second specimen, which was somewhat worn, had traces of brassy yellow colouring. Some specimens show much more ochreous spotting than the typical form, of which I have several caught and some bred specimens, in which the small yellow dorsal spot before the tornus is almost obsolete; others again, bred and caught, show three strong yellow patches on the outer half of the wing, more or less connected with each other, and another at the base of the costa. The many intermediate gradations clearly prove that these are mere variations of one species.

*Tischeria longiciliatella* Rbl. must not be confused with the Texan *Tischeria longeciliata* Frey and Boll [Stett. Ent. Ztg. XXXIX. 259 (1878), ⊕ *Helianthus*], which Prof. Rebel probably overlooked when naming the Tenerife species.

#### 51. (446) ACROLEPIA Crt.

##### 105. (4478) ACROLEPIA VESPERELLA Z.

*Röslerstammia vesperella* Z. Stett. Ent. Ztg. XI. 156-7 no. 158 (1850)<sup>1</sup>. *Acrolepia vesperella* Hrtm. MT. Münch. Ent. Ver. IV. 4 no. 1529 (1880)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 232 no. 4478 (1901)<sup>3</sup>.

*Hab.* S. EUROPE<sup>1-3</sup>: ⊕ *Smilax aspera*, V, X, excl. IV, IX<sup>2</sup>—ITALY: Rome, 10-25. IV. 1893 (Wlsm.)—FRANCE: Monte Carlo, 19-22. VI. 1898 (Wlsm.). N. AFRICA<sup>3</sup>—MOROCCO: Tangier, 30-31. XII. 1901 (Wlsm.)—ALGERIA: El-Biar, 2. III - 7. IV.

1893 (*Eaton*); Ruisseau des Singes, Médéa, 26. VII. 1893 (*Eaton*).  
**Canaries**—TENERIFE: Las Mercedes, 30. III. 1904 (*Eaton*),  
 29. V - 7. VI. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*);  
 Forest de la Mina, 9. IV. 1904 (*Eaton*); Guimar, 10. IV. 1907  
 (*Wlsm.*); La Laguna, 23-31. V. 1907 (*Wlsm.*); Tacaronte, 31.  
 V. 1907 (*Wlsm.*).

Found commonly at various localities: not previously recorded  
 from the Canaries.

106. (4489·1) ACROLEPIA PAPPELLA, sp. n.  
 (Plate LIII. fig. 15.)

*Antennae* fuscous, clearly spotted with white along their under  
 sides. *Palpi* cinereous, shaded transversely with fuscous on each  
 joint beneath. *Head* and *Thorax* cinereous, mixed with fuscous.  
*Forewings* pale cinereous, partially suffused with pale fawn, and  
 speckled with fuscous; a series of black specks along the basal  
 third of the costa, and some small, obscure, fuscous cloud-spots  
 on the outer half of the costa; two rather larger cloud-spots on  
 the dorsum, preceded and followed by white scaling, the white  
 patch between them containing two short upright streaks of  
 blackish speckling; a fuscous line along the termen, and a  
 broader shade of the same on the outer half of the pale cinereous  
 terminal cilia. *Exp. al.* 10-12 mm. *Hindwings* pale steely grey;  
 cilia pale brownish cinereous. *Abdomen* and *Legs* greyish; the  
 tarsi with pale spots at the joints.

*Type* ♀ (99151); ♂ (99152) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 28. II. 1907, ⊕ *Allagopappus dichotomus*,  
 28. II, excl. 30. III. 1907; Villa Orotava, ⊕, 19. II,  
 excl. 19-30. III. 1907; Puerto Orotava, ⊕, 20. IV, excl. 27-30.  
 IV. 1907. Twelve specimens.

Larva on *Allagopappus dichotomus*, mining the leading leaves,  
 and pupating in a white open network cocoon among these, or  
 on the stems. Two specimens taken on the wing at Guimar,  
 where larvae were found the same day, and on different dates at  
 Orotava.

52. (292) PLUTELLA Schrk.

107. (2447) PLUTELLA MACULIPENNIS Crt.

= *cruciferarum* Z.<sup>6</sup>

*Cerostoma maculipennis* Crt. Br. Ent. IX. Pl. 420, expl. p. 2  
 (1832)<sup>1</sup>. *Plutella cruciferarum* Z. Stett. Ent. Ztg. IV. 281-3  
 (1843)<sup>2</sup>; Stn. Ann-Mag. NH. (3 s.). III. 212 (1859)<sup>3</sup>; Rbl. Ann.  
 KK. Hofmus. VII. 272, 283 no. 53 (1892)<sup>4</sup>; Wlsm. Tr. Ent.  
 Soc. Lond. 1894, 537, 542 no. 26 (1894)<sup>5</sup>. *Plutella maculipennis*  
 Wlsm. & Drnt. Ent. Mo. Mag. XXXIII. 173-5 (1897)<sup>6</sup>; Stgr-  
 Rbl. Cat. Lp. Pal. II. 137 no. 2447 (1901)<sup>7</sup>; Dyar Bull. US.  
 Nat. Mus. 52. 492 no. 5503 (1902)<sup>8</sup>; Rbl. Ann. KK. Hofmus.  
 XXI. 44 no. 207 (1906)<sup>9</sup>; Meyr. Pr. Lin. Soc. NSW. XXXII.

145-6 no. 284 (1907)<sup>10</sup>; Wlsm. Fn. Hawaii. I. 652-3, 751 no. 330 (1907)<sup>11</sup>.

*Hab.* EUROPE<sup>1-2, 7, 11</sup>. ASIA<sup>11</sup>. AFRICA<sup>11</sup>. **Madeiras**<sup>3-5, 9</sup>  
—MADEIRA<sup>3-5</sup>: Funchal (*Wollaston*)<sup>5</sup>; San Antonio da Serra  
(*Wollaston*)<sup>5</sup>. **Canaries**<sup>4-5, 9</sup>—TENERIFE: La Laguna, I. IV.  
1904 (*Eaton*), 10. VI. 1907 (*Wlsm.*); Santa Cruz, 31. XII. 1906  
(*Wlsm.*).—ALEGRANZA<sup>4, 9</sup>: 12. IX. 1890 (*Simony*)<sup>4</sup>. AMERICA<sup>8</sup>.  
HAWAIIA<sup>11</sup>. OCEANIA<sup>11</sup>. AUSTRALIA<sup>10</sup>. NEW ZEA-  
LAND<sup>10</sup>.

Abundant everywhere.

53. (269) PORPE Hb.

=\**CHOREUTIS* (Hb. p.) Stgr-Rbl.

Type *Tinea bjer kandrella* Thnb. (= *vibrana* Hb. 202) Hb. (1826).  
PORPE Hb. Verz. Schm. 373 no. 3579 (1826). \**CHOREUTIS* Stgr-  
Rbl. Cat. Lp. Pal. II. 129 no. 269 (1901); Dyar Bull. US. Nat  
Mus. 52. 493-4 (1902).

*Choreutis* Hb. is a synonym of *Hemerophila* Hb., the type of  
both being *Phalaena (Tortrix) pariana* Cl.; Hübner's geneonym  
**Porpe** must therefore be used for *bjer kandrella* and its allies  
instead of *Choreutis*.

108. (2311) PORPE BJERKANDRELLA Thnbg.

*Tinea bjer kandrella* Thnbg. Diss. Ent. Ins. Suec. I. 24. Pl. [1  
24-5] (1784)<sup>1</sup>; Diss. Ac. Upsal. III. 36. Pl. 4. 24-5 (1801)<sup>2</sup>  
*Xylopora pretiosana* Dp. HN. Lp. Fr. Sppl. IV. 182 no. 362.  
Pl. 65. 9 (1842)<sup>3</sup>. *Choreutis bjer kandrella* E. Wlsm. Ann-Mag.  
NH. (5 s.). III. 342 (1879)<sup>4</sup>; Lp. St. Helena 29-30 (1879)<sup>4</sup>;  
Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 545 no. 36 (1894)<sup>5</sup>.  
*Choreutis pretiosana* Rbl. Ann. KK. Hofmus. VII. 266, 282  
no. 43 (1892)<sup>6</sup>; XI. 122, 146 no. 173 (1896)<sup>7</sup>; XXI. 44 no. 202  
(1906)<sup>8</sup>. *Choreutis bjer kandrella* Thnbg. + *pretiosana* Stgr-Rbl.  
Cat. Lp. Pal. II. 129 no. 2312<sup>a</sup> (1901)<sup>9</sup>. *Choreutis bjer kandrella*  
Meyr. Pr. Lin. Soc. NSW. XXXII. 109 no. 203 (1907)<sup>10</sup>.

*Hab.* ASIA<sup>9</sup>. EUROPE<sup>9</sup>. **Madeiras**<sup>5-6, 9</sup>—MADEIRA<sup>5</sup>:  
Funchal (*Wollaston*)<sup>5</sup>. **Canaries**<sup>5-9</sup>—TENERIFE<sup>5</sup>: Santa Cruz,  
10. I - 7. II. 1907, ⊕ *Inula viscosa*, 18. I, excl. 9-13. II. 1907  
(*Wlsm.*), 3. V. 1895 (*Hedemann*)<sup>7</sup>, 9. VIII. 1889 (*Simony*)<sup>6</sup>;  
La Laguna, 15-16. III. 1902, 6. IV. 1904 (*Eaton*); Guimar,  
⊕ *Gnaphalium luteoalbum*, 25. II, excl. 11-23. III. 1907 (*Wlsm.*);  
IV. 1884 (*Leach*); Puerto Orotava, 1895 (*Hedemann*)<sup>7</sup>, 3. V.  
1907, ⊕ *Thistle*, 3. V, excl. 16. V. 1907 (*Wlsm.*). **St. Helena**<sup>4</sup>:  
Plantation; Cleugh's Plain; West Lodge (*E. Wollaston*)<sup>4</sup>.  
AUSTRALIA<sup>10</sup>.

Taken and bred from *Gnaphalium* at Guimar, taken and bred  
from Thistles at Puerto Orotava, and bred from *Inula* at Santa  
Cruz: no difference can be found between the specimens.

## 54. (270) HEMEROPHILA Hb.

HEMEROPHILA Hb. (1806), Frnld., Dyar; = § *ANTHOPHILA* Hw. (1811); = *SIMAETHIS* Leach (1815), Stgr-Rbl.; [= *TEBENNA* Bllg. (1820) *LN.*]; = † *XILOPODE* Ltr. (1825); = *CHOREUTIS* Hb. (1826); = *EUTROMULA* Fröl. (1828); = *XILOPODA* Ltr. (1829); = *ENTOMOLOMA* Rgt. (1875).

Type 1. *Phalaena Tortrix pariana* Cl. (Hb. 1806).

HEMEROPHILA Hb. Tent. p. [2] (1806). *CHOREUTIS* Hb. Verz. Schm. 373 (1826). *EUTROMULA* Fröl. Enum. Tort. Würt. 11 (1828).

Type 2. *Phalaena Tortrix fabriciana* L. (Leach 1815).

§ *ANTHOPHILA* Hw. Lp. Br. 471 (1811). *SIMAETHIS* Leach, Brewster's Edinb. Encycl. IX. 135 no. 466 (1815). [*TEBENNA* Bllg. *Enum. Ins. Mus. Bllg.* 90 (1820) *LN.*]. † *XILOPODE* Ltr. Fam. Nat. Règne An. 476 (1825). *XILOPODA* Ltr. Cuv. Règne An. (2 ed.). V. 412 (1829).

Type 3. *Tortrix nemorana* Hb.

\* *XILOPODA* (Ltr.) Dp. Ann. Soc. Ent. Fr. III. 448-9 no. 21 (1834); HN. Lp. Fr. IX. 24, 456 no. 21 (1834). *ENTOMOLOMA* Rgt. Bull. Soc. Ent. Fr. XLIV. (5 s. V: 1875). p. xliii (1875).

*Choreutis* Hb. must be sunk as a synonym of *Hemerophila* Hb., the type of both being *pariana* Cl.: *Simaethis* Leach (type *fabriciana* L.) and *Entomoloma* Rgt. (type *nemorana* Hb.) are potential geneonyms.

## 109. (2314) HEMEROPHILA NEMORANA Hb.

*Tortrix nemorana* Hb. Smlg. Schm. Eur. VII. Pl. 1·3 (1797)<sup>1</sup>. *Choreutis nemorana* Hb. Verz. Schm. 373 no. 3577 (1826)<sup>2</sup>. *Simaethis nemorana* Hrtm. MT. Münch. Ent. Ver. III. 194 no. 1305 (1879)<sup>3</sup>; Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 545 no. 37 (1894)<sup>4</sup>; Rbl. Ann. KK. Hofmus. VII. 266, 282 no. 44 (1892)<sup>5</sup>; XI. 122, 146 no. 173 (1896)<sup>6</sup>; XXI. 44 no. 203 (1906)<sup>7</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 129 no. 2314 (1901)<sup>8</sup>.

*Hab.* WC. ASIA<sup>8</sup>. S. EUROPE<sup>8</sup>: ⊕ *Ficus* VIII-IX, excl. IV-VI<sup>3</sup>—S. SPAIN: Granada, ⊕ *Ficus*, 4-11. VI, excl. 11. VI-4. VII. 1901 (*Wlsm.*). N. AFRICA<sup>8</sup>—ALGERIA<sup>5</sup>: Constantine, 28. V. 1895 (*Eaton*); Médéa, 21. VII. 1893 (*Eaton*); Azazga, 2. IX. 1893 (*Eaton*). MADEIRAS<sup>4, 6, 8</sup>—MADEIRA<sup>4</sup>: The Mount (*Wollastor*)<sup>4</sup>. CANARIES<sup>5-8</sup>—LA PALMA<sup>5-7</sup>: 20. VIII. 1889 (*Simony*)<sup>5</sup>—HIERRO<sup>5-7</sup>: 28. VIII. 1889 (*Simony*)<sup>5</sup>—TENERIFE<sup>6-7</sup>: Santa Cruz, 3. V. 1895 (*Hedemann*)<sup>6</sup>; Puerto Orotava, 4-14. V. 1907 (*Wlsm.*).

Taken and bred from Fig-trees: obviously an introduced species.



## 110. (2318) HEMEROPHILA FABRICIANA L.

= *oxyacanthella* L.

*Phalaena Tortrix fabriciana* L. Syst. Nat. (ed. XII.): I. 880 no. 324 (1767)<sup>1</sup>. *Phalaena Tinea oxyacanthella* L. Syst. Nat. (ed. XII.). I. 886 no. 357 (1767)<sup>2</sup>. *Simaethis fabriciana* Stph. List Br. An. BM. V. Lp. 248 (1850)<sup>3</sup>; Stn. Ann-Mag. NH (3 s.). III. 210 (1859)<sup>4</sup>. *Simaethis oxyacanthella* Hrtm. MT Münch. Ent. Ver. III. 194 no. 1309 (1879)<sup>5</sup>; Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 545 no. 38 (1894)<sup>6</sup>. *Simaethis fabriciana* Stgr-Rbl. Cat. Lp. Pal. II. 129 no. 2318 (1901)<sup>7</sup>.

*Hab.* WC. ASIA<sup>7</sup>. EUROPE<sup>1-7</sup>: ⊕ *Urtica*, *Parietaria*<sup>5</sup>. **Madeiras**<sup>4, 6-7</sup>—**MADEIRA**<sup>4</sup>: (*Wollaston*)<sup>4, 6</sup>. **Canaries**—**TENERIFE**: IV. 1884 (*Leech*).

I have a single specimen (61978), taken in Tenerife, in April 1884, by the late Mr. J. H. Leech, but did not myself meet with this species, which has not been recorded from the Canaries.

## 55. (272) GLYPHIPTERYX Hb.

## 111. (2333) GLYPHIPTERYX PYGMAEELLA Rbl.

*Glyphipteryx pygmaeella* Rbl. Ann. KK. Hofmus. XI. 132-3, 147 no. 247 (1896)<sup>1</sup>: XXI. 44 no. 204 (1906)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 130 no. 2333 (1901)<sup>3</sup>.

*Hab.* **Canaries**<sup>1-3</sup>—**TENERIFE**<sup>1-2</sup>: Cruz de Afur, 5. IV. 1904 (*Eaton*); Puerto Orotava, 22. IV. 1895 (*Hedemann*)<sup>1</sup>; La Laguna, 7. VI. 1907 (*Wlsm.*)—**GRAN CANARIA**<sup>1-2</sup>: Las Palmas, 10. V. 1895 (*Hedemann*)<sup>1</sup>.

One specimen only of this species was met with at La Laguna, on June 7th, I have also one from Mr. Eaton, taken near the Cruz de Afur, on April 5th.

112. (2336·1) GLYPHIPTERYX FORTUNATELLA, sp. n.  
(Plate LII. fig. 18.)

*Antennae* bronzy fuscous. *Palpi* white, spotted with fuscous along their outer sides. *Head* cupreous. *Thorax* bronzy fuscous. *Forewings* bronzy fuscous, blending to brownish cupreous beyond the middle; with five distinct white costal streaks, the first, about the middle of the costa, tending obliquely outward, longer than the second, which is a little beyond it, also oblique, but not parallel, tending rather to converge; after a space, at least equal to that which divides the first pair of streaks on the costa, there follows a series of three shorter streaks, their points slightly converging in the direction of a short, white, curved, terminal incision below the apex; beyond these the cilia form a sharply uncate apex, owing to the outer extremities of those below it being pure white, while their basal halves are bronzy grey surrounding a black apical spot; the whitened cilia, after con-

tributing to the subapical incision, are continued along the termen to the tornus, with their basal halves bronzy cupreous; at the tornus is a short, silvery white, triangular spot, and from the middle of the dorsum arises a rather slender, slightly curved, outwardly oblique, white silvery streak, which nearly reaches to the apex of the first costal streak above it. *Exp. al.* 6-6.5 mm. *Hindwings* bronzy grey; cilia scarcely paler. *Abdomen* bronzy fuscous. *Legs* bronzy greyish, the spurs and joints white.

*Type* ♀ (99102); ♂ (99103) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 10-14. IV. 1907; Villa Orotava, 26. IV. 1907; Realejo, 7. V. 1907. Nineteen specimens.

Nearly allied to *fischeriella* Z., but differing in the middle white costal streak being always nearer to the following than to the preceding pair, whereas in *fischeriella* it is equidistant between them. It also differs in the more evenly slender, and more produced, oblique dorsal streak, which always reaches as far as, or a little beyond, the apex of the first costal. *G. fortunatella* is smaller than *pygmaeella*, and is common in the neighbourhood of Guimar, in the Barranco Badajos; it occurs also at Villa Orotava and Realejo.

## V. PHALONIADAÆ.

### 56. (235) LOXOPERA Stph.

= †*Lozopera* Stph., Stgr-Rbl.

### 113. (1646) LOXOPERA FRANCILLONANA F.

= †*francillana* F., Stgr-Rbl.; = \**flagellana* Rbl. (nec Dp.).

*Pyralis francillana* F. Ent. Syst. III. (2). 264-5 no. 94 (1794)<sup>1</sup>. *Lozopera francillonana* Wlsm. Ent. Mo. Mag. XXXIV. 71-2. Pl. 2. 1<sup>a-d</sup> (1898)<sup>2</sup>. *Conchylis \*flagellana* Rbl. Ann. KK. Hofmus. XI. 119, 146 no. 166 (1896)<sup>3</sup>. *Lozopera francillana* Stgr-Rbl. Cat. Lp. Pal. II. 94 no. 1646 (1901)<sup>4</sup>. *Conchylis francillana* Rbl. Ann. KK. Hofmus. XXI. 37, 43 no. 193 (1906)<sup>5</sup>.

