CHALCIDIDAE OF THE SEYCHELLES ISLANDS.

BY L. MASI.

WITH AN APPENDIX BY J. J. KIEFFER.

(75 Figures.)

[NOTE.—The material dealt with in this paper forms part of the collections of the Percy Sladen Trust Expedition to the Western Indian Ocean in 1905 and 1908–9. The results of this Expedition have hitherto been published all together in one work, consisting of certain special volumes of the *Transactions of the Linnean Society of London*: five of these are already complete (Ser. 2, Zool., vols. xii–xvi), while a sixth (vol. xvii) is in course of publication. Circumstances have, however, rendered it impossible for all the reports to appear in the Linnean Society's publications, and it is owing to the kindness of the Editors of *Novitates Zoologicae* that the report on Chalcididae is printed here.

With the exception of two specimens, the entire collection of Chalcididae was obtained in 1908–9 in the mountainous granitic islands of the Seychelles. In most of the groups of insects from those islands hitherto investigated, the bulk of the species and specimens collected by the Expedition were taken in the very peculiar endemic forests which remain in the highest mountains at elevations between 1,000 and 3,000 feet, in which by far the greater part of the collector's time was spent. Among the Chalcidids, however, a strikingly large proportion was found among non-endemic vegetation at lower levels, particularly in the narrow cultivated plains and small marshes which fringe the coasts of the islands in certain places. The only Chalcidids taken in any of the other archipelagoes visited by the Expedition are the two examples referred to above, *i.e.* the types of *Hockeria testaceitarsis* Cameron, from the coralline Cargados Group, and of *Stilbula insularis* Cameron, from an atoll in the Chagos Group: both are referred to below. A first set of the material, including the TYPES of all new genera and species, has been placed in the British Museum.—HUGH SCOTT.]

INTRODUCTION.

The collection of Chalcididae described in this work was made by Mr. Hugh Scott in the Seychelles Islands during the second half of 1908 and the early part of 1909; it consists of nearly 550 examples, belonging to 69 genera and 93 species. The genera new to science are 22 in number, and the species which I have been able to distinguish as new are 77*; but there are 3 species of which the determination is doubtful, and 7 that remain undetermined, either because

* The description and diagrams of one of the new species, *Centrobia mahensis*, were made some years ago by Professor Dr. J. J. Kieffer. They have not previously been published, but now appear in an appendix at the end of this work (p. 230).

they are represented by imperfect specimens or because they belong to genera which seem to me to demand a complete revision. Six of the species were certainly known previously from other countries : they are *Hockeria testaceitarsis* Cameron, discovered in the Cargados Islands (about 150 miles north-east of Mauritius), *Coccophagus eleaphilus* Silvestri, from the colony of Eritrea, *Melittobia hawaiiensis* Perkins, *Tetrastichus hagenowii* (Ratz.), *Euplectrus bicolor* (Swed.) Hal., and *Eucomys infelix* Embleton.

Hitherto only two species of Chalcididae were known from the Seychelles, a *Chalcis* and a *Tetrastichus*. The former was collected by Alluaud in 1892 and was referred by Pérez with some hesitation to *Chalcis amenocles* Walker ; it does not seem to me to differ from the species which I describe below under the name *Chalcis sodalis*. The *Tetrastichus* is *T. hagenowii* (Ratz.), a parasite of the eggs of cockroaches, very widely distributed ; it is represented in the material under review by numerous examples, and the original types of the species also came from the Seychelles.

Mr. Scott's collection, containing many new genera, and genera represented by a single species, forms the material for a valuable contribution to our knowledge of the Chalcididae, and I much regret having been unable to illustrate all the forms in a suitable manner : those which are represented by few examples, or by a single example, have not allowed of all their characteristic parts being figured ; moreover, the condition of international relationships has increased the difficulties of my study and prevented my making comparisons with the types of certain forms.

The restricted nature of our knowledge of the Chalcididae of the African fauna, and our still more inadequate acquaintance with those of the Asiatic fauna, do not at present admit of our drawing conclusions from the results of my work. There are in the collection three species which are undoubtedly common to the faunas of the Seychelles and of Europe, namely, *Eucomys infelix*, *Euplectrus bicolor*, and *Tetrastichus hagenowii* ; the same appears to apply also to two others, *Tetrastichus inunctus* (Nees) Thoms., and *Leptomastix histrio* Mayr, but I am very doubtful as to the exactitude of the specific determination of these latter.

I may here express my indebtedness and my thanks to all who have helped me in this work, and especially to Messrs. Hugh Scott, of Cambridge University, Waterston, of the Imperial Bureau of Entomology (at the British Museum), Silvestri and Grandi, of the School of Agriculture at Portici, and Bouvier and Lesne, of the Museum of Natural History at Paris. I may also express my gratitude to the Editors of NOVITATES ZOOLOGICAE, who have permitted the publication of my report in their well-known periodical.

MUSEO CIVICO DI GENOVA,
20th September, 1916.

FAM. *CHALCIDIDAE*.SUBFAM. *AGAONINAE*.GEN. *Allotriozone* Grandi.

Boll. Labor. Zool. gen. e agr. Portici, vol. x. 1916. p. 182.

1. *Allotriozone seychellense*, sp. n. (figs. 1, 2).*

Femina. Fulva, dorso et antennarum scapo plus minus obscurioribus, capite brunneo-aeruginoso, vertice fronteque brunneis, flagello ultra dimidium articuli septimi infuscato, alarum nervis brunneo-griseis.

Caput antice visum modice elongatum, latitudine dimidiam longitudinem proportionem 11 : 19 superante; vertice setis paucis longis instructo, oculis glabris, diametro orbitali maiore $\frac{2}{5}$ capitis longitudinis aequante; faciei area media marginibus fere parallelis limitata; lobis oralibus submedianis apice extus incisis; lobi clypealis parte prominente longitudine latiore, lateribus parallelis; processu frontis clypeo imposito acute triangulari.

Mandibulae superne bicostulatae, dente validiore armatae, prope huius basim denticulis in margine orali circa 7, minimis, instructae, quibus 4 vix maiores in dimidio basali dentis sequuntur; processus laminaris latitudine sua magis quam septies longior, latere interiore conspicue dentato-spinoso, superficie ventrali denticulis in serie transversa 8-9, seriebus denticulorum circa 30.

Scapus latitudine duplo longior, postice sat fortiter curvatus, antice pilis nonnullis instructus utraque medium longitudinis brevi spatio recte marginatus. Flagelli articulus tertius lobum formans conspicuum, apice rotundatum, quam articulum praecedentem sesquilingiorem; articulus quartus secundo fere aequilingus; quintus et sextus latitudine sesquilingiores; septimus brevior;

FIG. 1.—*Allotriozone seychellense*, ♀.

1, caput antice visum ($\times 35$); 2, mandibulae (sine lamina) latus dorsale ($\times 100$); 3, antennae scapus et flagelli articuli 1.-5. ($\times 88$); 4, prothoracici nervi ($\times 50$ —pili in superficie non delineati).

* Nomenclatura, qua in descriptionibus utar, ab illa Thomsoni ("Hymenoptera Scandinaviae") parum differens, eadem est quae in descriptionibus meis jam ante editis. (Vide in *Boll. Labor. Zool. gen. e agr.*, Portici, vol. i. 1907. p. 231—et *Ann. Museo Civ. Genova*, vol. vii. (3.) 1916. p. 55.) Pars praeaxillaris mesonoti = mesonotum auctorum quorundam, id est pars mesothoracis dorsalis quae, scapularum sulcis carens, in scapulas et scutum non est divisa. Metanotum = prosoma, id est tergum segmenti primi abdominalis. Praestigma = prothoracis subcostae pars ascendens, quae nervum marginalem attingit, quo a nervo stigmatico separatur. Nervus stigmaticus = n. radialis.

nonus et decimus, clavae pertinentibus, subquadrati; ultimus praecedente fere duplo longior.

Proalae duplam latitudinem longitudine vix attingentes, angulo posteriore late rotundato, fere truncato, margine externo subrecto; cellula costali quam nervo marginali triplo longiore et huius longitudinem cum postmarginalis rudimento simul sumptam duplo superante. Alae metathoracis latere postico

angulum obtusissimum vix rotundatum fidentes, latitudine maxima ad hamulos, hanc fere quintuplo longitudine superantes, scilicet proportionem 9:2; pilis marginis anterioris dimidio quam posterioris brevioribus.

Tarsus pedum anteriorum duplam tibiae longitudinem superans proportionem 5:2, articulo primo, itemque articulis tribus sequentibus simul sumptis, tibiae aequilongis, his ultimis latere inter-

FIG. 2.—*Allotriozone seychellense*, ♀.

1, proala ($\times 17$); 2, mandibula ($\times 58$); 3, dentes laminae mandibularis ad mediam huius longitudinem ($\times 112$).

riore dimensis. Pedes posterioris tibia magis quam dupla eius latitudine longiore, denteque apicali obtuso munita; tarso duplam tibiae longitudinem superante, articulo primo secundo cum tertio, itemque tibiae, aequilongo.

Oviductus abdominis longitudinem aequans.

Long. 1,4–1,6 mm.

Mas ignotus.

Habitat. Mahé: Cascade Estate.—Silhouette: “Mare aux Cochons, about 1,000 ft.; some of the specimens came to the lamp at night, in the hut where I camped during part of August and September, 1908” (H. Scott).*

Specimina tredecim, pauca integra.

Adn. Generi *Allotriozone*, quod Grandi (*l.c.*) nuper instituit, species duae, eiusdem auctoris, *A. prodigiosum* et *heterandromorphum*, pertinebant, quas Silvestri in regionibus litoralibus Africae occidentalis septentrionalis invenit: his species seychellensis nunc intermedia quasi accedit, *prodigioso* tamen affinior. A quo praecipue differt capite minus angustato, lobo clypeali aliter formato et *A. heterandromorpho* similiore, mandibula sicut in hac specie uncinato-dentata, lamina mandibulari denticulorum seriebus minus numerosis, circa triginta, instructa (in *prodigioso* 48–52, in *heterandromorpho* 20–22), proalis latioribus

GEN. *Blastophaga* Gravenhorst.

(*Kradibia* Saunders.)

2. *Blastophaga*, sp.

Femina. Piceo-brunnea, antennis, pectore pedibusque flavo-griseis, alis decoloribus at parum diaphanis, nervis brunneis; pronoto grosse, confertim,

* See *Trans. Linn. Soc.* xiv. 1910, bottom of p. 26.

punctato, pilosulo; oviductu dimidiam abdominis longitudinem fere aequante. Long. 1,4 mm.

Specimen unicum ad Mahé captum (Mare aux Cochons). Antennarum articuli usque ad quintum tantum extant.

Adn. Species haec, cui propter colorem et nervum postmarginalem valde elongatum, similitudo est quaedam *Kradibiae cowani* Saund., non amplius describere potui, quum sit specimen unicum, antennarum flagello toto carens, corpore deformato.

GEN. *Crossogaster* Mayr.

3. *Crossogaster atratus*, sp. n. (fig. 3).

Femina. Nigra, nitida; oculis nigro-brunneis; scapo ac pedicello fulvis; funiculo cum clava, subcostae parte ascendente, nervo marginali et stigmatico versus apicem, flavo-fuscis; nervi marginalis basi, stigmatici parte angustiore et alarum lamina hyalinis; metanoti margine postico, pedibus cum coxis, abdominisque latere ventrali, fulvis; abdominis dorso leniter cupreo, basi subviridi; oviductu nigro.

Caput antice visum subquadratum, latitudine longius proportionem 21 : 19, ad os paullum minus quam in vertice latum, angulis, praecipue inferioribus, rotundatis, ocellis externis spatio duplo quam ab oculis inter se remotis, genis sulco impressis, margini laterali capitis parallelo, clypeo retracto, 1/3 faciei latitudinis aequante, extus recte terminato, in medio margine inciso. Faciei superficies punctis nonnullis sparsim impressa.

Antennae in linea oculari ad mediam capitis longitudinem insertae, scapo ocellum haud attingente, pedicello triplo longiore quam latiore, anello minimo, articulo primo funiculi fere annuliformi, quam sequentibus dimidio brevior, his aequalibus, vix transversis, dimidiam pedicelli longitudinem aequantibus, clava quam articulis duobus praecedentibus paullum longiore, distincte in articulos tres subaequales divisa.

Thorax capite longior proportionem 9 : 7, vix angustior, depressus, pilis nonnullis perlongis instructus quam verticis magis elongatis; scuto 2/5 thoracis latitudinis haud longiore; sulcis scapularum et axillarum vix conspicuis; scutello semielliptico, quadrisetoso, eius margine anteriore quam posteriore scuti parum latiore; dorsello arcuato lineari; metanoto haud brevi, medio sulcato; metapleura subtiliter sulcato-reticulata, callo parce at longe pilosulo.

Proalae postcosta 4-5-setosa, nervo marginali plurisetoso haud tenui, latitudine 1/8 longitudinis aequante, quam cellula costali brevior proportionem 3 : 8, quam nervo stigmatico fere duplo longior; hoc subarcuato; postmarginale fere nullo; lamina linea obliqua pilorum, ad medium nervi stigmatici incipiente, in partem basalem glabram et apicalem parce pilosam divisa.

Femora antica et postica aequaliter dilatata; tibiae posticae prope calcar spina brevi, crassa, instructae.

Abdomen, praeter oviductum, paullum thorace longius, haud angustius,

FIG. 3.—*Crossogaster atratus*, ♀.
1, caput antice visum; 2, idem de latere;
3, ala anterior; (× 27).

latitudine fere duplo longius, ellipticum, depressum, segmentorum marginibus dorsalibus aspectu crenulatis et medio haud profunde angulatim incisus; valvula ventrali setosa; oviductu haud curvato, $2/9$ abdominis longitudinis aequante.

Long. 1,9 mm.

Habitat. Mahé: "among scrubby endemic forest vegetation, at top of Mount Sebert, nearly 2,000 ft. i.-1909," ubi *Pandani* frequentes.

Specimen unicum.

Adn. Huic generi duae species pertinebant, *C. triformis* Mayri et *C. silvestrii* Grandii, illa in Sokotra insula, haec in Senegal inventa et ab auctore nuper descripta (*Boll. Labor. Zool. gen. e agr.*, Portici, x. 1916. p. 253). *C. triformem* a specie seychellensi facile dignoscas capite thoraceque obscure viridibus, abdomine fere toto brunneo, flagelli articulo tertio sequentibus conformi, oviductu longiore. *C. silvestrii* praecipue differt corporis colore castaneo-fuligineo, capite, antice inspecto, ad os angustato, pedicello crassiore, nervo stigmatico magis attenuato, oviductu brevior.

SUBFAM. TORYMINAE.

GEN. *Sycoryctes* Mayr.

4. *Sycoryctes sebertianus*, sp. n.

Femina. Aenea, thoracis lateribus et capite leniter auratis, hoc infra antennarum radículas pallide flavo, vertice subviolaceo; thoracis dorso cuprescente; terebrae valvis nigris; scapo obscure aeneo, flagello nigro-brunneo; coxis atque femoribus fuscis, tarsis omnibus tibiisque anticis totis fulvis, tibiis posterioribus basi fulvis versus apicem sensim infuscatis; vertice transversim strigoso; antennis ab ore $1/4$ capitis longitudinis remotis, scapo ocellum attingente, pedicello conico, latitudine vix longiore, anello brevissimo, funiculi articulis aequilongis, primo quam pedicello parum crassiore, aequae longo atque lato, ultimo longitudine latiore proportionem 5:3, clava distincte triarticulata, articulis duobus praecedentibus aequilonga; mesonoti parte praeaxillari minute reticulata, pronoto atque scutello etiam magis minute insculptis, episternis laevibus, politis, metapleura subtiliter, confertissime, transversim striata.

Long. 2,6 mm., oviductus 3 mm.

Habitat. Mahé: "from scrubby endemic forest vegetation at summit of Mount Sebert, about 1,800 ft., i.-1909."

Specimen unicum.

GEN. *Podagrion* Spinola.

5. *Podagrion terebrator*, sp. n. (fig. 4).

Femina. Capite thoraceque viridibus, oculis ocellisque rufo-brunneis, genis fronteque plus minus auratis, mesothoracis lateribus pro parte cyaneis, metapleura, coxis posticis, femorum posticorum latere interiore, abdominis latere dorsali, obscure cyaneo-viridibus, parte reliqua abdominis, pedibus anticis mediisque, femoris postici basi et apice, antennarum scapo et pedicello, fulvis, hoc ultimo fusco-maculato, funiculo flavo-brunneo, clava fusca, proalis fere limpidis, nervis fuscis, tegulis brunneis.

Caput minute reticulatum, areolis temporum maioribus. Annellus duplo latior quam longior; funiculi articulus primus latitudine sua fere sesquilongior,

sequentes sensim crassiores atque breviores, ultimi duo tamen aequilongi, articulus quintus quadratus, sextus longitudine parum latior, septimus huius latitudinem conspicue superans. Clava longitudinem articulorum quinque praecedentium aequans, de supra inspecta quam articulus sextus latior.

Mesosternum et mesopleura strigis notata reticulum formantibus, in parte posteriore mesopleurae fere obsoletum. Metapleura subtiliter reticulato-sulcata, prope latus ventrale antiusque areolis minoribus, sulcis fortius impressis limitatis, insculpta. Metanotum carinis duabus ex puncto medio anteriore divergentibus, ramulos duos emittentibus parallelos, quorum externus ad partem lateralem, internus ad dorsalem abdominis basis, desinentes.

Femur posticum longitudine duplam altitudinem paullo superans (proportione 20 : 9) dentibus circa septem munitum.

Segmentum abdominale primum laeve, secundum sparsim atque minutissime punctatum, tertium et quartum sulcis tenuissimis minute reticulata, quintum sculptura etiam reticulata, at areolis transversis.

Long. 3,5 mm., oviductus 3 mm.

Habitat. Mahé: Cascade Estate, etc.—*Silhouette:* Mare aux Cochons. "At elevations of about 1,000 ft."

Specimina quatuor.

FIG. 4.—*Podagrion terebrator*, ♀.
1, antenna ($\times 27$); 2, femur posticum de latere interiore inspectum ($\times 23$).

SUBFAM. CHALCIDINAE.

GEN. *Chalcis* Fabricius.

6. *Chalcis lepida*, sp. n. (fig. 5).

Femina. Nigra, scapo rufo-brunneo versus apicem lutescente, pedicello obscure luteo, funiculi articulis ultimis, clava pro parte, labro et mandibulis rufis; interdum his partibus totis nigris. Femora antica dimidio basali vel fere tota, intermedia praeter apicem, plus minus nigricantia, reliquo spatio lutea; tibiae anteriores fere omnino luteae vel rufae, interdum nigrae; femur posticum apice extus luteo, vel rufo et luteo maculato; tibiae posticae latus exterius, praeter partem tertiam basalem et maculam apicalem lateri posteriori propinquam luteas, grisescenti-rufum, saepius tamen in tertio medio nigrum, latus anterius semper nigrum, interius rufum et basi interdum flavescens. Tarsi flavo-albidi, apice brunnei. Tegulae flavae. Alae limpidae, nervis fuscis.

Altitudinis capitis ad latitudinem proportio 7 : 10, latitudinis frontis ad capitis 1 : 2. Oculi magni, valde convexi, ex latere inspecti ovoides, lati, diametro verticali spatium interorbitalem fere aequante. Ocelli posteriores ab anteriore magis quam ab oculis remoti. Carina praeorbitalis praesens. Faciei alveoli contigui, quam dorsi minores. Antennae nonnihil sub linea oculari insertae, a clypeo parum remotae; flagello altitudinem capitis longitudine vix superante; anello bene discreto, duplo latiore quam longiore; funiculi articulo primo latitudine sua sesquilongiore, 4. et 5. quadratis; clavae articulo secundo quam primo maiore, aequae longo atque lato, apice obtuso, saepe post mortem immerso.

Thorax brevis, altus, de latere inspectus dorso plano, scutello vix prominente,

metanoto dimidio angulo recto declivi. Scutelli margo apicalis integer. Metathoracis latera haud dentata; metapleurae antice linea verticali limitatae. Alveoli dorsi, praecipue super scutum, haud contigui, in dimidio posteriore scutelli sensim versus apicem maiores; spatia interposita scabra.

Femora secundi paris pedum item atque primi ad medium crassiora. Femora postica fere duplo longiora quam latiora, interne tuberculo instructa, margine ventrali dentibus decem vel duodecim, apice obtusis, munito, quorum sex primi spatio inter se remoti eorum latitudinem aequante, primusque ceteris maior; superficiei interna externaque haud nitidis, hac quum satis vitro aucta, sulcis subtilibus minutissime reticulata, in angulis reticuli punctis satis conspicuis impressa, sat dense pilosula. Coxae posticae superficiei externa nitida, lineolis tantum sulcata subtilibus, undulatis, quibus reticulum efficitur; superficiei inferiore crebre foveolis rotundis impressa, quarum distantia ipsarum diametrum paullum superat.

FIG. 5.—*Chalcis lepida*, ♀.
Femur posticum ($\times 27$).

Abdominis segmenta praeter basale minutissime granulosa, punctis piliferis sparsis; tergum sextum foveis rotundis fere totum insculptum. Pili in segmentis 3.–6., nec non in lateribus segmenti secundi, frequentes.

Long. 3–3,5 mm.

Mas feminae similis.

Habitat. "Seychelles, mostly from cultivated country at low elevations. Silhouette: coconut-planted coast at Pointe Étienne, ix. 1908.—Mahé: from Port Victoria and other localities in the low country, also from Cascade Estate at 1,000 ft.—Anonyme Island (a cultivated islet near Mahé).—Dennis Island (an outlying coral-island)."

Specimina: ♀♀ quindecim, ♂ unus.

Adn. Diagnosin invenire quae huic *Chalcidi* bene conveniat nequeo, quare pro nova habeo. Species femorum posticorum colore atque sculptura scutellique apice non inciso similis est *Chalcidi vicinae* Walk., at differt femorum denticulis; colore autem speciei cuidam syriacae, ineditae, accedit, nec non *Chalcidi* quam dr. Mori *Cassidae vittatae* parasitam in Italia invenit.*

7. *Chalcis sodalis*, sp. n. (fig. 6).

Chalcis amenocles Pérez, *Ann. Soc. ent. Fr.* vol. lxiv. 1895. p. 211, 212 [*forte*].

Femina. Nigra, scapo in dimidio inferiore grisescenti-luteo macula alba oblonga notato; proalis haud infumatis, subcosta usque ad praestigma grisea, nervis reliquis brunneis; pedibus nigro, albo et rubro variis; femoribus anticis in dimidio basali, mediis fere totis, nigris, colore hoc ab albido partis reliquae linea obliqua distincte separato; tibiis anticis in tertio medio vel paullo amplius rufis, parte basali et apicali albis linea marginis anterioris etiam alba coniunctis; tibiis secundi paris in tertio medio nigris, reliquo spatio albis; pedibus posticis coxis nigris, femoribus rubris, horum macula apicali alba $\frac{1}{4}$ longitudinis occupante, tibiis albis, in tertio medio fere toto et basi nigro-maculatis, vel in his partibus rubris, in latere anteriore nigris; tarsis omnibus fulvis, apice fuscis, tegulis et pilis albis.

* In femoris figura dens quartus structura anomala duplicatus apparet.

Caput carinis genali, praeorbitali atque temporali continuis, faciei dimidio inferiore genisque dense argenteo-pilosis, spatio frontis inter orbitam et foveam antennalem articulum primum funiculi aequante. Articulus hic et sequens quadrati, septimus longitudine sua fere duplo latior. Flagelli pili frequentes, in latere ventrali articularum haud longiores.

Thorax sat robustus. Scutellum apice bilobatum. Metathorax de latere inspectus dorso parum declivi, dente laterali posteriore modice elevato, obtuso. Epinemia juxta latus anterius seriatim alveolata, reliquo spatio laevia.

Sculptura capitis dorsique praeter scutellum et dimidium scuti apicale, minuta, foveolis confertis constans; scuti pars dimidia posterior et scutellum totum foveolis notata magnis, interdum inaequalibus, nec satis contiguis.

