

as in an inland wood, spreading its wings in the gleam of the setting sun, flitting away down to the edge of the precipice, or hanging with closed wings on the heads of the cock's-foot grass. The only other living creatures in sight were two or three pairs of herring-gulls flying about the rocks, and uttering loud cries of defiance at the intrusion.

At the top of this slope I met with one *Syrichthus alveolus*, almost the only specimen seen this year, though carefully searched for in the interests of a local museum. *Lycæna Argiolus*, formerly common here, has also apparently disappeared, a victim to the rain.

Pembroke: 11th June, 1883.

NOTES ON HAWAIIAN MICRO-LEPIDOPTERA.

BY E. MEYRICK.

I am indebted to the kindness of the Rev. T. Blackburn for the specimens on which the following notes are founded. I had the pleasure of making a rough general examination of Mr. Blackburn's collection, from which it appears that the Micro-Lepidopterous fauna of the Hawaiian Islands is highly specialized and very interesting. So far as I could determine, Mr. Butler's identifications of those species described by him are often erroneous; a few of these I have here corrected. The importance of a thorough investigation of this fauna is very great, as bearing on questions of geographical distribution and development.

CONCHYLIDÆ.

HETEROCROSSA, Meyr.

H. achroana, n. sp.

♂ ♀. 18—20 mm. Head, palpi, antennæ, thorax, abdomen, and legs whitish; palpi very long in both sexes, externally mixed with dark fuscous towards base; anterior tibiæ mixed with dark fuscous. Fore-wings elongate, costa moderately arched, apex round-pointed, hind margin straight, moderately oblique; whitish, thinly sprinkled with greyish-ochreous and fuscous, appearing ochreous-whitish; a tuft of raised scales on fold at one-third from base, and two others transversely placed in disc beyond middle; a few scattered raised scales: cilia whitish, sprinkled with fuscous. Hind-wings and cilia whitish.

Distinguished from all the other species of the genus by the entire absence of dark markings. Two specimens taken on Mauna Loa, at an altitude of 4000 feet.

The occurrence of this genus is very interesting. I have described two species from New Zealand, and a third from Australia, and have two other New Zealand species undescribed. It belongs to a very ancient group of the *Conchylidæ*, now in course of extinction, and represented in Europe only by the two species of *Carposina*, H.-S. This genus is specially characterized in the group by the basal pectination of the lower median vein of the hind-wings, a structure otherwise confined to the *Grapholithidæ*, and probably ancestral. The species is closely allied to the New Zealand forms, but as there is in general no affinity whatever between the New Zealand and Hawaiian faunas, it is probably a case of a single persistent type once widely dominant, but now lingering only in isolated situations.

GELECHIDÆ.

Depressaria indecora, Butl., Ann. and Mag. Nat. Hist., 1881, 397, and *D. lactea*, *ibid.*, 398, are respectively ♂ and ♀ of the same species. This is not a *Depressaria*, and does not in fact belong to the *Depressaridæ*, but to the *Gelechidæ*; I cannot, at present, specify the genus, but it is nearly allied to those hereafter following. I am unable to understand why Mr. Butler has stated that this species possesses the true neuration of *Depressaria*, since in fact it differs widely in that respect. The same may be said of *D. gigas*, *ibid.*, 397, which is apparently cogenetic with the preceding. No true *Depressaria* occurs in Mr. Blackburn's collection, nor any allied genus; and it may be observed, that the genus is also wholly absent from Australia and New Zealand. The so-called genus *Chezala*, Walk., alluded to by Mr. Butler as a section of *Depressaria*, is virtually uncharacterized, and, therefore, non-existent; but the species on which it is founded (*C. allatella*, Walk., itself merely a synonym of *Cryptolechia privatella*, Walk., and *Crypt. latiorella*, Walk.) belongs to the *Æcophoridæ*, and is widely remote from *Depressaria*.

THYROCOPA, n. g.

Head smooth, side tufts short, erect; tongue moderate. Thorax smooth. Antennæ moderate, filiform, pubescent; basal joint moderate, simple. Maxillary palpi short, drooping. Labial palpi long, recurved; second joint thickened with appressed scales, somewhat rough beneath; terminal joint as long as second, moderate, acute. Abdomen stout, somewhat depressed, distinctly margined. Posterior tibiæ with short, dense, appressed hairs. Fore-wings elongate-oblong. Hind-wings trapezoidal, somewhat broader than fore-wings, hind margin

very slightly rounded, cilia short ($\frac{1}{3}$); costal edge folded and bent back above, forming a deep furrow on upper surface, in which lies a very long pencil of fine hairs (in ♂ only?). Fore-wings with 12 veins, 2 from considerably before angle of cell, 3 from angle, 7 and 8 stalked, 7 to costa. Hind-wings with 8 veins, 3 and 4 from a point at angle of cell, 5 parallel to 4, 6 and 7 stalked.

