- 9. GOBIESOX CEPHALUS, Lacép.
- 10. MUGIL BRASILIENSIS, Ag.
- 11. AGONOSTOMA MONTICOLA, Bancr.
- 12. CITHARICHTHYS SPILOPTERUS, Gthr.
- 13. SOLEA INSCRIPTA, Gosse.
- 14. ANGUILLA LATIROSTRIS, Risso.

# 4. On the Lycænidæ of the Solomon Islands. By HAMILTON H. DRUCE, F.E.S.

#### [Received May 19, 1891].

# (Plates XXXI. & XXXII.)

The present list is based on a large number of these Butterflies obtained in the Solomon Islands by Mr. C. M. Woodford, and now in Messrs. Godman and Salvin's collection, to which are added some few collected by Mr. Gervase Mathew, R.N. The large majority of the species are peculiar to these islands, whilst some few, such as *Lycænesthes emolus*, Godt., *Zizera gaika*, Trimen, and *Tarucus plinius*, Fabr., have, as is well known, a very extended range. Fortytwo species are here enumerated, 21 of which I have described as new.

The type-specimens are all in Messrs. Godman and Salvin's collection.

#### HYPOCHRYSOPS, Feld.

# HYPOCHRYSOPS CRATEVAS.

Hupochrysops cratevas, H. H. Druce, Trans. Ent. Soc. 1891, p. 191, pl. x. ff. 16-18, pl. xi. f. 16.

Aola, Guadalcanar I.

# HYPOCHRYSOPS ARCHITAS.

Hypochrysops architas, H. H. Druce, Trans. Ent. Soc. 1891, p. 191, pl. x. ff. 2, 3.

Fauro I.

# HYPOCHRYSOPS SEUTHES.

Hypochrysops seuthes, H. H. Druce, Trans. Ent. Soc. 1891, p. 192, pl. xi. ff. 4, 5.

Uru Bay and Tyoh, Malaita I.

# HYPOCHRYSOPS ALVATTES.

Hypochrysops alyattes, H. H. Druce, Trans. Ent. Soc. 1891, p. 193, pl. xi. ff. 6-8.

Aola, Guadalcanar I.

PITHECOPS, Horsf.

PITHECOPS DIONISIUS. (Plate XXXI. fig. 1.)

Lycæna dionisius, Boisd. Voy. Astr., Lep. p. 82. n. 11 (1832).

Alu I., near Shortland I. Fauro I. Florida I. Treasury I. (Mathew).

Mr. Woodford's collections contain a large number of specimens agreeing with those from N. Guinea. The first subcostal nervule in this species is not anastomosed with the costal nervure to anything like the extent that it is in the type of the genus (*P. hylax*, Fabr.). I have figured a specimen from Alu I.

PITHECOPS DIONISIUS, VAR. STEIREMA. (Plate XXXI. fig. 2.)

Pithecops steirema, H. H. Druce, Ann. Mag. Nat. Hist., Jan. 1890, p. 25.

Savo I. Aola, Guadalcanar I.

This form, which is distinguished from the preceding by having scarcely any white on the hind wing, seems to be confined to the two islands as noted above.

#### ZIZERA, Moore.

#### ZIZERA PHŒBE.

Zizera ph@be, Murray, Ent. Mo. Mag. x. p. 107 (1873).

Alu I., near Shortland I. St. Anna I., near San Christoval I. Ugi I. (Mathew).

Several specimens agreeing well with the typical specimens from Australia.

# ZIZERA GAIKA.

Zizera gaika, Trimen, Trans. Ent. Soc. 1862, p. 403.

Alu I., near Shortland I. Guadalcanar I. N.W. Bay, Malaita I. Ulaua 1. Treasury 1. (Matthew).

It seems to be a generally accepted fact that Z. pygmæa, Snell., is a synonym of Z. gaika, otherwise I should have placed these specimens under the former name.

#### LYCÆNESTHES, Moore.

LYCÆNESTHES EMOLUS.

Lycanesthes emolus, Godt. Enc. Méth. ix. p. 656. n. 133 (1823).

Alu I., near Shortland I. Guadalcanar I. Uru Bay, Malaita I. Both sexes of this insect, which it is impossible to separate from

the Indian and Australian species.

#### TALICADA, Moore.

# TALICADA CLEOTAS.

Polyommatus cleotas, Guér. Voy. Coq. t. 18. f. 4 (1829). Alu I., near Shortland I. Fauro I. Rubiana I. St. Anna I. Several specimens agreeing well with examples from N. Ireland.

#### NACADUBA, Moore.

All the species here included in this genus have the first branch of the subcostal nervure completely anastomosed with the costal nervure for a more or less considerable distance, and it would seem that this fact may prove to be of much value in determining closely allied species. For instance, N. felderi, Murray, is stated by Mr. de Nicéville (Butt. India &c. iii. p. 147), following Herr Semper, to be a synonym of N. nora, Feld.; but in N. nora (from Sikhim) the first subcostal nervule is anastomosed with the costal nervure for a distance rather less than equal to its length from the subcostal nervure to where it joins the costal nervure, whilst in N. felderi it is anastomosed nearly four times this length. The type of N. nora is from Amboina, and it seems possible that the Indian insect is wrongly identified.