Coxarum posticarum latus inferius fortiter punctatum, foveolis minore spatio quam ipsarum diametro inter se remotis. Femoris postici longitudo duplam eius altitudinem vix aequans; superficies externa minute reticulato-sulcata, profunde punctulata; dentes 10-11, quorum sex primi longiusculi, acuti, 3., 4. et 5. spatio eorum altitudinem haud superante inter se remoti, tres, vel quatuor, ultimi parvi, coalescentes.

Abdominis segmentum primum politum, segmenta reliqua confertim et minute reticulato-squamosa; tergum sextum foveolis insculptum inter se remotis, quarum 3-4 in linea longitudinali numerantur. Segmentum secundum pilis paucis ornatum, tertium et sequentia pilis, praecipue in lateribus, numerosis.

Long. 5,5 mm.

Mas. Pedibus anticis mediisque magis quam in femina nigro pictis, tibia antica in latere externo nigro-maculata, apice flavo-brunnea; femoris postici 2/3 anterioribus nigro-maculatis; abdominis tergito sexto confertim foveolato, sternitis coxisque aequae punctulatis, sternito secundo inter foveolas minute granuloso.

Long. 3,5 mm.

Habitat. Mahé: Cascade Estate.—*Silhouette:* Mare aux Cochons. "At elevations of about 1,000 ft."

Adn. Haec una est ex multis *Chalcidum* speciebus nigro, rubro et albo pictis, Africae pertinentibus, quae, meo iudicio, non possunt dignosci nisi femoris postici altitudo ac longitudo, huiusque et tergiti sexti sculptura examinentur; quod auctores in eis describendis neglexerunt. Specimen seychellense ab Alluaud apud Mahé captum, a Pérez *Chalcidi amenocli* Walk. non sine haesitatione relatum, quod ex Museo Parisiensi dr. Bouvier mihi liberaliter misit, cum mare nunc descripto comparavi et eidem speciei attribuendum aestimavi, quamquam maiori statura, femoribus posticis haud nigro-maculatis, anterioribus vero usque ad 1/3 apicalem nigris, differret.

Specimina duo ♀♀, unum ♂.

GEN. *Anacryptus* Kirby.

(*Chalcitella* Westwood?).

8. *Anacryptus insidiosus*, sp. n. (fig. 7).

Femina. Castaneo-rufa, brunneo et nigro varia, oculis brunneis, alis hyalinis, nervis pallide flavo-griseis. Plerumque his partibus nigricantibus: occipite,

FIG. 6.—*Chalcis sodalis*, ♀.
Femur posticum (× 15).

scuto et scutello, scapulis totis vel tantum prope scutum, axillis, mesothoracis lateribus, metapleurae parte inferiore, metanoto, coxis posticis superne, petiolo et abdominis dorso. Tegulis, genubus anterioribus, interdum pedibus anterioribus totis, scapo punctoque in parte postica metapleurae, obscure luteis; funiculi articulis, nec non clavae articulo primo, apice nigro-annulatis, raro clava tota et funiculo fere toto nigris.

Caput aequae longum atque latum, facie leniter convexa, scrobe fere nulla. Antennae flagello quam scapo fere duplo longiore, hęc $2/3$ capitis longitudinis aequante, anello quadrato, funiculi articulo primo quam anello duplo latiore, reliquis longitudine parum latioribus, clava apice acuto, longitudine articulos $2\frac{1}{2}$ praecedentes aequante; sensillis articulis aequilongis.

Dorsum pilis subtilioribus ornatum, scuto superficie tota alveolato. Scutellum apice rotundato-truncato. Metapleura alveolis impressa contiguas, magnis, fundo scabris, forma hexagona vel pentagona, pilis instructis eorum diametro aequilongis.

Coxarum posticarum latus dorsale fere totum transverse et concinne strigulosum, strigis interdum confluentibus, extus et in parte basali foveolis magnis rotundatis impressum; latus exterius toto spatio foveolis notatum rotundis, aequalibus. Femora antica subclavata, intermedia dimidio basali etiam magis attenuata, dimidio apicali conspicue incrassata.

FIG. 7.—*Anacryptus insidiosus*, ♀.

Femur posticum cum tibia
($\times 15$).

Petiulus scapo aequilongus, $2/3$ coxarum longitudinis vix superans, dimidium abdominis fere aequans, in latere superiore minutissime sulcato-reticulatus et carina instructus longitudinali mediana parum conspicua, carinis submedianis fere obsoletis; de latere inspectus carinas quinque ostendens.

Abdomen altitudine $3/5$ longitudinis aequans, segmento primo $4/5$ totius longitudinis occupante, superficie minutissime et confertim punctulata.

Long. 3–4.5 mm.

Mas feminae similis.

Habitat. Mahé: Cascade Estate ("at about 1,000 ft.").

Specimina duodecim.

GEN. *Hockeria* Walker.

9. *Hockeria fulvipes*, sp. n. (fig. 8).

Femina. Nigra, capite thoraceque subnitidis, abdomine nitido; antennis usque ad articulum secundum funiculi, tegulis ac pedibus praeter coxas, fulvis, parte reliqua flagelli nigra apice grisescente; proalis flavo-griseis, macula albida antice mox pone nervum stigmaticum ornatis, pone $2/5$ longitudinis usque ad $1/5$ apicalem fuscis, spatio hoc tamen versus marginem posticum minus obscuro; metapleura inferne et metanoto versus apicem pilis albis, sericeis, sat longis, instructis; pedum posticorum coxa interdum apice rufa, femore praeter basim et latus dorsale plus minus nigricante, tibia in latere anteriore nigra.

Capitis longitudo $3/4$ latitudinis aequans, latitudo frontis diametro maiori orbitalium aequilonga. Oculi glabri. Ocelli ab oculis distantes spatio quam eorum diametro paullo maiore. Lobus inter antennarum insertiones com-

pressus semicircularis, conspicue prominens. Forma capitis ex latere inspecti ovata, crassitie longitudini orbitae aequilonga. Genae haud curvatae, vestigio carinae longitudinalis. Sculptura totius capitis foveolis constans contiguus. Fovea antennalis $1/3$ frontis occupans, fundo minutissime sulcato-reticulato, areolis transversis. Scapus haud robustus, subrectus, vix perspicue reticulatus, in dimidio basali minime incrassatus, apice leniter compresso-dilatatus; pedicellus latitudine magis quam duplo longior; annellus vix longior quam lator et longitudine dimidium pedicelli aequans; funiculi articulus primus pedicello aequilongus, ceteri gradatim breviores, septimus latitudine sua parum longior, quam clava fere duplo brevior; haec articulis constans tribus subaequalibus, vix discretis.

Scutelli pars postaxillaris in dimidio anteriore marginibus acutis rectis parallelisque limitata, in posteriore margine etiam acuto, semicirculari, apice dentibus duobus plus minus obtuse triangularibus munito. Sculptura dorsi foveolis constans satis regulariter ordinatis, interstitiis angustis separatis; superficies tota sulcato-reticulata, sulcis foveolarum fundum et interstitia occupantibus. Metathorax lateribus omnino inermibus, metanoti area mediana rhomboidali valde elongata, eiusque partibus externis reticulato-rugosis, rugis versus costam transversam anteriorem crebris, obliquis, areolas elongatas limitantibus. Epicnemium margine anteriore et posteriore nitidis; spatium reliquum mesothoracis lateris in parte superiore foveolis nonnullis rotundatis ante marginem metapleurae impressum, in parte inferiore laeve, nitens.

Pedes haud robusti. Femur posticum crassum, longitudine duplam frontis latitudinem aequans, altitudine dimidiam longitudinem suam paullum superans, dentibus parvis munitum, primo nonnihil post medium prominente, altero huic mox sequente fere obsoleto. Tibiarum posticarum diametrus apicalis $1/3$ femoris altitudinis aequans. Tarsi postici robusti, articulo primo quam secundo haud longiore.

Petiolus longitudine lator.

Abdomen ellipticum, apice acuminato, segmento basali $1/3$ longitudinis occupante, reliquis minutissime reticulatis, areolis subrotundis.

Long. 2,3–3 mm.

Mas. Scapo, pedicello, anello, trochanteribus tarsisque, sicut in femina, fulvis, funiculo et clava ochraceo-griseis, tegulis, coxis mediis, coxarum posticarum apice, petiolo et abdominis segmento basali nigro-ferrugineis, femoribus tibiisque praeter extremitates nigris, proalae area fusca et maculis albidis fere obsoletis. Oculi glabri. Lobus antennarum insertiones dividens minus conspicuus. Flagellum crassum, valde elongatum, retrorsum flexum, abdominis medium attingens, pedicello cyathiformi, anello brevissimo, funiculi articulo primo orbitis aequilongo, ceteris vix conspicue gradatim longioribus, clava indivisa et longitudinem praeclavae parum superante. Scutellum extremo apice obtruncatum. Mesopleurae spatium ante metapleuram, inferius minute et parce punctulatum. Coxae intermediae squamula curvata apicali antice instructae (an etiam femina?), coxae posticae dente lateris dorsalis destitutae. Femur posticum sculptura reticulata minuta fortius impressa, dentibus etiam minus quam in femina conspicuis, anteriore mediae longitudini minus propinquo.

FIG. 8.—*Hockeria fulvipes*, ♀.
Femur posticum ($\times 40$).

Abdominis petiolus maior, de supra inspectus quadratus, de latere fere aequae altus atque longus et in limite posteriore magis quam in anteriore obliquo. Abdomen segmento basali dimidiam longitudinem arcu semicirculari marginis superante et tertiam partem posticam totius longitudinis attingente; segmento secundo margine apicali minus curvato, item atque sequentibus sparsim et minute punctulato.

Habitat. "Silhouette: from low coconut-planted country at the coast (Pointe Étienne), and from Mare aux Cochons at about 1,000 ft.—Mahé: from stunted endemic forest at summit of Mount Sebert, about 1,800 ft."

Specimina duo ♀♀, unum ♂.

10. *Hockeria testaceitarsis* Cameron (fig. 9).

Trans. Linn. Soc. London, vol. xii. 1907. p. 86.

Species a praecedente praecipue differens corporis colore plerumque minus obscuro, antennis feminae usque ad articulum secundum funiculi et pedibus maxima parte rufo-testaceis. Specimina obscuriora, partibus rufescentibus fere nullis, *Hockeriae bispinosae* Walk. sunt similia.

Femina. Nigra, capite thoraceque parum nitidis, scapo, funiculi articulis duobus primis, tegulis, trochanteribus, femorum basi, genubus, tibiis apice tarsisque rufo-testaceis vel castaneo-rufis; prothoracis margine prope scapulas, axillis in latere exteriori, metanoti latere postico, metapleurae et epinemii parte inferiore, confertim pilis albis, sericeis, instructis; proalis leniter grisescentibus, antice, mox pone nervum stigmaticum, macula albida ornatis, post $2/5$ longitudinis usque ad $1/5$ apicalem fuscis, spatio hoc tamen versus marginem posticum vix infuscato.

Variat funiculi articulo tertio pedibusque fere totis rufo-testaceis, excepto tamen femore postico ad medium lateris exterioris; tegulis nigris; partibus, quae plerumque sunt rufescentes, quam maxime infuscatis et corpori fere concoloribus.

Oculi glabri. Scapus minutissime reticulatus. Scutellum in dimidio

FIG. 9.—*Hockeria testaceitarsis*, ♀.
1, femur posticum typicum; 2, idem exemplaris gracilioris; ($\times 40$).

anteriori partis postaxillaris marginibus haud rectis neque parallelis limitatum, apice late truncatum vel leniter concavum, vel lobis duobus rotundatis haud contiguis terminatum. Sculptura totius dorsi fortiter impressa, foveolis irregulariter dispositis. Metanotum carinis medianis instructum duabus, parallelis, sulcum latum limitantibus, ad medium saepe costa transversa coniunctis; superficie dorsali reliqua grosse et distincte alveolata, areolis quadrangularibus, minute granulosis, in utroque latere sulci mediani duplice ordine dispositis. Metathoracis latus prominentia trapezoidali parum conspicua instructum. Femur posticum plerumque crassum, altitudine ad longitudinem sicut 55 : 100, interdum minus

dilatatum, scilicet altitudine ad longitudinem proportionem 47 : 100, superficie reticulata sat fortiter insculpta. Abdomen ovato-ellipticum, segmentis 1. et 2. supra laevibus, raro sparsim et parce punctulatis.

Long. 2-3,5 mm.

Mas statura paullo minor, abdomine brevior, scapo infuscato et flagello toto nigro, hoc apicem coxæ posticæ tantum attingente; alarum area fusca minus obscura, oculis glabris.

Habitat. "Cameron's type was taken in the coral-islands of the Cargados Group, at Establishment Island, 28. viii. 1905 (H.M.S. *Sealark* Expedition). In the Seychelles the species appears to be widely distributed, many of the specimens being found in cultivated places near the coast, but some also in the endemic forests at high altitudes. Silhouette: coast near Pointe Étienne, and Mare aux Cochons.—Mahé: Port Victoria, marshy coastal plains near Anse Royale, high forest of Morne Blanc, etc.—Anonyme Island."

Adn. Hanc speciem recognovi comparatione typi, qui ab auctore non satis quidem neque apte descriptus, mas est pedibus antennisque pro parte rufis.

Specimina seychellensia plurima.

GEN. *Anthrocephalus* Kirby.

11. *Anthrocephalus mahensis*, sp. n. (figs. 10, 11).

Femina. Nigra, pubescentia albo-sericea; proalis macula tantum fusca trapezoidali, parva, infra nervum marginalem ornatis, nervis nigro-brunneis; tibiis anterioribus rufescenti-nigris; his partibus testaceo-rubris: antennis præter annulum fuscum juxta apicem articulorum funiculi, lobo radículas antennales separante, mandibulis, alarum tegulis, abdominis latere ventrali segmentisque totis post quartum, trochanteribus et tarsis omnibus, pedum anteriorum genubus, pedum posticorum coxa ad apicem femoreque basi et apice nec non latere ventrali ad basim, tibiaque tota.

Caput antice visum triangulare, longitudine parum latius; oculis prominulis, orbitis paullum infra divergentibus $\frac{2}{3}$ capitis longitudinis diametro maiore extensis, serie singula alveolorum a scrobe separatis; hac, modice vitro aucta, laevi, at 50 diam. magnificata minute granulosa; tuberculis antennalibus quam flagelli anello vix maioribus; genis limbo crasso nec multo prominente postice marginatis, sulco tenuissimo, recto, impressis, ex orbita inferiore incipiente; carina postorbitali ac praeorbitali mox infra oculum ex sulco genali ortis, praeorbitali brevissima, scrobis limbum attingente. Caput de latere inspectum diametro antero-posteriore $\frac{2}{3}$ longitudinalis aequante, margine orbitali postice multo magis quam antice curvato.

Antennae 13-articulatae, clava minus distincte divisa, scapo subrecto $\frac{3}{4}$ scrobis longitudinis occupante, quam flagello dimidio brevior; pedicello dupla eius latitudine paullum longiore; articulo sequente, id est anello, haud angustato, aequae longo atque lato, reliquis usque ad 6. funiculi latitudine sesquolongioribus, 3. et 4. crassioribus, 7. vix latitudine longiore; clava articulis duobus praeecedentibus aequilonga. Articulorum superficies, 50 diam. inspecta, vix conspicue granulosa, sensillis instructa tenuissimis, pilorum instar, series transversas tres formantibus, numero 6-10 in quaque serie quum antenna de latere exteriori inspiciatur, super clavam in articulo basali biseriatis, in articulo medio in serie singula dispositis.

Thoracis dorsum sparsim ac profunde foveolis impressum, superficie his interposita reticulata, foveolis in scuto vix quam in pronoto et scutello minoribus

spatioque duplo vel sesqui-maiore quam earum diametro remotis. Tegulae minute punctulatae. Scutellum per totam fere longitudinem excavatum, in $1/3$ media marginibus rectis parallelis limitatum, apice lobis duobus rotundatis, contiguis, instructo. Metanotum fovea media subelliptica et alveolis magnis 5 vel 6 in utroque latere, excavatum, omnibus forma haud regulari, fundo inaequali. Mesothoracis latera rugis transversis 15 insculpta.

FIG. 10.—*Anthrocephalus mahensis*, ♀.
Metathorax ($\times 45$).

Proalae subcostae parte ascendente conspicue incrassata, nervo marginali $1/3$ cellulae costalis fere aequante et postmarginali aequilongo, at duplo crassiore, nervo stigmatico brevissimo.

Pedes robusti, anteriores tibiis costulatis, postici coxae superficie ventrali item atque femore punctulata, foveolis spatio ipsarum diametro aequali remotis, femore longitudine paullum minus duplae altitudinis aequante, supra valde, infra modice convexo, margine ventrali ultra $1/3$ denticulis numerosis pectinis instar munito et tubercula duo valde obtusa in dimidio apicali formante, quorum primum ad $6/11$ totius longitudinis, secundum ad $8/11$ prominens. Tibia postica latere anteriore apiculo terminato quam calcaribus aequilongis paullum brevior, de latere inspecta margine apicali in dimidio posteriore lobum obtruncatum formante.

Abdomen conicum, quam thorax et caput simul sumpta parum longius, thorace angustius, segmento basali $1/3$ dorsi formante, segmentis 2.-5. aequalibus tertium medium occupantibus, tergito sexto absque eius $1/4$ apicali areolis setiferis insculpto, quincunciali ratione dispositis ac fere contiguis, series sex transversas formantibus, spatio eis interposito minute punctulato, tergito 7. reticulo insculpto areolis rhombicis transversis, 50 diam. conspiciendis.

Long. 11 mm.

Habitat. Mahé: Cascade Estate.

Specimen unicum.

FIG. 11.—*Anthrocephalus mahensis*, ♀.
Coxa, femur et tibia postica
($\times 15$).

GEN. *Hybothorax* Ratzeburg.

12. *Hybothorax frater*, sp. n. (fig. 12).

Femina. Nigra, oculis castaneo-brunneis, his partibus rufescenti-ochraceis: scapo ac pedicello, pedibus anterioribus praeter coxas, pedibus posticis basi et latere inferiore femoris, tibiaeque dimidio apicali, tarsis totis.

Caput thorace haud latius, antice visum fere triangulare aequilaterum, longitudine $4/5$ latitudinis vix superans, vertice inter ocellos recto; oculis sat magnis, convexis pilisque haud confertis et satis longis ornatis; genis rectis, peristomio angusto, fovea antennali ad ocellum anteriorem extensa, inferne rugis nonnullis transversis striata, superne minute strigulosa; antennis 13-

articulatis, ad os insertis, radiculis tuberculo separatis, scapo leniter curvato ocellum anteriorem attingente, flagello thoraci aequilongo, pedicello duplo longiore quam latiore et basi vix constricto, articulo sequenti subquadrato, quarto latitudine sua sesquilongiore, quinto hoc paullo longiore, reliquis articulo quarto aequilongis, sensim crassioribus; clava cylindro-conica, longitudinem articulorum trium praecedentium aequante, segmento ultimo minus discreto sensillis destituto.

Dorsum antice fortiter curvatum, sculptura item atque in capite umbilicata, foveolis constans marginatis, super scutellum parum maioribus, ad huius apicem fere contiguis, in reliquis partibus interstitiis reticulatis separatis. Pronotum, scutum et scutellum fere aequilonga, hoc ultimum elongate triangulare, apice attenuato, $\frac{1}{3}$ longitudinis suae supra metathoracem prominens itaque dorsellum obtegens. Metanotum vix declive, latum, 4-carinatum, tecti instar coxas

posticas tegens, margine externo perlongo, recto, ex basi alarum metathoracis ad basim abdominis extenso et in dentem triangularem desinente. Mesothoracis latera minute alveolata-rugosa, epimeris inferne politis.

Proalae segmentum abdominis tertium attingentes, subcostae parte ascendente crassiore, nervis marginali, postmarginali et stigmatico nullis.

Pedes haud longi, robusti, anteriores coxis parvis, femoribus clavatis; postici coxis magnis, politis, in latere anteriore pilosis, femoribus ovatis, compressis, conspicue reticulatis et in latere inferiore denticulis frequentibus munitis nec non dente robusto, cuius altitudo latitudini tibiae aequalis, eius distantiam ab apice femoris haud superat; tibiae posticae obtruncatae, calcaribus brevibus, crassis, instructae. Tarsi anteriores haud incrassati, postici robustiores.

Abdomen sessile, thoraci aequilongum, de supra visum ellipticum, de latere autem dorso recto, ventre leniter curvato, parte postica oblique sinuosa inferne in tuberculum desinente, segmentis constituta 4. et 5. brevibus, 6. his simul sumptis aequali. Pars abdominis antica lateralis versus metathoracis latera auriculas formans strigulosas, quae metathoracis angulis oppositae, horum continuationem simulant. Segmentum secundum magnum, $\frac{3}{4}$ dorsi occupans, areolis notatum ellipticis, marginatis, haud excavatis; pars eius pone coxas areolis omnino destituta. Segmenti 6. superficies aspera.

Pili perlongi, albidii, thoracis dorsum et superficiem abdominis fere totam ornantes.

Long. 2,6 mm.

Mas. Colore feminae similis, antennis totis brunneo-luteis, femoribus anterioribus tibiisque omnibus leniter pro parte infuscatis. Flagelli longitudo $2\frac{1}{2}$ scapi aequans, annellus brevissimus, reliqui articuli subaequales, clava apice minus acuto. Foveolae dorsi magis quam in femina adproximatae, in scutello fere contiguae. Metapleura et abdomen longe pilosa; hoc thoraci aequilongum, lateribus superiore et inferiore rectis, parte postica rotundata inferne tuberculata. Superficies segmenti secundi areolis insculpta quam in

FIG. 12.—*Hybothorax frater*, ♀.

1, antenna; 2, femur posticum cum tibia; ($\times 45$).

femina parum maioribus, spatio polito nullo. Dens femoralis apice rotundatus. Long. 2 mm.

Habitat. Mahé: "Cascade Estate, about 800 ft."—Anonyme Island ("a cultivated islet near Mahé").

Specimina duo, ♂ et ♀.

Adn. Species haec seychellensis pedum colore ab europaeo *Hybothorace graffi* Ratz. distinguitur, qui unus generi pertinebat, in Germania Galliaque inventus, ubi parasita est *Myrmeleonis formicarii*.

SUBFAM. EURYTOMINAE.

GEN. *Eurytoma* Illiger.

13. *Eurytoma*, sp.

Mas. Niger, oculis concoloribus, scapo toto nigro, macula ante collare parva flavo-grisea; alarum nervis, genubus, tibiis posterioribus basi et apice, tarsisque omnibus, flavo-albidis, interdum flavis; tibiis primi paris pedum in latere anteriore et posteriore fusco-lineatis; pilis argenteis.

Oculi parum convexi; faciei zona depressa, marginem orbitalem anteriorem formans, a reliqua superficie sculptura haud diversa; ocelli posteriores ab anteriore magis quam ab oculis remoti, distantiae proportionem 3:2; pedicellus globosus; articulus primus funiculi dimidiam scapi longitudinem fere aequans, articuli secundi nodus vix duplo longior quam latior, isthmi $1/3$ – $1/4$ nodorum longitudinis aequantes; pili quam articuli sesquilingiores; clava pedunculata, quam articulus praecedens sesquilingior.

Thorax, de latere inspectus, dorso plano, metanoto parum obliquo. Axillarum pars dimidia interior alveolis elongatis recte marginatis insculpta. Metanotum supra abdominis insertionem area depressa sublaevi instructum, quae autem fortiter vitro aucta superficiem ostendit scabram propter areolas sat profunde excavatas, confertas, marginibus reticulum formantes. Callus, etiam fortiter vitro auctus, minute reticulatus. Mesosternum superne vix conspicue reticulatum, inferne foveolis et eminentiis transversis nonnullis insculptum; mesopleura scabra.

Nervus stigmaticus marginali aequilingus, postmarginalis vix longior.

Petiolus coxis posticis sesquilingior.

Long. 2,2 mm.

Femina. Scapus basi flava, pedicellus quam articulus primus funiculi parum brevior, articulus hic latitudine sua fere sesquilingior, sequentes sensim breviores et crassiores, quintus latitudine paullo longior, clava $2\frac{1}{2}$ praeclavae longitudinis aequans, in parte tertia apicali conica, reliquo spatio cylindrica; pili funiculum ornantes articulis aequilingi. Nervus marginalis stigmatico sesquilingior, hic postmarginali duplo brevior. Abdomen latere dorsali segmenti tertii quam secundi sesquilingiore, quarti quam tertii magis quam duplo longiore, superficie tota dorsali minute squamoso-punctata, lateribus autem ventrique in segmentis 4. et 5. areolis hexagonis, aequalibus, conspicuis, insculptis, segmento sexto toto ruguloso. Long. 2,7 mm.