*Hab.* WC. ASIA<sup>4</sup>. EUROPE<sup>1-2, 4</sup>; ⊕ *Daucus carota*, *Ferula communis*<sup>2</sup>. Canaries<sup>3-5</sup>—TENERIFE<sup>3-5</sup>: Santa Cruz, ⊕ *Todaroa aurea*, 12. II, excl. 17. IV-29. V. 1907 (Wlsm.), 3. V. 1895 (Hedemann)<sup>3</sup>.

Prof. Rebel (*l. c.* 5) records *francillonana* from Tenerife, on the strength of a specimen in Mr. White's collection, remarking that it was almost certainly the same as the specimen collected by von Hedemann, at Santa Cruz, May 3rd, 1895, which (*l. c.* 3) he had identified as \**flagellana*. I met with *francillonana*, also at Santa Cruz, in February, feeding among the seeds of *Todaroa aurea*, an indigenous *Umbellifer*. The larvae soon left the seed-heads, and as I had taken no stems of the plant, when leaving Santa Cruz, they travelled restlessly round the bottles for many

days after reaching Guimar: on being supplied with small pieces of *Bambusa*, and of the first *Umbellifer* I could find, they quickly gnawed their way into both of these and pupated, the moths emerging from April 17th to May 29th.

114. (1647) LOXOPERA BILBAËNSIS Rslr.

*Conchylis francillana* F. + *bilbaënsis* Rslr. Stett. Ent. Ztg. XXXVIII. 372 (1877)<sup>1</sup>. *Lozopera bilbaënsis* Wlsm. Ent. Mo. Mag. XXXIV. 72-3. Pl. 2. 2<sup>a-d</sup> (1898)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 94 no. 1647 (1901)<sup>3</sup>.

*Hab.* S. EUROPE<sup>1-3</sup>: ⊕ *Crithmum maritimum*<sup>2</sup>. **Canaries**—TENERIFE: La Laguna, 6. IV. 1904 (*Eaton*); Puerto Orotava, 4. V. 1907, ⊕ *Crithmum maritimum*, 29. IV, excl. 9. V-17. VII. 1907, ⊕ *Ferula* sp., 29. IV, excl. 29. VII. 1907 (*Wlsm.*); Bajomar, ⊕ *Astydamia canariensis*, 22. V, excl. 3. VI-19. VIII. 1907 (*Wlsm.*).

Larvae found in stems of *Crithmum maritimum*, at Puerto Orotava, in May, produced paler and darker varieties from the beginning of May to the middle of July. I subsequently found it in great abundance in stems of *Astydamia canariensis*, at Bajomar, from which I reared a series of twenty specimens: a careful examination of the chitinous genital appendages shows them to be the same as in the *Crithmum*-feeder, and in a series of Spanish and Corsican specimens, also reared from *Crithmum*. A single specimen was also bred from the stems of a species of *Ferula*, found at Puerto Orotava. Were it not for the differences in the form of the uncus and claspers it would be exceedingly difficult to separate this species from *francillonana*, but the hindwings are almost invariably paler. A somewhat worn specimen taken by Mr. Eaton, at La Laguna, in April 1904, is unfortunately a ♀, but I think it is certainly *bilbaënsis*.

57. (236) PHALONIA Hb.

= *CONCHYLIS* Tr., Stgr-Rbl.

115. (1666) PHALONIA CARPOPHILANA Stgr.

*Cochylis carpophilana* Stgr. Stett. Ent. Ztg. XX. 228-9 no. 45 (1859)<sup>1</sup>. *Conchylis carpophilana* Stgr-Rbl. Cat. Lp. Pal. II. 95 no. 1666 (1901)<sup>2</sup>. *Phalonia carpophilana* Wlsm. Ent. Mo. Mag. XXXVII. 235 (1901)<sup>3</sup>.

*Hab.* S. EUROPE—S. SPAIN<sup>1-3</sup>: HUELVA: Coto, ⊕ *Asphodelus ramosus*, IV<sup>e</sup>, excl. 6-28. V. 1901 (*Wlsm.*)<sup>1</sup>. N. AFRICA—ALGERIA: Constantine, 16. VI. 1894 (*Eaton*). **Canaries**—TENERIFE: Santa Cruz, 22. I-11. II. 1907; Guimar, 6-16. IV. 1907, ⊕ *Asphodelus ramosus*, 2-9. IV, excl. 13. IV. 1907 (*Wlsm.*).

Taken at Santa Cruz, in January, and at Guimar, in April—also bred from seeds of *Asphodelus ramosus* at the latter place, the bred specimen being much larger (*exp. al.* 17 mm.) than any individual of my Spanish bred series. The larvae were also observed at Puerto Orotava.

116. (1762·2) PHALONIA CONVERSANA, sp. n.  
(Plate LIII. fig. 6.)

*Antennae* pale greyish. *Palpi* white, brownish fuscous on the outer side of the median joint. *Head* and *Thorax* white. *Forewings* white, with a faint subochreous suffusion, and a few sparsely sprinkled black scales, between, but not contiguous to, the dark markings, which consist of more or less thickly sprinkled black scales on a browner, or greyish brown, ground; the dark markings are as follows: an elongate streak from the base of the costa, a narrow medio-costal spot, a larger costal spot between this and the apex, with a small one beyond it before the apex; an oblique, straight, dorsal streak, of even width, terminated on the cell, and a faint shade above, forming a subcontinuous fascia with the medio-costal spot; a rather triangular dorsal spot, beyond the middle, half-way between the oblique streak and the tornus, with some dark sprinkling above it, running obliquely in the direction of the larger costal spot, and a narrow shade along the termen, followed by parallel dark lines running through the cilia. *Exp. al.* 9–14·5 mm. *Hindwings* slightly sinuate; pale brownish grey; cilia shining, silvery grey, becoming shining white on their outer halves. *Abdomen* pale brownish grey. *Legs* almost white, unspotted.

*Type* ♂ (99104); ♀ (99105) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 25. III – 9. IV. 1907 (*Wlsm.*); La Laguna, 6. IV. 1904 (*Eaton*); Puerto Orotava, 26. IV. 1907 (*Wlsm.*). Thirty-two specimens.

Taken among *Artemisia canariensis*, from which, but from no other plant, they were easily dislodged by beating: I was unable to discover the larva. Differing from *versana* Wlsm. in its more distinct and darker markings, and especially in the form of the oblique dorsal streak, which is rather more oblique, and of even width throughout.

58. (237) PHARMACIS Hb.

= *EUXANTHIS* Hb., Stgr-Rbl.

117. (1723) PHARMACIS CHAMOMILLANA HS.

*Cochylis chamomillana* HS. SB. Schm. Eur. IV. 183 no. 128, *chamomilana* Pl. 53·377 (1851)<sup>1</sup>. *Conchylis chamomillana* Stgr-Rbl. Cat. Lp. Pal. II. 97 no. 1723 (1901)<sup>2</sup>. *Pharmacis chamomillana* Wlsm. Ent. Mo. Mag. XXXIX. 181 (1903)<sup>3</sup>.

*Hab.* WC. ASIA<sup>2</sup>. S. EUROPE<sup>1·2</sup>. N. AFRICA<sup>2·3</sup>—TUNIS<sup>2</sup>



—MOROCCO: Tangier, III. 1885 (*Leech*), 21. IV. 1902 (*Wlsm.*)<sup>3</sup>.  
 CANARIES—TENERIFE: Miramar, Santa Cruz, 1. I. 1907.

A single specimen of this rare species occurred near Miramar, two miles from Santa Cruz, on January 1st.

This species, as also *elongana* FR. (1724), and *impurana* Mn. (1725), must be removed from *Phalonia* to *Pharmacis*.

## VI. TORTRICIDAE.

### TORTRICINAE.

#### 59. (221) EPAGOGE Hb.

= *DICHELLA* Gn., Stgr-Rbl.

#### 118. (1490) EPAGOGE CONSTANTII Rbl.

*Dichelia constanti* Rbl. Ann. KK. Hofmus. IX. 17, 85-6 no. 149 (1894)<sup>1</sup>: XXI. 43 no. 184 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 84 no. 1490 (1901)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: La Laguna, ⊕ *Datura stramonium*, excl. V-VI (*Cabrera*)<sup>1</sup>.

This is one of the very few species, recorded from Tenerife, which I was unable to find, although I searched on *Datura stramonium*, at La Laguna, in May and June—the time and place of its recorded occurrence.

#### 60. (227) TORTRIX L.

I fear I may be in part responsible for the too-extended use of the geneonym *Pandemis* Hb., having placed in that genus certain South African species possessing a very faint indication of a notch at the base of the antennae: neither in these, nor in any of the Tenerife species with which I am acquainted, is there any sufficient indication of this character to justify their separation from *Tortrix* L. I might have been disposed to place them in *Dipterina* Meyr., separated from *Tortrix* L. by Meyrick on account of the presence of a distinct secondary cell in the forewings, by the stalking of veins 6 and 7 in the hindwings, and by the long ciliation of the ♂ antennae; but an examination of *Dipterina tasmaniana* Wkr. shows that veins 6 and 7 of the hindwings are not truly stalked, although tending to coincidence towards the base, the secondary cell is less strongly indicated than in *Clepsis* Gn. (*rusticana* Tr.), with which it agrees in the long ciliation of the antennae. Meyrick has himself placed *rusticana* in the genus *Tortrix*, evidently regarding the ciliation of the antennae as merely a question of degree; our Tenerife species, possessing no well-indicated secondary cell, must therefore be included in the older and more generally recognised genus *Tortrix* L.

## 119. (1542) TORTRIX SIMONYI Rbl.

=† *simonyi* Rbl.

*Pandemis simonyi* Rbl. Ann. KK. Hofmus. VII. 263-5, 282 no. 40. Pl. 17 · 8 ♂-9 ♀ (1892)<sup>1</sup>. *Pandemis simonyi* Rbl. Ann. KK. Hofmus. IX. 17, 82 no. 145 (1894)<sup>2</sup>; XXI. 43 no. 186 (1906)<sup>3</sup>. *Pandemis simonyi* Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1542 (1901)<sup>4</sup>.

*Hab. CANARIES*<sup>1-4</sup>—LA PALMA<sup>1-3</sup>: Barranco de las Angustias, 900 m., 16-18. VIII. 1889 (*Simony*)<sup>1</sup>—TENERIFE<sup>2-3</sup>: Montaña de Guerra, VI. (*Cabrera*)<sup>2</sup>—GRAN CANARIA<sup>1-3</sup>: (*Richter*)<sup>1</sup>.

My series of *persimilana* seems to contain forms agreeing with *simonyi*, but having no specimens from La Palma, I hesitate to unite the two species, as Rebel had both before him when describing *persimilana*.

## 120. (1543) TORTRIX PERSIMILANA Rbl.

n. syn. = *mactana* Rbl.

*Pandemis persimilana* Rbl. Ann. KK. Hofmus. IX. 17, 82 no. 144 (1894)<sup>1</sup>; XI. 117-8, 146 no. 160 (1896)<sup>2</sup>. *Pandemis mactana* Rbl. Ann. KK. Hofmus. XI. 116-7, 146 no. 158. Pl. 3 · 4 ♂ (1896)<sup>3</sup>; XIII. 376, 380 no. 172 (1899)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1544 (1901)<sup>5</sup>. *Pandemis persimilana* Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1543 (1901)<sup>6</sup>; Ann. KK. Hofmus. XXI. 43 no. 187 (1906)<sup>7</sup>. *Pandemis mactana* Rbl. Ann. KK. Hofmus. XXI. 43 no. 188 (1906)<sup>8</sup>.

*Hab. CANARIES*<sup>1-8</sup>—TENERIFE<sup>1-7</sup>: “? Cafira,” 14. II. (*Alluand*)<sup>3</sup>; Los Silos, 25. II. 1898 (*Hintz*)<sup>4</sup>; Guimar, 2. III-12. IV. 1907, ⊕ *Rosa banksiae*, 27. II, excl. 23. III. 1907, ⊕ *Rubus fruticosus*, 25. II, excl. 24. III. 1907, ⊕ *Globularia salicina*, 27. III, excl. 12-26. IV. 1907, ⊕ *Pelargonium*, 27. III, excl. 22. IV. 1907, ⊕ *Jasminum odoratissimum*, 27. III, excl. 27. IV. 1907 (*Wlsm.*); Santa Cruz, ⊕ *Coffea arabica*, 1. I, excl. 23. III. 1907 (*Wlsm.*); Toso, 25. III. 1898 (*Hintz*)<sup>4</sup>; IV. 1884 (*Leech*)<sup>1</sup>; Cruz de Afur, 5. IV. 1904 (*Eaton*); Forest de la Mina, 9. IV. 1904 (*Eaton*); Arafo, 13. IV. 1907 (*Wlsm.*); Pedro Gil, ⊕ *Cytisus proliferus*, 19. IV, excl. 8. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*); Puerto Orotava, 1896 (*Crompton*), ⊕ *Globularia salicina*, 7. V, excl. 29. V. 1907 (*Wlsm.*); La Laguna, 30. V. 1907, ⊕ *Adenocarpus foliolosus*, 18. V, excl. 7-14. VI. 1907, ⊕ *Erica arborea*, 23. V, excl. 13. VI. 1907 (*Wlsm.*)—GRAN CANARIA<sup>2-4, 7-8</sup>: Las Palmas, 8-11. V. 1895 (*Hedemann*)<sup>2-3</sup>.

Comparing the types of *persimilana* Rbl. (60994 ♀, 61000 ♀: Mus. Wlsm.) with a considerable series of bred and captured specimens, and bearing in mind the examples of *Pandemis mactana* Rbl. in Mr. White's collection, at Guimar, I am forced to the conclusion that these names are applied to different varieties of the same species. Many of the ♂ ♂ agree perfectly with

Rebel's description of *mactana*, although paler forms, less reticulated on the under side of the forewing, also occur: there is however no possible line of demarcation between them. Some very fine fasciated ♀♀, with typical *persimilana* ♀♀, and typical *mactana* ♂♂, were bred from larvae on *Globularia salicina*, at Guimar, in April and May, 12 specimens in all, including a single ♂ bred from the same plant at Puerto Orotava. I have also bred six similar forms from *Adenocarpus foliolosus*, at La Laguna, in June; 1 ♂, in March, on *Banksia rose*, Guimar; 1 ♂, March, on *Rubus fruticosus*, Guimar; 1 ♀, April, on *Geranium*, Guimar; 1 ♀, May, on *Cytisus proliferus*, Pedro Gil; 1 ♂, March, on *Schinus molle*, Santa Cruz; 1 ♂, March, from Coffee-plant, in a garden at Miramar, near Santa Cruz; 1 ♀, June, on *Erica arborea*, La Laguna; 1 ♀, April, from *Jasminum odoratissimum*, Guimar; 16 caught specimens make up the series of 42, to which I can add, 2 received from Mr. White, and 6 previously in my cabinet from the late Mr. J. H. Leech, and from Mr. Eaton: 50 in all.

121. (1545) TORTRIX BRACATANA Rbl.

*Pandemis bracatana* Rbl. Ann. KK. Hofmus. IX. 17, 82-4 no. 146 (1894)<sup>1</sup>: XXI. 43 no. 189 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1545 (1901)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: Agua Garcia, VI. 1892 (*Cabrera*)<sup>1</sup>, ⊕ *Viburnum rugosum*, 31. V, excl. 17. VI. 1907 (*Wlsm.*).

A fine and distinct species, of which I have only a single specimen, bred from a larva found rolling the leaves of *Viburnum rugosum* at Agua Garcia; the type was taken in the same locality by Cabrera in 1892.

122. (1594.1) TORTRIX CANARIENSIS Rbl.

=\**subcostana* Rbl. (nec Stn.).

*Cacoecia* \**subcostana* Rbl. Ann. KK. Hofmus. IX. 16, 81-2 no. 143 (1894)<sup>1</sup>. *Tortrix* (\**subcostana* Rbl.) *Wlsm.* Tr. Ent. Soc. Lond. 1894. 539 (1894)<sup>2</sup>. *Tortrix subcostana* Stn. + *canariensis* Rbl. Ann. KK. Hofmus. XI. 116, 146 no. 157 (1896)<sup>3</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 90 no. 1594<sup>4</sup> (1901)<sup>4</sup>.

*Hab.* Canaries<sup>1-4</sup>—TENERIFE<sup>1-3</sup>: Guimar, 9. III - 16. IV. 1907 (*Wlsm.*); Las Mercedes, 17. III. 1902, 29. III. 1904 (*Eaton*), 19. V - 7. VI. 1907 (*Wlsm.*); IV. 1885 (*Leech*)<sup>1-2</sup>; Tejina, 7. IV. 1904 (*Eaton*); Arafa, 13. IV. 1907 (*Wlsm.*); Realejo, 7. V. 1907 (*Wlsm.*); Villa Orotava, 14. V. 1907 (*Wlsm.*); La Laguna, 21. V. 1889 (*Krauss*)<sup>1</sup>, 23. V - 9. VI. 1907 (*Wlsm.*); Santa Cruz, 25. V. 1889 (*Krauss*)<sup>1</sup>; Tacaronte, 31. V. 1907 (*Wlsm.*).

This is an exceedingly variable species, and at first sight seems very distinct from the larger and more distinct form which I have received from Madeira. A series of 74 specimens, taken in various localities, enables me to separate them satisfactorily: in *subcostana* Stn. the dark fascia is always more oblique, and its inner margin

always less irregular than in *canariensis*. It occurs on high ground among *Hypericum*, at a lower elevation among *Erica arborea*, and lower yet, at La Laguna and elsewhere, among *Rubus*. I was at first disposed to regard the larger specimens, beaten from *Hypericum*, as distinct from those among *Rubus*, but this cannot be maintained.

123. (1596) TORTRIX CORIACANA Rbl.

=\**longana* Rbl. (+ 3 \**stratana* Rbl.) nec Hw., nec Z.

*Sciaphila* \**longana* (+ 3 \**stratana*) Rbl. Ann. KK. Hofmus. VII. 265-6, 282 no. 41<sup>3</sup> (1892)<sup>1</sup>. *Heterognomon coriacanus* Rbl. Ann. KK. Hofmus. IX. 17, 84 no. 148 (1894)<sup>2</sup>: XI. 118, 146 no. 163 (1896)<sup>3</sup>: XIII. 376-7, 380 no. 177 (1899)<sup>4</sup>: XXI. 43 no. 191 (1906)<sup>5</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 90 no. 1596 (1901)<sup>6</sup>.