NACADUBA ASTARTE. (Plate XXXII. fig.  $10 \, \text{Q}$ .)

Lampides astarte, Butl. Ann. Nat. Hist. (5) x. p. 150 (1882).

Alu I., near Shortland I. Fauro I. N.W. Bay, Malaita I.

Several specimens  $(\mathcal{Q})$  agreeing well with Mr. Butler's type in the British Museum from New Britain.

There is a male of what I believe to be this species in Messrs. Godman and Salvin's collection, which on the upperside is a silky brownish blue, and on the underside has the conspicuous white bands somewhat narrower than the type, and also the specimens referred to above. It is from the Duke of York I. The specimen figured is from Fauro I.

# NACADUBA PLUMBATA, sp. n. (Plate XXXI. figs. 3 d, 4 2.)

Male. Allied to N. macrophthalma, Feld. Upperside dark violaceous blue, with the margin narrowly, and cilia dark blackish brown, the outer margin of primaries more rounded, and in that respect resembling N. herms, Feld., from Amboina. Underside light brownish grey, with all the macular markings and lunules slightly darker and bordered outwardly with pure white. The fore wing slightly, and the hind wing extensively, suffused with bright emerald-green scales at the base. Primaries with a rather narrow band at the end of the cell, and beyond that at about halfway between it and the outer margin a continuous unbroken macular band of about equal width as far down as the median nervure, below that gradually widening inwardly to the submedian nervure; beyond this band a submarginal row of darker crescent-shaped lunules enclosing a marginal row of large indistinct spots. Secondaries with a basal band, broadest on the costa, another near the end of the cell, and beyond that, commencing rather beyond the middle of the costa, a very irregular much-broken macular band reaching to the inner margin, that part of it which is opposite the short band near the end of the cell being placed nearer to the outer margin, so that its inner border runs in a line with the outer border of its continuations. Beyond this band a submarginal row of darker crescent-shaped lunules enclosing large

June 2,

distinct spots. Supposing, as I do, that the median nervule is continued to the margin, there is a large deep black spot narrowly bordered inwardly with pale orange, and outwardly with brilliant metallic light blue, between the first and second branches; also a lengthened black spot at the anal angle thickly covered with blue scales, and bordered inwardly with a minute orange spot, which, however, is not always present.

*Female.* Dull blackish brown. Primaries of a lighter and more brilliant violaceous blue in the discal area, and the costal and outer margins evenly and broadly bordered. Secondaries with a few blue scales scattered over the surface, and a marginal row of large black lunules, largest towards the anal angle, very narrowly bordered with greyish blue. Underside as in male.

Head, thorax, and abdomen concolorous with wings; antennæ black above, spotted with white beneath.

Expanse,  $\Im \not\subseteq 1\frac{1}{10} - 1\frac{3}{10}$  inch.

This species has a short black tail with a white tip on the lower median nervule.

Guadalcanar I. Tyoh, Malaita I. Ulaua I.

The blue on the females from Ulaua I. has almost entirely disappeared, and in specimens both from Malaita I. and Ulaua I. the orange near the anal angle on underside of hind wings is replaced by white.

The markings on the underside, although arranged much as in N. macrophthalma, are much more distinct than in that species. It is also a smaller insect.

# NACADUBA UGIENSIS, sp. n. (Plate XXXI. fig. 5.)

Female. Allied to N. plumbata. Disks of upper surface suffused with a lighter and more brilliant blue. Underside much paler, and with bases of both wings much more strongly suffused with light bluish-emerald-green. Expanse same as N. plumbata.

Ugi I. (Mathew).

Messrs. Godman and Salvin's collection contains three specimens obtained by Mr. Mathew, but Mr. Woodford does not seem to have met with any. The pale colour and strong suffusion of green on the underside gives the species a remarkable appearance.

# NACADUBA EURETES, sp. n. (Plate XXXI. figs. 6 , 7, 2.)

Male. Allied to N. prominens, Moore. Upperside much more brilliant violaceous silvery-blue, with the brown margins broader. Underside with markings much as in N. prominens, but the submarginal row of lunules on both wings very large, triangular, and much darker than the bands.

*Female.* Dark greyish brown, with the disk of the primaries brilliantly suffused with light blue.

Head, thorax, and abdomen concolorous with body. A short brown tail tipped with whitish.

Expanse,  $d = 1\frac{2}{5} - 1\frac{1}{5}$  inch,  $Q = 1\frac{1}{5} - 1\frac{1}{10}$  inch.

Aola, Guadalcanar I. N.W. Bay, Malaita I. Fauro I. Rubiana I. Ulaua I.

This species can be immediately distinguished from the preceding by its having an additional band in the centre of the cell below, which is also continued downwards nearly to the inner margin.

# NACADUBA KORENE, sp. n. (Plate XXXI. fig. 8.)

Male. Allied to N. euretes, but all the bands on underside narrower, and bordered outwardly with sordid white, not pure white as in that species. The submarginal row of lunules is only slightly darker than other parts of wings. Expanse srme as N. euretes.