Habitat. Silhouette: "Mare aux Cochons, and forest near by, about 1,000 ft., and from the coast at Pointe Étienne."

Specimina quatuor ♀♀, sex ♂♂.

14. *Eurytoma*, sp.

Femina. Nigra, scapo, mandibulis pedibusque cum coxis luteis; pedicello, annello, macula ante collare, epipygio ad basim et hypopygio obscure luteis; proalis leniter infuscatis, nervis praeter postcostam brunneis; pilis albis.

Caput antice visum genis modice curvatis, strigis a clypeo radiantibus nullis; ex latere inspectum oculis magnis, rotundatis, vertice lato, genarum sculptura fere obsoleta. Antennae scapo ad medium leniter incrassato, pedicello longitudine et latitudine aequali, funiculi articulis tribus primis latitudine sesquilongioribus, quarto et quinto vix longioribus, clava his paullo minore.

Thorax brevis, altus, dorso modice curvato, pronoto longitudine sua sesquilongiore, axillis sculptura aequali ab illa reliqui dorsi non distinguenda; metanoto fere verticali, medio serie duplice alveolorum quadrangularem impresso, partibus lateralibus irregulariter alveolatis, alveolis minoribus nullis; epinemio haud curvato et mesosterno, superne minute reticulato-alveolatis.

Proalae nervo marginali duplo quam postmarginali longiore, stigmatico $3/4$ huius aequante.

Coxae posticae crebre reticulato-alveolatae.

Petiolus duplo longior quam latior, $2/5$ coxarum longitudinis haud superans.

Abdomen altitudine duplo longius, dorso valde curvato, punctoque maxime elevato ad $1/4$ totius longitudinis sito, latere ventrali parum convexo et curvae apice ad mediam longitudinem; diametro transverso longitudinem segmentorum 1.-5. fere aequante. Segmentum tertium in eius latere dorsali quam secundum duplo longius, quartum duplam tertii longitudinem paullo superans, quintum perbreve pilisque paucis longis ornatum. Tergitum tertium lateribus, excepta parte tertia postica, subtilissime reticulatis, quartum ad basim segmenti fortius insculptum areolisque maioribus; reliqua segmentorum superficies laevis, nitens. Epipygium et hypopygium elongata, hoc ultimum $1/4$ abdominis longitudinis ultra segmentum quintum prominens.

Long. 2 mm.

Habitat. Silhouette: Mare aux Cochons.

Specimen unicum.

GEN. *Eurytomidia* n. (?).

Specimen unicum, parvum, masculinum, cuius descriptio sequitur, habitu *Eurytomae* simile, tamen nervo postmarginali valde elongato et parte mesonoti praeaxillari brevissima diversum, etsi amplius ac diligenter examinare non potuerim, generi novo pertinere mihi visum est. Id tibiis posticis bicalcaratis a *Phylloxeroxeno* distinguitur, cum quo tamen convenit nervo postmarginali elongato.

15. *Eurytomidia dubia*, sp. n. (fig. 13).

Mas. Niger, oculis concoloribus, genubus, tibiis apice tarsisque obscure luteis, his apice fuscis, alis hyalinis nervis pallide flavo-griseis.

Caput oculis haud prominulis, glabris, ex latere inspectis subrotundis, spatio interorbitali $5/6$ latitudinis aequante, antennis supra medium faciei insertis, fovea antennali profunda, nitida, oculo anteriore extra foveam sito. Scapus longitudinem orbitalium fere aequans, ocellum attingens, haud com-

presso-dilatatus sed apice attenuatus, superficie scabra. Flagellum longitudinem thoracis superans, pedicello fere globoso, anello parvo, funiculi articulo primo $3/4$ scapi longitudinis haud superante, isthmis $2/3$ nodorum aequantibus, his forma trapezoidali, ad medium non angustatis, secundo et tertio altitudine paulum longioribus. Pili verticillati, articulis aequilongi vel paulum maiores.

Sculptura capitis et thoracis fere ubicumque umblicato-punctata, at paene obsoleta, axillarum in dimidio exteriori minutissime reticulata, areolis rectangularibus, in interiori alveolata; tegulae minute at fortiter sulcato-reticulatae.

Pronotum quam scutum duplo longius. Scapulae sulco leniter impresso discretae.

Proalae angulo posteriore prominente, cellula costali lata, nervo stigmatico $3/4$ marginalis aequante, hoc quam postmarginali dimidio brevior.

Femur posticum conspicue reticulatum, areolis minutis, rhombicis; tibia in latere interiori setis rigidis munita, calcari maiore dimidium metatarsi vix superante, altero brevissimo.

FIG. 13.—*Eurytomidia dubia*, ♂.
1, proala ($\times 32$); 2, tibiae posticae apex ($\times 27$).

Petiolus coxas posticas haud superans.

Abdomen superne inspectum aequae longum atque latum, de latere visum triangulare. Segmenti secundi latus dorsale dimidiam femoris longitudinem parum superans, superficie subtiliter reticulata, areolis quam femoris multo maioribus.

Long. 1,5 mm.

Habitat. Silhouette: Mare aux Cochons, "from the marshy plateau at about 1,000 ft."

Specimen unicum.

GEN. *Decatoma* Spinola.

(*Eudecatoma*, Ashmead — ?).

16. *Decatoma kestraneura*, sp. n.

Mas. Flavus, vertice, excepto margine orbitali, dorso, exceptis pronoti lateribus, petiolo, abdomine, maculaque in latere superiore femoris postici, brunneis; proalarum nervo marginali, praeter eius limbum anteriorem atque exterioriorem, nigro, lamina tota hyalina.

Linea ocularis inferior in media faciei longitudine decurrens; antennae in hac linea insertae. Clypeus margine lenissime concavo. Ocellus anterior lineae posteriores tangenti fere contiguus. Pedicellus pyriformis, latitudine sua parum longior; funiculi articulus primus pedicello sesquilongior, scapo sesquibrevior; articuli sequentes curtantes, ultimus pedicello aequilongus.

Superficies capitis et dorsi, praeter metanotum, aspectu sublaevis, 90 diam. magnificata minute reticulata, areolis subrotundis; pronotum vero quasi transverse strigulosum apparens. Dorsellum punctis duobus impressum contiguis et in eius linea media longitudinali dispositis. Metanoti fovea media sat lata, lateribus parallelis, transverse quadricostata; superficies reliqua reticulo

insculpta, 50 diam. magnificato vix perspiciendo; plicae longitudinales in dimidio posteriore tantum determinatae.

Proalae cellula basali parce ac breviter pubescente, infra praestigma et prope nervum marginalem speculo nullo setisque longioribus. Nervus marginalis crassissimus, longitudine sua haud angustior, extus non oblique truncatus, postice linea convexa terminatus; postmarginalis quam marginalis vix brevior; stigmaticus huius longitudinem aequans, manifeste obliquus, clavae angulo posteriore et unco fere aequaliter prominentibus, mallei figuram fingentibus.

Setae in latere posteriore tibiae posticae huius latitudini subaequales, numero octo in specimine.

Petiolus triplo longior quam latior, coxas posticas non superans, sculptura minutissime granulosa, 50 diam. magnificata vix conspicua.

Abdomen forma haud globosa, at lateribus in $1/3$ media subparallelis; segmento 2. brevi, 1. 3. et 4. subaequalibus, 1. 2. et 4. laevibus, ceteris 100 diam. magnificatis leniter reticulato-sulcatis, areolis transversis, his in segmento 3 maioribus.

Long. 1,5 mm.

Habitat. Silhouette: Mare aux Cochons plateau.

Femina ignota.

Specimen unicum.

Adn. Genus *Eudecatoma* Ashm. dubium et non satis definitum mihi videtur. Species quam descripsi, pedicello brevi, proalis hyalinis et speculo nullo, nervo marginali latitudine haud longiore, praecipue est distinguenda.

GEN. *Isosoma* Walker.

17. *Isosoma insularum*, sp. n. (fig. 14).

Mas. Niger, subnitidus, prothorace praeter pronotum, coxis anticis, interdum mediis, femoribus anticis mediisque in parte dimidia apicali, tibiis omnibus et tarsis, antennarum radícula, scapo ac pedicello, flavo-griseis; pedicelli latere superiore et scapi dimidio inferiore infuscatis; tibiarum atque tarsorum latere anteriore plerumque obscuro vel brunneo; alis decoloribus nervis pallide flavo-griseis.

Caput antice visum longitudine $3/4$ latitudinis vix superans, vertice arcuato, orbitis parallelis, peristomio $3/5$ spatii interorbitalis aequante. Genae haud compressae, subtiliter sulcatae, spatio triangulari juxta oculos nitido.

Facies minute reticulata, areolis rhombicis, spatioque infra antennarum radículas confertim et minute punctulato. Scapus in latere inferiore valde curvatus, latitudine, ad medium, $1/3$ longitudinis aequante. Funiculi articuli partibus attenuatis latitudini nodorum aequilongis; isthmi, his partibus binis compositi, in articulatione biannulati. Pili haud articulis breviores. Articuli primi

FIG. 14.—*Isosoma insularum*, ♂.

1, antenna ($\times 40$); 2, proala ($\times 32$).

longitudo quadruplam latitudinem aequans, sexti triplam. Clava articulo praecedenti longitudine et latitudine aequalis, mucrone parvo terminata, indistincte articulata.

Prothorax bis latior quam longior, lineis subtilibus reticulatus; scutellum apice rotundatum, item atque pronotum reticulatum; areolae in scuto maiores, minus regulares, in scapulis minores. Metanotum reticulato-alveolatum, areolis irregularibus minutis insculptum, medio fovea elliptica, extremitatibus truncata, leniter impressa, notatum, huius areolis vix minoribus. Mesosterni sculptura ab illa prothoracis haud dissimilis, episterni magis minuta; epimerum in dimidio posteriore laeve.

Nervus stigmaticus dimidiam marginalis longitudinem attingens, quam postmarginalis sesquilongior.

Petiolus coxis posticis aequilongus, latitudine $3/5$ longitudinis aequans, sculptura haud a metanoto dissimilis.

Abdomen cylindricum, nitidum, segmento primo quam secundo magis quam duplo longiore, secundo tertioque aequalibus, quarto et quinto his parum longioribus, quinto autem forma et sculptura a praecedente dissimili, sexto parvo, subtiliter reticulato.

Long. 2 mm.

Habitat. Mahé: Cascade, "from cultivated country near sea-level" (specimina plurima), Port Victoria (specimen unum).

Specimina plurima.

GEN. *Aximopsis* Ashmead.

18. *Aximopsis elegans*, sp. n.

Femina. Nigro et rufo varia, tibiis tarsisque albis. Capite nigro, oculis rubris; antennarum scapo in dimidio basali griseo-luteo, in dimidio apicali brunneo, pedicello fusco-maculato, articulo quinto funiculi vel quarto et quinto luteis, clava nigra et articulo ultimo sensillis albidis obsito, ceteris antennarum partibus obscure rufis; prothorace, praeter maculam dorsi nigricantem, scapulis, tegulis, praesterno et angulo anteriore mesosterni, obscure rufis, reliquis thoracis partibus et petiolo nigris; abdomine rufo dorso fusco; coxis anticis rufis in latere anteriore nigris, mediis totis rufis vel antice nigro-maculatis, posticis omnino nigris; femoribus flavo-rufis; alarum nervis flavo-fuscis.

Caput thoracis latitudinem proportionem 100:87 superans, prothoracis proportionem 100:77; antice visum latum, oculis magnis, $3/4$ totius longitudinis extensis, glabris; de latere inspectum ovato-triangulare, parum longius quam latius, latitudine maxima ad medium oculorum, oculis rotundatis. Ocelli externi ab anteriore et ab oculis aequo spatio remoti. Facies latitudine sua parum longior, versus oculos abrupte terminata, marginibus orbitarum vix divergentibus, inferne radiatim strigosa, reliqua superficie alveolata, pubescentia ornata sat longa sed haud conferta, aequaliter distributa. Fovea antennalis in eius dimidio supero margine elevato limitata, inter antennarum radículas lamina prominente divisa. Antennae supra medium faciei insertae; pedicellus breviter conicus, funiculi articulus primus longitudine triplam latitudinem, secundus duplam latitudinem, aequantes, tertius secundo aequalis, quartus quam tertius parum crassior et vix brevior, quintus subquadratus, quam primus

fere sesquialior; clava basi obtruncata, quam articuli praecedentes paullum brevior.

Thorax de latere inspectus dorso parum curvato, metanoto secundum curvam totius dorsi disposito. Mesosternum valde retrorsum vergens, margine exteriori fere horizontali. Metanotum medio late sulcatum, in parte anteriore sulci alveolis duobus impressum elongatis, contiguis, quibus nonnulli succedunt subquadrati in serie singula dispositi.

Nervus marginalis et postmarginalis aequilongi, stigmaticus his dimidio brevior.

Coxae anticae haud dentatae, facie laterali cum anteriore in dimidio supero angulum formante. Coxae posticae in dimidio inferiore longitudinaliter et confertim strigulosae.

Petiolus coxis posticis fere sesquilongior, abdominis lateri ventrali post $1/3$ longitudinis affixus, ad basim mucrone dorsali peracuto instructus, superficie dorsali scabra, lateribus longitudinaliter confertim sulcatis.

Abdomen deorsum flexum, ovatum, compressum, latitudine dimidiam fere longitudinem, altitudine ad petioli insertionem $2/3$ longitudinis aequante, apice attenuato, segmento quarto in latere dorsali quam tertio fere sesquilongiore, quinto hoc dimidio brevior, sexto et septimo subaequalibus, quam quinto fere sesquilongioribus. Segmenta 1.-5. laevia, nitida, 6. atque 7. sculptura reticulata minutissima, vix conspicua.

Long. 3-3,5 mm. Longitudo capitis cum thorace, abdomini cum petiolo subaequalis.

Habitat. Silhouette: Mare aux Cochons—Praslin: Côtes d'or Estate.

Specimina duo, ♀♀.

Adn. Haec est species tertia generis. *Aximopsis morio* Ashm. Brasiliae pertinet, *tricolor* Gir. Queenslandiae.

SUBFAM. EUCHARIDINAE.

GEN. *Stilbula* Spinola.

19. *Stilbula lissoma*, sp. n.

Mas. Capite thoraceque viridibus, pro parte auratis vel cyanescentibus vel etiam purpureis; oculis ocellisque castaneis; antennis obscure luteis, funiculi nodis pilisque nigricantibus; coxis, alarum nervis, petiolo abdomineque brunneis; pedibus pallide stramineis; proalis flavo-griseis.

Facies inter clypeum et antennarum insertionem obtuse angulata, clypeo plerumque transverse at parce striguloso. Antennae corpori toto aequilongae, scapo latitudine sua parum longiore, quam articulo primo funiculi conspicue crassiore et $1/4$ diametri orbitalis maioris aequante; anello quam scapo plus dimidio brevior; articulis decem huic sequentibus valde elongatis, tenuibus et nodis apicalibus in dorso magis prominulis, superficie tota hirta, pilis articulorum diametro aequilongis, sed haud confertis; articulo primo funiculi quam scapo quintuplo longiore et latitudine $1/9$ longitudinis suae aequante; articulo secundo quam primo brevior proportionem 3:4, ultimo proportionem 4:7.

Scapulae in dimidio interiore callosae, id est laeves atque nitidae punctisque nonnullis tantum impressae.

Petiolus quam abdomen haud longior, distantiam ab angulo anteriore

pronoti ad basim processu scutellaris longitudine aequans, propter tenuitatem magis elongatus apparens. Long. 3–4 mm.

Femina differt funiculo longitudinem dorsi fere aequante, articulis quam scapo haud crassioribus et basi fortiter constrictis, a latere inspectis angulo apicali superiore magis quam inferiore prominente; articulo primo quadruplam scapi longitudinem, secundo duplam longitudinem aequante; clava parum longiore quam latiore, scapo aequilonga; petiolo longitudinem metanoti et dorselli paullo superante, quam thorace, itemque abdomine, dimidio brevior.

Habitat. "Silhouette: from Mare aux Cochons, about 1,000 ft., 1 ♂—Mahé: 2 ♀ from forest of the endemic 'Bois-de-Fer' (*Vateria seychellarum*) in the Mare aux Cochons district at an elevation of over 1,500 ft., and 1 ♀ from Cascade Estate at about 800 ft."

Specimina quatuor.

Adn. Stilbulae insularis Cam.* typum in Egmont Atoll (Insulis Chagos) collectum examinavi, quod specimen est masculinum flagellis carens, non eis coloribus vero ornatum quos in descriptione auctor indicavit, ab illis *Stilbulae* nunc descriptae etiam differentibus. Cameronis species a seychellensi strigis tota parte inferiore faciei extensis, dorso minus regulariter insculpto, callo humerali nullo, alis et petiolo nonnihil brevioribus, distinguitur.

SUBFAM. ENCYRTINAE.

GEN. *Eucomys* Förster.

20. *Eucomys infelix* Embleton, et var. *albiscapus* n. v. (figs. 15–17).

Comys infelix, Embleton, *Tr. Ent. Soc. London*, ii. 1902. pp. 219–229.

Comys infelix, Embleton, *Tr. Linn. Soc. London*, v. 1904. pp. 231–254, Pl. 11, 12 (♂♀).

Hanc *Eucomydem* Embleton in Anglia, prope Cambridge, primum invenit, *Lecanii hemisphaerici* var. *flicum* parasitam, deque eius forma, anatomica structura et biologia pertractavit. Species similis est *Eucomydi bicolori* How., et forsitan etiam *Eucomydi lecaniorum* Mayri, nec non speciebus nonnullis Australiae a Girault descriptis. Ego exemplaria plurima huic speciei pertinentia observavi, quae sunt:

1. exemplar Musei Zoologici Cantabrigiensis, nomine manu doctoris Sharp scripto, in Cambridge collectum, cum auctoris prima descriptione (*l.c.*, 1902, p. 223) bene conveniens, quod quasi cotypus haberi potest;

2. exemplaria nonnulla in Insulis Seychellensibus collecta, a praecedente haud differentia;

3. exemplaria plurima seychellensia antennae coloribus praecipue diversa, varietati novae attribuenda;

4. exemplaria huius varietatis in Italia prope Genuam inventa;

5. exemplaria nonnulla ex Insulis Seychellensibus, inter formam typicam et varietatem intermedia.

Forma typica, ♀.

Mihi ex paucis exemplaribus nota, forsitan colore varians sicut var. *albiscapus*, qua de re huius descriptio conferatur. Genarum setae pilique in parte posteriore axillarum prope scutelli suturam, pauci sunt vel nulli, quod etiam in varietate

* *Trans. Linn. Soc. London*, xii. 1907. p. 85.

occurrit. Formae typicae characteres praecipui hi sunt: scapus stramineus, margine posteriore apice tantum brunneo maculato; flagellum ochraceo-aeruginosum at funiculi articulo quinto ad apicem, sexto et clava totis, nigris. Femur medium albidum, apice superne macula brunnea, inferne semper macula flavo-ochracea, notatum. Tibia media ad basim et pulvillus tarsalis brunnei, reliquum tibiae, calcar et tarsus luteo-aeruginosa.

Var. albiscapus, ♀.

Capite thoraceque fere toto luteo-aeruginosis, at capite saepe nonnihil obscuriore, dorso nitore quodam subaureo; abdomine nigro-brunneo, violaceo nitente, inferne saepius aeneo; antennae radícula flavo-brunnea, scapo albo, supra fusco-limbato, infra ad basim macula parva brunnea notato, flagello, item atque oculis ocellisque, nigro-brunneis; carina genarum nigra, setis concoloribus; pronoto partim, sed praecipue in eius angulis infero-posterioribus, et propectore, infuscatis; mesonoti parte praeaxillari antice nigro-limbata, disco vel dimidio posteriore macula fusca, latera non attingente, pilisque albis, ornatis; pilis etiam albis sed plerumque raris in margine posteriore axillarum nec non super scutellum prope suturam; nonnullis in scutelli disco flavis, sericeis; aliis in reliquis partibus dorsi nigris; axillulis etiam nigris; mesopleura ochracea vel obscure lutea, interdum rosea, scilicet nitore pallide purpureo, raro violacea; coxa antica et postica albis, media brunnea; femoribus anterioribus albidis supra et infra fusco-limbatis, femore medio interdum superne macula apicali brunnea notato; femore postico flavescenti-brunneo, margine dorsali obscuriore; tibia antica femori postico concolore, intermedia usque ad dimidium longitudinis grisescenti-brunnea, reliquo flavida vel albida; postica tota brunnea; tarso antico obscuro, medio tibiae apici concolore, postico albo, excepto dimidio basali articuli primi ac pulvillo; proalis in parte dimidia exteriori cellulae basalis fere tota, itemque spatio ultra praestigma infuscatis, apicem versus tamen pallidioribus, fascia nervorum apices tangente hyalina, setis spiniformibus cellulae costalis et prope nervum basalem nigris, subcosta nervisque marginali, postmarginali ac stigmatico flavo-brunneis, praestigmate fere hyalino.

Capitis forma subhemisphaerica, fere lenticularis, dimidio superiore crassiusculo; margo occipitalis acute limbatus antice inspectus aream ocellarem superans; faciei pars dimidia inferior depressa, a superiore, sive fronte, margine sinuoso separata, qui super antennarum insertiones utrinque inferius vergens, oculum prope imam orbitam attingit; genae sat fortiter curvatae, de latere inspectae carinatae, carina longe nigro-setosa superne retrorsum flexa et certo spatio pone orbitam producta, ab hac sulco conspicuo separata; vertex, in specimine exsiccato, 1/3 capitis latitudinis superans, ocellis angulum obtusum formantibus, margine occipitali ab area ocellari tota spatio depresso separato, hac autem inter ocellos posteriores linea convexa limitata. Superficies fere tota sulcato-reticulata, areolis transversis, super verticem atque frontem punctis sat conspicuis sparsim impressa; genae pone carinam conspicue reticulatae areolis longitudinaliter elongatis, excavatis.

FIG. 15.—*Eucomys infelix*, var. *albiscapus*, ♀.

1, Caput antice visum (× 30); 2, maxilla, sine cardine (× 58); 3, mandibula (× 58); 4, eadem de latere, sursum reversa.

Mandibulae fortiter curvatae, postice laminato-productae, margine apicali inermi, rotundato; maxillarum lacinia spinis sex instructa, palpi articulis 1.-3. subaequalibus, quarto duplo longiore.

Pedicellus $1/3$ scapi longitudinis paullum superans, latitudine sua duplo

FIG. 16.—*Eucomys infelix*, var. *albiscapus*, ♀.
Antenna ($\times 65$).

longior; funiculi articuli valde compressi, pilis mediocribus hirti, articulatione lateri ventrali magis propinqua, primus pedicello fere aequilongus et vix latior, sequentes gradatim breviores atque latiores, ultimus longitudine sua sesquialtor, fere duplam primi latitudinem et $3/4$ huius longitudinis attingens. Clava item atque articuli praece-

dentes compressa, breviter elliptica, apice minus curvato, quam praeclava vix latior, articulo basali quam reliquis aequalibus nonnihil longiore.

Thorax brevis. Mesopleura minute et callus grosse, conspicue, reticulati.

Praestigma longum, ab humero late separatum; nervus marginalis latitudine sua haud longior, postmarginalis ac stigmaticus aequales, hic basi et apice magis curvatus.

Long. media, 1,6 mm.

Habitat. Silhouette, Mahé, passim: "from cultivated places near sea-level, and from some of the highest endemic forests." Etiam in Italia (Liguria).

Specimina plurima.

Adn. Huius speciei marem non vidi.

Eum raro occurrere Embleton affirmat (*l.c.* 1904. pp. 234 et 250): "... disproportion of the sexes in *Comys infelix* is very great, perhaps a thousand females to one male." Is colore est nigro, pedibus albo-pictis, antennis etiam totis nigris, pilis concoloribus, alis immaculatis, iridaceis.

FIG. 17.—*Eucomys infelix*, var. *albiscapus*, ♀.
Prothorax pars ($\times 30$).

GEN. *Leptomastix* Förster.