*Hab. Canaries*<sup>1-6</sup>—TENERIFE<sup>1-5</sup>: Santa Cruz, 21. XII-16. II. 1907, ⊕ *Psoralea bituminosa*, 5. I, excl. 30. I. 1907, ⊕ *Rhamnus crenulata*, 16. I, excl. 10. II. 1907, ⊕ *Periploca laevigata*, 27. I, excl. 4. III. 1907, ⊕ *Artemisia argentea*, 11. II, excl. 7. III. 1907, ⊕ *Fagonia cretica*, 26. I, excl. 21. II-10. III. 1907 (*Wlsm.*), 12. V. 1889 (*Krauss*)<sup>2</sup>, 1895 (*Hedemann*)<sup>3</sup>; La Laguna, 13. I. 1907 (*Wlsm.*), 23. II-8. IV. 1904, 17. III. 1902 (*Eaton*), 21. V. 1889 (*Krauss*)<sup>2</sup>, 23. V. 1907 (*Wlsm.*); Cafira, 14. II. (*Alluud*)<sup>3</sup>; Villa Orotava, 19. II. 1907, ⊕ *Rhus coriaria*, 28. IV, excl. 2. V. 1907 (*Wlsm.*); Los Silos, 22. II. 1898 (*Hintz*)<sup>4</sup>; Guimar, 28. II-14. IV. 1907 (*Wlsm.*), 21. III. 1904 (*Eaton*), ⊕ *Poterium sp.*, 26. II, excl. 18. III. 1907, ⊕ *Rubus fruticosus*, 25. II, excl. 21. III-4. IV. 1907, ⊕ *Rumex lunatus*, 19. III, excl. 26. IV. 1907, ⊕ *Notochlaena marantae*, 27. II, excl. 31. III. 1907, ⊕ small *Crucifer*, 3. III, excl. 31. III. 1907, ⊕ *Artemisia canariensis*, 19. III, excl. 5-20. IV. 1907, ⊕ *Pyrus malus*, 3. IV, excl. 14. IV. 1907, ⊕ *Psoralea bituminosa*, 1. III, excl. 27. IV. 1907, ⊕ *Cistus monspeliensis*, 8. IV, excl. 6. V. 1907, ⊕ *Phelipaea sp.*, 15. IV, excl. 8. V. 1907 (*Wlsm.*); Puerto Orotava, 13. III. 1904 (*Eaton*), 10-28. IV. 1895 (*Hedemann*)<sup>3</sup>, 23. IV-10. V. 1907, ⊕ *Senecio kleinia*, 26. IV, excl. 21. V. 1907, ⊕ *Ononis sp.*, 27. IV, excl. 8. VI. 1907, ⊕ *Tamarix gallica*, 5. V, excl. 12. VI. 1907 (*Wlsm.*); Tejina, 18. III. 1902 (*Eaton*); IV. 1885 (*Leech*)<sup>2</sup>; Forest de la Mina, 7. IV. 1904 (*Eaton*); Bajomar, ⊕ *Astydamus canariensis*, 22. V, excl. 29. V-15. VI. 1907, ⊕ *Lotus sp.*, 25. V, excl. 1-17. VI. 1907 (*Wlsm.*); Loma de la Vega, Icod de los Vinos, 3. VIII. 1889 (*Simony*)<sup>1</sup>—GRAN CANARIA<sup>3-5</sup>: 1895 (*Hedemann*)<sup>3</sup>; Las Palmas, ⊕ *Plocama pendula*, 15. VI, excl. 28. VI. 1907 (*Wlsm.*)—LANZAROTE<sup>1, 4-5</sup>: Yaiza, 4. X. 1890 (*Simony*)<sup>1</sup>.

Here again we have a species which varies greatly within certain limits, but is easy to recognise. It reminds one at first sight of *canariensis* Rbl., but the wings are more pointed, the costa being somewhat less arched, and the termen more oblique. I have bred



it from *Psoralea*, *Artemisia*, *Rubus*, *Fagonia*, *Rhus*, *Rhannus*, *Notochlaena*, *Astydamia*, *Cistus*, *Tamarix*, *Ononis*, *Lotus*, *Senecio*, *Poterium*, *Rumex*, *Periploca*, dry aborted apples, small *Cruciferae*, and even from *Phelipaea*.

*Heterognomon hyeranus* Rbl. Ann. KK. Hofmus. IX. 17, 84 no. 147 (1894)<sup>1</sup>. *Dichelia hyerana* Rbl. Ann. KK. Hofmus. XXI. 43 no. 185 (1906)<sup>2</sup>.

*Hab.* TENERIFE<sup>1-2</sup>: La Laguna, V (*Cabrera*)<sup>1</sup>.

I have many ♀ ♀ of *Tortrix coriacana* Rbl. which greatly resemble Millière's species in appearance, and am strongly convinced that the condition of the specimen examined and recorded by Rebel must have misled him. The reference to *Dichelia* (when the specimen was not available for study of neuration) can hardly be held to confirm the original determination, in the absence of information as to whether veins 7 and 8 were separate or stalked in the specimen recorded. It will probably be found that *hyerana* does not occur in Tenerife.

[228. CNEPHASIA Crt.]

124. (1608) TORTRIX LONGANA Hw.

=\**segetana* Rbl. (nec Z.); =\**fragosana* Rbl. (nec Z.)<sup>5</sup>.

*Tortrix longana* Hw. Lp. Br. 463-4 no. 221 (1811)<sup>1</sup>. *Sciaphila longana* (+ *ictericana* Rbl., +\**stratana* Rbl.) Rbl. Ann. KK. Hofmus. VII. 265-6, 282 no. 41<sup>1-2</sup> (1892)<sup>2</sup>: IX. 17, 86 no. 150 (1894)<sup>3</sup>. *Sciaphila* \**fragosana* Rbl. Ann. KK. Hofmus. IX. 17, 86 no. 151 (1894)<sup>4</sup>. *Sciaphila longana* Rbl. Ann. KK. Hofmus. XI. 119, 146 no. 165 (1896)<sup>5</sup>. *Cnephasia longana* Stgr-Rbl. Cat. Lp. Pal. II. 91 no. 1608 (1901)<sup>6</sup>: Rbl. Ann. KK. Hofmus. XXI. 37, 43 no. 192 (1906)<sup>7</sup>.

*Hab.* WC. ASIA<sup>6</sup>. EUROPE<sup>1-7</sup>—CORSIKA: Ile Rousse, 5. VI. 1898 (*Wlsm.*).—S. SPAIN: MALAGA: Cala Moral, 4. V. 1901 (*Wlsm.*): CADIZ: Cadiz, 14-15. V. 1902 (*Wlsm.*).—GIBRALTAR: ⊕ *Stachys circinata*, 2. III, excl. 9. V. 1901 (*Wlsm.*). N. AFRICA—ALGERIA: Constantine, 10. V. 1895, 14-15. VI. 1894 (*Eaton*). CANARIES<sup>2-7</sup>—TENERIFE<sup>3-5, 7</sup>: Santa Cruz, 26. I - 11. II. 1907, ⊕ *Fagonia cretica*, 26. I, excl. 28. II. 1907, ⊕ *Stachys* sp., 31. I, excl. 5. III. 1907, ⊕ *Argyranthemum pinnatifidum*, 10. II, excl. 2. IV. 1907 (*Wlsm.*), 3. IV. 1904 (*Eaton*), 10. IV - 4. V. 1895 (*Hedemann*)<sup>5</sup>, 3. V - 1. VI. 1889 (*Krauss*)<sup>3</sup>; Guimar, 1906 (*White*)<sup>7</sup>, 4. III - 16. IV. 1907, ⊕ *Psoralea bituminosa*, 1. III, excl. 10. IV. 1907 (*Wlsm.*); IV. 1885 (*Leech*)<sup>1</sup>; Puerto Orotava, 12-24. IV. 1895 (*Hedemann*)<sup>5</sup>, 10. V. 1907 (*Wlsm.*); La Laguna, 16. III. 1902, 26. III - 6. IV. 1904 (*Eaton*), 2. V. 1907 (*Wlsm.*)—GRAN CANARIA<sup>2-3, 5, 7</sup>: (*Richter*)<sup>2</sup>.

Very common everywhere, and exceedingly variable, ranging from unicolorous chalk-white, through various gradations of greyish ochreous and brownish grey, to slightly, and conspicuously fasciated forms, more or less speckled between the fasciae. I bred it from *Argyranthemum pinnatifidum*, from *Fagonia cretica*, from *Psoralea bituminosa*, and from *Stachys* sp.: a series of thirty-two selected specimens was preserved, in addition to several specimens received from the late Mr. J. H. Leech, and from Mr. Eaton.

## OLETHREUTINAE.

### 61. (247) ACROCLITA Ldr.

#### 125. (1966·01) ACROCLITA GUANCHANA, sp. n. (Plate LIII. fig. 5.)

*Antennae* hoary greyish. *Palpi* porrect, slightly dependent, stretching the length of the head beyond it, densely clothed, especially above, terminal joint short, smooth; hoary grey, fuscous on the outer sides. *Head* hoary greyish, with some mixture of reddish brown scales. *Thorax* reddish brown. *Forewings* elongate, narrow, costa moderately arched, termen oblique, sinuate, tornus evenly rounded; tawny reddish brown, with some black scaling which is sometimes reduced to a few marginal specks, but in some varieties forms an elongate series of streaks or spots, more or less connected, or detached, commencing at the middle of the base, exhibited again along the cell beyond it to the apex; in one dark variety (99115) these streaks form an almost continuous line, with a diverging point along the fold; in another, paler, and faintly mottled form (99116) they are broken into three separate streaks, one from the base along the first half of the fold, a shorter one toward the end of the cell, and an outer one beyond the cell to the apex, with two minute spots below the intermediate spaces and one near the base of the dorsum; in the paler varieties there is also some indication of lighter geminated costal streaks, with alternating faint shade-spots; cilia slightly paler than the wing, with a distinctly paler line along their base, followed by parallel shade-lines running through them. *Exp. al.* 12–15 mm. *Hindwings* broader than the forewings, with oblique, sinuate, termen; grey with a slight rosy tinge; cilia paler, with a faint shade-line a little beyond their paler base. *Abdomen* and *Legs* griseous, varying to subochraceous; hind tarsi faintly shaded, except at the joints.

*Type* ♂ (99115); ♀ (99118); var. ♂ *PT.* (99116–7) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 3000 ft., 3. I. 1907, ⊕ *Hypericum grandifolium*, 3. I, excl. 29–31. I. 1907 (*Wlsm.*); Villa Orotava, 19. II. 1907 (*Wlsm.*); Forest de la Mina, 7. IV. 1904 (*Eaton*); Guimar, 10. IV. 1907, ⊕ *Hypericum grandifolium*, 25. II, excl. 7. IV – 4. V. 1907 (*Wlsm.*); Las Mercedes, 14. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Fifteen specimens.

The larva contorts the leading leaves of *Hypericum grandifolium*: I met with it first at the Barranco del Bufadero, near Santa Cruz, the beginning of January, and bred specimens from the end of that month till the beginning of May.

## 126. (1966) ACROCLITA SUBSEQUANA HS.

126 + a. (1966 + a) SUBSEQUANA HS. + SUBSEQUANA HS.

= *consequana* HS.<sup>1</sup>; = *littorana* Cnst.*Semasia subsequana* HS. SB. Schm. Eur. IV. 247 no. 337 (1851)<sup>1</sup>.*Tortrix consequana* HS. SB. Schm. Eur. IV. Pl. 59·423 (1854)<sup>2</sup>.*Acroclita consequana* Stgr-Rbl. Cat. Lp. Pal. II. 110 no. 1966 (1901)<sup>3</sup>.*Hab.* EUROPE<sup>1-3</sup>: ⊕ *Euphorbia* spp.

126 + b. (1966 + b) SUBSEQUANA HS. + CONVALLENSIS, var. n. (an sp. n.?).

= \**littorana* Rbl. (nec Cnst.).*Acroclita consequana* HS. + *littorana* Rbl. Ann. K.K. Hofmus. VII. 266, 282 no. 42 (1892)<sup>1</sup>: XI. 121, 146 no. 169 (1896)<sup>2</sup>: XXI. 43 no. 196 (1906)<sup>3</sup>.*Hab.* CANARIES<sup>1-3</sup>—TENERIFE<sup>2-3</sup>: Santa Cruz, 25. I. 1907, ⊕ *Euphorbia regis-jubae*, 27. XII, excl. 28-31. I. 1907 (*Wlsm.*); Guimar, 6. III - 10. IV. 1907 (*Wlsm.*); IV. 1884 (*Leech*); Puerto Orotava, 18. IV. 1895, ⊕ *Euphorbia arborescens*, excl. 10-13. V. 1895 (*Hedemann*)<sup>2</sup> — GRAN CANARIA<sup>1</sup>: (*Richter*)<sup>1</sup> — MONTAÑA CLARA<sup>1-3</sup>: 238 m., 8. IX. 1890 (*Simony*)<sup>1</sup>.

I did not meet with any form of *Acroclita* that can well be compared with *littorana* Cnst., which is merely a small pale variety of the ordinary South European *subsequana* HS. There is however one point of difference by which my Tenerife series of twenty-three specimens might be separated from European specimens: the basal patch always tends to throw out a pointed projection along the dorsum, they also range to a much larger average size (*exp. al.* 13-22 mm.), and I propose the neonym *convallensis* (var., an sp.?), to distinguish them.

*Type* ♂ (99171); ♀ (99172) Mus. *Wlsm.*

## 127. (1966·1) ACROCLITA SONCHANA, sp. n. (Plate LIII. fig. 3.)

*Antennae* hoary, with blackish annulations, sometimes entirely suffused with black. *Palpi* whitish, thickly sprinkled with dark fuscous externally; sometimes fuscous throughout. *Head* dirty white, varying to dark fuscous. *Thorax* whitish, or dark fuscous; sometimes with chestnut-brown tegulae. *Forewings* dark fuscous, sprinkled and mottled with shades of chestnut-brown, with some paler spaces; a dark basal patch, extending to one-third, projects outwardly above the fold receding to the costa and nearly to the dorsum; this is followed by an irregular fascia, running from the

middle of the costa to the dorsum before the tornus, throwing a projection inward from its middle and slightly bulging outward above its lower extremity; beyond it is a triangular shade-patch, more or less furcate to the costa, the apex and termen being also narrowly shaded; in some specimens (99110) the intermediate spaces between these markings, as well as the dorsal portion of the basal patch are white, sparsely sprinkled with brownish scales; in other specimens (99109) they are entirely suffused with dark steely greyish fuscous, paler only at the edges of the dark markings; about four pairs of geminate costal streaks are visible on the outer half of the wing; cilia fuscous, with a more or less defined shade-line along their base. *Exp. al.* 14-17 mm. *Hindwings* brownish cinereous, with a slender pale line along the base of the rather more smoky cinereous cilia; in the paler specimens the hindwings are also of a lighter shade. *Abdomen* and *Legs* corresponding to the hindwings in colour; tarsi darkly shaded between the pale joints.

*Type* ♀ (99108); ♂ (99109); ⊕ (99111); var. ♀ *PT.* (99110) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 7. IV. 1907, ⊕ *Sonchus gummifer*, 9-27. III, excl. 4. V - 12. VI. 1907; Puerto Orotava, ⊕ *Sonchus gummifer*, 23. IV, excl. 13. V - 19. VI. 1907, ⊕ *Sonchus leptcephalus*, 22. IV - 11. V, excl. 5. VI - 2. VIII. 1907. Fifteen specimens.

The larva, which is dull greyish, turning to bright red before pupation, feeds on the leaves outside the stems of *Sonchus gummifer* and *leptocephalus*. The moth is extremely variable, some specimens being almost black, on which the pattern, although easily traceable and very consistent, is much obscured, while in others all the intermediate spaces being white, the darker markings stand out very conspicuously. As compared with *consequana* HS., it is somewhat similar in general design, but the outer fascia is less oblique and less prominently angulated outward below the middle, while the space between this and the apex is more occupied by darker patches and the costal streaks are less confluent and less oblique.

## 62. (243) POLYCHROSIS Rgt.

128. (1954-1) POLYCHROSIS NEPTUNIA, sp. n. (Plate LIII. fig. 1.)

*Antennae* ochreous, varied with black above. *Palpi* ochreous. *Head* and *Thorax* ochreous, varying to reddish fuscous in some specimens. *Forewings* ochreous, varying to brownish ochreous, and even to reddish fuscous, the darker shades prevailing especially towards the dorsum; the costa is delicately speckled with fuscous throughout; before the middle is an outwardly oblique, greyish white fascia, somewhat contracted on the fold, terminating on the middle of the dorsum, its upper half slightly reticulated, or speckled, with the ochreous ground-colour; beyond it a narrow dark space separates it from a broad, irregular, second fascia of the same



colour, tending to become widely furcate toward the costa, and narrowly furcate where it is inverted to the dorsum before the tornus; the outer portion of this fascia is usually joined to a sinuate streak, which, cutting off the dark apex of the wing, descends to the middle of the termen; these markings all contain more or less, short, parallel, wavy streaks of the darker ground-colour; cilia varying from ochreous to greyish, sometimes slightly mottled. *Exp. al.* 9-12 mm. *Hindwings* pale brownish grey; cilia pale cinereous with a slender shade-line running through them near their base. *Abdomen* greyish fuscous. *Legs* pale brownish cinereous, the tarsi very faintly spotted.

*Type* ♀ (99106); ♂ (99107) ex ⊕ *Statice*, Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 17. III. 1907, ⊕ *Frankenia ericifolia*, 6. III, excl. 9. III - 22. IV. 1907, ⊕ *Statice pectinata*, 6. III, excl. 20. III - 18. IV. 1907 (*Wlsm.*); Tejina, 18. III. 1902 (*Eaton*); Puerto Orotava, 21. IV - 14. V. 1907, ⊕ *Frankenia ericifolia*, 21. IV, excl. 3-4. V. 1907, ⊕ *Statice pectinata*, 21. IV, excl. 26. V - 7. VI. 1907 (*Wlsm.*). Thirty-two specimens (13 ex *Statice*, 10 ex *Frankenia*, 9 captured).

The larva feeds on *Statice pectinata* and *Frankenia ericifolia*, at Guimar and Puerto Orotava, from both of which plants I have bred it.

Most nearly allied, perhaps, to *limoniana* Mill., but differing in the markings being intermediate between those of that species and *botrana* S-D.

### 63. (255) BACTRA Stp.

#### 129. (2017) BACTRA LANCEOLANA Hb.

*Tortrix lanceolana* Hb. Smlg. Eur. Schm. VII. Pl. 13·80 (1797)<sup>1</sup>. *Ancylis lanceolana* Hb. Verz. Schm. 376 no. 3614 (1826)<sup>2</sup>. *Aphelia lanceolana* Wlsm. Tr. Ent. Soc. Lond. 1881. 231-2 (1881)<sup>3</sup>; Meyr. Pr. Lin. Soc. NSW. VI. 651-2 (1881)<sup>4</sup>. *Bactra lanceolana* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 540 no. 9 (1894)<sup>5</sup>; Rbl. Ann. KK. Hofmus. IX. 17, 86-7 no. 152 (1894)<sup>6</sup>; XI. 120-1, 146 no. 168 (1896)<sup>7</sup>; XXI. 43 no. 197 (1906)<sup>8</sup>; Wlsm. Pr. Z. Soc. Lond. 1897. 121-2 no. 162 (1897)<sup>9</sup>; Ann-Mag. NH. (7 s.). VI. 333-4 no. 1006 (1900)<sup>10</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 113 no. 2017 (1901)<sup>11</sup>; Fnld. Bull. US. Nat. Mus. 52. 449 no. 5006 (1902)<sup>12</sup>.

*Hab.* EUROPE<sup>1-2, 11</sup>: ⊕ *Juncus*, *Cyperus*<sup>6</sup>. AFRICA<sup>3</sup>. ASIA<sup>10</sup>. MALAYSIA<sup>10</sup>. AUSTRALIA<sup>4</sup>. NEW ZEALAND<sup>4</sup>. S. AMERICA<sup>9</sup>. N. AMERICA<sup>12</sup>. W. INDIES<sup>9</sup>. **Madeiras**<sup>5</sup>—MADEIRA<sup>5</sup>; San Antonio da Serra (*Wollaston*)<sup>5</sup>; Machico, 23. IV. 1904 (*Eaton*). **Canaries**<sup>6-8</sup>—TENERIFE<sup>6-8</sup>: Guimar, 4. III - 7. IV. 1907 (*Wlsm.*); IV. 1884 (*Leech*); Puerto Orotava, 14. V. 1907 (*Wlsm.*); 1895 (*Hedemann*)<sup>7</sup>; Santa Cruz, 26. V. 1889 (*Krauss*)<sup>6</sup>—GRAN CANARIA<sup>7</sup>: Las Palmas, 7. V. 1895 (*Hedemann*)<sup>7</sup>.