This does not nearly approach any described genus, but is allied to the two following genera, which together belong to a peculiar group of the *Gelechidæ*, apparently forming a considerable proportion of the Hawaiian fauna.

Th. usitata, Butl.

Depressaria usitata, Butl., Ann. and Mag. Nat. Hist., 1881, 396.

A variable and obscure looking species, not recognisable from Mr. Butler's description. The normal form has the fore-wings dull, rather light greyish-brown, with two or three dark fuscous dots near base, two transversely placed in disc before middle, two nearer together and almost confluent in disc beyond middle, and posterior half of costa dotted with dark fuscous; hind-wings greyish-white, more greyish posteriorly. It varies principally in size and depth of colouring.

SYNOMOTIS, *n. g.*

Head with appressed scales; tongue long. Thorax smooth. Antennæ slender, filiform, pubescent, basal joint moderate, simple. Maxillary palpi obsolete. Labial palpi long, curved, ascending, second joint clothed with appressed scales, somewhat rough beneath towards the apex, terminal joint as long as second, slender, acute. Abdomen moderate, margined. Posterior tibiæ clothed with short, dense, appressed hairs. Fore-wings elongate-oblong. Hind-wings trapezoidal, slightly broader than fore-wings, hind margin very faintly sinuate below apex, cilia short ($\frac{1}{3}$); with an expansible pencil of long fine hairs at base of costa. Fore-wings with 12 veins, 2 from considerably before angle, 3 and 4 approximated at base, 7 and 8 stalked, 7 to costa. Hind-wings with 8 veins, 3 and 4 stalked from angle of cell, 5 rather bent and approximated to 4, 6 and 7 stalked.

Closely approaching *Thyrocopa* in neuration, and distinguished principally by the free basal hair-pencil of the hind-wings, and the absence of maxillary palpi, as well as several minor differences.

S. epicapna, *n. sp.*

♂. 16-17 mm. Head, palpi, antennæ, and thorax pale fuscous, mixed with

dark fuscous and ochreous-whitish. Abdomen ochreous-whitish. Anterior and middle legs fuscous, with ochreous-whitish rings at apex of joints; posterior legs ochreous-whitish, sprinkled with fuscous. Fore-wings moderate, oblong, costa gently arched, apex almost acute, hind margin slightly sinuate, moderately oblique; pale fuscous, densely irrorated with darker fuscous; an indistinct, short, linear, dark fuscous mark in middle of disc; the three discal dots hardly indicated; faint traces of a paler angulated posterior transverse line: cilia pale fuscous, irrorated with darker fuscous. Hind-wings whitish-grey, more whitish towards base; cilia whitish, with two grey lines.

Two specimens.

AUTOMOLA, n. g. = *autostricha* *matranci* *at* *Bois* *18*

Head smooth; tongue long. Thorax smooth. Antennæ rather stout, slightly serrate, simple, basal joint moderate, simple. Maxillary palpi rudimentary, short, drooping; labial palpi moderately long, recurved; second joint broadly thickened with dense appressed scales; terminal joint somewhat shorter than second, rather stout, acute. Abdomen moderate, distinctly margined. Posterior tibiæ with dense appressed hairs. Fore-wings elongate; hind-wings trapezoidal, as broad as fore-wings, hind margin markedly sinuate beneath apex, cilia moderate ($\frac{2}{3}$). Fore-wings with eleven veins, 2 and 3 stalked from just before angle of cell, 7 to costa. Hind-wings with eight veins, 3 and 4 stalked from angle of cell, 6 and 7 stalked.

Doubtless allied to the two preceding genera, but differing from them and almost the whole family in the possession of only eleven veins in the fore-wings, this exceptional structure is evidently due to the coalescence of the normal veins 7 and 8, which coincide for their whole length, instead of for a portion only.

A. pelodes, n. sp.

♂. 15 mm. Head, palpi, antennæ, thorax, abdomen, and legs whitish-ochreous, thinly sprinkled with fuscous; second joint of palpi externally densely irrorated with dark fuscous, terminal joint with a slender blackish median ring. Fore-wings moderately elongate, costa moderately arched, apex obtuse, hind-margin obliquely rounded; whitish-ochreous, somewhat suffused with ochreous, and thinly sprinkled with dark fuscous; a blackish dot at base of costa; a small blackish dot in disc before middle, a second rather obliquely beyond it on fold, and a third more conspicuous in disc beyond middle; a row of blackish dots between veins on hind margin and apical fourth of costa: cilia whitish-ochreous sprinkled with fuscous. Hind-wings whitish-ochreous, slightly greyish-tinged; cilia whitish-ochreous.