21. *Leptomastix histrio* Mayr (?).

Verh. zool. bot. Ges. Wien, xxv. 1875. p. 729.

Exemplaria duo, apud Mahé, in Anonyme Island collecta, cum Mayri descriptione italicae *Leptomastix histrionis* satis congruentia, his notis tantum differre videntur: clava paullum brevior, quam praeclava haud magis quam sesquilongior; scutello nec minute rugoso, nec sculptura a parte praeaxillari mesonoti diverso, subtiliter reticulato; pronoto et mesopleura haud nigropictis; tarsis posterioribus minori spatio obscuratis; vertice tantum, nec mesonoti disco, aurantiacis. An exemplaria haec seychellensia illi speciei pertineant, dijudicari non potest sine typi comparatione. Mentionem Mayr non facit de maculis fuscis areae ocellaris, quae in exemplaribus ita sunt dispositae: una ocellum anteriorem posteriori sinistro adjungens, duo aliae minores ocellis posterioribus, potius ad sinistram partem, contiguae.

GEN. *Philoponectroma* Brèthes.22. *Philoponectroma incongruens*, sp. n. (fig. 18).

Femina. Nigra, oculis obscure rubris, ocellis brunneis, antennis scapo et flagello flavis, vel hoc griseo et scapo tantum flavo, radícula pilisque nigris; femoribus anticis ac posticis in parte tertia apicali, intermediis apice, tibiis omnibus tarsisque mediis praeter articulum quintum, flavis, ceteris pedum partibus brunneis; alarum nervis griseis; pilis capitis ac dorsi albis.

Caput sublenticulare, haud thorace latius, vix transversum, latitudinis proportionem ad longitudinem sicut 8 : 7, vertice $\frac{3}{5}$ latitudinis aequante; de latere inspectum longitudine duplam latitudinem aequans, facie aequaliter curvata, fronte atque vertice haud separatis; hoc antrorsum fortiter declivi, margine occipitali subacuto. Ocelli in angulum parum obtusum dispositi, externi ab orbitis spatio remoti quam ipsorum diametro fere duplo maiore, a margine occipitali spatio diametrum vix superante. Oculi glabri, de latere inspecti elliptici, diametro longitudinali quam transversa sesquilingiore. Linea ocularis inferior paullum infra medium faciei; genae sat fortiter curvatae et compresso-acutae; clypeus angustus margine externo concavo, labrum ellipticum non obtegens; mandibulae bidentatae. Facies inter antennarum insertiones vix elevata, haud carinata, scrobibus nullis, infra ocellum anteriorem fovea parva impressa, spatio interorbitali quam vertice haud latiore, $\frac{2}{3}$ capitis latitudinis aequante. Superficies capitis pilis longis, haud crebris, sparse ornata, sculptura minutissime granulosa, quum fortiter vitro aucta confertim sulcato-reticulata, foveolis rotundatis sat magnis, haud profunde excavatis, super verticem ac frontem triseriatis.

Antennae in linea oculari insertae, radícula tenui, elongata, $\frac{1}{3}$ scapi aequante; hoc subfusiformi, leniter compresso, latitudine ad $\frac{2}{3}$ longitudinis maxima; flagello filiformi, longissimo, abdominis apicem superante pilisque instructo articulorum latitudine paullum maioribus, aequaliter distributis; pedicello parvo, conico, vix longiore quam latiore, funiculi articulis bene discretis, omnibus crassitie aequalibus, primo latitudine $\frac{1}{6}$ longitudinis aequante, reliquis gradatim brevioribus, sexto quam primo proportionem 10 : 17 brevior; clava indivisa, quam articulo praecedente fere duplo longiore et primo subaequali.

Mesothoracis pars praeaxillaris brevis, transversa, latitudine triplam longitudinem aequans, quam scutellum dimidio brevior, sculptura item atque capitis reticulata, foveolis rotundatis piliferis sparsis, sulcis autem reticulum formantibus fortiter sinuatis. Axillae conniventes, sculptura magis minuta, minus fortiter impressa. Scutellum scuto longius, triangulare aequilaterum, foveolis rotundatis carens, areolis reticuli quam in scuto haud maioribus et secundum lineas rectas longitudinales in superficie fere tota dispositis. Meso-

FIG. 18.—*Philoponectroma incongruens*, ♀.
1, antenna; 2, proala; ($\times 30$. Areae speculares sunt punctis
circumscriptae).

pleura reticulata, areolis quam dorsi minutioribus. Tegulae subtiliter strigulosae. Metathoracis spiracula reniformia. Pili capitis et dorsi aequales.

Proalae ciliatae, cellula costali angusta, nervo marginali latitudine sua magis quam duplo longiore, stigmatico quam hoc sesquolongiore, postmarginali incerte limitato, versus apicem attenuato, marginalem longitudine haud superante; speculo quam nervi stigmatici longitudine haud latiore, ad medium latitudinis alae terminato; areola prope radiculae aliaque inter speculum et marginem posticum glabris. Alae metathoracis cellula costali usque ad hamulos extensa.

Calcar tibiae mediae metatarso paullum brevius, tibiae posticae dimidio brevius.

Abdomen thoraci aequilongum, fortiter curvato-depressum, triangulare, apice truncato, lateribus rectis, tergito penultimo medium fere attingente, spiraculis basi fere contiguis, valvula ventrali spatium $\frac{1}{3}$ latitudinis basalis aequante prominula, superficie perspicue at minute reticulata.

Long. 1,5 mm.

Mas. Differt scapi latere inferiore pallide griseo, latere superiore cum flagello toto brunneis, pilis articularum griseis; tegulis, prothoracis lateribus et mesopleuris ochraceo-rufis; pedibus pallide flavo-griseis, intermediis tarso praeter articulum basale fulvescente, posticis femoris dorso, tibia fere tota tarsoque infuscatis; pedicello etiam brevior, funiculi articulo primo magis elongato et quam sexto duplo longiore, flagelli pilis dimidiam articularum longitudinem attingentibus.

Habitat. Mahé: "country above Port Glaud, 500–1,000 ft.; Mare aux Cochons district, 1,000–2,000 ft." (specimina ♀♀); Cascade Estate (♂).

Specimina quatuor.

Adn. Haec species propter antennarum structuram et proalae setarum dispositionem, nec non habitum, cum *Philoponectromate pectinato* Brèth. in uno eodemque genere convenire videtur, ab eo tamen differt oculis glabris, antennis longioribus, scuto longitudinem scutelli haud superante, abdomine magis elongato.

GEN. *Zeteticontus* Silvestri.

23. *Zeteticontus xanthopus*, sp. n.

Mas. Capite, metanoto abdomineque nigro-aeneis, dorso ante scutellum obscure cyaneo-viridi, scutello olivaceo, rubro et aureo nitente, antennis pedibusque praeter coxas ochraceis, proalis leniter infumatis, nervis brunneis; genis interdum cyanescentibus, antennarum radícula pilisque nigris, coxis anticis in dimidio apicali plus minus ochraceis, tarsis anticis atque posticis infuscatis.

Vertex dimidiam capitis latitudinem occupans, pilis longiusculis sparse ornatus, margine occipitali acuto, sculptura item atque frontis minutissime reticulata, foveolis impressis rotundatis, biseriatis, externis margini oculorum contiguis seriem formantibus ad angulum inferiorem orbitae desinentem. Ocelli in triangulum fere aequilaterum dispositi, externi ab oculis spatium remoti quam eorum diametro dimidio brevior. Oculi de latere inspecti margine infero-posteriore minus curvato, superficie pilis tenuibus, longiusculis, haud crebris instructa. Clypeus recte marginatus. Labrum margine etiam recto. Man-

dibulae longae, fortiter curvatae. Scrobes antennales semicirculum formantes inferne orbitis fere contiguum.

Antennae mox infra lineam ocularem insertae, ab hac multo minus quam a clypeo remotae, carina obtusa separatae, pilosulae, scapo brevi subfusiformi, flagello quam thorace aliquantulum longiore, pedicello aequae longo atque lato, funiculi articulis crassis, iuncturis lateri ventrali magis propinquis, articulo primo longitudine duplam latitudinem vix superante, quam pedicello fere duplo et dimidio longiore, sequentibus gradatim paulum brevioribus, vix angustioribus, ultimo $4/5$ longitudinis primi aequante, quam clava sesquibreviore, huiusque articulo basali aequilongo, latitudine etiam aequali.

Pronotum et pars praeaxillaris mesonoti sculptura reticulata minuta, pilis ordine dispositis, longiusculis, quam scutelli tamen brevioribus. Axillae haud conniventes, sculptura etiam reticulata, sed minus conspicua, quae versus angulum internum lineis transversalibus confertissimis tantum constat. Scutellum superficie laevi, nitida, pilis paucis longis instructum, longitudine et latitudine aequali, quam scutum proportionem $5/4$ longius, apice late rotundatum, transverse fortiter curvatum et secundum lineam longitudinalem medianam tecti instar angulum obtusissimum, vix conspicuum, formans.

Proalae cellula costali lata, nervo marginali quam latitudine sua triplo longiore, quam cellulae costalis latitudine paulum brevior; nervo stigmatico longitudinem marginalis vix superante, versus apicem gradatim incrassato, haud dentato, cum marginali angulum parum obtusum formante; nervo postmarginali dimidio quam marginali brevior; cellula basali glabra, excepta setarum serie juxta nervum humeralem decurrente, serieque altera ex puncto hyalino subcostae usque ad marginem posteriorem oblique disposita et versus aream specularem cellulam limitante; speculo magno, lato, extus linea recta seriei setarum basaliū parallela limitato, serie autem setarum ex angulo nervi marginalis cum stigmatico producta in duas partes aequali latitudine diviso, quarum exterior pilis nonnullis instructa, aliis non longe a nervo stigmatico ordine singulo oblique dispositis, aliis, numero 3-4, juxta eundem nervum uniseriatis. Alae metathoracis cellula costali ad hamulos extensa.

Abdomen aequae longum atque latum, quam scutum duplo longius.

Femina differt antennis ad os insertis, magis clypeo quam lineae oculari propinquis, scapo longo flavo-fusco, flagello nigro-brunneo quam thorace aliquantulum brevior, duplam scapi longitudinem nonnihil superante, pilis crebris quam articulis longioribus instructo; pedicello latitudine sua longiore, funiculi articulis gradatim crassioribus et brevioribus, primo pedicello fere aequilongo, ultimo longitudine primi latiore et latitudine sua sesquibrevior; clavae articulo basali quam praeclava parum longiore, secundo parum brevior, apice, quem articulus tertius totus format, obtuso, rotundato, post mortem immerso. Mandibulae (item atque maris?) elongatae, fortiter curvatae, dentibus duobus externis sat longis, acutis, interno brevissimo.

Long. 1,7 mm.

Habitat. Silhouette: "endemic forest near Mont Pot-à-eau, at about 1,500 ft."

Adn. Zeteticonto abili quod Silvestri in Guinea Gallica invenit atque descripsit, unicae generis speciei hucusque notae, species haec seychellensis nunc annectitur, quae colore viridi-aeneo, antennis pedibusque omnino luteis, facile dignosci potest. In clava maris vestigium suturae articuli tertii recognovi, in

feminae autem articulum apicale membrana tantum apicis, quae exsiccatione immergitur, constare observavi.

Specimina duo ♂♂, unum ♀.

GEN. **Euryrhopalus** Howard.

24. **Euryrhopalus diaphorocerus**, sp. n. (figs. 19, 20).

Femina. Capite obscure viridi, subnitido, vertice nigricante; antennis praeter clavam fuscam obscure luteis; thorace vix nitente cum pleuris abdominisque basi nigro-cyaneis; abdomine reliquo capiti concolore; coxis et femoribus nigris, tibiis cum calcaribus brunneis, tibiis secundis parvis latere anteriore in dimidio apicali testaceo; tarsis omnibus rufis; proalis ad radiculam infuscatis, spatio pone cellulam basalem usque ad dimidium longitudinis castaneo-umbrato, linea pallida longitudinali, post medium duplicata, diviso, in latere exteriori zona albida arcuata limitato; subcosta flavo-fusca, nervis marginali et stigmatico brunneis.

Caput magnum, lenticulare, postice excavatum, antice visum subtransversum, rotundatum; oculis permagnis, latis, glabris; vertice angusto $1/5$ capitis latitudinis aequante, postice acute marginato, antrorsum declivi, versus frontem haud limitato; ocellis in triangulum subaequilaterum dispositis, externis oculis contiguis; antennarum scrobibus recte linearibus, superne convergentibus sed tamen separatis; spatio inter antennis transverse curvato, haud carinato; superficie tota reticulo inculpta minutissimo, sat fortiter impresso, areolis genarum elongatis, fere linearibus; foveolis rotundis in parte inferiore faciei excavatis, secundum lineas transversas sat regulariter dispositis, in vertice quadriseriatis, seriebus externis orbitae contiguis, internis in fronte duplicatis itaque series quatuor formantibus.

FIG. 19.—*Euryrhopalus diaphorocerus*, ♀.
1, flagellum ($\times 45$); 2, prothoracici nervi ($\times 40$).

Antennae ad os insertae, inter lineam ocularem et marginem oralem aequo spatio remotae; scapus in scrobe fere totus receptus, longitudine $3/4$ latitudinis oculi fere aequans, dimidio quam flagellum brevior; pedicellus latitudine sesquialongior; funiculi articuli tres primi parvi, subquadrati, quatuor sequentes conspicue maiores, aequae

longi atque lati, bene discreti, omnes pilis sat longis ornati; clava articulis praecedentibus duobus et dimidio aequilonga, suturis obliquis divisa.

Thorax brevis, altus, gibbosus. Scutum margine antico obtuse angulato, postico leniter arcuato, vestigio sulci scapularis nullo. Axillae costa longitudinali coniunctae. Scutellum triangulare, aequae longum atque latum, convexum, apice rotundatum. Sculptura totius dorsi reticulata, quam capitis minus fortiter impressa, areolis subrotundis illis capitis plerumque maioribus, in parte anteriore scutelli conspicuis, versus apicem et super axillas minoribus. Mesopleura minute, confertissime, in longitudinem striata. Metapleura reticulata.

Prothoracico nervo marginali brevissimo parum latitudine sua longiore, postmarginali fere nullo, stigmatico quam marginali triplo longiore; margine apicali breviter ciliato; cellula costali lata setisque instructa secundum lineam dis-

positis longitudinalem dimidium eius apicale dividentem superque nervum marginalem desinentem; cellula basali fere tota glabra.

Abdomen thorace brevius, depressum, politum. Terebra apice crasso, fusiformi.

Pili haud frequentes, super caput ac thorax ordinati, in apice scutelli paulum longiores, super faciem brevissimi, ad marginem segmenti primi abdominalis uniseriati.

Long. 1,5 mm.

Habitat. Mahé: Cascade Estate.

Specimen unicum.

Adn. Huic generi, *Bothriothoraci* affini, una tantum species pertinebat, *Eu. schwarzi* How., in Florida capta, a seychellensi praecipue differens funiculi articulis multo brevioribus, clava latiore et funiculo fere aequilonga. Verisimile mihi videtur has species, etsi flagelli structura diversas, eidem generi esse attribuendas, nam in *Bothriothorace* funiculi articularum et clavae forma ac proportio valde variant.

FIG. 20.—*Euryrhopalus diaphorocerus*, ♀.

Pedis intermedii tibiae apex cum tarso ($\times 43$).

GEN. *Symphycus*, n.

Species quam sum descripturus, secundum Mayri monographiam *Encyrtopotius* adscribenda, *Aphyco* affinis est antennarum feminae structura. Ab hoc autem genere setarum nervorumque in proalis dispositione, nec non antennis maris ab illis feminae valde differentibus, facile distingui potest.

25. *Symphycus aphycoides*, sp. n. (figs. 21, 22).

Femina. Nigra, oculis tegulisque concoloribus, capite et dorso subopacis interdum nigro-aeneis; ocellis et scapo flavo-brunneis, funiculo nigro, clava versus apicem gradatim pallidiore, in articulo apicali griseo-albida; pedibus fere totis brunneis, tibiis flavo-fuscis, mediis obscure luteis, tarsis omnibus colore hoc dilutiore et apice infuscato; alis leniter fumatis, nervis flavo-griseis, marginali et postmarginali quam ceteris obscurioribus, stigmatico grisescente pallido; pilis dorsi griseo-fuscis, antennarum nigris.

Caput vix thorace latius, longitudine et latitudine subaequalibus (proportione 100:112) vertice postice marginato $1/3$ fere latitudinis formante; ocellis in triangulum aequilaterum dispositis, externis ab oculis remotis spatio ipsorum diametro aequali; oculis hirtis; genis orbitis fere aequilongis, infra magis incurvis; peristomio sat lato, clypei margine leniter convexo, mandibulis parvis acute tridentatis denteque medio longiore; facie immersa, inferne subcarinata; insertione antennarum labro magis quam lineae oculari propinqua. Caput de latere inspectum crassum, semiovale, oculis late ovalibus, genis perspicue recte sulcatis.

Antennae inter se magis quam ab ore distantes, sat longe rigido-pilosae. Scapus subfusiformi-compressus, latere ventrali magis arcuato; pedicellus conicus, latitudine sesquilongior; articulus primus funiculi parvus fere aequae longus atque latus; sequentes bene discreti, basi rotundati, apice truncati, gradatim longiores et crassiores, conspicue magnitudine crescentes; articulus secundus pedicello latitudine aequalis, sextus longitudine sua fere duplo latior, triplam latitudinem articuli primi fere aequans, longitudinis pedicelli $3/4$ tantum

attingens. Clava magna, quam funiculus dimidio brevior, subcompressa, apice truncato-rotundata, praeclavae latitudinem paullo superans, basi suturisque valde obliquis, pilis quam funiculi brevioribus et versus apicem curvantibus.

FIG. 21.—*Symphycus aphycoides*.
1, feminae antenna ($\times 80$); 2, maris ($\times 87$).

Thorax brevis, gibbus, dorso pilis subtilibus sat longis usque ad apicem scutelli ornato. Pars praeaxillaris mesonoti desuper inspecta trapezoidalis, lateribus rectis. Axillae haud conniventes. Scutellum triangulare, aequae longum atque latum, apice haud rotundatum, quam mesonotum sesquilongius. Scutum sculptura reticulata; areolae axillarum parum minores, haud elongatae, omnes aequales; areolae scutelli quam mesonoti et axillarum paullum minores. Mesopleura subnitida, minute et subtiliter reticulato-

sulcata. Metapleura striato-rugosa.

Proalae magnae, cellula costali sat lata, nervo marginali ad $1/3$ longitudinis incipiente, fere duplo longiore quam latiore, stigmatico huic aequilongo, postmarginali sesquibreviore; pilis super cellulam basalem et infra nervum marginalem raris, quam ceteris multo longioribus; area speculari haud determinata. Alae metathoracis cellula costali ad hamulos extensa.

Pedes intermediarii tarso infra rigido-setoso, calcari acuminato apicem metatarsi vix attingente; tibiae posticae calcari parvo.

Abdomen cordiforme, spiraculis basi propinquis, valvula paullum prominente.

Long. 1 mm.

Mas differt thorace abdomineque supra nitidis, dorso obscure griseo-viridi, scutello in dimidio anteriore vitta longitudinali cuprescenti-fusca; antennis flavo-fuscis haud incrassatis, pilis obscurioribus, haud verticillatis, et super clavam atque funiculum quam huius articulis duplo longioribus, pedicello brevi, articulis funiculi cylindricis omnibus crassitiae aequalibus, ultimis latitudine sesquilongioribus; clava inarticulata (?) quam praeclava fere duplo longiore; oculis de latere inspectis latioribus, subrotundis; mesopleurae sculptura magis obsoleta, vix conspicua; nervo stigmatico nonnihil longiore; abdomine elongate triangulari, quam thorace paullum brevior. Long. 1,25 mm.

Habitat. Silhouette: Mare aux Cochons.—Mahé: Cascade Estate. "At about 1,000 ft."

Specimina tria ♀♀, unum ♂.

FIG. 22.—*Symphycus aphycoides*, ♀.
1, proala ($\times 30$); 2, eiusdem nervi ($\times 96$).

GEN. *Blastothrix* Mayr.

26. *Blastothrix*, sp. (fig. 23).

Femina. Capite aurantiaco, mesonoti parte praeaxillari, axillis et scutello aeruginosis, vel interdum leniter infuscatis, vel capiti concoloribus, mesopleuris

ochraceis, abdomine brunneo, pedibus albidis; oculis, ocellis, antennarum radícula, scapo, excepto annulo articulari et macula lateris anterioris ad basim fasciaque arcuata ad apicem, pedicello non ultra $\frac{2}{3}$ eius longitudinis, et funiculi articulo primo toto, nigris, reliquis antennae partibus pilisque omnibus albis; pronoto praeter humeros flavescens, mesonoti margine anteriore, axillarum suturis, linea media scutelli usque ad dimidium longitudinis, nec non metanoto, etiam nigris; pilis dorsi albis; sutura freni inconspicua interdum maculis fumatis indicata; tegulis, axillulis et alarum nervis brunneo-griseis; metapleuris abdominisque basis lateribus brunneo-luteis; margine femorum superiore, tibiis exterioribus, fusco-lineatis, tibiis basi extus fusco-maculata, tarsis apice brunneis; alis leniter fumatis.

Habitus sicut in figuris *Bl. subproximae* Silvestri (*Boll. Labor. Zool. gen. e agr.* Portici, ix. 1915. p. 346. figs. vii. viii.).

Vertex $\frac{1}{3}$ capitis latitudinis occupans (in uno specimine proportionem 10:28,5, in alio 10:29,5). Ocelli triangulum subaequilaterum formantes, posteriores ab oculis remoti spatio eorum diametrum nonnihil superante. Scapus valde laminato-compressus, duplo longior quam lator, latitudine maxima ad mediam longitudinem, latere ventrali fortiter curvato; pedicellus latitudine scapi paulum brevior; funiculi articuli aequilongi, ultimus pedicello haud, primus vix angustior; clava articulos praecedentes duos et dimidium longitudine aequans, latitudine parum superans. Verticis, mesopleurae abdominisque sculptura, nisi magis quam 100 diam. magnificata, inconspicua, confertissime punctulata, abdominis foveolis paulum elongatis; sculptura dorsi etiam magis minuta. Nervus postmarginalis et stigmaticus aequilongi, quam marginalis nonnihil longiores.

Long. 1,15–1,18 mm.

Habitat. Mahé: "found near Morne Blanc and at Cascade Estate, but only in dense beds of the introduced fern *Gleichenia dichotoma*." *

Specimina sex.

Adn. Blastothrix insolitus How. (Chalcididae of the Isle of Grenada: *Journ. Linn. Soc.* xxvi. 1898. p. 150) huic speciei colore aliisque characteribus similis, nervo postmarginali brevissimo praecipue differre videtur.

FIG. 23.—*Blastothrix* sp., ♀.
Antenna (× 58).

GEN. *Scotteus*, n.

Huius generis femina tantum mihi nota est, eiusque mandibulas et abdominis segmenta examinare non potui. Antennis atque proalis similitudo est *Bothriothoraci oleae* et *B. minori* Silv., qui tamen a typicis *Bothriothoracibus* satis differunt. Characteres qui praecipui videntur, hi sunt: caput crassum, transverse ellipticum, scrobibus confluentibus, profundis, vertice angusto, sparsim punctato;

* Dense patches of this fern are numerous in the mountain-forests of the Seychelles. Another insect found exclusively, and in large numbers, in them, was *Semidalis africana* Enderlein, the only Coniopterygid found in the Seychelles (see *Trans. Linn. Soc.* xiv. 1910. pp. 28, 57).—HUGH SCOTT.

thorax brevis, scutello longitudine latius, setis paucis sparsis instructo, in disco et basi confertissime punctato, reliqua superficie laevi, nitida; abdomen latitudine brevius, etiam semicirculare; femora subcompressa, curvata; tibiae apice latae.

Clarissimo viro Hugh Scott hoc genus dicatur.

27. *Scotteus ochroleucus*, sp. n. (fig. 24).

Femina. Capite viridi, aureo-nitente, ad marginem oralem obscure cyaneo, oculis, ocellis, scapo et pedicello nigro-brunneis, hoc apice, itemque funiculi articulis, brunneis, clava pallide flavo-grisea; corpore pedibusque maxima parte flavo-ochraceis, coxis et femoribus posticis abdomineque ad brunneum colorem vergentibus, mesonoti parte praeaxillari nitore subviridi, metallico, scutelli partibus insculptis, id est basi et disco, aeneis, reliquis politis aureo vel purpureo nitentibus.