The examples of this species which I met with in Tenerife could

by no possibility have fed upon rushes; they were taken on an absolutely dry spot, in a barranco near Orotava, where no rushes could be found. I also took three specimens at Guimar. Mr. Eaton notes it as taken amongst *Carex*, in a wet place, near Machico (Madeira).

#### 64. (241) RHYACIONIA Hb.

RHYACIONIA Hb. Verz. Schm. 379 (1826); Wlsm. Ann-Mag. NH. (7 s.). VII. 124 (1900); =\**EVETRIA* (Hb.) Stgr-Rbl. Cat. Lp. Pal. II. 102 no. 241 (1901).

#### 130. (1845) RHYACIONIA WALSHINGHAMI Rbl.

*Retinia walsinghami* Rbl. Ann. KK. Hofmus. XI. 119-20, 146 no. 167, Pl. 3·6 ♀ (1896)<sup>1</sup>. *Evetria walsinghami* Stgr-Rbl. Cat. Lp. Pal. 102 no. 1845 (1901)<sup>2</sup>: Ann. KK. Hofmus. XXI. 43 no. 194 (1906)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: Puerto Orotava, ⊕ *Pinus canariensis*, 18. II, excl. 3. III - 10. IV. 1907 (*Wlsm.*), 11-14. IV. 1895 (*Hedemann*)<sup>1</sup>, 21-29. IV. 1907 (*Wlsm.*).

A rare species, not met with by Mr. Eaton, and represented, so far as I am aware, only by von Hedemann's three original specimens, and one or two in Mr. White's collection. During a lucky half-hour, spent in the garden of the Hotel Humboldt, during a flying visit to Orotava, on the 18th of February, I found three pupae in the shoots of *Pinus canariensis*, all of which produced the moths in March and April. During a subsequent visit three other specimens were taken on the wing, in the same place, from the 21st to 29th of April. I have observed traces of the larvae in the pine-forests, to the south of Pedro Gil, but it does not appear to occur to the west of Guimar, where I searched the pines unsuccessfully.

#### 65. (248) CROCIDOSEMA Z.

#### 131. (1968) CROCIDOSEMA PLEBEIANA Z.

n. syn. = *obscura* E. Wlsth.; = *blackburnii* Btl.<sup>7</sup>; =\**signatana* Wlsm. (nec Dgl.).

*Crocidosema plebejana* Z. Isis, 1847. 721-2 no. 283 (1847)<sup>1</sup>. *Steganoptycha obscura* E. Wlsth. Ann-Mag. NH. (5 s.). III. 341 (1879)<sup>2</sup>: Lp. St. Helena 28-8 (1879)<sup>2</sup>. *Crocidosema plebeiana* Meyr. Pr. Lin. Soc. N.S.W. VI. 659-60 (1881)<sup>3</sup>. *Steganoptycha* \**signatana* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 541 no. 14 (1894)<sup>4</sup>. *Crocidosema plebeiana* Wlsm. Pr. Z. Soc. Lond. 1897. 127 no. 174 (1897)<sup>5</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 110 no. 1968 (1901)<sup>6</sup>; Wlsm. Fn. Hawaii. V. 675-6, 736, 752 no. 366, Pl. 10·15 (1907)<sup>7</sup>.

*Hab.* ASIA<sup>6</sup>—CEYLON: Pundaloya, 4000 ft., II. 1890 (*Green*)—PALESTINE: (*Tristram*)—SYRIA<sup>6</sup>. S-C. EUROPE<sup>1, 6</sup>: ⊕ *Althea rosea*<sup>5</sup>; *Lavatera arborea*<sup>5</sup>—FRANCE: Mentone, 13. III. 1893

(*Wlsm.*)—SPAIN: MALAGA: Malaga, 8. IV. 1901 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, 13. IV. 1901, 12. V. 1902 (*Wlsm.*)—ALGERIA: Biskra, 5–13. III. 1903 (*Wlsm.*). MADEIRAS<sup>4</sup>—MADEIRA<sup>4</sup>: The Mount (*Wollaston*)<sup>4</sup>. CANARIES—TENERIFE: Guimar, 13. III. 1907; Puerto Orotava, ⊕ *Malva parviflora*, 29. IV, excl. 11–26. V. 1907; La Laguna, 23. V. 1907; Santa Cruz, 25. V. 1907 (*Wlsm.*). St. Helena<sup>2</sup>: Cleugh's Plain (*E. Wollaston*)<sup>2</sup>. WEST INDIES<sup>5</sup>. CENTRAL AMERICA<sup>6</sup>. SOUTH AMERICA<sup>5</sup>. AUSTRALIA<sup>3</sup>. HAWAIIA<sup>7</sup>.

A single specimen (13575), in poor condition, to which I wrongly attributed the name "*Steganoptycha signatana* Dgl." (*l. c.* 4), was collected in Madeira by Wollaston. Having now met with *Crociosema plebeiana* at Santa Cruz, La Laguna, and Guimar, (where I also saw it in Mr. White's collection), and having bred two specimens from larvae feeding on *Malva parviflora*, at Puerto Orotava, I take this opportunity of correcting the previous error, while recording the species for the first time from Tenerife, and extending its range from Ceylon to St. Helena. I have examined the type of *Steganoptycha obscura* E. Wlsm. in the British Museum and find it to be *Crociosema plebeiana* Z., a ♂ with the characteristic tuft.

#### 66. (260'01) STREPSICRATES Meyr.

§ *STREPSICEROS* Meyr. Pr. Lin. Soc. NSW. VI. 678–9 (1882).  
*STREPSICRATES* Meyr. Tr. NZ. Inst. XX. 73 (1887); *Wlsm.* Pr. Z. Soc. Lond. 1891. 506–7 (1892).

#### 132. (2067'01) STREPSICRATES FENESTRATA, sp. n.

*Antennae* missing, except sufficient of the compressed, whitish cinereous, basal joints to identify the genus. *Palpi* erect, with very short terminal joint; much worn, but apparently fuscous externally. *Head* whitish cinereous. *Thorax* whitish cinereous along the centre, brownish fuscous at the sides. *Forewings* with a very deep costal fold, reaching to beyond the middle of the wing; dark brownish fuscous, slightly mottled with whitish cinereous, tending to indicate oblique, but slightly curved, transverse lines before the apex, reaching from costa to termen, and one reaching the dorsum before the tornus, but this latter appears to form the outer margin of the more intensely dark colouring which pervades the wing thence to the base, except along the dorsum; here is a large reduplicated patch of whitish cinereous, commencing at one-fourth, indented at its upper edge about the middle, and thence extending again nearly to the outer end of the fold; there is also a pale patch at the tornus—these are slightly sprinkled with pale brownish fuscous scales, usually in the form of narrow dorsal streaks; the cilia appear to be mottled with darker and paler alternations at the base. *Exp. al.* 15 mm. *Hindwings* semitransparent, subiridescent, brownish

grey, with a conspicuous scaleless fenestrum below the base of the cubitus, reaching nearly to the origin of vein 2; cilia brownish grey. *Abdomen* brownish grey; anal tuft paler. *Legs* pale brownish cinereous.

*Type* ♂ (13525) Mus. Wlsm.

*Hab.* TENERIFE: Guimar (*White*).

A single ♂, given to me by Mr. White, is in extremely poor condition; I should certainly not have described it had it not been for the peculiar character of the fenestrum in the hindwing. It was taken from a series in his collection, which included more than one species. I certainly recognised *Crocidosema plebeiana* Z. among them, and there were others similar to the one here described.

(260) EUCOSMA Hb.

= *EPIBLEMA* Hb., Stgr-Rbl.

(2090·1) EUCOSMA sp. 198 Rbl.

*Epiblema* sp. Rbl. Ann. KK. Hofmus. XXI. 37-8, 43 no. 198 (1906)<sup>1</sup>.

*Hab.* TENERIFE<sup>1</sup>: 1905, 1906 (*White*)<sup>1</sup>.

Unnamed specimens in Mr. White's collection; not in good enough condition for identification. I did not meet with the genus *Eucosma* in Tenerife.

67. (257) THIODIA Hb.

= *SEMASIA* Stph., Stgr-Rbl.

133. (1980·1) THIODIA GLANDULOSANA, sp. n.

(Plate LIII. fig. 2.)

*Antennae* brownish cinereous. *Palpi* varying from ochraceous to brownish fuscous. *Head* and *Thorax* brownish fuscous above; the tegulae paler, sometimes ochraceous. *Forewings* with the costa evenly arched, termen slightly sinuate; ochraceous, more or less suffused with brownish, or dark fuscous scaling, the markings indicated by black patches; in an ordinary variety the wing is much mottled and traversed by sinuous streaks, the costa being streaked and spotted throughout; a strong dorsal patch is indicated, coming from the base below the fold, angulated above the fold at one-third, and produced along the more or less spotted dorsum to an obliquely erect anteternal patch of the same colour, terminating a little below half the width of the wing; in some varieties a curved band of similar blackish patches descends from the middle of the costa, bending outward through the end of the cell, and attenuated to the apex, but this is sometimes quite obsolete; a narrow blackish line, broken into spots above the tornus, follows the termen before the ochraceous cilia, which are mottled with brown and blackish above the middle and at the apex, but always with a pale line along their base; in some varieties the upper edge of the dorsal patch and the lower half of



the termen, as well as the base of the cilia about the tornus, are touched with shining white, some steely grey scales appearing on the dark patch and before the apex of the wing. *Exp. al.* 13–21 mm. *Hindwings* greyish fuscous; cilia paler, with a shade-line running through them. *Abdomen* greyish fuscous, anal tuft and *Legs* inclining to ochreous; hind tarsi faintly barred.

*Type* ♂ (99114); ♀ (99112); var. ♀ *PT.* (99113) Mus. Wlsm.

*Hab.* TENERIFE: Las Mercedes, 30. III. 1904 (*Eaton*), 19–29. V. 1907 (*Wlsm.*); La Laguna, ⊕ *Rhamnus glandulosa*, 19. V, excl. 6–23. VI. 1907 (*Wlsm.*). Thirty specimens.

The larva rolls the leaves of *Rhamnus glandulosa* and is common between La Laguna and Tegeste, and in the Mercedes Forest. It is an extremely variable species allied to *signatana* Dgl.

### 68. (261) LASPEYRESIA Hb.

=§ *GRAPHOLITHA* Tr., Stgr-Rbl. (nec Hb.).

#### 134. (2168) LASPEYRESIA ADENOCARPI Rgt.

*Grapholitha adenocarpus* Rgt. Bull. Soc. Ent. Fr. XLIV. (5 s. V: 1875). p. lxxiii no. 5 (1875)<sup>1</sup>; Ann. Soc. Ent. Fr. XLV. (5 s. VI: 1876). 406–8 no. 4. Pl. 6·4 (1876<sup>2</sup>); Stgr-Rbl. Cat. Lp. Pal. II. 121 no. 2168 (1901)<sup>3</sup>.

*Hab.* WC. ASIA—HALEB: Shar Devesy, 1893 (*Nat. Coll.*: *Leech*). S. EUROPE—SW. FRANCE: Dax, ⊕ *Adenocarpus parvifolius*<sup>1-2</sup>; *Sarothamnus scoparius*<sup>2</sup>, excl. VI–IX<sup>2</sup>—S. SPAIN: CADIZ: Chiclana, 25. II. 1901; MALAGA: Malaga, 13. III. 1901; GRANADA: Granada, 5. V–14. VI. 1901 (*Wlsm.*). **Canaries**—TENERIFE: IV. 1884 (*Leech*).

Two specimens were taken in Tenerife, in April 1884, by the late Mr. J. H. Leech, who gave them to me the following year. I did not meet with this species.

#### 135. (2188) LASPEYRESIA NEGATANA Rbl.

=\**salvana* Rbl. (nec Stgr.).

*Grapholitha (Phthoroblastis)? \*salvana* Rbl. Ann. KK. Hofmus. IX. 17, 88 no. 155 (1894)<sup>1</sup>. *Grapholitha negatana* Rbl. Ann. KK. Hofmus. XI. 121–2, 146 no. 171, Pl. 3·8 ♂ (1896)<sup>2</sup>: XXI. 43 no. 199 (1906)<sup>3</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 122 no. 2188 (1901)<sup>4</sup>.

*Hab.* TENERIFE<sup>1-4</sup>: La Laguna, 16. III. 1902 (*Eaton*), 30. V–9. VI. 1907 (*Wlsm.*); Las Mercedes, 29. III. 1904 (*Eaton*); IV. 1884 (*Leech*)<sup>1</sup>; Guimar, 6. IV. 1907 (*Wlsm.*); Puerto Orotava, 14. IV. 1895 (*Hedemann*)<sup>2</sup>.

Found flying somewhat plentifully, on one occasion only, about *Adenocarpus foliolosus*, above Guimar, in the direction of the Barranco del Rio, on April 6th; found again sparingly at La Laguna, at the end of May and the beginning of June.

## 69. (264) CYDIA Hb.

= *CARPOCAPSA* Tr., Stgr-Rbl.

## 136. (2257) CYDIA POMONELLA L.

136 + a (2257 + a) POMONELLA L. + POMONELLA L.

*Phalaena Tinea pomonella* L. Syst. Nat. (ed. X). I. 538 no. 270 (1758)<sup>1</sup>. *Carpocapsa pomonella* Stn., Godman's NH. Azores 106 no. 27 (1870)<sup>2</sup>; Meyr. Pr. Lin. Soc. NSW. VI. 657. (1881)<sup>3</sup>; Slngrld. Cornell Univ. Agr. Exp. Stn. Ent. Div. Bull. 142. 3-60, fig. 126-146 (1898)<sup>4</sup>. *Cydia pomonella* Wlsm. Ann-Mag. NH. (7 s.). VI. 435 no. 1181 (1900)<sup>5</sup>. *Carpocapsa pomonella* Stgr-Rbl. Cat. Lp. Pal. II. 125-6 no. 2257 (1901)<sup>6</sup>. *Cydia pomonella* Frnld. Bull. US. Nat. Mus. 52. 471 no. 5296 (1902)<sup>7</sup>.

*Hab.* ASIA<sup>5-6</sup>. EUROPE<sup>1-7</sup>. AFRICA<sup>4-6</sup>. Azores<sup>2</sup>—TERCEIRA: (Godman)<sup>2</sup>. N-S. AMERICA<sup>4-7</sup>. AUSTRALIA<sup>3</sup>. NEW ZEALAND<sup>3</sup>.

⊕ Apples, and other fruits, Walnuts, etc.

136 + b (2257 + b) POMONELLA L. + PUTAMINANA Stgr.

*Carpocapsa putaminana* Stgr. Stett. Ent. Ztg. XX. 232 no. 56 (1859)<sup>1</sup>. *Carpocapsa pomonella* L. + *putaminana* Stgr-Rbl. Cat. Lp. Pal. II. 126 no. 2257<sup>a</sup> (1901)<sup>2</sup>; Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 201 (1906)<sup>3</sup>.

*Hab.* WC. ASIA<sup>2</sup>. S. EUROPE<sup>1-2</sup>. Canaries<sup>3</sup>—TENERIFE<sup>3</sup>: 1905 (*White*)<sup>3</sup>.

I did not meet with this species: the typical form was recorded in 1870 as having been taken in the Azores.

## 70. (2611) EUCELIS Hb.

137. (2197) EUCELIS MADERAE Wlsth.

*Ephippiphora maderae* Wlsth. Ann-Mag. NH. (3 s.). I. 120 (1858)<sup>1</sup>. *Grapholita maderae* Wkr. Cat. Lp. BM. XXX. 990 (1864)<sup>2</sup>. *Grapholitha maderae* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 540 no. 11 (1894)<sup>3</sup>; Rbl. Ann. KK. Hofmus. IX. 17, 87-8 no. 154 (1894)<sup>4</sup>; XI. 121, 146 no. 170. Pl. 3·8 ♂ (1896)<sup>5</sup>; XXI. 44 no. 200 (1906)<sup>6</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 122 no. 2197 (1901)<sup>7</sup>; *Eucelis maderae* Wlsm. Ent. Mo. Mag. XXXIX. 214 (1903)<sup>8</sup>.

*Type* ♂ (no. XVIII) Mus. Br.

*Hab.* Madeiras<sup>1-5, 8</sup>—MADEIRA<sup>1-5</sup>: The Mount (*Wollaston*)<sup>3</sup>, Monte, 1100 ft., 6. III. 1902 (*Eaton*); Funchal (*Wollaston*)<sup>3</sup>, 14. IV. 1904 (*Eaton*); Canical, 21. IV. 1904 (*Eaton*); V. 1886 (*Leech*)<sup>4</sup>. Canaries<sup>3-7</sup>—TENERIFE<sup>3-7</sup>: Santa Cruz, 10. I. 1907 (*Wlsm.*); Guimar, 4. III - 4. IV. 1907 (*Wlsm.*); Puerto Orotava, 16-22. IV. 1895 (*Hedemann*)<sup>5</sup>, 26. IV. 1907 (*Wlsm.*); IV. 1884 (*Leech*)<sup>4</sup>; Realejo, 25. IV. 1895 (*Hedemann*)<sup>5</sup>.

Taken at Santa Cruz, Orotava, and Guimar, in January, March, and April, but not common.

138. (2197·2) *EUCELIS MARRUBIANA*, sp. n. (Plate LIII. fig. 4.)

= \**indusiana* Rbl. (nec Z.).

*Polychrosis? indusiana* Rbl. Ann. KK. Hofmus. XXI. 37, 43 no. 195 (1906)<sup>1</sup>.

*Antennae* pale brownish grey. *Palpi* hoary grey, sprinkled with fuscous. *Head* and *Thorax* hoary grey, with some fuscous speckling; the latter with a slight, blackish-sprinkled, thoracic tuft posteriorly. *Forewings* greyish white, with pale olivaceous brownish suffusion, tending to indicate two transverse fasciae, one at one-third, bounding the outer side of an obscurely speckled and shaded basal patch, the other, in the middle, accompanied on its outer side by small spots of fuscous and blackish scaling, the intermediate pale space contains a narrow fluctuate line parallel to the equally sinuate outer edge of the first fascia; beyond the middle of the wing some blackish scales are sparsely sprinkled below the middle, near the central fascia, and again in a patch between the upper angle of the cell and the apex, this patch containing three or four black dots; the termen is narrowly shaded with olivaceous brownish, a narrow black line preceding the cilia; along the costa is a series of outwardly oblique brownish streaks, of varying sizes, with more or less sprinkling of black scales, some short dark streaks also along the dorsum; cilia greyish white, delicately sprinkled and shaded with brown and black. *Exp. al.* 8·5–13 mm. *Hindwings* brownish grey; cilia shining, paler, with a shade-line near their base. *Abdomen* hoary griseous. *Legs* hoary, the tarsi spotted above with fuscous.

*Type* ♀ (99051); ♂ (99052) *Guimar*, Mus. Wlsm.

*Hab.* S. FRANCE: Monte Carlo, 1. VI. 1889 (*Wlsm.*)—S. SPAIN: MALAGA: Malaga, 29. IV – 2. V. 1901 (*Wlsm.*). CANARIES<sup>1</sup>—TENERIFE<sup>1</sup>: 1905 (*White*)<sup>1</sup>; Guimar, 4–25. III. 1907, ⊕ *Marrubium vulgare*, 14. III, excl. 21–24. III. 1907 (*Wlsm.*). Nineteen specimens.

Taken, and bred; very common on the top of the hill west of Guimar. The larva feeds on the seeds of *Marrubium*, the empty pupa-cases protruding conspicuously from the dry seed-vessels of the previous year.