Aola, Guadalcanar I. Opposite Ugi, San Christoval I.

This form may prove to be a variety of the preceding, but in a long series of specimens there do not appear to be any intermediates.

# NACADUBA AMAURA, sp. n. (Plate XXXI. fig. 10.)

Male. Allied to N. ancyra, Felder, from Amboina and Aru, from which it principally differs by having the bands on the underside much more irregular, and by the submarginal row of crescent-shaped lunules being large and dark, and by the greater preponderance of white in the ground-colour, and by being grey in place of brown.

*Female.* Upperside dull greyish brown, the disk of the fore wing suffused with blue; hind wing slightly bluish, with a distinct marginal row of grey-bordered lunules, that one between the median nervules being darker and bordered inwardly with orange. Underside browner than in male, and more strongly diffused with white.

A short black tail white-tipped, and white below.

Expanse,  $\mathcal{J}$   $1\frac{2}{5}$  inch,  $\mathcal{Q}$   $1\frac{1}{10}$  inch.

Alu I., near Shortland I. Rubiana I. Malaita I.

This may prove to be a variety of N. ancyra, Feld., as it is somewhat variable, but amongst the specimens before me are none which agree well with it.

# NACADUBA MANIANA, sp. n. (Plate XXXI. fig. 9.)

*Male.* Allied to the preceding, but a darker shade of blue on the upperside. Underside with all bands bordered with sordid white, having altogether a much duller appearance, and with the marginal row of lunules in the fore wing entirely gone, and the sub-marginal very indistinct. Expanse  $l\frac{3}{10}$  inch.

Ulaua I.

Several specimens not showing any variation.

NACADUBA LIGAMENTA, sp. n. (Plate XXXI. figs.  $11 \circ$ ,  $12 \circ$ .) Male. Upperside shining violaceous blue; cilia brown. Underside with light brown bands, bordered with pure white on a greyishwhite ground. Primaries with a band in the middle of the cell, another at the end, and beyond that, reaching from the costa to the submedian nervure, a rather narrow macular band; a marginal distinct lunules, and a submarginal row

June 2,

row of exceedingly minute indistinct lunules, and a submarginal row of very narrow crescent-shaped lunules. The bands on the hind wing arranged much as in *N. amaura* and other allies, and the lunules as in fore wing.

Female. Upperside as N. amaura. Underside pure white, so that the borders to the light brown bands described in the male are invisible, and the submarginal rows of lunules appear more distinct.

Head, thorax, and abdomen brownish, antennæ annulated with white; legs white, with a few black spots.

Expanse,  $\mathcal{J} \supseteq 1\frac{1}{5}$  inch.

Ugi I.

This species may be readily distinguished from its allies by the white appearance of the underside.

NACADUBA KEIRIA, sp. n. (Plate XXXI. figs. 13 3, 14 2.)

Male. Upperside dark lavender-blue, with two or three large indistinct triangular marginal black spots at the anal angle of hind wing; cilia dark brown. Underside clear greyish white, suffused at the base with bright green and with all the markings well defined. Fore wing with two small blackish dashes about the middle of the cell, one above the other, having their respective bases, one on the upper and one on the lower wall of the cell; a long narrow light brownish streak at the end of the cell and beyond that an irregular band, the upper part consisting of separated spots, the lower usually being a thickened streak; beyond this is a darker, submarginal, zigzag line and a marginal row of somewhat triangular dusky Hind wing with three black, white-ringed, distinct spots lunules. encircling the base, viz. one on the costa, one about the middle, and one on the inner margin close to the base; a rather long narrow band at the end of the cell, bent outwards; beyond these, commencing with a dark spot on the costal margin, a much-broken light brown band, consisting of darker-edged, irregular, confluent spots reaching to the submedian nervure, beyond this a submarginal irregular line enclosing a marginal row of large greyish-brown lunules; a black spot between the first and second median nervules broadly bordered inwardly with reddish orange; a short black line on the anal margin near the end of the abdomen. The outer margins of both wings very narrowly black; cilia greyish white.

Female. Upperside greyish brown. Primaries with the disk very slightly suffused with light blue scales. Secondaries with a rather large outer-marginal row of slightly darker lunules, bordered inwardly with greyish and outwardly with a very fine greyish line, the two anal lunules being darkest. Underside as in male, but ground-colour rather browner and less green at base.

Head, thorax, and abdomen concolorous with wings; legs white with black spots. Antennæ black, annulated with white. A short black tail margined and tipped with white.

Expanse,  $\mathcal{J} \subsetneq 1 \frac{1}{20} - 1 \frac{1}{5}$  inch.

Alu I., near Shortland I. Aola, Guadalcanar I. N.W. Bay, Malaita I. Tyoh, Malaita I. Fauro I. Florida I. The only difference I can detect in a good series of specimens is a slight one in the size of markings below.

NACADUBA DION, Godt. Enc. Méth. ix. p. 655 (1823).

Rubiana I. Ugi I.