Caput latitudine metathoracem vix superans, antice inspectum transverse ellipticum, diametro minore $\frac{3}{4}$ maioris, vertice angusto $\frac{1}{4}$, aequantibus; oculis magnis haud prominulis, pubescentia brevi at satis conferta, orbita faciali valde divergente; linea oculari inferiore $\frac{2}{5}$ capitis longitudinis ab ore remota; torulis superne hanc lineam tangentibus, inferne inter eam et marginem oralem aequae remotis; scrobibus profunde excavatis, extus marginatis atque orbitis fere contiguis, superne confluentibus et arcum formantibus ultra mediam orbitarum altitudinem verticem fere attingentem; area triangulari scrobibus interposita elevata. Ocelli in triangulum subaequilaterum dispositi, posteriores oculos tangentes, a margine occipitali acuto spatio eorum diametro aequali, inter sese spatio duplo remoti. Caput de latere visum subtriangulare, latum, genis vix obtuse carinatis, conspicue sulcatis et reticulo minuto insculptis, areolis angustis elongatis, ita ut eae striatae appareant. Reliqua capitis superficies nitida, minute ac fere inconspicue reticulato-sulcata; vertex etiam punctis sparsis, in linea transversa 4-5, impressus; fovea antennalis reticulo fortius insculpto.

FIG. 24.—*Scotteus ochroleucus*, ♀.

1, antenna ($\times 45$); 2, proala ($\times 45$, areas obscuras et lineam specularem demonstrat); 3, eiusdem pars stigmatica ($\times 85$).

Scapus scrobem superans, compresso-claviformis, in dimidio apicali lateris ventralis carinatus, apice tamen constrictus; pedicellus duplo longior quam apice latior, $\frac{1}{3}$ scapi et articulos duos sequentes longitudine aequans; funiculi articuli sensim, at modice, maiores, subquadrati; clava dimidiam longitudinem funiculi cum pedicello aequans, compressa, quam praeclava fere duplo latior, in dimidio apicali lateris

ventralis oblique truncata, margine articuli secundi paullum pone medium longitudinis oblique disposito, curvato. Thorax latus; pronoto brevissimo; mesonoti parte praeaxillari longitudine sesquialtiore, minute reticulato-sulcata areolis transversis, setis sparsis, 4-5

secundum lineam longitudinalem dispositis; tegulis magnis; axillis angulo interiore contiguis; scutello convexo, lato, margine fere semicirculari, disco et parte basali usque ad medium lateris posterioris axillarum confertissime punctulato, reliqua superficie laevi, nitida, setis paucis sparsis; mesopleura subtiliter reticulato-sulcata areolis rhombicis. Metanotum haud parvum, planum. Metathoracis latitudo = 29; distantia inter angulos anteriores axillarum 22; scutelli longitudo 15.

Proalae nervo marginali ante medium sito, punctiformi; postmarginali brevissimo et stigmatico duplo longiore non bene determinatis; linea glabra speculari nervum marginalem fere attingente. Alae metathoracis cellula costali paullum ante medium nervi marginalis terminata.

Pedes femoribus compressis, curvatis. Tibia media apice dilatato quam basi sesquialtiore, calcari crasso metatarso aequilongo; hic articulo sequente duplo longior. Tibia postica calcari unico munita eius latitudini apicali aequilongo.

Abdomen breve, latum, depressum, fere semicirculare, terebrae valvis vix prominulis, superficie reticulato-sulcata. Basis latitudo, in specimine exsiccato, = 28, longitudo 18; oviductus prominentia 2,5.

Long. 0,9 mm.

Habitat. Mahé, apud Morne Blanc.

Specimen unicum.

GEN. *Encyrtus* Dalman.

28. *Encyrtus ventralis*, sp. n.

Femina. Faciei dimidio inferiore temporibusque viridibus, fronte atque vertice aeneis, punctis nitentibus aureis vel rubris; oculis nigris, ocellis brunneis; pronoto nigro, mesonoto in parte praeaxillari laete viridi pilisque albis ornato; axillis nigro-viridibus; scutelli apice violaceo, parte reliqua abdominisque dimidio posteriore obscuris, leniter purpureo-nitentibus; abdominis dimidio basali supra et infra aurantiaco; mesopleuris violaceis, metapleuris griseo-viridibus; antennis, tegulis et alarum nervis flavo-griseis; pedibus luteis, coxis tantum basi, tarsisque apice, infuscatis.

Caput subtransversum. Vertex $\frac{1}{4}$ capitis latitudinis occupans, margine occipitali subacuto, ocellis angulum fere rectum formantibus, externis ab oculis spatio ipsorum diametro vix brevioribus remotis. Oculi glabri. Facies post mortem profunde immersa, minute reticulata, fronte etiam reticulata, modice vitro aucta granulosa. Sculptura verticis minute granulosa apparens, foveolis nonnullis parum profundis, sparsis, quam areolis reticuli vix maioribus, difficulter conspiciendis. Antennae ad os insertae, flagello quam capitis latitudine paullum maiore, funiculi articulis 1.-3. subaequalibus, parvis, longitudine paullum angustioribus, simul sumptis quam pedicello vix longioribus; articulo 4. et 5. quam primo fere sesquilongioribus ac maiori latitudine, articulo sexto quam primo fere duplo longiore; clava magna, longitudinem articulorum funiculi 3.-6. aequante, quam praeclava vix latiore, in articulos subaequales divisa.

Mesonotum reticulatum, areolis aequalibus quam verticis granulis maioribus; axillae haud conniventes, sculptura minutissima, vix conspicienda; scutellum nitidum, latitudine sua brevius proportionem 10:13, in $\frac{1}{4}$ apicali laeve, reliquo spatio reticulatum, areolis prope axillas illis mesonoti aequalibus,

versus apicem sensim minoribus. Mesopleurae reticulatae, areolis quam scuti vix maioribus.

Proalae sat longe ciliatae, nervo marginali aequae longo atque lato, nervo stigmatico quam marginali parum longiore, postmarginali fere nullo, incerte terminato, setis super cellulam basalem raris, brevioribus, speculo lato, extus bene limitato et secundum lineam mediam setis nonnullis instructo.

Abdomen thoraci aequilongum, reticulatum, aspectu subgranulosum.

Long. 0,95 mm.

Habitat. Mahé: Cascade Estate.

Specimen unicum.

GEN. *Parageniaspis*, n.

Huic generi affinitas est *Encyrto* sensu lato, sed magis *Ageniaspidi*. Characteres eius praecipui hi sunt: flagellum crassiusculum, forma in maribus atque feminis vix diversa; funiculi articuli sex bene discreti, primus quam secundus haud conspicue minor, omnes in mare subquadrati; clava utriusque sexus ovata, distincte articulata.

29. *Parageniaspis macrocerus*, sp. n. (figs. 25, 26).

Femina. Capite pro parte et thoracis lateribus nigris, vertice, fronte, mesonoti parte praeaxillari abdomineque nigro-aeneis, subnitidis; scutello obscure viridi, metallico, lateribus et apice auratis magis nitentibus; metapleura interdum his partibus concolore; oculis griseo-rufis, antennis, tegulis, coxis omnibus, femoribus anticis in dimidio basali, posterioribus praeter apicem vel totis, tibiis posticis praeter apicem vel etiam praeter latus anterius, brunneis; tarsorum articulo ultimo vittaque in latere anteriore tibiae anticae fuscis, reliquis pedum partibus obscure luteis; proalis grisescentibus, nervo marginali brunneo, stigmatico pallido.

Caput vertice haud lato $1/3$ totius latitudinis occupante; ocellis in triangulum fere aequilaterum dispositis, externis spatio ab oculis remotis quam ipsorum diametro dimidio brevioribus; oculis sat magnis, hirtis; genis subrectis his fere aequilongis; clypei margine arcuato; antennis inter os et lineam ocularem insertis, eminentia parva separatis.

Flagellum crassum, pilis longiusculis usque ad medium clavae instructum, funiculi articulis et clava isthmo tenui, brevissimo, coniunctis; pedicello latitudine

FIG. 25.—*Parageniaspis macrocerus*.

1, maris; 2, feminae antenna; ($\times 80$).

sua sesquilongiore; articulo primo funiculi quam pedicello brevioribus, sequentibus gradatim latioribus, vix brevioribus, sexto longitudine sua paullum latiore; clava divisa, articulis praecedentibus duobus et dimidio aequilonga, nonnihil crassiore.

Sculptura capitis reticulata, minuta, vix conspicua, super verticem et frontem areolis maioribus constans, punctis piliferis paucis sparse impressis.

Dorsum ante scutellum reticulatum, foveolis piliferis sat magnis sparsis; scutellum subtriangulare, in longitudinem conferte et subtiliter striato-reticulatum, lateribus et apice glabris sculptura fere obsoleta, reliquo spatio pilis paucis longis seriatis ornatum. Axillae haud conniventes, reticulo quam in scutello magis minuto. Mesopleurae fortiter vitro auctae ($\times 150$) scabrae, sculptura haud conspicua.

Proalae fere duplo quam abdomen longiores, sub nervo stigmatico latissimae, costa usque ad mediam longitudinem extensa, nervo marginali fere triplo longiore quam latiore, stigmatico huic aequilongo dente acuto terminato, nervo postmarginali incerte limitato, quam marginali haud brevior; cellula costali pilis instructa brevissimis, sparsis, aliisque in dimidio exteriori marginis longis uniseriatis; cellula basali et area speculari usque ad marginem posticum etiam longe at parce pilosis; margine exteriori pilis haud brevibus ornato quorum maximi nervo marginali fere aequilongi.

Pedes satis elongati, intermedii tarso indentato, spinis tenuibus munito nec non calcari longitudinem articuli tarsalis primi aequante; tibiae posticae apice haud compresso-dilatatae, calcari parvo instructae.

Abdomen subtriquetrum, thorace vix longius, apice acuto, superficie reticulata, sculptura minus perspicua, areolis tamen quam in scuto maioribus.

Long. 1,3 mm.

Mas differt vertice, fronte, dorso abdomineque viridi-aeneis, facie inter antennarum insertiones violacea, pedibus nigro-brunneis, genibus, tibiis apice, mediis totis, tarsisque omnibus obscure luteis, horum apice fusco; funiculi articulis subquadratis fere aequalibus, sicut in femina breviter pedunculatis, articulo sexto aequae longo atque lato, clava quam hoc duplo longiore, articulis subdiscretis, basali quam praeclava nonnihil longiore; sculptura verticis reticulata perspicua foveolis rotundatis magnis, numerosis, juxta oculos fere contiguus; mesopleura confertim et minute striato-sulcata; abdomine triangulari, apice truncato, quam in femina brevior, latitudine paullum longior, dorso immerso, segmentis subaequalibus.

Habitat. Mahé: Cascade Estate.—*Silhouette*: Mare aux Cochons.

Specimina duo ♀♀, unum ♂.

GEN. *Geniaspidius*, n.

Species cuius descripto sequitur, generi novo *Ageniaspidi* affini attribuenda, ab eo differt funiculi articulis in mare omnibus aequilongis, scutelli superficie tota pilosa, alae metathoracis cellula costali nervi marginalis initium attingente, calcari secundi paris pedum quam in *Ageniaspide* minore ac minus robusto, tibiis posticis bicalcaratis, aliisque etiam characteribus, qui an in feminis quoque occurrant mihi est ignotum. Verticis et frontis sculpturam nervique stigmatici formam pro generis characteribus sumere non aestimavi.

30. *Geniaspidius viduus*, sp. n. (fig. 27).

Mas. Niger, scapo concolore, flagello, alarum nervis, thoracis abdominisque latere ventrali, pedibusque cum coxis flavo-griseis, femoribus autem omnibus et tibiis posticis obscurioribus, tibiis mediis interne et apice, cum tarsis, pallidis.

FIG. 26.—*Parageniaspis macrocerus*, ♂.
Proalae pars dimidia basalis ($\times 53$).

Vertex $1/3$ capitis latitudinis occupans, ocellis in triangulum subaequilaterum dispositis, posterioribus ab oculis atque margine occipitali spatio eorum diametrum fere aequante remotis. Oculi pubescentes, ex latere inspecti subrotundi; genae sulco subtili at profundo notatae; peristomium angustum, clypei margine arcuato; mandibulae parvae, tridentatae; facies inter antennis obtuse carinata.

Scapus ad medium crassior; pedicellus latitudine et longitudine aequalibus; articuli sex sequentes omnes bene discreti, subaequales, quam pedicellus sesquilingiores sed haud crassiores; clava articulis duobus praecedentibus paullum longior, suturis parum conspicuis.

1

2

3

FIG. 27.—*Geniaspidius viduus*, ♂.

1, antennae apex; 2, proalae nervi; 3, pedis intermediæ tibiae apex cum tarso; ($\times 80$).

Sculptura capitis minute reticulata, leniter impressa, foveolis nonnullis in fronte quadriseriatis seriebusque externis orbitis contiguus.

Mesonoti pars praeaxillaris itemque scutellum in longitudinem confertim et minutissime striata, pilis sat magnis, crebris, ordine dispositis, instructa. Pleurae minute reticulatae.

Proalae magnae, apicem abdominis valde superantes, latitudine longiores proportionem $2:7$; cellula basali in dimidio interiore fere omnino glabra, in exteriori pilis nonnullis sat longis ornata; pubescentia brevior, satis conferta, sub nervo marginali incipiente, speculo inter hanc et cellulam basalem incerte limitato; pilis fimbriae longiusculis; nervo marginali latitudine sua sesquilingiore, stigmatico quam marginali fere dimidio brevior denteque parvo ad medium lateris anterioris instructo, nervo postmarginali quam stigmatico haud longiore. Alae posteriores apicem abdominis vix superantes, cellula costali super nervum marginalem non elongata.

Calcar medium satis tenue, acuminatum, metatarsum haud superans. Tibiae posticae calcaribus duobus parvis, subaequalibus, munitae.

Abdomen thorace haud longius, basi angustum, elongate triangulare, non longe a basi prope spiracula setis instructum eius apicem fere attingentibus.

Long. 0,9 mm.

Habitat. Mahé: Cascade Estate.

Specimen unicum.

GEN. *Habrolepis* Förster.

31. *Habrolepis aeruginosa*, sp. n.

Femina. Aeruginosa, oculis ocellisque brunneis, vertice iridescente; scapo, femoribus tibiisque in latere inferiore nigro lineatis; calcari medio et tarsorum apice fuscis; mesonoto et scutello subnitidis, cyaneo-micantibus; proalis fere totis infumatis at his partibus hyalinis: fascia sub nervo humerali, area infra huius medium, alia, subrotunda, ad angulum alae posteriorem, alia forma semicirculari, apicem occupante, aliaque circum extremitatem nervi marginalis, incerte limitata.

Vertex reticulatus, punctis setigeris irregulariter in longitudinem dispositis, in margine orbitali tantum uniseriatis; spatio inter oculos aequale longo atque

lato; ocellis angulum obtusum formantibus, posterioribus margini occipitali acuto et orbitae fere contiguis. Superficies ocularis pubescens. Scapus laminato-compressus, margine inferiore conspicue arcuato. (Reliquae antennarum partes in specimine desunt.) Mesonoti pars praeaxillaris reticulato-squamosa, areolis quam verticis maioribus. Axillae et scutellum sculptura reticulata minus conspicua, in apice scutelli fere obsoleta. Scutellum latitudine sua parum longius, forma semielliptica, setis nonnullis longis, tenuibus, instructum. Praeculae nervo stigmatico marginali aequilongo; fascia glabra speculari incerte limitata, setis super cellulam basalem infraque nervum marginalem, item atque in nervis omnibus, longioribus.

Long. 1,3 mm.

Habitat. Silhouette: Mare aux Cochons plateau.

Adn. Proalarum maculae fumatae eodem modo sunt in hac specie dispositae quo in *Habrolepide dalmanni* Westw. et *H. oppugnati* Silv. Ab his et ab *Habrolepide zetterstedtii* Westw. species seychellensis, de qua ampliorem descriptionem facere nequeo, facile distingui potest colore aeruginoso. Setas lamellares in margine occipitali vel in scutelli apice non inveni.

Specimen unicum.

GEN. *Mahencyrtus*, n.

Huius generis femina non est reperta, mas ab uno tantum specimine hic describitur. Generi relatio est cum *Cerapterocero* et *Chiloneuro*, nec non cum *Diversinervo* Silv.: ab hoc autem differt antennis in linea oculari insertis, metathoracis alis minus latis et in margine postico minus curvatis, abdomine magis elongato, segmento basali minore: a *Chiloneuro* flagelli pilis non verticillatis, clavae fere omnibus elongatis, funiculi articulis medio haud constrictis, scuto pilis argenteis nullis, scutello apice glabro: a *Cerapterocero* denique antennis infra lineam ocularem insertis, funiculi articulis valde elongatis, scutello foveolis fere linearibus et contiguis in sculpto, haud nitido, nervo marginali et postmarginali angustioribus ac longioribus.

32. *Mahencyrtus occultans*, sp. n. (figs. 28, 29).

Mas. Capite, mesonoti parte praeaxillari, metanoto cum metapleuris et abdominis basi aureo-viridibus, nitidis; abdomine reliquo, prothorace axillisque nigro-aeneis; scutello flavescenti-aeneo, subopaco; mesopleuris, tegulis et oculis nigris; carina super clypeum cuprescente, hae fere nigro; antennis obscure luteis, funiculi juncturis, pilis et clavae apice fuscis; pedibus maxima parte luteis, coxis, femoribus anticis in dimidio basali, mediis brevi spatio in latere anteriore, posticis praeter basim et apicem cum tibiis prope basim, nec non tarsorum omnium apice, etiam fuscis; alis hyalinis, nervis flavo-brunneis, marginali et postmarginali obscurioribus.

Caput antice visum rotundatum, vertice dimidium latitudinis occupante, oculis magnis, glabris, genis fortiter curvatis, clypeo medio recte marginato, antennis in medio faciei insertis, ab oculis paullum magis quam inter se remotis; linea oculari inferiore inter antennas et marginem clypei aequo spatio distante; facie circum antennarum insertiones excavata, inter has elevata, obtuse carinata. Caput de latere inspectum ellipticum, oculis ovatis at postice margine recto, obliquo, limitatis; genis haud compresso-acutis, sulco perspicuo notatis. Vertex

postice haud marginatus. Ocelli in angulum obtusum dispositi, externi ab oculis remoti spatio ipsorum diametrum aequante. Superficies sulcato-reticulata, areolis super verticem transversis, foveolis nonnullis rotundatis etiam in dimidio inferiore faciei impressis.

Scapus subcompresso-dilatatus, supra medium latissimus, ocellum anteriorem attingens; flagellum tenue, valde elongatum, longitudinem thoracis cum capite superans, pilis instructum sparsis, etiam super clavam praeclavae aequilongis, articulis aequali latitudine; pedicello aequae longe atque lato, funiculi articulo primo fere sesquibreviore, clava longitudinem articuli primi cum pedicello aequante, indivisa.

FIG. 28.—*Mahencyrtus occultans*, ♂.
Antennae pars ($\times 80$), ex specimine
exsiccato delineata.

Pars praeaxillaris mesonoti scutello longior, reticulata, foveolis rotundatis sparse impressa; axillae separatae, reticulo minus conspicuo areo-

lisque minoribus; scutellum triangulare, areolis elongatis, fere linearibus fortiter insculptum, apice tantum sculptura obsoleta areolisque subrotundis. Mesopleura leviter atque minute reticulata, in dimidio anteriore areolis minoribus, elongatis. Metathoracis latera pilis paucis prope stigma tantum ornata; dorsum pilis subtilibus, nusquam confertis.

Proalae nervo marginali quam eius latitudine duplo longiore, stigmatico ac postmarginali huic subaequalibus, cellula basali in dimidio posteriore pubescente, speculo infra praestigma bene limitato, antice curvato, infra nervum marginalem extenso. Alae metathoracis elongatae, angustae, margine postico vix arcuato, cellula costali hamulos attingente.

Pedes longiusculi, calcari dimidio metatarso aequilongo.

Abdomen thoraci aequilongum, elongate ovale, segmentis 5. et 7. longioribus, ultimo in specimine exsiccato ad $2/3$ alae anterioris desinente, omnibus margine postico valde curvato.

Long. 1,5 mm.

Habitat. Mahé.

Specimen unicum.

FIG. 29.—*Mahencyrtus occultans*, ♂.
Alae ($\times 37$ —pili in superficie alae posterioris
non sunt delineati).

GENUS ?.

Specimen unicum, masculinum, cuius descriptio sequitur, notis quibusdam simile est praecedenti, sed in eodem genere non convenit fronte fovea magna non excavata, nervo marginali longiore, speculo lineari, aliisque etiam characteribus. An sit hoc exemplar generi novo attribuendum mihi dubium est.

33. Genus et sp. ?.

Mas. Capite et dorso cum metapleuris aureo-viridibus; facie infra antenarum insertionem usque ad marginem clypei violaceo-purpurea; oculis fere nigris; antennis flavo-griseis, clavae apice, radícula pilisque obscurioribus;

pilis mesonoti albidis; scutello in dimidio apicali cuprescente; mesopleuris nigris, leniter violaceo-nitentibus; tegulis brunneis; alarum nervis flavo-griseis; pedibus cum coxis anticis atque posticis luteis, coxis mediis fere totis brunneis, tarsis anticis totis, posterioribus apice tantum, infuscatis; abdomine viridi-aeneo, purpureo vel aureo nitente.

Caput hemisphaericum, antice visum rotundatum, fere aequae longum atque latum; vertice $\frac{1}{3}$ latitudinis aequante, antrorsum haud declivi, postice acute marginato, confertim et minutissime punctulato, in eius parte postica tantum fere obsolete insculpto, foveolis rotundatis paucis ad marginem orbitarum aliisque nonnullis sparsis impresso; ocellis in triangulum aequilaterum dispositis, externis fere oculis contiguis. Orbitae inferne valde divergentes, genis parum longiores; oculorum superficies glabra; facies reticulata, areolis frontis minoribus, spatio inter marginem clypei et insertiones antennarum arcuatim striguloso, obtuse carinato; scrobibus profunde excavatis, non ultra dimidiam orbitarum altitudinem extensis, medio confluentibus; clypei margine concavo, limbato; labro item curvato, margine rigide piloso. Mandibulae tridentatae.

Antennae in linea oculari insertae, ab ore $\frac{1}{4}$ capitis longitudinis et magis quam inter se remotae, longitudinem corporis aequantes, flagello quam scapo quadruplo longiore, pedicello, funiculi articulis et clava crassitie aequalibus, pilis saltem pedicello aequilongis, aequaliter distributis; articulis funiculi omnibus anello perspicuo coniunctis; articulo primo latitudine sua sesquilongiore et pedicello aequilongo, secundo duplam, sexto triplam latitudinem longitudine aequantibus; clava articulis 5. et 6. simul sumptis fere aequilonga, elongate ovato-acuminata, articulis subdiscretis, basali $\frac{2}{5}$ eius longitudinis aequante.

Mesonoti pars praeaxillaris reticulata, pilis satis numerosis ornata. Axillae haud conniventes, areolis quam in scuto minoribus. Areolae scutelli fere lineares, in longitudinem dispositae, prothoracis lateris et mesothoracis ante mesopleuram magnae, rhomboidales, sulcis limitatae; in mesopleura fere tota elongatae, confertae, in longitudinem dispositae, in eius parte supero-posteriore subrotundae, in parte anteriore leniter excavatae. Callus pilis nonnullis albis instructus.

Proalae sat longe ciliatae, nervo marginali longo, stigmatico brevissimo, postmarginali fere nullo, speculo lineari ex nervo stigmatico valde oblique producto.

Calcar tibiae posticae dimidium articuli primi tarsalis non attingens.

Abdomen paullum thorace brevius.

Long. 0,88 mm.

Habitat. Mahé: Cascade, "from marshy ground near sea-level."

Specimen unicum.

SUBFAM. EUPELMINAE.

GEN. *Eupelmus* Dalman.

34. *Eupelmus malgascius*, sp. n.