This is the species which stands in Mr. White's collection, named by Prof. Rebel, "*Polychrosis? indusiana* Z." In appearance it is undoubtedly extremely similar to *Polychrosis porrectana* Z., next to which Rebel (*Stgr-Rbl. Cat. Lp. Pal. II.* 109), following Zeller, places *indusiana*. The true *indusiana* Z. is however quite unlike *marrubiana* and *porrectana*. Anyone seeing the type of *indusiana* would at once place it next to *staticana* Mill., from which indeed I am quite unable to separate it, and there is no doubt that Millière's name must fall as a synonym.

The following correction should be made in the European Lists :—

(1957) POLYCHROSIS INDUSIANA Z.

**n. syn.** = *staticeana* Mill.

*Sericoris indusiana* Z. Isis 1847. 667 no. 274<sup>1</sup>. *Penthina indusiana* HS. SB. Schm. Eur. IV. 232-3 no. 292 (1851), Pl. 50·353 (1849)<sup>2</sup>. *Lobesia staticeana* Mill. Ic. Chen-Lp. II. 430-2. Pl. 95·9-14 (1868)<sup>3</sup>. *Polychrosis staticeana* Stgr-Rbl. Cat. Lp. Pal. II. 109 no. 1957 (1901)<sup>4</sup>. *Polychrosis indusiana* Stgr-Rbl. Cat. Lp. Pal. II. 109 no. 1959 (1901)<sup>5</sup>.

*Hab.* S. EUROPE<sup>1-5</sup>—SICILY: Catania, 3. VII. 1844 (*Zeller*)<sup>1-2</sup>—S. FRANCE<sup>3-4</sup>: ⊕ *Static cordata*<sup>3</sup>.

## VII. TINEIDAE.

### 71. (435) STIGMELLA Schrank.

**n. syn.** = NEPTICULA Hdn., Z.; =\*MICROSETIA (Stph.) Kby. (nec Stph-Wstwd.).

Type 1. *Phalaena Tinea anomalella* Goeze (Schrank 1802).

STIGMELLA Schrank Fn. Boica II. (2). 169 (1802).

1 (Type) *anomalella* Goeze [= *rosella* Schrank Fn. Boica II. (2). 139 no. 1890 (1802)].

When describing the genus *Stigmella*, Schrank inadvertently omitted to give the cross-reference to his type, which should have read thus :—

“Hieher gehört :

1. *Stigmella rosella*.

*Tinea rosella meiner Fauna n. 1890.*”

It is however obvious that his remark “Ich meyne, dass die mir nicht hinlänglich bekannte Motte, welche die Rosenblätter gangweise minirt, hieher gehöre”, refers to *rosella* Schrank (Rosenblatt G. 1890), having its “*Wohnort*: unter der Oberhaut der Rosenblätter, welche die Raupe gangweise minirt.”

Schrank regarded his species as identical with that figured by Degeer (I. Pl. 31·13-21), to which the name *anomalella* was given by Goeze, and Tutt [NH. Br. Lp. I. 206 (1899)] confirms Schrank's identification. It is therefore evident that *Stigmella* Schrank is the oldest geneonym for species hitherto placed in *Nepticula*.

Type 2. *Tinea aurella* F. (Tutt 1899).

NEPTICULA Hdn. Ber. Vers. Naturf. Mainz 1843. 208; Z. Lin. Ent. III. 249, 301-3 (1848); Tutt NH. Br. Lp. I. 184-5 (1899); Stgr-Rbl., etc.

Type 3. *Nepticula microtheriella* Stn. (Kby. 1897).

\*MICROSETIA (Stph.) Kby., Lloyd's NH., HB. Lp. V. 313-4. Pl. 108·8 (1897).

Kirby adopts *Microsetia* Stph., sinking *Nepticula* Z. as a



synonym, overlooking that Westwood [Syn. Gen. Br. Ins. 112 (1840)] had cited as the type of *Microsetia* Stph., *stipella* (Hb. 20·138) Stph. Ill. IV. 265, Wd. 1347 (= Wstwd. II. 212 no. 5. Pl. 112·34)—apparently an *Aphelosetia*: but in any case *microtheriella* Stn. cannot be the type of *Microsetia* Stph.

139. (4303·1) *STIGMELLA RUBICURRENS*, sp. n.

*Antennae* steel-grey; eye-caps steely yellowish. *Head* black above. *Thorax* bronzy greyish. *Forewings* pale greenish bronzy greyish, a broad copper patch preceding the paler shining grey cilia. *Exp. al.* 4 mm. *Hindwings* and cilia steely grey. *Abdomen* fuscous. *Legs* steely grey.

*Type* ♀ (14160) Mus. Wlsm.

*Hab.* TENERIFE: La Laguna, ⊕ *Rubus*, 8. III, excl. 26. III. 1904 (Eaton). Unique.

This differs from *fletcheri* Tutt in the distinctly copper, not purplish, patch at the apex.

Mr. Eaton bred a single specimen from a larva found mining a bramble leaf in the barranco below La Laguna, at about 1700–1600 ft., on March 8th. Mines, obviously narrower than those of *aurella* F., occurred on Bramble at Puerto Orotava, but I failed to breed the species. This is probably the same as the larva found by von Hedemann at Orotava, mining Bramble, in April 1895, and recorded by Rebel as *Nepticula* sp. [Ann. KK. Hofmus. XI. 143, 147 no. 220 (1896): XXI. 44 no. 245 (1906)]. A single specimen (99173), taken at Puerto Orotava, 14. V. 1907 (Wlsm.), is possibly a worn example of this species, but it shows only a slight copper tint, instead of the distinct copper patch of the bred specimen.

140. (4333) *STIGMELLA AURELLA* F.

*Tinea aurella* F. Syst. Ent. 666 no. 65 (1775)<sup>1</sup>. *Nepticula aurella* Tutt NH. Br. Lp. I. 228–33 (1899)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 223 no. 4333 (1901)<sup>3</sup>.

*Hab.* EUROPE<sup>1-3</sup>: *Rubus fruticosus*<sup>2-3</sup>. N. AFRICA<sup>2-3</sup>—MOROCCO: Tangier, 10. IV. 1902 (Wlsm.). CANARIES—TENERIFE: Guimar, 1. III–14. IV. 1907 (Wlsm.); La Laguna, 7–8. III. 1904 (Eaton); Villa Orotava, ⊕ *Rubus fruticosus*, 19. II, excl. 17–30. III. 1907 (Wlsm.).

First received from Mr. Eaton, who met with it at La Laguna; I took it at Guimar, and bred it from *Rubus fruticosus* at Villa Orotava, where the larvae were abundant.

141. (4368·1) *STIGMELLA STATICIS*, sp. n.

*Antennae* blackish; eye-caps pale ochraceous. *Head* rust-brown. *Thorax* and *Forewings* black, minutely irrorated with pale leaden grey; cilia pale leaden grey, with black speckling.

*Exp. al.* 3-4.25 mm. *Hindwings* and *cilia* pale leaden grey. *Abdomen* grey. *Legs* pale grey.

*Type* ♀ (99201); ♂ (99202) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, ⊕ *Statice pectinata*, 4. V, excl. 29. V - 21. VI. 1907; La Laguna, 20. V. 1907. Thirteen specimens.

Perhaps most nearly allied to *helianthemella* HS., but the head is ochreous, and there is no pale fascia in either sex: the antennae are long, and there is no dark dividing line in the cilia.

Bred from larvae mining the leaves of *Statice pectinata*: the green larva, making small, tortuous, mines in the little leaves, is fairly abundant, but very inconspicuous; the cocoon is whitish. The mines were collected at Puerto Orotava; a single specimen taken on a table in the hotel at La Laguna probably escaped from my bottles.

#### 142. (4368.2) STIGMELLA SANCTAECRUCIS, sp. n.

*Antennae* greyish fuscous, paler beneath; eye-caps dull ferruginous, speckled with fuscous. *Head* dull ferruginous. *Thorax* greyish fuscous. *Forewings* pale cinereous, profusely speckled with greyish fuscous, almost entirely obliterating the paler ground-colour, which is confined to the bases of the rather coarse scales, but shows more clearly where the scales become lengthened, as in the cilia. *Exp. al.* 4.5-5 mm. *Hindwings* and *cilia* very pale greyish. *Abdomen* greyish fuscous. *Legs* pale cinereous.

*Type* ♂ (99214) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 15-17. I. 1907. Six specimens.

I found this species at Santa Cruz, only among plants of *Lavandula abrotanoides*, on which I noticed mines that appeared to differ from those of *Perittia lavandulae* Wlsm. (*ante*, p. 971 no. 83): they were more slender, and more tortuous, and probably belonged to a *Stigmella*.

#### 143. (4378.1) STIGMELLA MICROMERIAE, sp. n.

*Antennae* grey; eye-caps silvery white. *Head* yellowish. *Forewings* steely white, profusely sprinkled with coarse dark grey, or fuscous, scales; a straight silvery white transverse fascia, at two-thirds from the base, is sometimes slightly interrupted by a few of the dark scales; *cilia* steely whitish, with a slight sprinkling at their base. *Exp. al.* 3.5-4 mm. *Hindwings* and *cilia* pale steely grey. *Abdomen* grey. *Legs* greyish.

*Type* ♀ (99220); ♂ (99221) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 14. III - 12. IV, ⊕ *Micromeria varia*, 25. II, excl. 1-9. IV. 1907. Twenty-two specimens.

The larva feeds on *Micromeria varia*, and I think also on *Micromeria origanifolia*, making small tortuous mines. It is decidedly common.

## 144. (4416·1) STIGMELLA JUBAE, sp. n. (Plate LIII. fig. 7.)

*Antennae* yellowish, delicately annulate with black; eye-caps whitish. Head bright yellow. *Thorax* black. *Forewings* white, with a broad black central fascia through which the ground-colour is visible only in small specks; a black basal patch, angulated outward in the middle, leaving only a narrow, curved, or angulated, white fascia between it and the median band, and a black patch occupying the whole apex and termen, the ground-colour showing before it in a narrow, white, rather oblique, bar, sometimes divided into two nearly opposite spots; this patch also shows some pale speckling; cilia whitish at the apex and termen, with a line of black scales running through them; greyish on the dorsum. *Exp. al.* 4·5–5·5 mm. *Hindwings* and cilia pale grey. *Legs* black, with white speckling.

*Type* ♀ (99119); ♂ (99121) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, ⊕ *Euphorbia regis-jubae*, 4. II, excl. 8–17. III. 1907; Guimar, 9. III – 10. IV, ⊕ *Euphorbia regis-jubae*, 9. III, excl. 11–15. V. 1907. Eight specimens.

The larva makes narrow, tortuous, mines in the leaves of *Euphorbia regis-jubae*, and is not uncommon near Santa Cruz, and near Guimar, in February and March; like that of *euphorbiella* Stn., it is pale yellowish. The species is nearly allied to the South European *euphorbiella* Stn., but differs in the white, not creamy, ground-colour being much more obscured by black scaling.

## 145. (4416·2) STIGMELLA NIGRIFASCIATA, sp. n.

*Antennae* greyish; eye-caps white. *Head* greyish, with some white sprinkling. *Thorax* fuscous. *Forewings* white, with a smoky, ill-defined, basal patch, extending to one-third and speckled with black; a straight, rather narrower, median fascia, also thickly black-speckled, and an apical patch of the same colour including the cilia, except at their pale greyish outer ends. *Exp. al.* 4 mm. *Hindwings* and cilia pale greyish. *Abdomen* fuscous. *Legs* whitish, spotted with fuscous.

*Type* ♂ (99242) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 14. II. 1907. Two specimens, in excellent condition.

Much smaller and more fasciated than *jubae*, but not unlike it in colour.

## 146. (4418·1) STIGMELLA RIDICULOSA, sp. n.

*Antennae* pale fawn; eye-caps fawn-whitish. *Head* fawn-whitish, inclining to yellowish. *Thorax* fawn-whitish. *Forewings* fawn-whitish, profusely speckled with fawn-brown, this colour confined to the tips of the scales; cilia fawn-whitish, with very slight speckling. *Exp. al.* 4–4·5 mm. *Hindwings* very pale greyish; cilia fawn-whitish. *Abdomen* brownish grey. *Legs* fawn-whitish.

*Type* ♀ (99255); ♂ (99257) Mus. Wlsm.

*Hab.* TENERIFE: Santa Cruz, 8-14. II. 1907; Guimar, ⊕ *Lotus sessilifolius*, 6. III, excl. 6-8. IV. 1907. Eighteen specimens.

An inconspicuous species belonging to the group of *cistivora* Peyr. The larva occurs at Santa Cruz, and Guimar, mining the minute leaflets of *Lotus sessilifolius*. Although very minute and inconspicuous, it is easily disturbed among its food-plant, and is not difficult to breed, if the obviously-mined leaves are collected without regard to the presence or absence of the larvae.

## 72. (431) BUCCULATRIX Z.

### 147. (4246) BUCCULATRIX CHRYSANTHEMELLA Rbl.

*Bucculatrix chrysanthemella* Rbl. Ann. KK. Hofmus. XI. 142, 147 no. 219 (1896)<sup>1</sup>: XXI. 44 no. 244 (1906)<sup>2</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 219 no. 4246 (1901)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: Guimar, 28. II. 1907, ⊕ *Chrysanthemum frutescens*, 27. II, excl. 7. III-7. IV. 1907 (*Wlsm.*); Puerto Orotava<sup>1</sup>, 23. IV-10. V. 1907 (*Wlsm.*), ⊕ *Chrysanthemum frutescens*, excl. 25-28. IV. 1895 (*Hedemann*)<sup>1</sup>.

Common on *Chrysanthemum frutescens*, at Santa Cruz and Guimar; I bred it from larvae and cocoons found on this plant.

### 148. (4246·1) BUCCULATRIX CANARIENSIS, sp. n.

(Plate LIII. fig. 10.)

*Antennae* dirty whitish, transversely barred above with greyish fuscous. *Head* greyish fuscous, hoary whitish at the sides. *Thorax* whitish, thickly sprinkled with fuscous. *Forewings* whitish, profusely sprinkled with greyish fuscous, and with some blackish scaling; the pale ground-colour is chiefly apparent in a streak, commencing at the base below the costa and extending to the end of the cell, ill-defined, but somewhat dilated about its middle, where there is a small black dot at its upper, and another at its lower edge, some black scaling running along the fold between this and the base; there is also a sprinkling of black scales around the end of the cell, and a double line of the same in the terminal cilia; dorsal cilia pale cinereous. *Exp. al.* 7-8 mm. *Hindwings* shining, pale stone-grey; cilia pale brownish cinereous. *Abdomen* shining, pale cinereous. *Legs* pale brownish cinereous, with faintly spotted tarsi.

*Type* ♂ (99276); ♀ (99279) Mus. *Wlsm.*

*Hab.* TENERIFE: Santa Cruz, 11-16. II. 1907; Guimar, 28. II-13. III. 1907; La Laguna, 9. VI. 1907. Sixteen specimens.

This species occurs at Santa Cruz, Guimar, and La Laguna, and probably everywhere where *Artemisia canariensis* is found; I did not actually breed it, but I found one or more larvae, and saw empty cocoons upon the plant. I have so far been unable to identify it with any known European species: it is an obscure insect, with no clearly defined markings—my specimens are in very good condition.



149. (4256·1) *BUCCULATRIX PHAGNALELLA*, sp. n.  
(Plate LIII. fig. 9.)

*Antennae* cinereous, faintly barred with fuscous. *Head* and *Thorax* whitish, the former with a strong admixture of dark rust-brown scales, especially on the middle of the crown; face and eye-caps white beneath. *Forewings* white, thickly besprinkled with fuscous and fawn-brown scaling; a blackish blotch, on the middle of the dorsum, is produced outward at its upper edge, and diluted in the direction of the apex, meeting, beyond the end of the cell, a corresponding shade bent downward from the middle of the costa, along which it can be traced narrowly to the base; the white ground-colour is always more clearly exhibited alongside of the darker shades and patches; apical cilia white, sprinkled with black scales, dorsal cilia greyish. *Exp. al.* 7-8 mm. *Hindwings* shining, pale grey; cilia brownish grey. *Abdomen* grey. *Legs* brownish grey.

*Type* ♂ (99292); ♀ (99293) Mus. Wlsm.

*Hab.* TENERIFE: Guimar, 23-30. III. 1907, ⊕ *Phagnalon saxatile*, 27. II, excl. III - 12. IV. 1907. Twenty-two specimens, nineteen bred.

Nearest to *fatigatella* Hdn., but the costal shade is less pronounced, and more limited to the costa, tending to spread, not toward the dorsum, but rather toward the tornus. The larva is common at Guimar on *Phagnalon saxatile*.

73. (431·1) *EREUNETIS* Meyr.

*EREUNETIS* Meyr. Pr. Lin. Soc. NSW. V. 258 (1880): Tr. NZ. Inst. XX. 92 (1888): Pr. Lin. Soc. NSW. (2 s.). VII. 480, 562-3 (1893).

150. (4275·1) *EREUNETIS UNDOSA*, sp. n.

*Antennae* dark brown. *Palpi* slender, drooping; brownish. *Head* white, a brownish band above between the eyes. *Thorax* white; tegulae streaked with brown. *Forewings* dark chocolate-brown, with a broad white band along the dorsum, extending from base to apex, but almost interrupted at the tornus by overflow of the dark brown slightly overlapping the end of the fold; there is also a slight overlap at one-third from the base, while the white band projects a little across the fold at two-thirds; apex white, with a few brown scales; cilia white, with some greyish tinge about the tornus. *Exp. al.* 13 mm. *Hindwings* shining, pale steely grey; cilia brownish grey. *Abdomen* steely grey; flattened at the base, with long projecting ovipositor. *Legs* yellowish white; hind tibiae with long hairs above.

*Type* ♀ (99174) Mus. Wlsm.

*Hab.* TENERIFE: Puerto Orotava, 2. V. 1907. Unique.

Allied to *seminivora* Wlsm. [Ind. Mus. Notes IV. 107. Pl. 7. 2<sup>a-d</sup> (1899)], which differs in its brown face and pale antennae.

## 74. (470) OENOPHILA Stph.

=† *OINOPHILA* Stph., Stgr-Rbl.

## 151. (4621) OENOPHILA V-FLAVA Hw.

*Gracillaria v-flava* Hw. Lp. Br. 530 no. 14 (1828)<sup>1</sup>. *Oinophila flava* Stn. Ann-Mag. NH. (3 s.). III. 214 no. 24 (1859)<sup>2</sup>. *Oenophila v-flavum* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 542 no. 24 (1894)<sup>3</sup>. *Oinophila v-flavum* Rbl. Ann. KK. Hofmus. XI. 125, 146 no. 183 (1896)<sup>4</sup>: XXI. 44 no. 254 (1906)<sup>5</sup>: Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4621 (1901)<sup>6</sup>.

*Hab.* EUROPE<sup>1-1, 6</sup>: ⊕ on fungus in cellars, on corks. **MADEIRAS**<sup>2-1, 6</sup>—MADEIRA<sup>2-1, 6</sup>: (*Wollaston*)<sup>2</sup>; Funchal, 27. IV. 1904 (*Eaton*). **CANARIES**<sup>4-6</sup>—TENERIFE<sup>4-6</sup>: Tacaronte, 18-28. II. 1907 (*Wlsm.*); La Laguna, 1800 ft., 22. II. 1904 (*Eaton*), 2100-500 ft., 17. III. 1902 (*Eaton*), 30. V. 1907 (*Wlsm.*); Guimar, 6. III. 1907 (*Wlsm.*), 23. III. 1904 (*Eaton*), 14. IV. 1907 (*Wlsm.*); Puerto Orotava<sup>4</sup>, 13. III. 1904 (*Eaton*), 23-30. IV. 1895 (*Hedemann*)<sup>4</sup>, 24. IV - 2. V. 1907 (*Wlsm.*).