The four specimens before me are females, and without seeing a male I think it better not to describe them as a new species. They seem to differ slightly from that sex of *N. dion* from N. Australia by having two large black spots with broad orange borders and metallic silvery-blue scales at the anal angle of hind wing below.

# NACADUBA VINCULA, sp. n. (Plate XXXI. fig. 18.)

Male. Upperside dull light greyish blue, having a hairy appearance like C. platissa, Herr.-Schäff., very narrowly edged with black; cilia greyish, darker at ends of nervules. Underside rich dark chocolate-brown, with darker white-bordered bands. Primaries with a band in the middle of the cell, commencing on the costa and reaching below the median nervure; a rather wider band at the end of the cell having a small lengthened spot on the costa immediately over it; beyond these a somewhat irregular semicircular macular band commencing on the costa, gradually widening to opposite the cell and reaching to the submedian nervure, where it is narrowest ; the ground-colour outside the inner edge of this band suffused with white scales; a large marginal row of oval lunules with a faint grey line running through them. Secondaries blackish at the base; an irregular basal band and beyond this, commencing on the costa, another which may be said to end on the median nervure, beyond this another which commences on the subcostal and gradually narrowing reaches the anal margin about the end of the abdomen ; a submarginal row of triangular lunules and a marginal row of oval lunules encircled with white; a large reddish-orange spot near the anal angle bordering inwardly a small black spot partly covered with metallic green scales.

The outer margins of both wings very narrowly black; cilia as above.

Head, thorax, palpi, and legs black; antennæ annulated with white. Abdomen brownish above, light buff below. Eyes densely hairy, with a pure white spot between them.

Expanse  $1\frac{2}{5}$  inch.

Fauro I.

I have only seen one specimen of this fine insect, which is allied to *N. lineata*, Murray, N. Australia, and *N. palmyra*, Feld. It may be distinguished from the male of *N. lineata* (which I have seen nowhere described) by its larger size, by the different colour, and prominent white borders to the bands below, and by the outer margin being rounded, not nearly straight as in that species.

It is probable that the female will prove to have a broad white band on the primaries. I have examined the neuration of these species, and find that the first subcostal nervure is anastomosed with the costal nervure much as in typical Nacaduba. The following is a short description of N. lineata, Murray:—Male. Upperside brownish silvery blue, browner at apex. Underside chestnutbrown, with bands much as in N. vincula, but narrower and not bordered with white as in the female.

#### THYSONOTIS, Hübn.

I have followed Herr Semper in using Hübner's name for this group. There is apparently nothing but what Mr. de Nicévile calls "facies" to distinguish it from *Nacaduba*.

THYSONOTIS KRUERA, sp. n. (Plate XXXI. figs. 16 3, 17 9.)

Male. Upperside dark violaceous blue, narrowly margined with dark brown; cilia dark brown. Underside pure white, with costal and outer margins of primaries dark brown, broadest at the base. Secondaries brown at the base and the outer margin, on which is a row of small, irregular, metallic blue spots with a few scales above them towards the anal angle; a few metallic scales near the base just outside the brown.

*Female.* Upperside dull greyish brown, with the disk, from the base, dull light violaceous blue; hind wing with the outer margin darkest, slightly bluish towards the base. Underside as in male.

Head and thorax dark brown; abdomen brown, annulated with white as the bases of the segments; antennæ and legs dark brown spotted with white.

Expanse,  $\Im \ Q \ l \frac{1}{10}$  inch. No tail.

Florida I. (J). N.W. Bay, Malaita I. (Q).

This species is allied to *T. hymetus*, Feld., from Amboina, but is darker blue above, and the female is very different, and to *T. piepersii*, Snellen, from Celebes.

# **THYSONOTIS CEPHEIS, sp. n.** (Plate XXXII. figs. 1 $\mathcal{J}$ , 2 $\mathcal{Q}$ .)

Male. Upperside silky violaceous blue, with the margins narrowly and evenly black; lighter in the disk of the fore wing. Underside allied to T. schaeffera, Esch., but suffused with more brilliant green at the bases and with the outer-marginal band enclosing the black spots, which in that species is light buff, brilliant metallic green.

Female. Upperside as in T. schaeffera, Esch., female. Underside as in male.

Head and palpi greenish white ; thorax and abdomen brown ; legs brown and white.

Expanse,  $\vec{\sigma} = 1\frac{3}{10} - 1\frac{1}{2}$  inch,  $\mathcal{Q} = 1\frac{7}{10}$  inch.

Aola, Guadalcanar I.

In some specimens the outer border only of the band on the underside of hind wing is metallic green, the inner border being buff as in *T. schaeffera*, Esch.

T. cepheis can be at once distinguished from that species by the upperside of male being almost entirely blue, in that respect resembling another allied species, viz. T. calydonica, Feld., from New Caledonia, which has been placed as a synonym of T. schaeffera by 1891.]

M. Semper and others; but on the underside it is a brilliant metallic golden yellow, which is not shown in Felder's figure.