Femina. Obscure olivaceo-viridis, fronte, in specimine, praeter aream orbitae contiguam, nigro-violacea, pilis faciei et dorsi albis, antennis scapo ac pedicello nigro-viridibus, submetallicis, funiculo et clava nigris; abdomine basi superne cyanea, reliquo dorso subaeneo; pedibus pro maxima parte fulvo-ochraceis, coxis anticis atque posticis, femore antico praeter basim et apicem, postico in

dimidio basali, corpori concoloribus; femore medio in margine superiore infuscato; tibia antica et postica dimidio basali nigris, tibia media basi obscura, spinulis apicis, item atque tarsi, nigris; tarsorum apice fusco; alis dilute flavo-griseis, nervis paullum obscurioribus; oviductu in $\frac{1}{3}$ basali nigro-viridi, in $\frac{1}{3}$ apicali fusco, spatio reliquo ochraceo.

Antennae articulis funiculi 5.-6. latitudine manifeste longioribus.

Proalarum speculum linea glabra indicatum.

Pedes antici femore subtus laminato-compresso; pedes intermedii spinulis tibiae apicis sex, spinulis articuli tarsalis primi 12 in utraque serie, quarum 3-4 ultimae in lineam exteriorem dispositae, secundi 5, tertii 2, quarti 1.

Abdomen tergitis 1.-4. profunde angulatim incisis. Oviductus dimidiam tibiae posticae longitudinem vix superans.

Long. 2,5 mm.

Habitat. Mahé: "country above Port Glaud, 500-1,000 ft."

Specimen unicum.

Adn. Species *Eupelmo uroazono* Dalm. affinis, colore alarum, tibiaram et coxae mediae facile distinguenda, ab *Eupelmo afro* Silv. praecipue differens alis obscuris, spinarum numero maiore in apice tibiae mediae.

GEN. *Eupelmoides*, n.

Speciei huius generis typicae femina tantum est nota, *Eupelmo uroazono* thoracis structura nec non corporis forma similis, at abdominis valvula vomeriformi, huius apicem attingente, et alarum characteribus praecipue differens.

Haec est generis diagnosis:

Femina. Caput vix transversum, vertice perangusto, terete, ocellis omnibus superioribus, oculis magnis, aspectu glabris, linea oculari inferiore in $\frac{3}{4}$ capitis longitudinis, mandibulis bidentatis, id est dente medio atque posteriore connatis. Antennae inter lineam ocularem et clypeum insertae, scapo verticem non superante, flagello elongato, tenui, annello et praeclava subquadratis, funiculi articulis 1.-4. longis, clava dilatata, ovata. Axillae haud remotae; metanoti pars pone scutellum brevissima, antice atque postice concava et marginibus medio fere contiguis. Proalae nervo postmarginali quam stigmatico duplo longiore, superficie confertim pubescente, speculo nullo. Abdomen longum, tergito basali profunde diviso, secundo angulatim inciso, 4.-6. convexo-marginatis, hoc ultimo septimum obtegente, sternitis valvulam formantibus vomeris ad instar, abdominis apicem fere attingentem; terebrae valvis in specie typica tergito sexto subaequilongis.

Mas ignotus.

35. *Eupelmoides obscuratus*, sp. n. (figs. 30-32).

Femina. Obscure violacea, facie, scapo ac pedicello, dorso partim, viridibus, metallicis, scutello saepe aureo-nitente; funiculo et clava totis nigris; oculis griseo-rufis; tibiis nigricantibus, posticis in latere posteriore macula oblonga alba ornatis non ultra medium longitudinis extensa; tarsis omnibus apicem versus sensim infuscatis, anticis articulo 1. et 2. flavo-griseis, mediis atque posticis articulo 1. albido; proalis cellula basali, costali et area sub nervo marginali albidis, reliquo spatio fuscis, in dimidio anteriore etiam obscurioribus; metathoracis alis fere hyalinis; oviductu apice flavescente.

Caput antice visum subrotundum, longitudine latius proportione 5:4, vertice angusto, oculis magnis, aspectu glabris, verum pilis paucis brevibus subtilibus instructis, orbitis valde obliquis et in linea oculari spatio quadruplo quam in vertice distantibus (spatio hoc inter sulcos genarum dimenso), genis fortiter arcuatis, peristomio lato, clypeo indistincto, angusto; linea oculari inferiore in $\frac{3}{4}$ capitis longitudinis, scrobibus antennarum longis, in dimidio inferiore bene determinatis, superne prope ocellum confluentibus et orbitis tangentibus. Caput de supra inspectum vertice quam diametro antero-posteriore saltim dimidio angustiore; oculorum prominentia verticis latitudinem superante proportione 9:4; ocellis posterioribus orbitis fere contiguis spatioque diametrum eorum vix aequante separatis, medio a posterioribus spatio parum maiore remoto. Faciei superficies scabra, verticis inter ocellos sublaevis; superficies pone hos itemque oculos et sulcos genarum leniter reticulo insculpta. Mandibulae ambae eadem forma, tridentatae, aspectu bidentatae, id est dente anteriore tantum bene discreto, acuto, reliquis obtusis et vix incisura minima separatis, quasi dentem unum latum formantibus. Facies pilis ornata crassiusculis, inter se spatio eorum longitudinem aequante, interdum etiam duplo, remotis.

Antennarum radiculae inter lineam ocularem inferiorem et os aequaliter, inter se duplo quam ab oculis, remotae, itemque spatio duplice quam verticis latitudine; flagellum tenue, longitudinem thoracis paullo superans; pedicellus duplo longior quam latior; annellus vix discretus, quadratus; articulus primus funiculi pedicello sesquialongior, ceteri gradatim breviores et crassiores, sextus fere quadratus, septimus latitudine sua vix brevior et quam primus duplo latior; clava longitudinem articuli primi cum anello aequans, post mortem interne profunde immersa, propter deformationem quam praeclava fere sesquialatior.

FIG. 30.—*Eupelmoides obscuratus*, ♀.
Antenna (× 27).

Sculptura partis praeaxillaris mesonoti minute reticulata, areolis antice atque postice paullum maioribus. Prothorax brevis, de supra inspectus subtriangularis, longitudine $\frac{1}{3}$ thoracis latitudinis fere aequans. Mesonoti pars praeaxillaris sulco tenui lateribus limitata, carinis longitudinalibus submedianis nullis, in parte postica tantum eminentia obtusa indicatis, area inter carinas antice triangulum subconvexum formante, breviter pilosula, interdum glabra. Axillae triangulares, latitudine, id est basi, fere sesquialongiores, spatio remotae earum basis dimidium aequante, a scutello sulco lenissime sinuato separatae, superficie aspectu minute granulosa. Scutellum postice truncatum, dorsulo confertim longitudinaliter strigoso-sulcato, freno autem fere transverso-lineari et valde declivi, subdiscreto, minute reticulato. Dorsellum fere lineare. Metanotum medio brevissimum, longitudine maxima in eius partibus lateralibus dimidium lateris anterioris scutelli aequante, margine antico et postico leniter concavis aequaliter curvatis, superficie scabra. Spiracula sat magna, obliqua. Mesothoracis latera ante sulcum mesosternum et mesopleuram separantem reticulata, praesterni areolis magis minutis; pili infra hoc sat longi sed haud conferti.

Proalae praestigmate crasso, nervo marginali quam postmarginali triplo longiore, hoc quam stigmatico duplo longiore; cellula basali sat dense pilosa,

costali margine glabra, speculo nullo, superficie reliqua confertissime pilis brevibus vestita, nervo cubitali pilorum dispositione vix indicato ad mediam alae latitudinem decurrente.

FIG. 31.—*Eupelmoides obscuratus*, ♀.
Proala ($\times 23$ —macularum dispositionem ostendens).

Femur anticum posterioribus minus validum, at in eius dimidio apicali latius, marginibus posticis laminatis foveam ad tibiam excipiendam formantibus. Tarsus anticus et posticus tenues, ille tibia sesquilongior, hic aequilongus, interne spinis in articulo 1. circa 25 instructus, in 2. decem, in 3. septem, in 4. sex; tarsus medius haud elongatus, $3/4$ tibiae aequans, crassus, articulo primo seriebus denticulorum 16–18 munito. Pedes postici coxis pubescentibus, calcari minore latitudinem metatarsi vix superante, maiore sesquilongiore.

Abdomen thorace sesquilongius, saepe in specimenibus hians, id est sternitis valvulam eius apicem fere attingentem, nec in longitudinem divisam, vomeris ad instar, formantibus; tergito primo profunde diviso, secundo manifeste, tertio vix, angulatim incisis, quinto et sexto subaequalibus arcuato-convexis, septimo fere occulto. Superficies fere tota sat conspicue reticulata, in parte anteriore segmenti basalis areolis minoribus insculpta. Oviductus tergito sexto subaequilongus.

Long. 4 mm.

Specimina sex.

Habitat. Silhouette: Mare aux Cochons—Mahé: Cascade Estate; Morne Blanc; "country above Port Glaud."

FIG. 32.—*Eupelmoides obscuratus*, ♀.
Pedis intermedii tibiae apex cum tarso
($\times 40$).

GEN. *Pseudanastatus*, n.

Hoc genus sequenti simile et affine, differt faciei area interantennali et epistomate linea lyrata circumdatis, spatio, hac linea limitato, depresso; flagello versus apicem gradatim et conspicue latiore, proalis in specie typica paullum ultra praestigma terminatis. Maris characteres non sunt adhuc noti. Praeter speciem seychellensem, cuius descriptio sequitur, aliam observavi, in Italia prope Genuam inventam, structura valde similem, colore praecipue diversam.

Femina. Caput crassum, vix transversum, vertice $1/3$ totius latitudinis aequante antrorsum declivi et cum fronte continuo, ocellis in declivio locatis; oculis fere glabris; antennis prope lineam ocularem insertis, scrobibus nullis; facie linea lyrata, torulis extus tangente et ad mediam orbitarum altitudinem arcum formante, in duas partes divisa, quarum una, id est spatium interantennale cum epistomate, magis depressa, interdum etiam colore distincta. Mandibulae dente apicali et intermedio instructae, basali nullo. Antennarum scapus verticem non superans, flagellum versus apicem gradatim et conspicue crassius. Scutellum angustum, basi lateri anteriori axillarum subaequilonga; dorsellum atque metanotum parva. Proalae fere atrophicae, rotundato-truncatae, cellula costali et praestigmate latis, nervo marginali brevissimo apicem attingente,

nervo stigmatico nullo, superficie fere tota setis spiniformibus instructa. Abdomen breve, depressum, prope apicem latum, tergitorum margine haud inciso, terebrae valvis haud vel vix prominentibus.

Mas ignotus.

36. *Pseudanastatus crassicornis*, sp. n. (figs. 33, 34).

Femina. Flavescenti-brunnea, oculis, scapo ac pedicello concoloribus, funiculo brunneo-nigro, clava tarsisque omnibus albis; proalis brevissimis, inter dimidium cellulae basalis et praestigma hyalinis, reliquo spatio leniter infuscatis, nervis haud obscurioribus; callo dense albo-pilosulo; abdomine violascente brunneo, segmento basali albido; oviductu vix prominente pallide flavo.

Caput transversum, longitudine $5/7$ latitudinis aequans, vertice antrorsum declivi tertiam partem latitudinis occupante; ocellis in declivio anteriore, triangulum aequilaterum formantibus, posterioribus spatio ab oculis remotis quam ipsorum diametro parum brevioribus; oculis setis perpauca brevibus instructis; distantia orbitali inferiore dupla quam superiore; linea oculari $2/7$ capitis longitudinis ab ore remota; genis sulcatis, ad os fortius curvatis; peristomio sat lato; clypeo subquadrato extus recte marginato; antennis vix infra lineam ocularem insertis et carina brevi obtusissima fere inconspicua separatis; scrobibus nullis, facie linea lyrata torulis extus tangente et ad mediam orbitarum altitudinem arcum formante, in duas partes divisa, quarum interior, id est spatium inter antennis cum epistomate, magis depressa. Palpi maxillares 4-articulati, articulis 1.-3. subaequalibus. Mandibulae dente exteriori parvo, medio vix prominulo late rotundato, interiore nullo.

Superficies tota capitis minute reticulata, aspectu granulosa, pubescentia haud frequenti aequaliter distributa.

Antennae scapo robusto, flagello versus apicem gradatim et conspicue crassiore; anello quadrato, articulo primo funiculi quam pedicello haud longiore neque crassiore, articulo quarto latitudine sua vix longiore, tribus sequentibus paulum brevioribus, ultimo duplam pedicelli latitudinem aequante, longitudine $2/3$ latitudinis suae haud superante; clava quam articulis duobus praecedentibus paulo longiore.

Pronotum, mesonoti pars praeaxillaris et axillae, nec non scutellum juxta eius latus anterius, reticulo minute insculpta, areolis regulariter polygonis super pronotum minus conspicuis. Mesonoti pars praeaxillaris area media depressa, indivisa et lateribus costis subrectis fere parallelis bene terminata. Axillae duplo longiores quam basi latiores, dimidiam scutelli longitudinem attingentes. Scutellum angustum, duplo longius quam latius, latere anteriore axillarum basi vix aequilongo, latitudine maxima quam hoc spatio sesquilongiore, superficie confertim in longitudinem striato-sulcata, strigis per totam longitudinem fere continuis, numero ad medium circa viginti; setis paucis sparsis. Dorsellum et metanotum brevissima.

Alae fere atrophicae; anteriores longitudine, praeter radiculam, triplam latitudinem aequantes, longitudinem funiculi haud superantes, non ultra abdominis basim elongatae, apice rotundato-truncatae, superficie setis crassis,

FIG. 33.—*Pseudanastatus crassicornis*, ♀.
Antenna ($\times 45$).

in parte basali minus confertis, vestita; praestigmate lato cum nervo marginali rudimentali continuo, hoc apicem attingente, nervum stigmaticum haud emit-

FIG. 34.—*Pseudanastatus crassicornis*, ♀.
Proala (sine radícula— $\times 85$).

tente; cellula costali ampla $1/5$ latitudinis maximae fere aequante, medium longitudinis brevi spatio superante, margine anteriore curvato, glabro. Alae metathoracis hamulis apice insertis.

Tarsus medius articulo primo seriebus denticulorum 8–11 munito, secundo 4, tertio 2, quarto 1. Tibia postica unicalcarata.

Abdomen depressum, thorace paullo longius, latitudine maxima prope spiracula, apice valde obtuso, oviductu vix prominente; superficie minute reticulato-squamosa, areolis aequalibus; tergitis apice integris, quinto concavo-, sexto convexo-marginato.

Long. 2 mm.

Habitat. Mahé: "Cascade Estate and forest above."—Silhouette: "high forest above Mare aux Cochons, 1,000–2,000 ft."

Specimina tria.

GEN. *Paranastatus*, n.

Species duae huic novo generi pertinentes, forma capitis de latere inspecti similes, nec non totius corporis figura, tamen characteribus nonnullis valde differunt. Ego autem genus praecipue propter capitis formam institui, quam fig. 36, ostendit. Forsan species sunt, nomine *Anastato*, vel alio, ab auctoribus descriptae, quas huic meo generi adscribere liceat. Maris characteres in diagnosi, quae sequitur, ex una tantum specie deduxi.

Femina. Caput fere aequae longum atque latum, de latere inspectum obtuse triangulare, angulo obtuso foramini occipitali fere contiguo, itaque vertice non antrorsum sed retrorsum declivi; ocellis, si caput antice inspicatur, pone summam faciem occultatis, in angulum acutum dispositis, posterioribus fere oculis contiguis; antennis in linea oculari vel inter hanc lineam et marginem ocularem insertis; mandibulis bidentatis, vel etiam 4-dentatis dentibus alternis maioribus. Dorsellum atque metanotum brevia, metathoracis partes laterales triangulares, in planum dispositae. Proalae normales, nervo postmarginali duplo quam stigmatico longiore. Abdomen haud elongatum, post mediam longitudinem latius, segmentis praeter basale subaequilongis, margine integris; terebrae valvis non prominentibus.

Mas. Vertice, de latere inspecto, haud retrorsum declivi, ocello anteriore in medio eius sito, scapularum sulcis in parte dimidia anteriore tantum indicatis, metanoto normali, superne inspecto rectangulari, carinato, procalis totis pubescentibus, tarso medio spinulis denticulorum loco munito, abdomine elliptico.

Huius generis species hic descriptae his characteribus inter sese valde differunt et facile dignosci possunt:

Paranastatus egregius. Antennae in linea oculari insertae, clava dilatata. Mandibulae bidentatae. Caput viride, thorax pedesque fulvi, abdomen brunneum basi pallida, proalae fumatae.

Paranastatus violaceus. Antennae inter lineam ocularem et marginem oralem insertae, clava quam articulis praecedentibus haud latiore. Mandibulae 4-dentatae, dentibus alternis (1. et 2.) minoribus. Violaceus, flagelli dimidio apicali albo, vel obscure ochraceo clava brunnea, proalis flavo-griseis.

37. *Paranastatus egregius*, sp. n. (fig. 35).

Femina. Capite smaragdino vel aurato-viridi, oculis rufescenti-brunneis, articulis tribus clavae praecedentibus albis, reliquis funiculi et clava brunneis, hac vero minus obscurata; scapo cum pedicello, thorace pedibusque fulvis, tegulis, mesonoti dimidio posteriore et scutelli apice virescentibus; proalis infra praestigma atque nervum postmarginalem fortiter, apice tamen minus, infuscatis, ad medium fascia incerte limitata subalbida ornatis; abdomine violaceo-brunneo, segmentis, praecipue ultimis, viridi-nitentibus, segmento basali et lateris ventralis dimidio posteriore ochraceis.

Caput antice visum haud longitudine latius, subrotundum, oculis parum convexis, inferne duplo quam in vertice remotis, pilis perpaucis brevissimis instructis, genis $\frac{2}{3}$ orbitalum longitudinis fere aequantibus, fortiter curvatis, profunde sulcatis; de latere visum subtriangulare, vertice non antrorsum sed retrorsum declivi, ocellis in hoc declivio pone faciem locatis; de supra inspectum vertice perangusto, ocellis posterioribus ab oculis vix separatis, inter se parum distantibus, anteriore ab aliis magis remoto. Scrobes antennales longae, superne confluentes, at haud marginatae, spatio modice elevato separatae. Faciei pars inferior neque depressa neque a superiore linea arcum formante discreta. Clypeus margine vix prominente, recto. Mandibulae bidentatae. Verticis sculptura minutissime granulosa, frontis reticulata, non satis vitro aucta aspectu minute granulosa; faciei, infra lineam ocularem, genarum temporumque, etiam reticulata, areolis maioribus, super tempora maximis; dimidium capitis inferius foveolis nonnullis impressum rotundatis, haud profundis, prope genarum sulcos magis confertis.

Antennarum insertio in linea oculari; flagelli articulus secundus dimidiam pedicelli longitudinem vix superans, latitudine sua fere sesquilingior; articuli sequentes gradatim crassiores, 4. et 5. pedicello aequilongi, 6. praecedente multo brevior, aequus atque latus, quam pedicellus sesquilatior; articuli reliqui etiam quadrati, subaequales; clava articulis duobus praecedentibus aequilonga, suturis obliquis.

Sculptura totius dorsi minute reticulata. Mesonoti pars praeaxillaris per totam longitudinem medio depressa, fovea lateribus carinis parallelis limitata.

Proalae normales, abdominis apicem paullo superantes, nervo postmarginali fere duplo quam stigmatico longiore, pilis satis confertis in tota superficie fere aequaliter distributis.

Tarsus medius articulo primo seriebus denticulorum 9-11 munito.

FIG. 35.—*Paranastatus egregius*, ♀.

1, antenna ($\times 40$); 2, pedis intermedi tibiae apex cum tarso ($\times 80$).

Abdomen post medium latius, in speciminibus exsiccatis spatulatum, segmentis subaequilongis, primo tamen paullo longiore; terebra valvis omnino retractis.

Long. 1,5 mm.

Mas. Colore a femina haud differens nisi est proalis leniter tantum fumatis, zona ad medium decolore, nec albida. Caput de latere inspectum vertice haud declivi, oculo anteriore in medio huius, posterioribus occipitem versus locatis. Flagellum quam in femina nonnihil crassius, funiculi articulo primo non annuliformi, quinto ac sexto (septimo et octavo antennae) aequae longis atque latis, clava 3-articulata quam praeclava haud latiore, suturis sat conspicuis. Scapularum sulci in dimidio anteriore tantum indicati; axillae triangulares subaequilatae, remotae. Scutellum apice fortius insculptum. Dorsellum atque metanotum fere aequilonga, hoc medio carinatum. Praesternum magnum, triangulare subaequilaterum. Proalae speculo nullo. Tarsus medius denticulorum loco spinulis instructus. Abdomen subellipticum. Characteres reliqui sicut in femina.

Habitat. Mahé: Mare aux Cochons district—Silhouette. "All the examples are from the endemic forests, 1,000–2,000 ft."

Specimina duo ♂♂, unum ♀.

38. *Paranastatus violaceus*, sp. n. (fig. 36).

Femina. Obscure violacea; antennis usque ad articulum septimum (quartum post annellum) nigris, articulis 8.–10. et clava flavescenti-albidis, clavae apice vix grisescens, vel articulis 8.–10. obscure ochraceis clava brunnea; scutello cum axillis aeneis; proalis flavo-fuscis nervis concoloribus pilisque nigris; alis metathoracis fere limpidis; coxis posticis violaceis, mediis, cum trochanteribus omnibus, albidis, anticis et reliquis pedum partibus flavo-fuscis; abdominis segmentis usque ad 5. nigris, leniter cuprescentibus, reliquis viridibus.

FIG. 36.—*Paranastatus violaceus*, ♀.

1, caput antice visum; 2, de latere ($\times 30$); 3, mandibulae apex, paulum oblique inspectus ($\times 58$); 4, antenna ($\times 30$).

Caput antice visum latitudine longitudinem aequante, orbitis et genis parum obliquis, distantia orbitali superiore $1/3$ capitis latitudinis vix aequante, genis quam orbitis sesquibrevioribus; ore lato, truncato. Oculi fere glabri, pilis brevissimis; linea ocularis inferior $2/5$ capitis longitudinis ab ore distans; genae modice curvatae, sulcatae; clypeus rectangularis lateribus bene limitatus; toruli subrotundi, inter sese spatio verticis latitudini fere aequilongo remoti; linea torulos inferne tangens ab ore et linea oculari aequae distans; scrobes antennarum haud terminatae, rectae, superne coniunctae et verticem fere attingentes.

Forma capitis de latere subtriangularis, facie plana, latitudine maxima paulum supra mediam longitudinem, $3/4$ huius attingente; ocellis in declivio posteriore, in triangulum dispositis; oculis rotundato-triangularibus, aequae latis atque longis. Caput superne inspectum longitudine $2/3$ latitudinis aequans, oculis $1/4$ circuli fingentibus, id est margine

frontali et occipitali angulum rectum formantibus, vertice inter oculos angusto fere triplo longiore quam latiore, pone orbitas nonnihil longiore quam inter oculos latiore.

Mandibulae validae, 4-dentatae, dentibus secundo et quarto maioribus, acutioribus. Palpi maxillares et labiales crassiusculi.

Flagellum tenue, funiculo quam scapo duplo longiore, anello latitudine sua sesquolongiore, articulis quatuor sequentibus longitudine subaequalibus, sensim latioribus, primo ter longiore quam latiore; articulis funiculi 5.-7. latitudine paullum longioribus, etiam subaequalibus; clava quam articulo praecedente sesquolongiore, suturis minus distinctis, vix obliquis.

Mesonoti pars praeaxillaris minute, aequaliter, reticulata, aspectu granulosa, glabra, lateribus sulcis angustis limitata, carinis longitudinalibus obtusis, area triangulari anteriore modice elevata. Axillae spatio angusto separatae, modice elongatae, dimidium scutelli longitudinis vix superantes, latere exteriori subsinuato; earum et scutelli dorsuli superficies foveolis minutis, rectangularibus, contiguis, insculpta, his super dorsulum sicut in primore digito curvatim concentricae dispositis. Dorsellum planum, in parte dimidia posteriore semiellipticum; frenum fere verticale, laeve, nitidum. Dorsellum parvum, planum. Metathorax partibus lateralibus fere in planum dispositis, de supra inspectis sicut in *Calosotere* et *Metacalosotere* triangularibus, angulo anteriore externo recto, posteriore rotundato, spiraculo oblique disposito breviter elliptico; partibus lateralibus isthmo antice et postice curvatim marginato, in medio dorso vix ullo, coniunctis. Mesopleura in angulo anteriore reticulata, reliqua superficie minute in longitudinem striata.