Haworth's idionym "*v-flava*" has been changed to "*v-flavum*," despite its acceptance, with explanation of derivation, by the Entomological Societies of Oxford and Cambridge [Acc. List Br. Lp. 90 (1858)], and Stephens' genus is still written "*Oinophila*," although corrected to "*Oenophila*," by the same Societies (*l. c.*). Smith (Smaller Lat-Eng. Dict. 596) writes of the letter V: "V, *indecl. n.* or (*litera, subaud.*) *f.*" Haworth's idionym is therefore correctly formed, and the alteration unnecessary.

## 152. (4621-1) OENOPHILA NESIOTES, sp. n.

(Plate LIII. fig. 11.)

*Antennae* pale olivaceous brownish, with a bronzy sheen above; pale yellowish beneath. *Palpi* short, divergent; pale ochreous, a brownish shade on the outer side of the terminal joint. *Head* ochreous, with a raised rust-brown crest between the antennae; face shining, pale yellowish ochreous. *Thorax* ochreous. *Forewings* dark olivaceous brown, with two shining, pale ochreous, transverse fasciae; the first, at one-third from the base, angulated outward at the middle, the angle produced outward along the cell, forming a continuous bar reaching to the middle of the outer fascia, at three-fourths from the base, which is inverted obliquely from costa to dorsum; this median bar is continued, in a diffused and rather obscure band, from the inner side of the first fascia to the base, leaving the dark ground-colour broader above it, and narrower below it along the margins—it is also continued beyond the outer fascia, with slight interruption, along the termen and through the cilia around the apex; cilia smoky brownish grey; underside strongly iridescent, with scattered metallic scales on a bronzy fuscous ground. *Exp. al.* 8-9 mm. *Hindwings* bronzy brownish, with a few iridescent metallic scales

about the apex; cilia brownish grey. *Abdomen* greyish fuscous, richly sprinkled with iridescent metallic scales. *Legs* brownish grey, the tarsi faintly spotted with pale ochreous.

*Type* ♂ (99176); ♀ (99177) Mus. Wlsm.

*Hab.* TENERIFE: La Laguna, 23. V. 1907. Twenty-four specimens.

A single specimen of this species would certainly be regarded as a variety of *v-flava* Hw., but the evidence pointing to the contrary is so strong that it must at least command attention. Should it in future be decided, by someone more fully acquainted with the larval history of both forms, that they are not consistently different and separable, the name *nesiotes* will sink as a varietal synonym. In general appearance the new species is rather more slender and elongate—the forewings longer in proportion to their width. In markings it differs in the invariable presence of a connecting bar along the cell, between the two pale transverse fasciae: this arises from the angulate outer edge of the first fascia, and is also more or less traceable on the basal side of the fascia, where it is sometimes quite as conspicuous as beyond it. In *v-flava*, the angle of the >-shaped fascia is often produced outward, and is occasionally traceable as far as the second, or outer, fascia, but among all the European and British specimens that I have seen there have been none in which the central pale longitudinal bar is produced inward to the base of the wing. I brought home 28 specimens of *v-flava*, from various localities in Tenerife, and have 5 received from Mr. Eaton: I have also 5 specimens from Madeira. None of these possess the characters of *nesiotes*, although many of them were selected from a larger number of captures on account of some tendency to variation: they cannot be separated from European specimens of *v-flava*. Of *nesiotes* I have 24 specimens, all taken in one spot, about ten yards square, in brushwood under a clump of fir-trees, north of the road between La Laguna and Tacaronte, about two or three miles from the former. In that spot they were flying in hundreds: I netted twenty at a time, and could easily have taken a thousand, or more, had I wished to do so. A search for larvae proved that they must have been feeding between layers of dead leaves on the ground: there were signs of web and frass, and the moths were dislodged in plenty as the leaves were turned over, but I was somewhat hurried and did not actually find any larvae. The typical *v-flava* did not occur among them, nor could I find it anywhere near the spot.

#### 75. (433) OPOGONA Z.

##### 153. (4277) OPOGONA PANCHALCELLA Stgr.

*Opogona panchalcella* Stgr. Berl. Ent. Zts. XIV. 325 no. 110 (1870)<sup>1</sup>; Chr. Hor. Soc. Ent. Ross. XII. 230 (1876)<sup>2</sup>; Stgr. Hor. Soc. Ent. Ross. XV. 419 (1880)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 220 no. 4277 (1901)<sup>4</sup>.

*Hab.* SE. EUROPE<sup>1-4</sup>—RUSSIA<sup>1-4</sup>: ASTRACHAN: Sarepta<sup>1, 3-4</sup>, 3. VII. 1867 (*Christoph*); DAGHESTAN: Derbent<sup>2-3</sup>, 2. VII. 1870 (*Christoph*). WC. ASIA<sup>2-4</sup>—TRANSCAUCASIA<sup>2-4</sup>: Kasumkent<sup>2-3</sup>; Lenkoran<sup>2</sup>—LYDIA<sup>3-4</sup>: Smyrna<sup>3</sup>. N. AFRICA—ALGERIA: Hammam-es-Salahin, 3-15. IV. 1904 (*Wlsm.*); Biskra, 8-21. IV. 1903 (*Wlsm.*); Bône, 30. IV. 1896 (*Eaton*); Le Tarf, 2. VII. 1896 (*Eaton*). CANARIES—TENERIFE: Santa Cruz, 2. I. 1907 (*Wlsm.*).

A single specimen of *Opogona panchalcella* was taken at Santa Cruz, 2. I. 1907, flying at dusk near a field in which Sorghum, or maize, had probably been grown: I am also able to record this species from Algeria.

## 76. (449) SETOMORPHA Z.

=\**LINDERA* Rbl. (nec Blanch.).

## 154. (4494) SETOMORPHA INSECTELLA F.

n. syn. = *rutella* Z. ♂ ♀; = *rupicella* Z. ♂; = *operosella* Z. ♀; = *inamoenella* Z. ♂; = *ruderella* Z. ♂; = *multimaculella* Chmb. ♂; = *dryas* Btlr. ♀; = *corticinella* Snln. ♂ ♀; = (\**bogatella* Alphk. ♀—nec Wkr.); = *discipunctella* Rbl. ♂ ♀.

*Tinea insectella* F. Ent. Syst. III. (2). 303 no. 72 (1794)<sup>1</sup>; Sppl. Ent. Syst. 489 no. 47 (1798)<sup>2</sup>. *Setomorpha rutella* Z. Lp-Micr. Caffr. 94-5 (1852)<sup>3</sup>; Hndl. Kngl. Vet-Ak. 1852. 94-5 (1854)<sup>3</sup>. *Setomorpha rupicella* Z. Lp-Micr. Caffr. 95-6 (1852)<sup>4</sup>; Hndl. Kngl. Vet-Ak. 1852. 95-6 (1854)<sup>4</sup>. *Setomorpha rutella* Wkr. Cat. Lp. BM. XXIX. 708 (1864)<sup>5</sup>; Z. VH. Z-B. Ges. Wien XXIII: 1873. 223 (1873)<sup>6</sup>. *Setomorpha rupicella* Z. VH. Z-B. Ges. Wien XXIII: 1873. 223 (1873)<sup>7</sup>. *Setomorpha operosella* Z. VH. Z-B. Ges. Wien XXIII: 1873. 223-4 (1873)<sup>8</sup>. *Setomorpha inamoenella* Z. VH. Z-B. Ges. Wien XXIII: 1873. 224-5 (1873)<sup>9</sup>. *Setomorpha ruderella* Z. VH. Z-B. Ges. Wien XXIII: 1873. 225 (1873)<sup>10</sup>. *Setomorpha rutella* Z. Hor. Soc. Ent. Ross. XIII. 206 (1877)<sup>11</sup>. *Gelechia multimaculella* Chmb. Bull. US. GG. Surv. IV. 89-90, 145 (1878)<sup>12</sup>. *Setomorpha operosella* Chmb. Bull. US. GG. Surv. IV. 162 (1878)<sup>13</sup>. *Setomorpha inamoenella* Chmb. Bull. US. GG. Surv. IV. 162 (1878)<sup>14</sup>. *Setomorpha ruderella* Chmb. Bull. US. GG. Surv. IV. 162 (1878)<sup>15</sup>. *Setomorpha rutella* Wlsm. Tr. Ent. Soc. Lond. 1881. 274, 287 (1881)<sup>16</sup>. *Chrestotes dryas* Btlr. Ann-Mag. NH. (5 s.). VII. 401 no. 39 (1881)<sup>17</sup>. *Gelechia multimaculella* Hgn. Pap. IV. 99 (1884)<sup>18</sup>. *Setomorpha corticinella* Snln. Tijd. Ent. XXVIII. 24-5 no. 10. Pl. 2 · 12 ♂-15 ♀ (1885)<sup>19</sup>. *Setomorpha rutella* Snln. Tijd. Ent. XXVIII. 24 (1885)<sup>20</sup>. *Setomorpha \*bogatella* Alphk. Mém. Lp. V. 231 no. 55 (1889)<sup>21</sup>. *Setomorpha rutella* Wlsm. Tr. Ent. Soc. Lond. 1891. 81-2. Pl. 7 · 73 ♀ (1891)<sup>22</sup>; Cotes Ind. Mus. Notes II. 9-10 (1891)<sup>23</sup>. *Setomorpha operosella* Riley, Smith's List II. Bor-Am. 96 no. 5134 (1891)<sup>24</sup>. *Setomorpha inamoenella* Riley, Smith's List Lp. Bor-Am. 96 no. 5135 (1891)<sup>25</sup>. *Seto-*



*morpha ruderella* Riley, Smith's List Lp. Bor-Am. 96 no. 5136 (1891)<sup>26</sup>. *Gelechia multimaculella* Riley, Smith's List Lp. Bor-Am. 96 no. 5414 (1891)<sup>27</sup>. *Setomorpha rupicella* Wlsm. Pr. Z. Soc. Lond. 1891. 511, 544 no. 48 (1892)<sup>28</sup>. *Setomorpha discipunctella* Rbl. Ann. K.K. Hofmus. VII. 267-8, 283 no. 46. Pl. 17. 16 ♀ (1892)<sup>29</sup>. \**Lindera* \**bogatatella* Rbl. Ann. K.K. Hofmus. VII. 267, 268, 283 no. 47 (1892)<sup>30</sup>. *Setomorpha operosella* Rbl. Ann. K.K. Hofmus. VII. 268 (1892)<sup>31</sup>. *Setomorpha rutella* Rbl. Ann. K.K. Hofmus. VII. 268 (1892)<sup>32</sup>. *Setomorpha corticinella* Rbl. Ann. K.K. Hofmus. VII. 268 (1892)<sup>33</sup>. *Setomorpha rutella* Cotes Ind. Mus. Notes II. 164 no. 152 (1893)<sup>34</sup>. *Setomorpha discipunctella* Rbl. Ann. K.K. Hofmus. IX. 17 no. 159 (1894)<sup>35</sup>. \**Lindera* \**bogatatella* Rbl. Ann. K.K. Hofmus. IX. 17 no. 160 (1894)<sup>36</sup>. *Setomorpha* \**bogatatella* White, Bfl. & Moths Teneriffe 95 no. 19 (1894)<sup>37</sup>. *Setomorpha discipunctella* Rbl. Ann. K.K. Hofmus. XI. 122-3, 146 no. 175 (1896)<sup>38</sup>. *Setomorpha rutella* Rbl. Ann. K.K. Hofmus. XI. 123 (1896)<sup>39</sup>. \**Lindera* \**bogatatella* Rbl. Ann. K.K. Hofmus. XI. 146 no. 176 (1896)<sup>40</sup>. *Setomorpha rupicella* Wlsm. Pr. Z. Soc. Lond. 1897. 168 no. 281 (1897)<sup>41</sup>. *Setomorpha discipunctella* Rbl. Ann. K.K. Hofmus. XIII. 377, 381 no. 189 (1899)<sup>42</sup>. \**Lindera* \**bogatatella* Rbl. Ann. K.K. Hofmus. XIII. 381 no. 190 (1899)<sup>43</sup>. *Setomorpha discipunctella* Stgr-Rbl. Cat. Lp. Pal. II. 233 no. 4494 (1901)<sup>44</sup>. *Plutella* (?) *multimaculella* Busek Jr. N-Y. Ent. Soc. X. 97 (1902)<sup>45</sup>; Dyar Bull. US. Nat. Mus. 52. 492 no. 5509 (1902)<sup>46</sup>. *Setomorpha operosella* Dyar Bull. US. Nat. Mus. 52. 575 no. 6549 (1902)<sup>47</sup>. *Setomorpha inamoenella* Dyar Bull. US. Nat. Mus. 52. 575 no. 6550 (1902)<sup>48</sup>. *Setomorpha ruderella* Dyar Bull. US. Nat. Mus. 52. 575 no. 6551 (1902)<sup>49</sup>. *Setomorpha rutella* [de Niéc.] Ind. Mus. Notes V. 201-2 (1903)<sup>50</sup>; Dietz Tr. Am. Ent. Soc. XXXI. 14-15 (1905)<sup>51</sup>. *Semiota operosella* Dietz Tr. Am. Ent. Soc. XXXI. 18-19, 91 (1905)<sup>52</sup>. *Semiota inamoenella* Dietz Tr. Am. Ent. Soc. XXXI. 18, 19, 91. Pl. 6. 4 ♂ (1905)<sup>53</sup>. \**Lindera* \**bogatatella* Rbl. Ann. K.K. Hofmus. XXI. 24 no. 7 (1906)<sup>54</sup>. *Setomorpha discipunctella* Rbl. Ann. K.K. Hofmus. XXI. 24, 40, 44 no. 246 (1906)<sup>55</sup>. *Setomorpha operosella* Busek Pr. U.S. Nat. Mus. XXX. 734-5 fig. 9 ♂-10 ♀ (1906)<sup>56</sup>. *Setomorpha rupicella* Wlsm. Fn. Haw. I. 726 (1907)<sup>57</sup>. *Setomorpha discipunctella* Wlsm. Fn. Haw. I. 726 (1907)<sup>58</sup>. *Setomorpha dryas* Wlsm. Fn. Haw. I. 726 no. 434 (1907)<sup>59</sup>. *Setomorpha rutella* Wlsm. Fn. Haw. I. 754 no. 434 (1907)<sup>60</sup>.

*Hab.* HAWAII<sup>17, 59</sup> — OAHU: Honolulu<sup>17, 59</sup> — HAWAII: Kaawaloa, Kona 1500 ft., VI<sup>59</sup>. N. AMERICA (UNITED STATES)<sup>8-10, 12-15, 18, 21-7, 31, 45-9, 52-3, 56</sup> — TEXAS<sup>8-10, 18, 46, 52-3</sup> (= "Mass.")<sup>47-9</sup>: BOSQUE CO.<sup>12</sup>: Waco<sup>18</sup> — KANSAS<sup>52</sup>. C. AMERICA — MEXICO: GUERRERO: Amula, 6000 ft., VIII (*H. H. Smith*) — GUATEMALA: Balheu (Vera Paz, *Champion*); San Gerónimo (*Champion*) — COSTA RICA: Irazu, 6-7000 ft. (*Rodgers*). S. AMERICA<sup>41, 57</sup> — BRAZIL<sup>41, 57</sup>: Pará, X-XII<sup>41</sup> — COLOMBIA: Bogotá (*Nolcken*). WEST INDIES<sup>4, 7, 28, 41, 57</sup> — CUBA<sup>4, 7, 28, 41</sup>: Ha-

vannah<sup>4, 28, 41</sup>—JAMAICA: Moneague, 5. I. 1905 (*Wlsm.*); Runaway Bay, 23. II. 1905 (*Wlsm.*). CANARIES<sup>21, 29-30, 35-8, 40, 42-4, 54-5</sup>: Santa Cruz, XII. 1897 (*Hintz*)<sup>42</sup>; 8-31. I. 1907 (*Wlsm.*); Guimar, 6. III-18. IV. 1907 (*Wlsm.*); Puerto Orotava, 1896 (*Douglas-Crompton*), 11. III. 1904 (*Eaton*), 12. IV. 1895 (*Hedemann*)<sup>38</sup>; Agua Mansa, 30. VII. 1889 (*Simony*)<sup>29</sup>. AFRICA<sup>1-3, 5-6, 11, 16, 20, 32, 39, 41</sup>: in *Insectis* (*Bosc*)<sup>1-2</sup>—SIERRA LEONE: ⊕ in moss, excl. 24. VIII-13. IX. 1895 (*Clements*)—GOLD COAST: Accra (*Carter*)—CONGO: Kasongo, ⊕ “in muscular fibre, on skull of Hippopotamus collected by Dr. Todd,” excl. 18. IX. 1905 (*Newstead*)—CAFFRARIA<sup>3, 11</sup>: Limpopo-Gariep<sup>3, 11</sup>. ASIA<sup>19, 23, 33-4, 50</sup>—INDIA<sup>23, 34, 50</sup>: Calcutta<sup>23, 34, 50</sup>, Aliwal<sup>50</sup>, ⊕ in blanketing, excl. 20-29. XII<sup>50</sup>—CEYLON: ⊕ “bred from moths received from Ceylon,” excl. 15. IX. 1899 (*Burrows*)—ASSAM: Margherita, 1889 (*Doherty*)—CELEBES<sup>19, 33</sup>: Saleijer<sup>19</sup>; Makassar<sup>19</sup>; Maros<sup>19</sup>. AUSTRALIA—QUEENSLAND: Toowong, 1896 (*Dodd*).

*Types* ♂ ♀: *rutella* Z. ♂ ♀ (Mus. Stockholm; ♀ Mus. Wlsm.); *rupicella* Z. ♂ (Mus. Wlsm.); *operosella* Z. ♀, *inamoenella* Z. ♂, *runderella* Z. ♂, and *multimaculella* Chmb. ♂ (Mus. Cambr.-Mass.); *dryas* Btlr. ♀ (Mus. Br.).

A careful comparison of the type of *rutella* Z., with all the specimens of *Setomorpha* in my possession, shows that in the ♂ ♂ no difference can be detected sufficient to separate the five supposed species described from Caffraria, Cuba, the United States, Celebes, and Tenerife respectively.

Busck [Pr. U-S. Nat. Mus. XXX. 734-5 (1906)] has published the synonymy of the North American form, and this must now be combined with that of our Tenerife insect. I possess a long series of *rutella* Z. from Sierra Leone, bred from “moss,” 24. VIII-13. IX. 1895, by Dr. W. G. Clements (to whom I am indebted for this and other valuable material); there is absolutely no difference between these and the Tenerife specimens. I have also specimens bred, in Liverpool and at Merton, from muscular fibre attached to the skull of a Hippopotamus obtained by Dr. Todd at Kasongo (Congo: 5° S.)—for these I am indebted to Mr. R. Newstead. In India the larva has been found destructive to bales of country blanketing [Ind. Mus. Notes II. 9-10 (1891): V. 201-2 (1903)], and I have a specimen bred in England, by the Rev. C. R. N. Burrows, “from moths received from Ceylon.” Dr. Clements’ experience seems somewhat inconsistent with these records, but it is possible that the “moss” referred to by him may have been used for packing woollen goods, or skins, or may have contained an admixture of woollen rubbish; I am however without data on this subject. I have no ♂ of *corticinella* Slnn. (Celebes), but this has been figured by Snellen and agrees with those already mentioned; I cannot regard this or *rupicella* Z. (Cuba) as distinct from *rutella* Z. *Setomorpha tineoides* Wlsm. [Pr. Z. Soc. Lond. 1886. 465. Pl. 41. 8 (1886)], having forewings 12 veins, all separate, and hindwings 8 veins, all separate, must be removed from

*Setomorpha* and referred to *Amydria* Cms. *Setomorpha grenadella* Wlsm. [Pr. Z. Soc. Lond. 1897. 168-9, no. 282 (1897)] has strongly developed, folded, maxillaries and must be placed in *Dendroneura* Wlsm. The genus *Setomorpha* Z. is thus regarded as consisting of the single species *insectella* F., of which the synonymy is given above.