# THYSONOTIS CHROMIA, sp. n. (Plate XXXII. fig. 3.)

Male. Upperside silky violaceous blue, costa and outer margins very narrowly and evenly black; cilia black; tail black, tipped with white. Underside : fore wing creamy white, with the costal margin broadly black; outer margin narrowly black near apex, gradually widening towards outer angle; an indistinct marginal whitish line, and a distinct submarginal white line thickening at each nervule. Hind wing: costa pure white from the base, gradually tapering towards the apex; below that a broad black band between the costal and subcostal nervures reaching from the base to the apex; below this a broad white band from the inner margin running to a point at the apex, even on its upper edge, zigzag on its lower; following this a rather broad black band, and again beyond this a submarginal row of black lunules bordered inwardly with large white crescentshaped lunules; the four lower ones being more or less covered with brilliant shining cærulean-blue scales. A rather broad distinct white marginal line from the apex to the anal angle, intercepted with black at each nervule.

Head, thorax, and abdomen concolorous with wings; antennæ black, annulated with white; legs black and white.

Expanse  $1\frac{7}{10}$  inch.

Fauro I. Maravo I.

I have not seen the female of this insect. It is allied to T. sperchius, Feld., but has many points of distinction.

The specimen figured is from Fauro I.

#### EPIMASTIDIA, gen. nov.

Allied to *Thysonotis*; neuration the same; antennæ somewhat more slender and more gradually clavate. Upperside of hind wing with subcostal nervure clothed from base for about two-thirds its length with long slender hairs. Underside with no metallic spots or markings.

Type Lycæna inops, Feld.

In the British Museum collection *E. inops* is placed in the genus *Pithecops*, with which it also agrees in neuration, but I think from its general appearance it is more nearly allied to *Thysonotis*. It may perhaps be found convenient to retain the name *Danis* for the group of which the *Papilio danis*, Cr., is the type, as they seem to be coarser-scaled and more robust insects.

Epimastidia contains tailless insects, Thysonotis tailed and tailless, and Danis tailless species.

# EPIMASTIDIA ARIENIS, sp. n. (Plate XXXII. fig. 6.)

Male. Upperside uniform shining cærulean blue, with the outer margins of both wings rather narrowly blackish brown; hind wing with the costal third whitish brown, lighter towards the margin. Underside pure creamy white, with the outer margins of both wings

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rather broadly and evenly bordered with brown, down the centre of which is a marginal row of large black lunules, indistinctly bordered inwardly with whitish and outwardly with distinct white spots, some of which appear slightly bluish.

Head, thorax, and abdomen blackish above, white beneath.

Expanse  $1\frac{3}{4}$  inch.

Florida I.

I have before me three males of this beautiful species, which is allied to *E. inops*, Feld., from Aru; but it appears to be of a more brilliant shade of blue than specimens of that species, and on the underside is distinguished by being entirely without the broad brown border to the costal margin of fore wing, and the brown ultramedian band to the hind wing.

#### PROSOTAS, gen. nov.

Allied to *Nacaduba* and allied genera, from which it differs by having the first branch of the subcostal nervure very short, reaching only to the costal nervure, which it joins, and disappears.

Type P. caliginosa, mihi.

PROSOTAS CALIGINOSA, sp. n. (Plate XXXI. fig. 15, d.)

Male. Upperside dark greyish brown, rather darker at the margins; slightly shining violaceous in the disks, especially of the hind wing; cilia light brown. Underside dark brownish grey, with bands and lunules edged with sordid white, much as in N. ardates, Moore, but having the submarginal row of lunules on both wings large, indistinct, and darker than any other portions of the wing. On the hind wing, near the anal angle, is a large black spot inwardly edged with orange.

*Female.* Upperside uniform dull greyish brown, of a lighter shade than male. Underside as in male but paler.

Head, thorax, and abdomen brownish; legs brown with small white spots; antennæ brown annulated with white.

Expanse  $\frac{4}{5}$  inch,  $\mathcal{J} \mathcal{Q}$ .

Alu I., near Shortland I. Aola, Guadalcanar I. Rubiana I. Malaita I.

I have compared this species to N. ardates, Moore, but on the upperside it has a very different appearance, somewhat resembling some specimens of the European Lycæna alsus.

It is possible that this is the Lycana alsulus, Herr.-Schäff., but it does not seem to fit the description.

Lycæna biocellata, Felder, from Australia, possibly belongs to this genus, but I have no specimen for examination.

#### JAMIDES, Hübn.

JAMIDES AMARAUGE, sp. n. (Plate XXXI. figs. 20 d, 21 Q.)

Male. Upperside brilliant shining silvery light blue, greenish in some lights; primaries with apex and outer margin broadly blackish brown; secondaries with the outer margin brown-bordered and a distinct marginal row of grey-circled lunules, largest at the anal angle; inner margin light brown. Underside rather dark greyish brown, with indistinct bands and lunules edged with sordid white. Primaries: a band at the end of the cell and beyond that a broad band commencing on the costa, running in semicircular form to the first branch of the median nervure, where it touches the short band at the end of the cell, and then continues nearly to the submedian nervure, where it ends, beyond this a marginal and a submarginal row of faint lunules. Secondaries with three indistinct much-broken macular bands, the first near the base, second rather before the middle, and the third rather beyond, these last two converging into one near the anal margin, beyond these an indistinct submarginal row of crescent-shaped lunules enclosing a marginal row of circular lunules. A large black orange-bordered spot near the anal angle.