This is the species considered by Mr. Butler to be synonymous with the Australian *convictella*, Walk. It would be alike unexpected and interesting to find any species native to both Australia and the Hawaiian Islands; but, as a matter of fact, *convictella*, Walk., belongs

to the genus *Eulechria* in the *Æcophoridæ*, and differs from the above species in almost every important point of structure ; nor is there even any close superficial resemblance.

Parasia sedata, Butl.

I cannot identify the very insufficient description originally given (Cist. Ent. ii, 560), and do not remember noticing an Hawaiian type. Mr. Butler referred the first specimen to *Gelechia*, but the second to *Parasia*, as if it were a matter of choice, though these genera are widely different. But it is in the highest degree improbable that the species is common to the Hawaiian Islands and New Zealand ; and, considering its obscure colouring, the apparent uncertainty as to its structure, and the above-mentioned similar instance of mistaken identity, I think we shall be justified in regarding this identification as unwarranted.

DIPLOSARA, *n. g.*

Head with appressed scales ; tongue strong, scaled. Thorax, perhaps crested (?). Antennæ rather stout, serrate, in ♂ towards base with a fascicle of short cilia ($\frac{1}{2}$) on each joint ; basal joint moderate, simple. Maxillary palpi rudimentary, short, drooping. Labial palpi moderately long, recurved ; second joint considerably thickened above and beneath with dense, somewhat rough scales, attenuated towards base ; terminal joint as long as second, acute, posterior edge from base nearly to apex clothed with long, dense, obliquely projecting scales. Posterior tibiæ clothed with long dense hairs. Fore-wings elongate, narrow, surface with large tufts of raised scales ; hind-wings elongate-ovate, as broad as fore-wings, cilia rather long (1). Fore-wings with twelve veins, 3 and 4 closely approximated from angle of cell, 5 and 6 widely remote, 7 and 8 stalked, 7 to costa, 11 from middle of upper margin of cell. Hind-wings with eight veins, 2 and 3 considerably before angle of cell, parallel, 4 and 5 stalked from angle, 6 gradually approximated to 7 at base.

A remarkable and distinct genus, certainly belonging to the *Gelechidæ*, but otherwise differing greatly from any other known. It is, however, probable that it has some direct relationship to the genera above described.

D. lignivora, Butl.

Scardia lignivora, Butl., Ent. Mo. Mag., xv, 273.

I am unable to conjecture why Mr. Butler should have referred this singular insect to the genus *Scardia*, with which it has really not a single structural point in common.

TINEIDÆ.

Blabophanes longella, Walk.

This is another instance of mistaken identity. I saw five specimens of the Hawaiian species, and they did not appear to differ perceptibly from the European *B. monachella*, Hb. But in any case it is impossible to admit that the white-headed Hawaiian species (which is perfectly constant) can be identical with the yellow-headed Indian species described by Walker under the above name. If, as I think, the species is truly *B. monachella*, it is no doubt an introduced insect.

Christchurch, New Zealand :

February 17th, 1883.

DESCRIPTION OF A NEW GENUS AND SPECIES OF THE FAMILY
GERRIDÆ (HEMIPTERA-HETEROPTERA).

BY F. BUCHANAN WHITE, M.D., F.L.S.

PLATYGERRIS, *n. g.*

Corpus oblongum, latiusculum, depressum. Caput oblongum ante oculos subconstrictum. Oculi intus leviter sinuati. Ocelli nulli. Antennæ cylindricæ, 4-articulatæ, corporis dimidio subæqilongæ, articulo primo longissimo. Rostrum 4-articulatum, mesosterni marginem anticum attingens. Pronotum transversum, longitudinaliter trisulcatum, processu postico haud instructum. Mesonotum longissimum. Metanotum brevissimum. Elytra et alæ absunt? Abdomen brevissimum, connexivo erecto instructum. Pedes antici breves, tarsis biarticulatis. Pedes intermedii et postici elongati, ad latera posteriora thoracis inserti, tarsis biarticulatis.

Somewhat, but not very closely, allied to *Hydrobates* and *Halobates*.

PLATYGERRIS DEPRESSA, *n. sp.*

Nigra subnitida, capillis brevissimis adpressis albidis vestita; capite macula ovali intraoculari, pronoto linea angusta longitudinali obsoleta, rubris; acetabulis anticis anticé, coxis anticis, trochanterum anticorum vitta anteriore, acetabulorum intermediorum macula triangulari longa inferiore, acetabulorum posticorum macula triangulari brevi inferiore, coxarum posticarum macula inferiore, margine postico inferiore segmenti genitalis primi, necnon spina postica inferiore segmenti genitalis secundi plus minus sordide ochraceis. ♂ Long. 6, lat. $2\frac{1}{2}$ mm.



Meyrick, Edward. 1883. "Notes on Hawaiian micro-lepidoptera." *The Entomologist's monthly magazine* 20, 31–36.

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