There seems little doubt that Fabricius described *rutella* Z. under the name *insectella*: in his description "posticæ" appears to be used in the sense of "postice" (possibly a misprint) and to apply to the forewings.

#### 77. (475) DYSMASIA HS.

##### 155. (4644) DYSMASIA INSULARIS Rbl.

*Dysmasia insularis* Rbl. Ann. KK. Hofmus. XI. 125-6, 146 no. 184. Pl. 3·9 ♂ (1896)<sup>1</sup>; XXI. 44 no. 257 (1906)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 241 no. 4644 (1901)<sup>3</sup>.

*Dysmasia insularis* Rbl. + *instratella* Rbl. Ann. KK. Hofmus. XI. 125-6, 146 no. 184 (1896)<sup>1</sup>; XXI. 44 no. 257 (1906)<sup>2</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 241 no. 4644<sup>a</sup> (1901)<sup>3</sup>.

*Hab.* TENERIFE<sup>1-3</sup>: Santa Cruz, 8. I. 1907 (*Wlsm.*); La Laguna, 8. III. 1904 (*Eaton*), 20. V - 7. VI. 1907 (*Wlsm.*); Guimar, 30. III - 16. IV. 1907 (*Wlsm.*); Puerto Orotava, 18-30. IV. 1895 (*Hedemann*)<sup>1</sup>, 23. IV - 14. V. 1907, ⊕ in rubbish among roots, 24. IV, excl. 31. V. 1907 (*Wlsm.*).

Mr. Eaton made the following note on his series of *Tinea immaculatella* Rbl. and his single specimen of this species:—"Out of dead *Agave* (aloes). I believe they also breed in dead *Opuntia*." I bred a single specimen, May 31st, from a larva found at Puerto Orotava, in rubbish among roots on April 24th.

#### 78. (475'1) STATHMOPOLITIS, gn. n.

(σταθμός = a stable; πολίτης = a citizen.)

Type *Stathmopolitis tragocoprella* Wlsm.

*Antennae* slightly longer than the forewings, simple; basal joint without pecten. *Labial Palpi* porrect, median joint with dense brush beneath; terminal joint as long as the median, slender. *Maxillary Palpi*, *Haustellum*, and *Ocelli* obsolete. *Head* and face rough-haired. *Thorax* smooth. *Forewings* somewhat elongate, costa and dorsum evenly curved to apex, dorsum slightly impressed at vein 1: *neuration* 11 veins, all separate; 9 absent (coincident with 8?), radius subobsolete between 8 and 10, internal radial strong and acting as substitute; media strongly forked, its branches going to between 4 and 5, and 5 and 6, the latter veins somewhat approximate; 7 to costa. *Hindwings* with margins evenly curved to the blunt-pointed apex: *neuration* 8 veins; 5 and 6 stalked, rest separate; branches of media strong, to 4, and

to stalk of 5+6, between which discoidal is obsolete. *Abdomen* rather long, flattened. *Legs*, hind tibiae hairy.

This genus differs noticeably from *Dysmasia* HS. in the stalking of veins 5 and 6 of the hind wings: it would appear to have some affinity to *Narycia* Stph.

156. (4644·1) STATHMOPOLITIS TRAGOCOPRELLA, sp. n.  
(Plate LIII. fig. 16.)

*Antennae* dark fuscous. *Palpi* with the median joint dark fuscous; terminal joint pale fawn, shaded with fuscous. *Head* and *Thorax* dark fuscous. *Forewings* pale fawn, mottled with dark fuscous, the patches somewhat evenly distributed over the wing, the more conspicuous of these occurring around the margins, especially a medio-dorsal patch, with one equally well-marked at the end of the cell; between the larger spots is a sprinkling of smaller ones, those around the termen and apex throwing dentate streaks through the pale fawn cilia. *Exp. al.* ( $\sigma$ ) 12-20 ( $\text{♀}$ ) mm. *Hindwings* pale greyish fuscous, with a purplish iridescence; cilia brownish grey. *Abdomen* pale greyish fuscous. *Legs* sub-olivaceous, the tarsi faintly shaded with fuscous.

*Type*  $\sigma$  (99094);  $\text{♀}$  (99095);  $\oplus$  (99097) Mus. Wlsm.

*Hab.* TENERIFE: Tacaronte, 18. II. 1907 (*Wlsm.*); La Laguna, 17. III. 1904 (*Eaton*); Puerto Orotava, 23. IV - 12. V. 1907,  $\oplus$  in dry goats' dung, 23. IV - 26. V, excl. 19. V - 18. VI. 1907 (*Wlsm.*). Thirty specimens (11 bred).

The larva, which is of a semitransparent ivory-white, with pale yellowish brown head, and with inconspicuous, much paler, pronotal plate, feeds in the old pellets of goats' dung. It is extremely abundant about the caves, on cliffs east of Puerto Orotava, and in similar situations.

Having regard to the great abundance of this insect, and to its strong superficial resemblance to *Lindera tessellatella* Blnchr. (= *bogatitella* Wkr.), which is much more marked than in the case of *Setomorpha insectella* F., it seems extremely probable that Alpheraky had this species before him when recording "*Setomorpha bogatitella*" from Tenerife, but I have not thought it necessary to dispute Prof. Rebel's expressed opinion on the identity of the specimen which forms the subject of this bare and unsatisfactory record.

79. (465) TRICHOPHAGA Rgt.

157. (4538) TRICHOPHAGA ABRUPTELLA Wlsth.

= *bipartitella* Rgt.<sup>7</sup>; = \**tapetzella* Rbl. (nec L.)<sup>7</sup>.

*Tinea abruptella* Wlsth. Ann-Mag. NH. (3 s.). I. 120 (1858)<sup>1</sup>; Wkr. Cat. Lp. BM. XXX. 1003 (1864)<sup>2</sup>. *Tinea bipartitella* Rgt. Bull. Soc. Ent. Fr. 1892. p. lxxxii (1892)<sup>3</sup>. *Tinea tapetzella* Rbl.



Ann. KK. Hofmus. VII. 268-9, 283 no. 48 (1892)<sup>4</sup>; IX. 17 no. 161 (1894)<sup>5</sup>. *Trichophaga bipartitella* Rgt. Ann. Soc. Ent. Fr. LXIII: 1894. 121-4 (1894)<sup>6</sup>. *Trichophaga abruptella* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 541 no. 16 (1894)<sup>7</sup>; Rbl. Ann. KK. Hofmus. XI. 123, 146 no. 177 (1896)<sup>8</sup>; Wlsm. Pr. Z. Soc. Lond. 1896. 281 (1896)<sup>9</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4538 (1901)<sup>10</sup>; Rbl. Ann. KK. Hofmus. XXI. 44 no. 248 (1906)<sup>11</sup>.

*Hab.* SW. ASIA<sup>9</sup>—ARABIA<sup>9</sup>: Aden, 30. IV. 1895 (*Nurse*)<sup>9</sup>. AFRICA<sup>3, 6-10</sup>—SOMALILAND<sup>9</sup>: Zaila, 21. V. 1895 (*Nurse*)<sup>9</sup>—EGYPT<sup>7-9</sup>: 1887 (*Fortescue*)—TUNIS<sup>3, 6-10</sup>: Gabès (*Dattin*)<sup>3-9</sup>. *Madeiras*<sup>1-2, 4-5, 7-10</sup>—MADEIRA<sup>1</sup>: (*Wollaston*)<sup>1-2</sup>—PORTO SANTO: (*Wollaston*)<sup>1-2, 7, 9</sup>. *Canaries*<sup>1-5, 7-11</sup>—TENERIFE<sup>8, 11</sup>: Guimar, 1. IV. 1907 (*Wlsm.*); Puerto Orotava, 14-18. IV. 1895 (*Hedemann*)<sup>8</sup>. —GRAN CANARIA: (*Richter*)<sup>4-5, 8-9, 11</sup>—LOBOS: (*Alluaud*)<sup>8-9, 11</sup>.

I took a single specimen of this species at Guimar, on April 1st.

#### 158. (4539) TRICHOPIHAGA TAPETIELLA L.

=† *tapetzella* L.

*Phalaena Tinea tapetzella* L. Syst. Nat. (ed. X). I. 536 no. 253 (1758)<sup>1</sup>; Swinh-Cotes Cat. Moths Ind. 705 no. 4804 (1889)<sup>2</sup>; Wlsm. Tr. Ent. Soc. Lond. 1891. 86 (1891)<sup>3</sup>; Rbl. Ann. KK. Hofmus. VII. 283 no. 48 (p.) (1892)<sup>4</sup>. *Tinea tapetiella* Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 535 no. 78 (1893)<sup>5</sup>. *Trichophaga tapetiella* Meyr. HB. Br. Lp. 785-6 (1895)<sup>6</sup>. *Trichophaga tapetzella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4539 (1901)<sup>7</sup>; Dyar Bull. US. Nat. Mus. 52. 573 no. 6532 (1902)<sup>8</sup>. *Trichophaga tapetiella* Dietz Tr. Am. Ent. Soc. XXXI. 34 (1905)<sup>9</sup>.

*Hab.* EUROPE<sup>1, 7</sup>. ASIA<sup>2, 4, 7</sup>. AFRICA<sup>3, 6</sup>. *Canaries*—TENERIFE: Guimar, 9. III. 1907 (*Wlsm.*); Puerto Orotava, 26. IV. 1907 (*Wlsm.*). N. AMERICA<sup>8-9</sup>. S. AMERICA—BRAZIL: Castro, Parana, 1896 (*E. D. Jones*); Santa Catherina—CHILI: Quillota, 1887 (*Paulson*). AUSTRALIA<sup>5</sup>—QUEENSLAND: Toowong, 1896 (*Dodd*). NEW ZEALAND<sup>5</sup>.

Single specimens were taken at Guimar, and at Puerto Orotava.

#### 80. (464) MONOPIS Hb.

##### 159. (4529) MONOPIS IMELLA Hb.

*Tinea imella* Hb. Smlg. Eur. Schm. VIII. Pl. 50. 347 (1816)<sup>1</sup>. *Abebaea immella* Hb. Verz. Schm. 408 no. 3937 (1826)<sup>2</sup>. *Monopis imella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4529 (1901)<sup>3</sup>.

*Hab.* WC. ASIA<sup>3</sup>. EUROPE<sup>1-3</sup>. *Canaries*—TENERIFE: Guimar, 13-28. III. 1907 (*Wlsm.*).

Two specimens of *imella* Hb. were taken at Guimar, on the 13th and 28th of March.

160. (4530) *MONOPIS NIGRICANTELLA* Mill.

*Tinea nigricantella* Mill. Pet. Nouv. Ent. I. 172 (1872)<sup>1</sup>. *Monopis nigricantella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4530 (1901)<sup>2</sup>: Rbl. Ann. K.K. Hofmus. XXI. 40, 44 no. 247 (1906)<sup>3</sup>.

*Hab.* S. EUROPE<sup>1-2</sup>—CORSIKA: Ajaccio, 4-8. V. 1896 (*Wlsm.*); Corté, 9-14. VI. 1893 (*Wlsm.*)—S. FRANCE<sup>1-2</sup>: Cannes, V. 1890 (*Wlsm.*); Monte Carlo, 18. VI. 1898 (*Wlsm.*). N. AFRICA—ALGERIA: Biskra, 5. III - 9. IV. 1903 (*Wlsm.*); El-Kantara, 24. IV - 22. V. 1903 (*Wlsm.*)—MOROCCO: Tangier, 12. III - 18. V. 1902, 13. IV. 1901 (*Wlsm.*); Rabat, 4. IV. 1902 (*Wlsm.*). CANARIES<sup>3</sup>—TENERIFE<sup>3</sup>: 1905 (*White*)<sup>3</sup>; Guimar, 6-19. III. 1907 (*Wlsm.*); Las Mercedes, 30. III. 1904 (*Eaton*); La Laguna, 8. IV. 1904 (*Eaton*).

161. (4534) *MONOPIS CROCICAPITELLA* Clms.

=*hyalinella* Stgr.; =*lombardica* Hrng.; =*ferruginella* Dyar (nec Hb.).

*Tinea crocicapitella* Clms. Pr. Ac. Nat. Sc. Phil. XI. 257, 258 (1859)<sup>1</sup>; Clms-Stn. Tin. N. Am. pp. viii, 49, 51 (1872)<sup>2</sup>. *Tinea hyalinella* Stgr. Hor. Soc. Ent. Ross. VII. 229 (1870)<sup>3</sup>. *Blabophanes lombardica* Hrng. Stett. Ent. Ztg. L. 295-9 (1889)<sup>4</sup>. *Monopis lombardica* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4534 (1901)<sup>5</sup>. *Monopis hyalinella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4535 (1901)<sup>6</sup>. *Monopis ferruginella* Dyar Bull. US. Nat. Mus. 52. 570 no. 6488 (1902)<sup>7</sup>. *Monopis crocicapitella* Dietz Tr. Am. Ent. Soc. XXXI. 31, 33-4 (1905)<sup>8</sup>; *Wlsm.* Fn. Hawaii. 728, 737, 754, 757, 758 no. 437 (1907)<sup>9</sup>.

*Hab.* EUROPE<sup>3-6, 9</sup>. N. AFRICA—MOROCCO: Tangier, 8. V. 1902 (*Wlsm.*). CANARIES<sup>9</sup>—TENERIFE: La Laguna, 13. I. 1907 (*Wlsm.*), 14-15. III. 1902, 18. IV. 1904 (*Eaton*), 23. V - 9. VI. 1907 (*Wlsm.*); Tacaronte, 18-19. II. 1907 (*Wlsm.*); Puerto Orotava, 23. IV - 16. V. 1907 (*Wlsm.*). UNITED STATES<sup>1-2, 7-9</sup>—FLORIDA: 1884 (*Morrison*). CANADA—BRITISH COLUMBIA: New Westminster, 30. V - 21. VI. 1900 (*C. W. Durrant*). HAWAIIA<sup>9</sup>.

This species occurred at La Laguna, Tacaronte, and Puerto Orotava, from February to June.

81. (466) *TINEA* L.162. (4558-1) *TINEA TOECHOPHILA* sp. n.  
(Plate LIII. fig. 17.)

*Antennae*  $\frac{3}{4}$ ; whitish, faintly annulate with fuscous. *Palpi* short, drooping, slender; greyish. *Head* and face rough; yellowish white. *Thorax* chocolate-brown. *Forewings* dark chocolate-brown, with clearly defined silvery white markings; first, a very

short patch across the base, then an almost straight transverse fascia, at one-fourth, scarcely broader on the dorsum than on the costa; a short triangular spot on the middle of the costa, followed by a larger triangular costal spot, before the apex, which nearly touches the outer side of a more acutely triangular dorsal spot preceding it; at the apex is a curved, narrow, white terminal band, running through the costal and terminal cilia, leaving those of the apex as a dark rounded spot within it; tornal cilia brownish fuscous. *Exp. al.* 7-9 mm. *Hindwings* pale, shining greyish; cilia pale brownish cinereous. *Abdomen* brownish fuscous. *Legs* greyish, with pale spotted tarsi.

*Type* ♀ (14076); ♂ (99098) Mus. Wlsm.

*Hab.* TENERIFE: La Laguna, 22. II - 9. III. 1904 (*Eaton*); Forest de la Mina, 17-30. III. 1902 (*Eaton*); Las Mercedes, 30. III. 1904 (*Eaton*), 7. VI. 1907 (*Wlsm.*); Taganana, 27. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Thirty-five specimens.

Mr. Eaton found this common on a wall, partly overgrown with lichens, at La Laguna, 22. II. 1904, and common amongst lichen-covered trees, at Las Mercedes, 30. III. 1904.

In the ♂ the forewings are usually broader, and less conspicuously marked than in the ♀, the pale spots and bands containing a few dark scales, therefore less purely white, and frequently smaller than in the ♀.

### 163. (4575). *TINEA IMMACULATELLA* Rbl.

*Tinea merdella* Z. ? var. *immaculatella* Rbl. Ann. KK. Hofmus. VII. 269-70, 283 no. 50 (1892)<sup>1</sup>. *Tinea immaculatella* Rbl. Ann. KK. Hofmus. XI. 123-4, 146 no. 180 (1896)<sup>2</sup>; XXI. 44 no. 249 (1906)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 238 no. 4575 (1901)<sup>4</sup>.

*Hab. Canaries*<sup>1-4</sup>—TENERIFE<sup>2-3</sup>: Santa Cruz, 23. XII - 20. II. 1907 (*Wlsm.*); La Laguna, 8. III - 6. IV. 1904 (*Eaton*); Guimar, 13-28. III. 1907 (*Wlsm.*); Puerto Orotava, 19-28. IV. 1895 (*Hedemann*)<sup>2</sup>, 12. V - 6. VI. 1907 (*Wlsm.*)—FUERTEVENTURA<sup>1-3</sup>: Barranco del Rio Palma, 20. X. 1890 (*Simony*)<sup>1</sup>.

*Tinea immaculatella* is by far the most abundant species in the Island; it is evidently attached to *Opuntia*. Mr. Eaton made the note: "Out of dead *Agave* (aloes). I believe they also feed on dead *Opuntia*." The larva probably feeds on the fibrous interior of the dead, or half-dead, stems of *Euphorbia canariensis*, *Cactus*, and *Opuntia cochinelifera*: I did not however observe it.

### 164. (4583) *TINEA FUSCIPUNCTELLA* Hw.

*Tinea fuscipunctella* Hw. Lp. Br. 562 no. 4 (1828)<sup>1</sup>; Wlsm. Tr. Ent. Soc. Lond. 1881. 242 (1881)<sup>2</sup>; Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 534-5 no. 76 (1893)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 238 no. 4583 (1901)<sup>4</sup>; Dyar Bull. US. Nat. Mus. 52. 571 no. 6503

(1902)<sup>5</sup>; Dietz Tr. Am. Ent. Soc. XXXI. 44, 45, 47 (1905)<sup>6</sup>; Rbl. Ann. K.K. Hofmus. XXI. 40, 44 no. 250 (1906)<sup>7</sup>; Wlsm. Ent. Mo. Mag. XLIII. 267 no. 4583 (1907)<sup>8</sup>; Fn. Hawaii. 729, 754, 757, 758 (1907)<sup>9</sup>; *etc.*

*Hab.* EUROPE<sup>1, 4, 8</sup>—S. FRANCE: Monte Carlo, 2. IV. 1879 (*Wlsm.*)—S. SPAIN: Granada, 22. V - 14. VI. 1901 (*Wlsm.*). ASIA<sup>4</sup>. AFRICA<sup>2, 4</sup>—MOROCCO: Tangier, 27. II. 1902 (*Wlsm.*)—ALGERIA: Azazga, 16. IX. 1893 (*Eaton*). MADEIRAS—MADEIRA: (*Wollaston*); Funchal, 27. IV. 1904 (*Eaton*). Canaries<sup>7</sup>—TENERIFE<sup>7</sup>: (*White*)<sup>7</sup>; Guimar, 12. III - 14. IV. 1907 (*Wlsm.*); La Laguna, 26. III. 1902, 8. IV. 1904 (*Eaton*). N. AMERICA<sup>5-6</sup>. HAWAIIA<sup>9</sup>. AUSTRALIA<sup>3</sup>. NEW ZEALAND<sup>3</sup>.