Female similar to male, but without the gloss and of a slightly more bluish tinge and with less green on the costa. Underside as in male, but white rather more prominent.

Head, thorax, abdomen, and short tail greyish brown; palpi and legs whitish.

Expanse,  $\Im 1\frac{1}{5}$  inch,  $\Im 1\frac{1}{5}-1\frac{1}{10}$  inch.

Alu I., near Shortland I. Guadalcanar I. Florida I.

This species may be distinguished from its allies by its pale coloration. There is scarcely any difference between the sexes, except that the male is metallic and the female duller blue.

JAMIDES STEMIAS, Sp. n. (Plate XXXII. figs. 43, 59.)

Allied to J. woodfordii, Butl.

*Male.* Upperside rich dark shining purple, with the apex of fore wing very narrowly black; cilia black. Underside much as in species mentioned, but the ground-colour of the white-bordered bands generally of a darker shade than the rest of the wing, and the submarginal rows of crescent-shaped lunules large and distinct.

*Female*. Scarcely distinguishable from that sex of *J. woodfordii*, but the marginal row of lunules on the hind wing larger and more distinct. Underside as in male.

Expanse  $1\frac{3}{10}$  inch.

Alu I., near Shortland I. Fauro I. Florida I. N.W. Bay, Malaita I.

This species can be at once distinguished from its allies by its dark purple coloration. I think that there can be no doubt that Mr. Butler's *J. campanulata* is a synonym of his *J. woodfordii*. I have before me some 36 specimens of this form from the Fiji Islands, varying in size from  $\frac{4}{5}$  inch to  $1\frac{1}{5}$  inch, and having the submarginal line noted by Mr. Butler as a principal distinction varying from blue to white, and in some cases disappearing altogether.

JAMIDES CEPHION, sp. n. (Plate XXXI. fig. 19.)

Male. Brilliant morpho blue, with emerald-green reflexions; apex and outer margin narrowly black above, equal to that of J. sæmias. Inner margin of hind wing densely black. Tail black, not tipped

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with white. Underside much as in J. woodfordii, but rather darker and the black spot over the tail larger and bordered inwardly with a broader band of dark red, not orange.

Expanse  $1\frac{1}{10}$  inch.

Aola, Guadalcanar I.

This species is perhaps nearest to J. morphoides, Butl., from New Hebrides, but is even more brilliant, and has much narrower borders.

#### LAMPIDES, Hübn.

#### LAMPIDES ARATUS.

Papilio aratus, Cr. Pap. Exot. iv. t. 365, A, B (1782).

Lampides cœrulina, Mathew, Trans. Ent. Soc. Lond. 1887, p. 46. Alu I., near Shortland I. Fauro I. Guadalcanar I. Ugi I.

The types of Mr. Mathew's species (now in Messrs. Godman and Salvin's collection) are stated (*loc. cit*) to be allied to *L. ælianus*, Felder, but they are not in any way distinguishable from Cramer's species from Amboina and Ceram.

## LAMPIDES EVANESCENS, Butl. P. Z. S. 1875, p. 615.

Alu I., near Shortland I. Fauro I. Maravo I. Florida I. Aola, Guadalcanar I. Cape Astrolabe, Malaita I. Opposite Ugi, San Christoval I. Ugi I. St. Anna I. Ulaua I.

I have before me a large series of this species which shows considerable variation as to the breadth of the black border to the primaries above, and as to all the other distinctions pointed out by Mr. Butler (*loc. cit.*), excepting that the wings do certainly appear somewhat shorter than Indian specimens of *L. ælianus*, Fabr. There are examples from most of the localities which agree well with the types and other specimens in Messrs. Godman and Salvin's collection from New Hebrides Islands.

There can be no doubt that *L. ælianus*, Auct., is a synonym of *L. celeno*, Cr., the type of which is, of course erroneously, stated to have come from Surinam.

# LAMPIDES AREAS, Sp. n. (Plate XXXII. figs. 7 3, 8 2.)

Male. Upperside uniform light cobalt-blue, outer margins very narrowly black. Underside much like L. aratus, Cr., but the groundcolour of both wings dark greyish in place of brownish, and all the white markings narrower; the black sagittate lunules on hind wing being less distinct and somewhat smaller, and the upper black apical spot being much the largest, the reverse being the case in L. aratus.

Female. Upperside : fore wing blue as in male, with the costa very narrowly and the apex and outer margin broadly black. Hind wing slightly suffused with blue from the base to rather beyond the middle, bordered with a distinct row of bluish-white spots, beyond which and between the marginal row of deep black oval lunules, which are bordered inwardly and near the anal angle outwardly with bluish white, the wing presents a decided cupreous appearance, which is caused by the abnormal quantity of orange on the underside showing through. Underside as in male, but with a large patch of orange on hind wing reaching from the submedian nervure almost to the apex.