Proalae latitudine longiores proportionem 15:38, praestigmate lato, nervo postmarginali dimidiam marginalis longitudinem non attingente (proportione 3:7) et stigmatici duplam aequante; nervo hoc recurvo, clava indistincta; superficie tota pubescente pilis brevibus, conicis, acutis sat dense vestita, pilis fimbriae apicalis fere triplo longioribus. Alae metathoracis latitudine ad medium maxima $7/24$ longitudinis aequante.

Pedes normales; intermedius tarso brevi, calcari $2/3$ metatarsi attingente, huius spinulis 9-11 in utraque serie, articuli sequentis 5, tertii 3, quarti 1; tibia postica calcari maiore eius latitudini apicali aequilongo et $1/4$ metatarsi attingente, calcari minore setas apicales haud superante. Articulorum tarsalium proportio: tarsi antici, 10:7:5:3:6—medii, 12:5:4:3:7—postici, 20:11:8:5:7.

Abdomen thoraci subaequilongum, latitudine maxima in margine segmenti 5. dimidiam longitudinem paullo superante, extremo apice de supra inspecto rotundato, ventre (in specimine) subcarinato; tergitis 1.-5. recte marginatis, integris, sexto convexo; segmentis 2.-7. aequilongis, primo duplo longiore. Terebrae valvae abdominis apicem haud superantes.

Long. 2 mm.

Specimina tria, unum abdomine carens.

Habitat. Silhouette: Mare aux Cochons et foresta super hunc locum.

GEN. *Metacalosoter*, n.

Hoc genus a *Calosotere* Walk. facile distinguitur scapo compresso, lato, feminae valde laminato-producto et pedicellum, scuti ad instar, interne obte-

gente ; nervo marginali quam cellula costali longiore ; setis longis, lamellaribus, frontem feminae de utroque latere ornantibus.

39. *Metacalosoter frequens*, sp. n. (figs. 37, 38).

Femina. Capite viridi, genis cupreis vel purpureis, interdum etiam pro parte auratis, ore cupreo vel aureo ; setis frontalibus niveis ; antennis nigris, pilis funiculi concoloribus, scapi lamina purpureo-nitente, clava grisea ; mandibulis brunneo-ferrugineis ; palpis pallide flavis ; thorace abdomineque vix nitidis, submetallicis, hoc toto nigro, illo lateribus et metanoto nigro-violaceis, reliquo dorso fere toto nigro-aeneo ; pedibus trochanteribus, femorum posteriorum apice, tibiae anticae margine apicali, mediae dimidio apicali, cum tarsis omnibus, flavo-griseis vel obscure luteis, reliquis partibus et tarsorum pulvillo etiam nigris ; tibiis posticis interdum brunneis ; proalis flavescenti-griseis, limite posteriore cellulae basalis et nervis brunneo-griseis.

Caput thorace latius proportionem 6 : 5, antice visum transversum, longitudine 72% latitudinis aequans, vertice angusto in linea ocellari posteriore $\frac{1}{4}$ totius latitudinis haud superante ; orbitis divergentibus ; oculis magnis, convexis, breviter pilosis ; linea oculari inferiore $\frac{4}{15}$ capitis longitudinis ab ore remota ; fronte cum vertice continua et antrorsum declivi, in utroque latere setis longis lamellaribus, facile deciduis, ornata ; genis rectis, obliquis, quam diametro orbitali maiore fere duplo brevioribus ; ore late truncato ; torulis eminentia parva subtriangulari separatis, inter sese spatio fere duplo quam ab orbita remotis, superne vix ultra lineam ocularem terminatis, inferne ab hac linea et margine orali aequo spatio distantibus ; media facie superne leniter concava et margine arcuato, dimidiam orbitarum altitudinem non superante, incerte limitata ; scrobibus parvis, vix determinatis, medio coniunctis, valde obliquis et lineam ocularem paullum superantibus. Caput de latere subtriangulare, oculis fere eadem forma at margine posteriore obliquo. Ocelli in triangulum subaequilaterum dispositi, ab oculis et inter sese spatio eorum diametro minore distantes. Mandibulae parvae, 3-dentatae.

FIG. 37.—*Metacalosoter frequens*.
1, maris antenna ($\times 58$); 2, antenna feminae
($\times 50$) de latere exteriori inspecta.

Antennae scapo laminato-compresso, lamina eius apicem superante duplo longiore quam latiore, pedicellum, scuti ad instar, in latere interiore obtegente. Pedicellus crassiusculus, dimidiam scapi longitudinem non aequans. Annellus funiculi articulis conformis at minor ; articuli sequentes subaequales, compressi, fere duplo latiores quam longiores, et pedunculo brevissimo, vix conspicuo, coniuncti, pilis crassis, sat longis, instructi. Clava etiam compressa, quam praeclava haud latior et duplo longior, articulo basali vix pilosulo dimidium parum superante, apicali quam secundo brevior.

Mesonoti pars praeaxillaris area media deplanata, nec carinis limitata, at sculptura magis conspicua distincta, subtiliter et parce pilosula. Tegulae parvae, triangulares. Axillae fere nullae. Axillulae acute triangulares, lineam scutelli suturae fere attingentes. Scutellum basi lata, suturis axillarum brevibus vix obliquis, axillularum, latera eius formantibus, parallelis ; apice rotundato ;

pubescentia sicut in mesonoti parte praeaxillari. Dorsellum mediocre. Metanotum antice et postice ad dorsellum atque petiolum excipienda semicirculariter excavatum, parte media dorsello aequilonga in longitudinem minute strigulosa. Partes laterales metathoracis fere laminares, in planum dispositae, subtriangulares, margine exteriori vix curvato, apice rotundato, spiraculis earum parti interiore magis propinquis, subrotundis, sat magnis; sculptura reticulata versus lineam mediam dorsi gradatim minutiore. Sulcus mesosternum et mesopleuram dividens conspicuus. Mesosternum parce pilosulum. Superficies partis praeaxillaris mesonoti et scutelli minute reticulata, aspectu granulosa; mesopleura in angulo supero-anteriore conspicue reticulata, reliquo spatio minutissime striata.

FIG. 38.—*Metacaloster frequens* ♀.

1, caput antice inspectum ($\times 23$); 2, mandibula ($\times 58$); 3, proala ($\times 40$: fasciam glabram punctorum linea indicat).

Proalae abdominis apicem attingentes, latitudine maxima infra basim nervi stigmatici, paullum ante $3/4$ totius longitudinis sita; cellulae costalis, nervi marginalis et postmarginalis proportione sicut $83:100:27$; nervo postmarginali truncato apicem stigmatici vix superante; hoc nervo tenui, leniter curvato, clavam formante parum dilatata, vix discretam, apice acuto ad marginem alae reverso; pilis fimbriae apicalis quam illis in disco fere triplo longioribus; superficie superiore fere tota pilis sat dense vestita, his infra nervum marginalem omnibus antrorsum plus minus vergentibus, in limite posteriore cellulae basalis angustae divergentibus; superficie inferiore pilis nonnullis sparsis prope nervum marginalem instructo; nervo cubitali linea glabra dimidiam alae longitudinem non superante indicato. Alae posteriores apicem segmenti sexti attingentes, pilis in margine posteriore brevibus, $1/8$ earum latitudinis aequantibus.

Pedes normales, intermediarii calcari apice mucronato medium metatarsi non superante, articulo tarsali primo spinis 8, interdum 6 vel etiam 10 in utraque serie, munito, secundo spinis 5, tertio 3, quarto 1. Pedes postici calcari minore dimidium maioris non attingente.

Abdomen thorace fere duplo longius, angustum, apice acutum, terebrae valvis vix prominentibus; tergitis tota superficie dorsali insculptis, 1. et 2. brevibus profunde angulatim incis, tertio emarginato, hoc et duobus sequentibus subaequalibus. Superficies fere tota fortiter reticulato-insculpta, areolis impressis, transversis.

Long. 2,6–3,7 mm.

Mas. Capite minus nitido, areis cuprescentibus nullis; thorace plerumque nigro-violaceo, interdum dorso nigro-viridi vel mesopleura aenea.

Caput thorace latius proportione $5:4$; antice inspectum subcordiforme, longitudine 75% latitudinis non superans; vertice minus angusto, $2/5$ totius latitudinis aequante, antrorsum parum declivi, cum fronte haud continuo; linea oculari inferiore a margine clypei $2/7$ capitis longitudinis remota; genis subrectis; ore haud lato, latitudini verticis aequali; clypeo fere duplo longiore quam latiore, forma trapezoidali, interne haud discreto, lateribus carinis obtusis limitato; torulis in linea oculari dispositis, spatio eorum diametro aequali ab oculis remotis, inter sese spatio fere sesquilingiore; scrobibus haud deter-

minatis, fronte immersa. Forma capitis de latere subtriangularis, latitudine $\frac{3}{4}$ longitudinis fere aequans, vertice subplano, orbita rotundato-triangulari latitudinem capitis totam occupante; ocellis posterioribus in medio vertice sitis, hoc cum fronte in angulum fere rectum coniuncto. Caput superne visum vertice subquadrato et latitudine prominentiam oculorum aequante, ocellis magnis in tuiangulum aequilaterum dispositis, posterioribus spatio ab oculis remotis quam eorum diametro sesquolongiore. Sculptura fere ubicumque reticulata, areolis in dimidio inferiore faciei inter clypeum et torulos minutis, latera versus duplo maioribus, conspicuis; frons laevis, nitida; genae postice et tempora minute in longitudinem striata; areolae verticis sicut in epistomate.

Antennae scapo dilatato, crasso, fere triplo longiore quam latiore, de latere viso forma elliptica, basi transversim, apice oblique truncato, verticem non superante; pedicello quam scapo dimidio brevior; articulo sequente annuliformi, longitudine sua parum latiore, reliquis septem subaequalibus, aequae longis atque latis, bene discretis; clava elliptica, articulis tribus praecedentibus aequilonga suturisque vix obliquis in articulos aequales divisa. Pili totius antenae sat frequentes, crassi, funiculi articulorum longitudinem fere attingentes, leniter curvati. Scapi sculptura reticulata conspicua.

Mesonoti pars praeaxillaris superficie fere aequaliter et modice convexa, in exemplaribus exsiccatis medio tantum leniter immersa, carinis et sulcis nullis; pilis aequaliter distributis, spatio inter se remotis quam eorum longitudine paullum brevior. Metathorax fere eadem forma quae in feminis, medio carina instructus brevi, lateribus sulcis limitata et pone mediam longitudinem bifurcata, incisuram posticam amplectente; partibus lateralibus minus versus apicem angustatis. Sulcus mesosternum et mesopleuram dividens conspicuus; sutura epimeri cum episterno vix indicata; praesternum triangulare. Latera mesothoracis areolis illis dorsi fere aequalibus; pars postica pleurae minutissime striata, sculptura 100 diam. magnificata vix conspicua. Pili mesosterni sicut in dorso, mesopleura glabra.

Proalae ultra abdominis apicem elongatae, nervo postmarginali lineam apicis nervi stigmatici non superante. Alae metathoracis abdominis apicem attingentes, pilis in margine posteriore longis, $\frac{1}{4}$ earum latitudinis vix aequantibus, cellula costali ad hamulos extensa.

Pedes intermediarii calcari medium metatarsi paullo superante, hoc autem in parte dimidia basali inermi, reliquo spatio denticulis 5 in utraque serie munito; articulo tarsali secundo denticulis 4, tertio 2, quarto 1. Pedes postici femoris apice marginem segmenti 4. abdominalis attingentes, calcari maiore latitudinem tibiae apicis non aequante, minore $\frac{2}{3}$ maioris attingente.

Abdomen thorace paullum longius et angustius, lateribus a segmento 2. ad 4. rectis, parallelis; petiolo parvo, medio transverse carinato, parte dimidia posteriore in fovea abdominis, anteriore in incisura metathoracis recepta; segmentis margine apicali recto, haud inciso, longitudine subaequalibus, exceptis primo quam secundo sesquolongiore, sexto brevi. Pili sparsi, spatio remoti dimidiam ipsorum longitudinem paullum superante.

Long. 1,75 mm.

Habitat. Silhouette: Mare aux Cochons et foresta super hunc locum; "coast at Pointe Étienne."—Mahé: "Mare aux Cochons district; forest above Cascade Estate; high forest of Morne Blanc."—Praslin: Côtes d'Or Estate.

Specimina: ♀♀ viginti, ♂♂ septem.

SUBFAM. PTEROMALINAE

(incl. *Miscogasterinae*).GEN. *Leodamus*, n.

(Miscogasterinae).

De femina huius generis nihil constat. Maris characteres qui genericae rationis esse mihi videntur, hi sunt: funiculi articuli contigui, pilis sat dense vestiti, primus quam pedicellus longior; clava triarticulata; collare discretum; metathorax carina et plicis instructus, spiraculis magnis, ellipticis, plicis et postscutello propinquis, nucha nulla; abdomen ovatum longitudine ac latitudine subaequalibus. Genus in tribu *Trydminorum*, subtribu *Metasteninorum*, adscribere licet.

40. *Leodamus onustus*, sp. n. (fig. 39).

Mas. Niger, facie cyanescente, scapo, alarum nervis pilisque dorsi griseo-luteis, flagello et oculis brunneis, pedibus testaceis, tarsorum apice infuscato, abdomine brunneo-aeruginoso in dimidio anteriore dorsi testaceo-maculato.

Caput thorace parum latius, proportione 6:5, latitudine sua sesquibrevius; antice visum vertice vix curvato, oculis glabris magnis, $\frac{2}{3}$ longitudinis extensis, clypeo subdiscreto, margine leniter concavo, antennis in media facie insertis; de supra inspectum diametro longitudinali $\frac{1}{3}$ transversi paulum superante, ocellis fere in lineam dispositis, posterioribus spatio duplo quam ab oculis inter se remotis; de latere forma subelliptica, diametro transverso longitudini oculi aequilongo, hoc ovato-elliptico, latitudine $\frac{3}{4}$ eius longitudinis aequante; genis latis, teretibus, profunde sulcatis. Superficies lineis elevatis subtilibus reticulata, super verticem et occiput potius punctato-reticulata, clypeo radiatim striguloso.

Antennae scapo ocellum vix superante, flagello quam latitudine capitis parum longiore; pedicellus pyriformis longitudine $\frac{3}{4}$ articuli primi funiculi aequans; anelli duo, parvi; funiculus articulis adpressis, sat dense hirtis, pilis dimidiam eorum latitudinem superantibus, articulo primo duplo longiore quam latiore, sequentibus gradatim brevioribus, haud crassioribus, ultimo pedicello aequilongo et latitudine sua sesquilongiore. Clava vix discreta, articulo tertio conico, articulis praecedentibus $2\frac{1}{2}$ aequilonga.

Thorax sat robustus, latitudine $\frac{3}{4}$ longitudinis aequans, collari bene discreto et margine anteriore acuto, postice arcuato, antice recte truncato; sulcis scapularum post $\frac{2}{3}$ scuti longitudinis terminatis; scuto valde convexo; scutello elevato, quam scuto proportione 5:6 brevior, lateribus leniter sinuosis, freno haud discreto, fortiter declivi; axillis longis freni

suturam attingentibus, axillulis fere verticaliter dispositis; metanoto $\frac{1}{3}$ scutelli longitudinis haud superante, carina postice bifurcata, plicis modice arcuatis,

FIG. 39.—*Leodamus onustus*, ♂.Proala ($\times 45$, limite partis glabrae basalis punctis indicato).

spatio inter plicam et carinam subquadrato, nucha nulla. Spiracula magna elliptica, postscutello tangentialia, plicis fere contigua. Sculptura dorsa, praesterni, mesosterni atque epimeri eadem quae capitis; episternum et metapleura minute reticulato-sulcata, nitida. Callus pilis paucis longis instructus; dorsum pilis nonnullis sparsis, tenuibus.

Proalae abdomen superantes, huius apicem stigmatem attingentes, latae, breviter ciliatae, cellula basali et speculo omnino glabris, cellula costali pilis perpaucis in dimidio exteriori tantum instructa, quam nervo marginali proportionem 16:11 longiore; nervo hoc quam postmarginali duplo longiore, stigmatico $\frac{1}{3}$ eius longitudinis nonnihil superante, et quam postmarginali fere sesquibreviore.

Calcar maius tibiae posticae huius apicis latitudinem fere attingens, calcar minus dimidio brevius.

Abdomen sessile, cordiforme, thoracis latitudini aequilongum, paullum latitudine sua longius (9:8), segmentis recte marginatis, subaequalibus, fere glabris, superficie reticulato-sulcata.

Long. 1,8 mm.

Habitat. Silhouette: Mare aux Cochons.

Specimen unicum.

GEN. *Dinarmolaelaps*, n.

(Miscogasterinae).

Quae sit huius generis ad cetera *Miscogasterinarum* relatio difficile est discernere. Species cuius descriptio sequitur *Dinarmo* characteribus nonnullis accedit, at metathorace differt, cui structura est *Lelapinorum*: hi vero scapulis plane discretis distinguuntur. Schulz (*Spolia Hymenopterologica*, Paderborn, 1906. p. 144) nomen *Lelaps* in *Dilaelaps* mutavit, itaque *Laelapinos* vel *Dilaelapinos* scribere oportet.

Genus subtribui *Metasteninorum* satis convenit, eiusque characteres praecipui hi sunt: clypeus obtuse bidentatus; antennae 13-articulatae, feminae 3-annulatae; pronoti collare subdiscretum; scapularum sulci in $\frac{1}{3}$ postica obsoleti; metanotum plicis sinuatis, carina destitutum, at secundum lineam mediam obtusissime plicatum; proalae cellula costali angusta, nervo marginali huius dimidium vix aequante, postmarginali quam stigmatico duplo longiore. Tibiae posticae bicalcaratae. Abdomen feminae longitudinem thoracis cum capite superans, maris spatulatum, breviter petiolatum.

41. *Dinarmolaelaps protus*, sp. n.

Femina. Nigra, abdominis dorso basi viridi, reliquo cuprescente; oculis rubris, scapo, tibiis tarsisque fulvis, flagello, coxis, femoribus et alarum nervis brunneo-luteis, alis leniter infuscatis.

Caput magnum, crassum, thorace sesquialtius, antice visum latitudine quam longitudine latiore, proportionem 9:7, vertice convexo, oculis glabris, horum diametro maiore $\frac{5}{7}$ longitudinis aequante, linea oculari infra $\frac{1}{3}$ longitudinis sita; clypeo incerte limitato, lateribus tantum impressione laevi subdiscreto, in medio margine externo bidentato, dentibus brevibus, obtusis et fovea sat profunda separatis; facie convexa, antennis ad medium huius insertis,

fere contiguus. Forma capitis de latere, elliptica, latitudine $5/7$ longitudinis aequante; genae haud compressae. Vertex superne inspectus teres, $2/3$ latitudinis occupans, ocellis in angulum valde obtusum dispositis, externis ab anteriore et ab oculis aequo spatio remotis. Superficies minute at perspicue reticulata, inferius strigis ab ore ultra clypeum radiantibus sulcata.

Scapus tenuis, ocellum anteriorem attingens; flagelli longitudo latitudinem capitis paullum superans; pedicellus latitudine sua fere sesquolongior; articuli tres sequentes annuliformes, simul sumpti $2/3$ pedicelli longitudinis extensi, primus vix conspicuus, tertius quam secundus paullum maior; articuli quinque funiculi bene discreti, primus pedicello aequilongus at latitudine huius sesquilateralior, reliqui gradatim crassiores, ultimus quadratus; clava articulis praece-dentibus $2\frac{1}{2}$ aequilonga, latitudinem praeclavae paullo superans.

Pronotum collari subdiscreto; sulci scapulares leniter impressi, in $1/3$ postica obsoleti; scutum aequae longum atque latum, quam scutellum vix longius; hoc basi angusta dimidium eius latitudinis maximae aequante; axillae longae, in angulo anteriore externo fovea rotundata excavatae; pars media metanoti etiam elongata, scutello sesquibrevior, latitudinem suam longitudine superans, lateribus plicis leniter sinuatis limitata, secundum lineam mediam longitudinalem angulum obtusissimum formans, postice obtruncata, prominens, collari angusto terminata, fovea rotunda antice in angulis externis impressa. Sculptura dorsi, mesosterni ac episterni illi capitis similis; metanoti reticulato-squamosa magis conspicua; collare metathoracicum fere laeve, punctis minutissimis inculptum; episternum nitidum; metapleura fere nitida, subtiliter ac minute reticulata.

Proalae magnae, breviter ciliatae, cellula costali angusta, nervo marginali $3/7$ costae aequante, quam stigmatico magis quam duplo longiore, proportionem $22:9$, hoc versus apicem sensim latiore in clavam desinente rotundatam, dente brevi instructam; nervo postmarginali quam stigmatico duplo longiore, cellula basali glabra extus serie setarum nervum indicantium limitata, area speculari secundum nervum marginalem et paullum infra hunc elongata. Alae metathoracis cellula costali dimidium nervi marginalis attingente.

Pedes haud robusti, postici coxis in latere exteriori fortiter compresso-acutis et pilis paucis in dimidio inferiore instructis, tibia calcaribus duobus munita, altero $3/4$ metatarsi aequante, altero quam hoc dimidio brevior.

Abdomen quam thorax cum capite fere sesquolongius, acuminatum, in specimine exsiccato triquetrum; segmentis, praeter basale maius, subaequalibus, valvis apice prominentibus segmento ultimo aequilongis; superficies fere tota concinne ac minute striato-reticulata, segmentum basale tamen dorso laevi, nitido.

Long. 2.5 mm.

Mas oculis, scapo, femoribus, tibiis posticis alisque obscurioribus, coxis nigris, abdominis dorso basi haud virescente; oculis ex latere inspectis ellipticis; antennis annellis duobus brevibus arcte contiguus, articulo primo funiculi quam latitudine sua duplo- et quam pedicello sesquolongiore, sexto parum latitudine longiore, clava conica articulos duos praecedentes longitudine vix superante, haud crassiore; abdomine spatuliformi, quam thorace paullum longiore, pedunculo subcylindrico, aequae longo atque lato.

Habitat. Silhouette: Mare aux Cochons.—Mahé: "cultivated country at about 1,000 ft."

Specimina duo ♂♂, unum ♀.

GEN. *Habrocytus* Thomson.

Species *Habrocyti* generis habitu tantum esse similes, natura vero haud affines, Kurdjumow demonstravit, neque ego eo nomine utar nisi species quas sum descripturus non alio generi convenire nec novo nunc adscribendas judicarem. Harum mandibulae sunt ambae 4-dentatae, verum non desunt inter *Habrocytos* species nonnullae quibus dentes mandibulares eodem sint numero in utroque latere, sicut Kurdjumow recognovit: hic autem auctor dentium numerum in *Chalcididum* generibus definiendis etiamque in speciebus recognoscendis, parvi momenti esse opinatur.

42. *Habrocytus morio*, sp. n.

Femina. Nigra, oculis concoloribus, abdominis dorso vix cuprescente, pro parte cyanescente; scapo pallide flavo-griseo, versus apicem obscuriore, flagello usque ad medium articuli quinti flavo-rufi, reliquo spatio nigro; proalis pone cellulam basalem umbra flavescenti-grisea, sub stigmate macula rotundata eiusdem coloris, parum conspicua, ornatis, nervis griseo-fuscis; femoribus brunneis, tibiis tarsisque pallide flavo-griseis, illis ad medium, his apice infuscatis.

Caput magnum, crassum, thoracem latitudine superans proportionem 7:5; antice visum longitudine sua latius proportionem 4:3, oculis magnis, glabris, sat prominulis; linea oculari inferiore ad $\frac{4}{5}$ capitis longitudinis sita; genis brevibus, obliquis; clypeo apice bidentato, dentibus triangularibus contiguis; mandibulis 4-dentatis, dentibus duobus internis haud acutis; antennarum torulis fere contiguis, ad medium faciei in lineam post $\frac{3}{4}$ oculorum longitudinis sitam dispositis. Vertex teres, sed inter ocellos minus rotundatus, ocellis posterioribus eodem spatio ab oculis quam inter se remotis, anteriore lineae posterioribus tangenti contiguo. Forma capitis de latere elliptica, latitudine $\frac{5}{8}$ longitudinis aequante; oculis longe ovatis, in diametro longitudinali quam in transversa sesquialongioribus (37:25); genis bene rotundatis, vix conspicue sulcatis. Superficies fere tota lineis elevatis reticulum formantibus insculpta, areolis frontis elongatis, plerumque rhombicis; strigae a clypeo radiantes valde tenues atque confertae.