165. (4583-1) *TINEA THECOPHORA*, sp. n.

*Antennae*  $\frac{3}{4}$ ; bronzy fuscous. *Maxillaries* folded. *Labial Palpi* porrect, moderately clothed, terminal joint shorter than median, the latter with a few lateral bristles; fawn-brown, paler on their inner sides. *Head* and *Thorax* dark fawn-brown, mixed with ochreous. *Forewings* ochreous, thickly sprinkled with dark fawn-brown, tending to fuscous; a small black spot in the fold at  $\frac{1}{3}$  from the base, another at the end of the cell, the costa and termen having a mottled appearance through aggregation of the brownish fuscous scales; in the more or less ochreous cilia are two darker shade-lines, the one near the base interrupted at short intervals, the other near their outer ends uninterrupted, but sometimes very faint. *Exp. al.* 11-14 mm. *Hindwings* shining, yellowish grey, with a brassy sheen; cilia pale bronzy grey. *Abdomen* and *Legs* shining, pale bronzy.

*Type* ♂ (98331); ♀ (98336) Mus. Wlsm.

*Hab.* TENERIFE: ⊕ in cases on walls in houses: Santa Cruz, 25. XII - 25. I. 1907; Guimar, 28. II - 10. IV. 1907, ⊕ III, excl. 29. III - 29. V. 1907; Puerto Orotava, ⊕ IV, excl. 21. IV. 1907. Thirteen specimens.

*Case* dust-coloured, elongate, ovate, flattened; very distinct from that of *pellionella* L. or *allutella* Rbl. It is not bottle-shaped, nor visibly indented on any part of the margin, and is formed of grains of dust and woolly refuse, but is smooth and dense in texture, and is open at both ends, cleanly cut, evenly rounded, and without ragged edges.

Differs in the plical spot being nearer to the base than in *fuscipunctella* Hw., also in the absence of a first discal spot above it. The more general sprinkling of dark scales causes the sub-ochreous ground-colour to be less visible, and gives it a more suffused appearance. The possession of a larval case is also a very notable distinction. *Tinea fuscipunctella* may be at once distinguished by having a discal spot above and before the plical.



166. (4584) *TINEA PELLIONELLA* L.

*Phalaena Tinea pellionella* L. Syst. Nat. (ed. X.). I. 536 no. 254 (1758)<sup>1</sup>. *Tinea pellionella* Stn. Ann-Mag. NH. (3 s.). III. 212 no. 13 (1859)<sup>2</sup>; E. Wlsm. Ann-Mag. NH. (5 s.). III. 422 (1879)<sup>3</sup>; Lp. St. Helena 37 (1879)<sup>3</sup>; Swinh-Cotes Cat. Moths Ind. 703 no. 4800 (1889)<sup>4</sup>; Rbl. Ann. KK. Hofmus. VII. 269, 283 no. 49 (1892)<sup>5</sup>; IX. 17, 88 no. 162 (1894)<sup>6</sup>; XXI. 44 no. 251 (1906)<sup>7</sup>; Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 532, 535 no. 77 (1893)<sup>8</sup>; Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 541 no. 17 (1894)<sup>9</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 238 no. 4584 (1901)<sup>10</sup>; Dyar Bull. US. Nat. Mus. 52. 572 no. 6520 (1902)<sup>11</sup>; Dietz Tr. Am. Ent. Soc. XXXI. 45, 51 (1905)<sup>12</sup>; Wlsm. Ent. Mo. Mag. XLIII. 267 no. 4584 (1907)<sup>13</sup>.

*Hab.* ASIA<sup>4, 10</sup>—WC.<sup>10</sup>—CEYLON<sup>4</sup>—JAPAN<sup>10</sup>. EUROPE<sup>1, 10, 13</sup>—S. SPAIN: Granada, 14. VI—6. VII. 1901 (*Wlsm.*). N. AFRICA<sup>5, 10</sup>:—MOROCCO: Zig, 9. IV. 1902 (*Wlsm.*); Tangier, 14. IV—9. V. 1902 (*Wlsm.*). MADEIRAS<sup>2, 5, 9-10</sup>—MADEIRA<sup>2, 9</sup>: (*Wollaston*)<sup>2, 9</sup>; Machico, 23. IV. 1904 (*Eaton*). CANARIES<sup>5-7, 10</sup>—TENERIFE<sup>5-7, 10</sup>: IV. 1885 (*Leech*)<sup>6</sup>; Guimar, ⊕ on walls, 27. IV, excl. 6. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*); Garachico, 23. IX. 1889 (*Simony*)<sup>5</sup>. St. Helena: (*E. Wollaston*)<sup>3</sup>. N. AMERICA<sup>10-12</sup>. AUSTRALIA<sup>8</sup>. NEW ZEALAND<sup>8</sup>.

167. (4596) *TINEA LAPELLA* (Hb. ?) Rbl.

[*Tinea lapella* Hb. Smlg. Schm. Eur. VIII. Pl. 37 · 252 (1796)<sup>1</sup>. *Acedes lapella* Hb. Verz. Schm. 401 no. 3871 (1826)<sup>2</sup>. *Tinea lapella* Stgr-Rbl. Cat. Lp. Pal. II. 239 no. 4596 (1901)<sup>3</sup>]. *Tinea?* *lapella* Rbl. Ann. KK. Hofmus. XXI. 40, 44 no. 252 (1906)<sup>4</sup>.

*Hab.* [EUROPE<sup>1-3</sup>. WC. ASIA<sup>3</sup>]. CANARIES<sup>4</sup>—TENERIFE<sup>4</sup>: Guimar, 1906 (*W. White*)<sup>4</sup>.

Prof. Rebel records a single worn specimen, in Mr. White's collection, from Guimar, as “*?lapella* Hb.” I examined Mr. White's specimen and do not think it is *lapella* Hb., the wings seem broader, and there is no spot at the end of the cell, the colour also looks wrong; I did not myself meet with the species, and was therefore unable to compare it with European specimens.

168. (4605) *TINEA SIMPLICELLA* HS.

*Tinea simplicella* HS. SB. Schm. Eur. V. Pl. 47 · 322 (1851), p. 73 no. 54 (1854)<sup>1</sup>; Rbl. Ann. KK. Hofmus. IX. 18, 89 no. 163 (1894)<sup>2</sup>; XXI. 44 no. 253 (1906)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 239 no. 4605 (1901)<sup>4</sup>.

*Hab.* EUROPE<sup>1-4</sup>—CORSIKA: Ajaccio, 6. V. 1896 (*Wlsm.*)—SPAIN: GRANADA: Granada, 19. V—16. VI. 1901 (*Wlsm.*).

Canaries<sup>2-4</sup>—TENERIFE<sup>2-4</sup>: IV. 1885 (*Leech*)<sup>2</sup>; La Laguna, 23. V. 1907 (*Wlsm.*).

Two specimens taken at La Laguna on May 23rd.

## 82. (471) TINEOLA HS.

### 169. (4623) TINEOLA ALLUTELLA Rbl.

*Tineola allutella* Rbl. Ann. K.K. Hofmus. VII. 270-1, 283 no. 51, Pl. 17 · 3 ♂ (1892)<sup>1</sup>: XI. 124-5, 146 no. 181 (1896)<sup>2</sup>: XXI. 44 no. 255 (1906)<sup>3</sup>; *Wlsm.* Tr. Ent. Soc. Lond. 1894. 537, 542 no. 22 (1894)<sup>4</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4623 (1901)<sup>5</sup>.

*Hab.* Madeiras<sup>2, 4-5</sup>—MADEIRA<sup>4</sup>: (*Wollaston*)<sup>4</sup>. Canaries<sup>1-5</sup>—LA PALMA<sup>1-3</sup>: Los Sauces, 25. VIII. 1889 (*Simony*)<sup>1</sup>—TENERIFE<sup>1</sup>: 1889 (*Simony*)<sup>1</sup>; Santa Cruz, 2-20. I., 24. V. 1907 (*Wlsm.*); Guimar, 16. IV. 1907, ⊕ on walls, 27. IV, excl. 24. V. 1907 (*Wlsm.*); Puerto Orotava, ⊕ on walls, excl. 24. IV - 9. V. 1895 (*Hedemann*)<sup>2</sup>, 24. IV - 12. V. 1907, ⊕ 23. IV, excl. 1. VI. 1907 (*Wlsm.*); Realejo, 10. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*).

Taken, and bred, from January to June, at Santa Cruz, Guimar, Puerto Orotava, Realejo, and La Laguna.

### 170. (4624) TINEOLA BISSELLIELLA Hml.

=† *biselliella* Z., Stgr-Rbl., etc.

*Tinea bisselliella* Hml. Essais Ent. III. 6-12, 13-14 (1823)<sup>1</sup>. *Tineola bisselliella* Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 554 no. 116 (1893)<sup>2</sup>; *Wlsm.* Tr. Ent. Soc. Lond. 1894. 537, 542 no. 21 (1894)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4624 (1901)<sup>4</sup>; Dietz Tr. Am. Ent. Soc. XXXI. 72 (1905)<sup>5</sup>. *Tineola bisselliella* Dyar Bull. US. Nat. Mus. 52. 570 no. 6487 (1902)<sup>6</sup>.

*Hab.* EUROPE<sup>1, 4</sup>. N. AFRICA<sup>4</sup>. Madeiras<sup>3</sup>—MADEIRA<sup>3</sup>. Canaries—TENERIFE: Santa Cruz, 28. I - 10. II. 1907 (*Wlsm.*). N. AMERICA<sup>5-6</sup>. AUSTRALIA<sup>2</sup>. NEW ZEALAND<sup>2</sup>.

It should be noted that Hummel named this species: "bisselliella. Du mot latin *bissellium*, canapé."

### 171. (4626) TINEOLA BIPUNCTELLA Rgt.

*Tineola bipunctella* Rgt. Ann. Soc. Ent. Fr. XLIII. (5 s. IV: 1874). 579-80. Pl. 11 · 1 ♂ (1875)<sup>1</sup>; Rbl. Ann. K.K. Hofmus. XI. 125, 146 no. 182 (1896)<sup>2</sup>: XXI. 44 no. 256 (1906)<sup>3</sup>; Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4626 (1901)<sup>4</sup>.

*Hab.* EUROPE<sup>1, 4</sup>—SPAIN<sup>1, 4</sup>. N. AFRICA<sup>4</sup>—MOROCCO: Tangier, 4-18. XII. 1901, 5. IV - 20. V. 1902 (*Wlsm.*). Canaries<sup>2-4</sup>—TENERIFE<sup>2-4</sup>: Santa Cruz, 22-25. I. 1907 (*Wlsm.*); Puerto

Orotava, 13-29. IV. 1895 (*Hedemann*)<sup>2</sup>, 3. V. 1907 (*Wlsm.*); Guimar, ⊕ on walls, 1. IV, excl. 2. VI. 1907 (*Wlsm.*).

Taken at Santa Cruz, and Puerto Orotava, and a single specimen bred from a case found on a wall at Guimar.

### 83. (441) LUFFIA Tutt.

172. (4435·01) LUFFIA REBELI, sp. n. (Plate LIIII. fig. 18.)

n. syn. = \**lapidella* Rbl. (nec Goeze).

*Talaeporia* (!) *lapidella* Rbl. Ann. KK. Hofmus. VII. 267-8, 282 no. 45 (1892)<sup>1</sup>; IX. 17, 88 no. 158 (1894)<sup>2</sup>; XXI. 42 no. 122 (1906)<sup>3</sup>. *Luffia lapidella* (p.) Stgr-Rbl. Cat. Lp. Pal. II. 230 no. 4435 (1901)<sup>4</sup>.

*Antennae*  $\frac{3}{4}$ , bipectinate, pectinations commencing on joint 4, each biciliate; pale stone-grey. *Head* and *Thorax* reddish fuscous. *Forewings* shining, sericeous, pale stone-grey, rather coarsely mottled with greyish fuscous, the groups of this darker scaling somewhat more conspicuous along the margins than in the middle of the wing; the strongest of these groups are—one arising from the dorsum near the base, overspreading the fold, and diffused across the base of the cell toward the costa; another, arising from scarcely before the middle of the dorsum, crossing the fold and diffused upward across the cell, and two or three on the outer half of the costa; cilia shining, sericeous, mottled with pale greyish fuscous along their basal half. *Exp. al.* 8-12 mm. *Hindwings* pale mouse-grey; cilia slightly paler and more shining. *Abdomen* pale mouse-grey. *Legs* pale stone-grey.

*Type* ♂ (99066); ♀ (14094) Mus. Wlsm.

*Hab.* **Canaries**<sup>1-4</sup>—TENERIFE<sup>1-4</sup>: Las Mercedes, 2100 ft., 29. II. 1904 (*Eaton*); La Laguna, 15. III. 1902, 16-25. III. 1904, ⊕ in cases on walls and rocks, 22. II - III, excl. 23. III - 10. IV. 1904 (*Eaton*); IV. 1885 (*Leech*)<sup>2</sup>; Puerto Orotava, 23. IV. 1907, ⊕ on rocks, 24. IV, excl. 10-20. VI. 1907 (*Wlsm.*); Pedro Gil, 1300-1500 m., 30 VII. 1889 (*Simony*)<sup>1</sup>. Seventeen specimens.

This is the species recorded by Rebel as "*lapidella* Goeze," but it is a much larger and more distinctly marked species. The small cylindrical cases are extremely abundant on walls, and rocks, at Santa Cruz, Guimar, Orotava, and La Laguna, but unless obtained about the time of pupation, when through want of movement they can scarcely be distinguished from the numerous empty cases of previous generations, the larvae are very difficult to rear. It is almost impossible to keep a supply of small lichens, such as they feed upon. I first received this species from the late Mr. J. H. Leech, who took it in April 1885; Mr. Eaton took several specimens, and bred three ♂♂ and two ♀♀ in 1904. There may possibly be some allied species in the Island, but I only met with *rebeli*.

## IV. PSYCHINA.

## I. PSYCHIDAE.

## 84. (733) AMICTA Heyl.

## 173. (4453) AMICTA CABRERAI Rbl.

*Psyche cabrerai* Rbl. Ann. K.K. Hofmus. IX. 10, 46-8 no. 39 (1894)<sup>1</sup>; XI. 105-6, 144 no. 39. Pl. 3. 1<sup>a-c</sup> (1896)<sup>2</sup>; XIII. 364, 378 no. 39 (1899)<sup>3</sup>; XXI. 42 no. 121 (1906)<sup>4</sup>. *Amicta cabrerai* Stgr-Rbl. Cat. Lp. Pal. I. 394 no. 4453 (1901)<sup>5</sup>.

*Hab.* TENERIFE<sup>1-5</sup>: Montaña de Guerra, ⊕ *Euphorbia* (*Cabrera*)<sup>1</sup>; IV. 1894 (*Kraepelin*)<sup>2</sup>; ⊕ *Rubus idaeus*, 1898 (*Kilian*)<sup>3</sup>; Santa Cruz, 15. VI. 1898 (*Hintz*)<sup>3</sup>; La Laguna, 1600-1700 ft., ⊕ *Rubus*, *Cytisus*, 8. III, excl. 24. VIII. 1904 (*Eaton*); Guimar, ⊕ *Euphorbia*, *Rumex canariensis*, etc., 1-13. IV, excl. 25. VIII - 5. X. 1907 (*Wlsm.*).

Larva common everywhere, on various plants, *Euphorbia*, *Rumex*, etc., etc.; two specimens, one bred at the end of August, the other in the beginning of October.

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Of the 173 species above noticed as occurring in Tenerife I have been able to observe the life-histories of 96, of which number 40 only were previously known; the larvae of 28 others having been already recorded elsewhere, 49 now remain to be discovered.

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## EXPLANATION OF PLATES LI., LII., &amp; LIII.

(See Description facing the Plates.)



PLATE LI.

## DESCRIPTION OF PLATE LI.

	Page
Fig. 1. <i>Pterophorus melanoschisma</i> ..... (Type ♂ 98934) ...	920
2. <i>Alucita bystropogonis</i> .....	(Type ♀ 98768) ... 915
3. <i>Alucita particiliata</i> .....	(Type ♂ 98810) ... 916
4. <i>Metzneria dichroa</i> .....	(Type ♂ 98304) ... 927
5. <i>Metzneria monochroa</i> .....	(Type ♂ 98309) ... 927
6. <i>Apodia guimarensis</i> .....	(Type ♂ 98979) ... 930
7. <i>Chrysopora boseae</i> .....	(Type ♂ 98991) ... 931
8. <i>Aproaerema genistae</i> .....	(Type ♀ 98993) ... 933
9. <i>Aproaerema thaumalea</i> Wlsm....	(♀ <i>Guimar</i> , 98995) 934
10. <i>Pragmatodes fruticosella</i> .....	(Type ♀ 98969) ... 929
11. <i>Aproaerema mercedella</i> .....	(Type ♂ 14107) ... 934
12. <i>Telphusa schizogynae</i> .....	(Type ♂ 98997) ... 936
13. <i>Gelechia lunariella</i> .....	(Type ♂ 99001) ... 939
14. <i>Gelechia sciurella</i> .....	(Type ♀ 14290) ... 941
15. <i>Telphusa canariensis</i> .....	(Type ♀ 98999) ... 936
16. <i>Trichotaphe convolvuli</i> .....	(Type ♀ 99004) ... 944
17. <i>Chersogenes victimella</i> .....	(Type ♂ 99008) ... 947
18. <i>Ambloma brachyptera</i> .....	(Type ♂ 99007) ... 947



EWFrohawk del. A.J.Wendel lith.

P.WMTrap Chromo.





PLATE LII.

## DESCRIPTION OF PLATE LII.

	Page
Fig. 1. <i>Symmoca canariensis</i> <i>Rbl.</i> ..... (♂ 99101) .....	949
2. <i>Symmoca aegrella</i> .....	(Type ♂ 99009) ... 949
3. <i>Apatema lucidum</i> .....	(Type ♂ 98242) ... 945
4. <i>Blastobasis velutina</i> .....	(Type ♂ 98258) ... 952
5. <i>Prosthesis exclusa</i> .....	(Type ♂ 98291) ... 953
6. <i>Zenodochium polyphagum</i> .....	(Type ♂ 98227) ... 954
7. <i>Agonopteryx cinerariae</i> .....	(Type ♂ 99011) ... 955
8. <i>Agonopteryx perezii</i> .....	(Type ♂ 99018) ... 957
9. <i>Depressaria tenerifae</i> .....	(Type ♀ 99020) ... 958
10. <i>Cosmopteryx coryphaea</i> .....	(Type ♂ 99029) ... 964
11. <i>Aphelosetia hypoleuca</i> .....	(Type ♂ 99036) ... 968
12. <i>Perittia cedronellae</i> .....	(Type ♂ 99047) ... 970
13. <i>Polymetis carlinella</i> .....	(Type ♂ 99037) ... 969
14. <i>Mendesia symphytella</i> .....	(Type ♀ 99045) ... 970
15. <i>Scythris fasciatella</i> <i>Rgt.</i> .....	(♂ <i>CT.</i> 99087) ... 973
16. <i>Scythris arachnodes</i> .....	(Type ♂ 99082) ... 972
17. <i>Scythris petrella</i> .....	(Type ♂ 99085) ... 972
18. <i>Glyphipteryx fortunatella</i> .....	(Type ♀ 99102) ... 989