Both sexes with a short streak of silvery blue on each side of the median nervules and the submedian nervure near the margin.

Expanse,  $J = 1\frac{2}{5} - 1\frac{1}{2}$  inch,  $Q = 1\frac{1}{5} - 1\frac{2}{5}$  inch.

Alu I., near Shortland I. Aola, Guadalcanar I.

This species is similar to *L. coruscans*, Moore, on the upperside, but differs in having the black margins reduced to a narrow line; the fore wing also being broader, and the hind wing more produced apically.

#### CATOCHRYSOPS, Boisd.

CATOCHRYSOPS CNEJUS, Fabr. Ent. Syst. Supp. p. 430 (1798).

Alu I., near Shortland I. Guadalcanar I. Florida I.

Mr. Woodford's collections contained several specimens of this wide-ranging species.

CATOCHRYSOPS PLATISSA, Herrich-Schäffer, Stett. ent. Zeit. vol. xxx. p. 74, pl. iv. fig. 20 (1869),  $\mathcal{Q}$ .

Alu I., near Shortland I. Aola, Guadalcanar I. N.W. Bay, Malaita I. Fauro I.  $(\mathcal{Q})$ .

Specimens from these islands agree well with several from the New Hebrides in the British Museum sent by Herrich-Schäffer under his name, and I think that both Herr Semper and Mr. de Nicéville are wrong in placing it as a synonym of *C. strabo*, Fabr. It is greyish silvery blue, much like *C. lithargyria*, Moore, but darker; and I should much prefer to say that it was the same as the latter species than the former.

We have specimens of *C. strabo* from N. Australia, whence the type of *C. platissa* is stated to have come. The male is described as pale sky-blue, and it is impossible to recognize the species from the figures given of the female.

#### TARUCUS, Moore.

TARUCUS PLINIUS.

Tarucus plinius, Fabr. Ent. Syst. vol. iii. pt. 1, p. 284 (1793). Lampides cassioides, Murray, Ent. Mo. Mag. x. p. 108 (1873). Lampides pseudocassius, Murray, Ent. Mo. Mag. x. p. 126 (1873). Malaita I. Florida I. Fauro I.

A large race of this variable insect seems to inhabit these islands, and the only female before me (from Malaita I.) is much clouded with brown and has very little blue on the disks. Some confusion still seems to exist as to this species and its allies : Mr. Trimen (South-African Butt. vol. ii. p. 69, 1887) places *T. pulchra*, Murray, as a synonym of *T. telicanus*, Lang, whilst Mr. de Nicéville (Butt. Ind., &c. vol. iii. p. 194, 1890) places it under *T. plinius*, and states (p. 187) that *T. telicanus*, Lang, is another species, which I think will probably prove to be the case.

[June 2,

There is very little doubt that Mr. Murray has described another variety of this species.

## ARHOPALA, Boisd.

#### ARHOPALA SOPHAX.

Amblypodia sophax, Mathew, Trans. Ent. Soc. 1887, p. 47.

Alu I., near Shortland I. Fauro I. Rubiana I. Aola, Guadalcanar I. Ugi I. (*Mathew*).

Closely allied to A. phryxus, Boisd., and A. helius, Cr., from which it seems to differ on the underside in having the ultra-median macular band on the fore wing more regular and the spots also generally larger.

The type specimens are in Messrs. Godman and Salvin's collection.

ARHOPALA SOPHROSYNE. (Plate XXXII. fig. 9, 3.)

Amblypodia sophrosyne, Smith, Ent. Mo. Mag. xxv. p. 300 (1889).

Aola, Guadalcanar I.

A fine and distinct species, not closely allied to any with which I am acquainted, but, as stated by Mr. H. G. Smith, nearest to *A. æxone*, Hew.

ARHOPALA EURISUS, sp. n. (Plate XXXII. figs. 11 8, 12 2.)

Male. Upperside dark purple, slightly bluish at the base; costa and outer margin of fore wing and outer margin of hind wing very narrowly black; costa of hind wing rather broadly black; anal fold brownish black. Underside brown, with the spots and markings darker than the ground-colour and bordered with whitish brown, with the exception of the two in the cell and the one at the end of the cell of fore wing, which are bordered with silvery blue. The markings are arranged much as in A. adorea, de Nicév., but in the fore wing the outer band, the spot on the costa, and the lower spot of the ultra-median band are wanting, and on the hind wing the submarginal line and the band within are absent.

Female. Light cobalt-blue, lighter at bases and shading off to purple at its outer margin on the hind wing. Fore wing : apex and outer margin rather broadly black ; costal margin light brown at the base, merging into black about opposite the middle of the cell. Hind wing : costal and outer margins rather narrowly, and apex rather broadly, black.

Head, thorax, and abdomen concolorous with wings. Tail black, tipped with white.

Expanse,  $\Im$  2 inches,  $\Im = 1\frac{3}{5}-2$  inches.

Fauro I. Aola, Guadalcanar I. Florida I.

In form and general appearance this insect resembles Mr. de Nicéville's figure of A. adorea (Butt. Ind., Burmah, & Ceyl. vol. iii. frontis. fig. 139, 1890), but is rather smaller. It is also allied to A. micale, Blanch., and is somewhat like Hewitson's figure no. 29 of A. adatha. There is a specimen  $(\mathcal{J})$  in Messrs. Godman and Salvin's collection which is much like A. eurisus on the underside, but on the upperside is of a darker purple and all the margins appear broadly black. It is from Malaita I., but unfortunately so much broken that I do not think it advisable to name it. A male and female from Aola are figured.

# DEUDORYX, Hew.

DEUDORYX WOODFORDI, sp. n. (Plate XXXII. figs. 13 d 14 Q.)

Allied to D. diovis, Hew.

Male. Differs in its larger size, and being rich cupreous in place of dark orange on upperside, and on the underside by being dark greyish brown, by the ultra-median band on fore wing being placed at a greater angle to the outer margin, and by the marginal spot on the hind wing between the lower median nervules being larger and bordered inwardly with orange, not encircled as in D. diovis. The front of the head, which in D. diovis is bright yellow, white.

*Female.* Upperside : dull greenish black (not brown as in *D. epijarbas*, Moore), darker in the cell and along costal margin of fore wing. Lobe dark orange, with a black spot on its outer extremity. Underside as in male, but paler.

Head and thorax of male black; anal half of abdomen cupreous as wings; basal half black. Head, thorax, and abdomen of female concolorous with wings.

Tail black, tipped with white.

Expanse,  $1\frac{9}{10}$  (3) to  $1\frac{7}{10}$  inch (9).

Aola, Guadalcanar I.

Mr. Woodford's collection contained a number of specimens of this species which do not show any variation.

DEUDORYX VIRIDENS, sp. n. (Plate XXXII. fig. 15.)

Male. Upperside intermediate in colour between D. diovis and D. woodfordi. Underside pale as in D. diovis, but strongly dusted over both wings with light green scales. The spot at the end of the cell large and distinct and much darker than any other marking on either wing, and the band beyond bent in its middle towards the outer margin. The black spot near the margin between the lower median nervules on hind wing smaller than in D. woodfordi and bordered inwardly with silvery blue, outwardly with faint orange.

Head, thorax, and abdomen blackish brown.

Expanse  $1\frac{3}{5}$  inch.

Aola, Guadalcanar I.

This insect can be readily distinguished from its allies by the green appearance of the underside.

The black spot in the lobe in this species and in *D. woodfordi* is always on the lower edge, in *D. epijarbas* and *D. diovis* it is always in the centre.

I have not seen the female.

#### BINDAHARA, Moore.

# BINDAHARA ISABELLA.

Myrina isabella, Feld. Sitz. Ak. Wiss. Wien, math.-nat. Cl. xl. p. 451. n. 10 (1860).

Q. Myrina jolcus, Feld. l. c. n. 11 (1860); Hew. Ill. D. L. t. 13. figs. 16, 17 (1863).

Sithon chromis, Mathew, Trans. Ent. Soc. 1887, p. 47.

Alu I., near Shortland I. Fauro I. Aola, Guadalcanar I. N.W. Bay, Malaita I. Ugi I. (Mathew).

I can find no points whereby to distinguish Mr. Mathew's species from *B. isabella*, which has been lately figured by Dr. Staudinger (Exot. Schmett. pl. 95). Mr. Mathew states (Trans. Ent. Soc.) that *S. chromis* is "allied to *S. phocides* (Feld. !), but differs .... in possessing .... a deep purple blotch near apex, instead of a short, narrow, blue band." The *H. phocides*, Fabr., is now known to be a species without any blue whatever on the upperside.

Mr. Woodford obtained a large number of males of this species varying very much in size, also several females which agree well with Hewitson's figure.

There is a specimen in the British Museum from the Aru Islands.

#### THECLA (?) ALCESTIS.

Thecla alcestis, Smith, Ent. Mo. Mag. xxv. p. 300 (1889).

Gela I.

I have not seen specimens of this species and am unable to determine to which genus it is rightly referable.

## DESCRIPTION OF THE PLATES.

#### PLATE XXXI.

Fig.	1.	Pithecops dionisius, p. 358.
0		, var. steirema, p. 358.
		Nacaduba plumbata, J, p. 359.
		ugiensis, \$, p. 360.
		euretes, J, p. 360.
		, Ŷ, p. 360.
		korene, J, p. 361.
		maniana, J, p. 361.
	10.	amaura, J, p. 361.
		ligamenta, J, p. 361.
		, ♀, p. 361.
		keiria, J, p. 362.
		, ♀, p. 362.
		Prosotas caliginosa, &, p. 366.
		Thysonotis kruera, J, p. 364.
		, ♀, p. 364.
		Nacaduba vincula, J, p. 363.
		Jamides cephion, J, p. 367.
		- amarauge, J, p. 366.
		, Ŷ, p. 366.
		, +, r



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1891. "On the Lycaenidae of the Solomon Islands." *Proceedings of the Zoological Society of London* 1891, 357–372. https://doi.org/10.1111/j.1096-3642.1891.tb01760.x.

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