Scapus subrectus, ocellum anteriorem fere attingens; flagellum latitudini capitis aequilongum, crassiusculum, subclavatum, articulis adpressis, ultimis funiculi et clava fere duplo quam pedicello crassioribus. Anelli subaequales, cylindrici, sat conspicui. Funiculus articulo primo quam pedicello fere sesquialongiore, sequentibus usque ad quintum sensim brevioribus et latioribus, ultimo magis dilatato, aequae longo atque lato, quam pedicello haud longiore. Clava articulis tribus praecedentibus aequilonga, quam praeclava paululum latior, apice acuto.

Thorax sat robustus, latitudine $\frac{3}{5}$ longitudinis attingens. Collare supra angustum, lateribus dilatatum et secundum lineam margini anteriori parallelam elevatum. Metanoti area media cordiformis, haud carinata, superficie leniter convexa et lateribus immersa, ita ut partes laterales externae metathoracis margine elevato plicas sinuosas efficiunt; foveolae huius areae prope dorselli extremitates amplae at parum profundae et incerte limitatae; zona nitida postscutelli foveis rotundis inter se remotis, ternis in utroque latere, impressa; nucha magna, subcylindrica, fere duplo latiore quam longiore. Spiracula elliptica, sat magna. Callus pilis paucis longis. Mesothoracis dorsum reticulatum,

modice vitro auctum punctatum, scabrum; areolis fere omnibus aequalibus, nusquam elongatis, fundo haud polito. Metathorax reticulo magis minuto insculptus, nucha tantum transverse rugosa. Episternum reticulo fere inconspicuo.

Proalae nervo marginali quam cellula costali fere sesquibreviore, stigmatico $2/5$ eius aequante, postmarginali quam hoc longiore, proportionem $5:3$, quam marginali brevior, proportionem $5:7$; cellula costali in $1/3$ ultimo pilis brevibus instructa, cellula basali tota parce pilosa, speculo huius altitudinem non superante formaque rhomboidali, angulo anteriore externo nonnihil producto; pilis apicalibus brevibus. Alae metathoracis cellula costali sat lata, nervo marginali confertim rigido-setoso. Coxae posticae pilis quibusdam longis ad medium lateris posterioris instructae.

Abdomen longitudinem thoracis cum capite vix superans, in dimidio anteriore triquetrum, de supra inspectum $3/4$ thoracis latitudinis aequans, forma lanceolata, versus basim et apicem aequaliter angustatum, extremo apice acuto; segmentis praeter secundum subaequilongis, hoc $1/4$ longitudinis primi non superante. Superficies haud polita, sed sculptura inconspicua (?), basi tantum brevi spatio nitida, in segmentis tribus apicalibus breviter pilosula.

Long. 3,5 mm.

Mas. Differt flagello fusco, abdominis dorso in dimidio anteriore macula brunneo-lutea notato, tibiis anterioribus luteis, posticis praeter basim et apicem brunneis; funiculo articulis aequae latis, usque ad quartum longitudine subaequalibus, duobus ultimis quam primo sesquibrevioribus, simul sumptis clavae aequilongis; abdomine thoraci aequilongo, superficie reticulato-sulcata, inter segmentum primum et sextum lateribus rectis, segmento quinto latissimo.

Long. 1,5–1,7 mm.

Habitat. Praslin: Côtes d'Or Estate.

Specimina duo ♂♂, unum ♀.

43. *Habrocytus cyanescens*, sp. n.

Femina. Obscure cyaneo-grisea, vertice episterno et metapleura virescentibus, subauratis; abdomine nitido segmento basali et lateribus viridibus, dorso cuprescenti-nigro; oculis brunneo-rufis, scapo cum pedicello ferrugineis, funiculo et clava fuscis; alarum nervis griseis; pedibus flavo-rufis, femoribus ad medium fusco-maculatis vel umbratis, tarsis pallidis apice infuscatis.

Caput magnum, thorace latius proportionem $14:11$, antice visum longitudine $5/7$ latitudinis aequante, vertice vix arcuato, oculis $4/5$ fere longitudinis extensis, glabris, sat prominulis; genis brevibus in dimidio inferiore immersis; clypei parte media concavo-marginata prope marginem impressa; mandibulis 4-dentatis, dente basali magno rotundato-truncato, ceteris acutis, apicali evidenter quam ceteris longiore; antennis in media facie ad $1/3$ altitudinis orbitalium insertis. Forma capitis de latere inspecti elliptica, inferne truncata, latitudine sesquilongior, oculis ovatis diametro transversa $3/4$ latitudinis et $5/7$ eorum diametri longitudinalis aequante; genis subtiliter sulcatis. Caput de supra inspectum compressum, diametro longitudinali $1/4$ transversa haud superante, ocellis sat magnis, anteriore lineae posterioribus tangenti contiguo, his ab orbitis minus quam inter se remotis (proportionem $7:10$). Superficies lineis elevatis minute reticulata, glabra, areolis fere ubicumque aequalibus, fundo nitidis, infra lineam

ocularem et super tempora tantum elongatis; strigis clypeum parum superantibus.

Scapus rectus, ocellum anteriorem attingens; anelli aequales, simul sumpti dimidiam pedicelli longitudinem aequantes; articulus primus funiculi pedicello inconspicue longior, sequentes sensim breviores, parum latiores, ultimus $5/8$ longitudinis primi aequans, vix latitudine sua longior. Clava articulis duobus praecedentibus aequilonga, paullum latior.

Thorax latitudine sesquilongior, collari angusto, de supra inspecto lateribus haud parallelis sed fortiter retro convergentibus et cum parte antica prothoracis angulum acutum formantibus; dorso inter scutum et scutellum valde depresso; scutello quam scuto vix brevior et quam metanoto, absque dorsello, duplo longiore. Area media metanoti cordiformis late truncata, id est trapezoidalis angulis anterioribus rotundatis; latitudine sua latior proportionem $5:3$; parte tertia postica nucham formans incerte antrorsum limitatam; carina vix elevata; foveis prope dorselli extremitates rotundis, magnis, diametro $1/5$ areae latitudinis aequantibus; plica utriusque lateris post foveam recto-lineari, super nuchae latus desinente, in angulo huius anteriore cryptam profunde excavatam extus limitante. Spiracula magna, elongata. Superficies dorsi item atque capitis reticulata, glabra; metanoti area media sculptura magis minuta; episternum et metapleura nitida.

Proalae basi glabrae, cellula costali quam nervo marginali longiore, proportionem $5:3$, pilis uniseriatis, nervo postmarginali $2/3$ huius haud superante, stigmatico $3/5$ postmarginalis et $1/2$ marginalis aequante, speculo extus recte limitato, pilis marginis apicalis brevissimis.

Coxae posticae ad medium lateris posterioris longe pilosae.

Abdomen thoraci cum capite aequilongum, latitudine $4/5$ thoracis vix aequans, basi triquetrum; de supra inspectum elongate ovato-acutum, segmentis 2. et 3. aequalibus, simul sumptis basali convexo-marginato aequilongis, segmentis 4.-6. huic subaequalibus; apice parce pilosulo, superficie subnitida, sulcato-reticulata, in segmento basali tantum laevi et magis nitente.

Long. 3 mm.

Habitat. Mahé: "near Morne Blanc."

Specimen unicum.

GEN. *Bruchobius* Ashmead.

44. *Bruchobius medius*, sp. n.

Femina. Griseo-viridis, metallica, fere chalcea, capite thoraceque subnitidis, abdomine fere toto obscuriore, nitido; oculis obscure rubris, scapo, pedicello annellisque duobus primis griseo-luteis, annello ultimo, funiculo et clava brunneis, alarum nervis pallidis, grisescentibus, femoribus brunneis, genubus, tibiis tarsisque flavo-albidis, his articulo apicali infuscato.

Caput magnum, crassum, thorace paullum latius, antice visum rotundatum et longitudine $5/6$ latitudinis aequans, oculis glabris, antennis in media facie paullum supra lineam ocularem insertis, clypeo truncato; de supra inspectum duplo latius quam in medio longius, ocellis in angulum acutum dispositis, externis inter se remotis spatio duplo quam distantia ab oculis, hac distantiae ab oculo anteriore aequilonga; de latere inspectum vertice aliquantulum angustato, bene rotundato, facie inferius magis elevata, oculis subellipticis, id est supra

et infra minus late curvatis et diametro maiore oblique disposito, hoc latitudini capitis fere aequali, diametro autem transverso $3/5$ longitudinalis haud superante.

Antennae scapis fere contiguis, rectis; flagello latitudinem capitis vix aequante; annellis tribus, ultimo duplo latiore quam longiore; funiculo sat crasso articulisque sensim latioribus, primo quam pedicello paullum longiore, secundo $3/4$ primi haud superante et pedicello aequilongo, sexto vix latitudine longiore; clava articulis duobus praecedentibus aequilonga; articulorum sensillis linearibus paucis, nusquam pluriseriatis.

Sculptura dorsi confertim, profunde et sat grosse punctata, super metathoracem item atque super caput magis minuta, punctis etiam minus fortiter impressis. Pili dorsi et capitis breves, rigidi, albi.

Thorax robustus, dorso in dimidio anteriore planiusculo, collari lato, $1/3$ longitudinis scuti attingente, bene discreto, in parte media haud acute marginato; sulcis scapularum non ultra $2/3$ scuti longitudinis extensis, hoc quam latitudine sua maxima sesquibreviore et scutello aequilongo; freno haud discreto; latitudine et longitudine scutelli aequalibus; metanoto dimidiam scutelli longitudinem paullum superante, carina et plicis destituto, foveolis duabus rotundatis parvis at satis profundis prope dorselli extremitatibus excavatis; nucha parum prominente, antice impressione laevi incerta limitata; spiraculis medicribus latitudine sesquilongioribus; angulis posticis metathoracis sat longe pilosis. Praesternum parvum.

Proalae cellula costali quam nervo marginali longiore, proportionem $4/3$, hoc et postmarginali incerte limitato subaequilongis, stigmatico quam marginali fere sesquibreviore, proportionem $11:17$, clava sat magna haud rotundata terminato; pilis apicalibus brevibus. Alae metathoracis in parte basali fortius angustatae, latitudine maxima ad $1/3$ longitudinis, cellula costali lata.

Abdomen longitudinem thoracis cum capite aequans, quam thorax minus latum, de supra inspectum ovali-acutum, segmento basali $1/4$ longitudinis formante, secundo brevior, tertio primo aequilongo, quarto et quinto, simul sumptis, secundum itemque sextum aequantibus. Superficies laevis, nitida, in segmento sexto tamen reticulato-sulcata.

Long. 1,9 mm.

Habitat. Mahé: Cascade Estate.

Specimen unicum.

GEN. *Micromelus* Walker.

45. *Micromelus affinis*, sp. n.

Mas. Niger, abdomine cuprescente, pedibus cum coxis, scapo, pedicello annellisque flavis, funiculo et clava flavo-fuscis, oculis brunneis, ocellis pulchre rubris, vertice cyanescente-nigro, facie cum genis totis, metanoto abdominisque basi obscure viridibus, alarum nervis flavo-griseis.

Caput magnum, crassum, thorace latius, oculis glabris, haud prominulis, dimidium longitudinis extensis, de latere inspectis subrotundis; genis perspicue sulcatis; vertice in longitudinem et latitudinem sat curvato, superne viso $4/5$ latitudinis capitis aequante; ocellis in angulum obtusum dispositis, posterioribus ab anteriore et orbitis aequo spatio, inter se spatio duplo quam ab orbitis, remotis; occipite concavo, haud limitato.

Flagellum latitudinem capitis aequans ; pedicellus latitudine sua fere duplo longior ; anelli tres simul sumpti dimidium pedicelli vix superantes, duo primi aequales, tertius fere duplo longior ; funiculi articuli quinque pedicello aequilongi et latitudine paullum latiores, sensillis linearibus pilisque longis instructi ; clava articulis praecedentibus $2\frac{1}{2}$ aequilonga.

Thorax $\frac{4}{5}$ latitudinis capitis aequans, de latere inspectus pronoto subverticali, scuto atque dorsello in eodem plano dispositis, aequaliter curvatis et aequilongis ; metanoto, cum nucha, quam his haud brevior et anguli recti dimidium declivitate formante. Prothorax superne inspectus conico-obtruncatus, basis latitudine duplam longitudinem aequans ; margine anteriore angulo obtuso in medio excavato et costis duabus parallelis instructo ; collari angusto, antice recte terminato, margine subacuto. Sulci scapulares antice tantum indicati. Metanotum de supra inspectum triangulare, apice truncatum, nucham tegularem formans a reliqua superficie haud discretam ; plicae subtiles, spiraculis proximae, vix conspicuae ; spiracula minima, oblonga, a postscutello paullum remota.

Proalae nervo stigmatico in clavam haud parvam desinente, quam nervo marginali sesquibreviore (8 : 13), hoc et postmarginali aequilongis, cellula basali et speculo glabris, margine sat longe ciliato.

Sculptura capitis et dorsi reticulata, areolis sat magnis, plerumque regulariter hexagonis, fere ubicumque aequalibus, reticulo strigis parum elevatis, in latitudinem convexis, formato. Dorsum setis perpauca longis instructum.

Abdomen longitudinem capitis cum thorace aequans, huius latitudinem vix superans, ovato-acuminatum, segmento basali parvo $\frac{1}{5}$ totius longitudinis extenso, nitido, in margine postico convexo, segmentis reliquis transverse reticulatis, 3.-5. aequalibus.

Long. 1,45 mm.

Habitat. Silhouette : Mare aux Cochons plateau.

Adn. Haec species *Micromelo elongato* Thoms. peraffinis videtur.

Specimen unicum.

GEN. *Phaenacra* Förster.

46. *Phaenacra eurycephala*, sp. n.

Femina. Capite thoraceque nigris, albo-pilosis, abdomine supra brunneo-cuprescente, in segmento basali pallidiore ; oculis rufo-brunneis ; pedibus, alarum nervis, scapo in dimidio apicali, pedicello annellisque griseo-luteis, scapi dimidio basali albido ; funiculo brunneo-luteo, albo pubescente, clava brunnea articulo ultimo pallido.

Caput magnum, thorace latius proportionem 8 : 5, antice visum longitudine $\frac{3}{4}$ latitudinis aequante, facie satis convexa, vertice lato, $\frac{2}{3}$ totius latitudinis extenso, oculis glabris, haud prominulis, linea oculari inferiore paullum infra medium longitudinis sita, genis fortiter curvatis, peristomio parvo, clypeo apice medio inciso-bidentato ; de latere inspectum subellipticum longius quam latius proportionem 7 : 4, vertice aliquantulum angustato, oculis ovatis, diametro transverso quam longitudinali sesquibreviore, genis subtiliter sulcatis ; superne visum longitudine partis mediae $\frac{1}{3}$ latitudinis aequante, ocellis in angulum obtusum dispositis, posterioribus ab anteriore et oculis aequae distantibus, inter se spatio

sesquolongiore remotis, vertice haud postice limitato. Superficies in dimidio inferiore faciei strigulosa, reliquo spatio sculptura reticulata parum conspicua.

Antennae in linea oculari insertae, scapis linearibus contiguas ocellum vix superantibus. Flagellum quam latitudo capitis paullum brevior; pedicellus conicus, duplo longior quam latior; anelli subaequales; funiculi articuli tres primi aequilongi, quam pedicellus vix breviores, gradatim crassiores, primus apicis latitudine pedicellum haud superans; articuli tres ultimi longitudine decrescentes, sensim crassiores, sextus quadratus; clava articulis tribus praecedentibus aequilonga, suturis vix conspicuis.

Thorax brevis, altus, collari marginato; scutello elevato, aequale lato atque longo; dorsello foveola punctiformi in utroque latere prope eius extremitates impressa, a metanoto haud costa separato; metanoto sine carina nec plicis, in parte media antice areolis duabus notato rotundis, depressis, et dorselli extremitatibus contiguas, postice nucha instructo satis magna at parum prominente, in utroque latere areolis depressis limitata. Spiracula parva, subrotunda, a postscutello remota. Collare transverse strigulosum; sculptura dorsii fortiter impressa, reticulato-punctata, super metanotum areolis dimidio quam in scutello latioribus. Pili super dorsum sat frequentes, crassi, longiusculi.

Proalae cellula costali quam nervo marginali duplo longiore, nervo stigmatico dimidium marginalis aequante, nervo postmarginali incerte terminato, quam marginali haud brevior, speculo sub praestigmate non limitato.

Coxae posticae parvae, pilis paucis longis in latere posteriore instructae.

Petiolus transversus.

Abdomen longitudinem thoracis cum capite superans, latitudinem thoracis fere aequans, elongate ovato-acutum, segmento basali parvo $1/6$ longitudinis occupante, nitido, in margine postico convexo, segmentis 2.-5. subaequalibus, fere laevibus.

Long. 2 mm.

Habitat. Anonyme Island ("a cultivated islet near Mahé").

Adn. Hanc speciem generi *Phaenacrae* attribuendam judicavi, etsi capitis latitudine, illam abdominis superante, et proalarum nervis, a *Phaenacra nubigera* Först., quae typus est generis, differret. *Homoporus* Thoms., *Uriella* Ashm., nec non *Tropidogastra* Ashm., Kurdjumowi iudicio idem sunt atque *Phaenacra* (*Revue russe d'Entom.* xiii. 1913. No. 1. p. 3). Species autem quam nunc descripsi, a typis horum generum his characteribus praecipue differre videtur: ab *Homoporo fulviventre* (Walk.) capite quam thorace latiore et clypeo apice inciso, ab *Uriella rufipede* Ashm. nervo marginali quam stigmatico longiore, a *Tropidogastra arizonensi* Ashm. metanoto carina instructo.

Specimen unicum.

GEN. *Merallus*, n.

Genus *Micromelo* et *Phaenacrae* intermedium, ab illo nucha fere nulla distinguitur; characteres eius praecipui sunt flagellum 3-annulatum stigmaque proalarum crassum. Species typica habitu, etiam colore, *Phaenacra eurycephalae*, quam nuper descripsi, similis est.

47. *Merallus phaenacroides*, sp. n. (figs. 40, 41).

Species praecedenti haud congener, habitu et colore similis, sed alarum clava conspicua antennisque in femina triannulatis facile distinguenda.

Femina. Nigra, abdominis leniter cuprescentis basi cum metanoto nigro-viridibus, pilis albis; oculis brunneo-rufis, scapo, pedicello et clava fere tota griseo-luteis, funiculo lutescenti-brunneo, griseo-pilosulo; femoribus fuscis, tibiis pallide flavis versus apicem, cum tarsis, albis, his apice infuscatis; alarum nervis flavo-griseis.

Caput thoracem latitudine superans, hac quam longitudine sua paullum maiore; oculis glabris parum prominulis, dimidio fere longitudinis extensis, de latere inspectis supra et infra minus rotundatis; facie convexa, antennis mox supra dimidium huius insertis, linea oculari inferiore $1/3$ capitis longitudinis ab ore remota; ocellis in angulum obtusum dispositis, externis ab anteriore paullum minus quam ab oculis remotis, inter se spatio duplo quam distantia ab oculis. Longitudo capitis superne inspecti $3/8$ latitudinis in medio aequans. Superficies sculptura reticulata conspicua, clypeo tantum strigoso.

Scapus ocellum anteriorem vix superans; flagellum latitudinem capitis aequans, pilis longiusculis. Anelli tres simul sumpti quam pedicellus vix breviores,

FIG. 40.—*Merallus phaenacroides*, ♀.
Antennae pars ($\times 130$).

duo primi subaequales, tertius fere duplo longior. Articulus primus funiculi pedicello paullum latior at fere duplo longior, articuli sequentes gradatim curtantes et crassiores, ultimus quadratus. Clava exsiccata compressa, quam articulus primus funiculi nonnihil longior, quam praeclava latior et dupla longitudine.

Thorax haud brevis, latitudine $3/4$ capitis haud superans, collari valde angusto sed bene discreto, metathorace carina et plicis destituto, nucha fere nulla, haud prominente, collare parvum formante, metanoti areolis rotundis prope dorselli extremitates leniter impressis et limite incerto, spiraculis parvis parum elongatis. Mesothoracis dorsum lineis elevatis crassis reticulum formantibus, quam in capite magis conspicuum; metathorax reticulo lineis elevatis subtilibus insculptus. Prothoracis collare punctulatum. Pili super dorsum rari, crassi, longiusculi.

Proalae nervo marginali $3/4$ cellulae costalis aequante, postmarginali eadem proportionem quam marginali breviori, quam stigmatico duplo longiore, hoc clava sat magna, haud rotundata, terminato.

Abdomen triquetrum, longitudinem thoracis cum capite aequans, latitudine quam thoracis minore, de supra inspectum elongate ovato-acutum, segmento primo $1/5$ longitudinis paullum superante, 2. et 3. aequalibus simul sumptis primo aequilongis, reliquis longioribus. Superficies transverse reticulata.

Long. 2 mm.

Mas. Niger vel nigro-viridis, metathoracis partibus quibusdam aliisque saepe auratis, abdominis segmento basali in medio dorso flavido, clava funiculo concolori, tibiis pro parte infuscatis. Flagellum longum, thoracem cum capite longitudine fere aequans, pilis longis instructum, articulorum latitudini subaequalibus. Pedicellus brevis; anelli duo, parvi; funiculi articulus primus quam pedicellus triplo longior, haud latior, articuli sequentes sensim breviores et crassiores, sextus dimidiam primi longitudinem vix superans et latitudine paullum maior; clava articulo hoc duplo longior. Abdomen thorace paullum brevius,

FIG. 41.—*Merallus phaenacroides*, ♀.
Proalae nervi ($\times 43$).

lateribus vix curvatis, latitudine maxima evidenter post medium sita, segmento basali $1/3$ longitudinis formante.

Long. 1,47–1,5 mm.

Habitat. Mahé: Cascade, "all from cultivated country near sea-level."

Specimina tria ♂♂, unum ♀.

GEN. *Notoglyptus*, n.

Hoc novum genus etiam in Italia occurrit. Specimina duo, utraque masculina, observavi, aspectu valde similia, at speciebus diversis pertinentia, quorum alterum in Liguria a dominis Bensa et Solari inventum, alterum seychellense, in Insula Mahé captum. Huius faciei formam, genas, clypeum atque thoracis latera examinare non potui et in descriptione praetermisi, quare species italica, mihi melius cognita, generis typus erit; ab ea genericam diagnosim deducam. Quae haec est: Caput vertice lato, ocellis in angulum obtusum dispositis, genis in dimidio inferiore excavatis, ore angusto, clypei margine prominente, integro, mandibulis validis (sinistra 3-dentata?) acute ac longe dentatis, maxillarum palpis normalibus; flagello sat longe pilosulo. Thorax pronoti collari acuto, scutello pone axillarum suturas alveolis nonnullis, medio dorso fovea elliptica, juxta freni suturam foveolis numerosis transversim subseriatis, excavato; dorsello transversim sulcato; metanoto carina et plicis, rectis, subparallelis instructo; spiraculis rotundis a postscutello parum remotis; mesosterno, mesepimero ac metapleura haud laevibus. Proalae nervo basali parce pubescente, nervo marginali tenui, postmarginali quam stigmatico duplo longiore. Petiolus elongatus coxas superans, reticulo minuto insculptus, huius areolis elongatis. Abdomen segmentis post secundum retractis. Genus *Cryptoprymno* valde proximum, at scapulis sicut in *Merismo* plane discretis et scutelli alveolis foveisque bene distinctum.

Specierum huic generi pertinentium mares ita distinguas:

N. niger—♂: niger, funiculi articulis omnibus elongatis, primo latitudine duplo-, ultimo sesquolongiore; metanoto inter carinam et plicas aequaliter insculpto;

N. virescens—♂: obscure viridi-aeneus, thoracis foveis, petiolo abdomineque nigris; funiculi articulo primo latitudine sesquolongiore; metanoto inter carinam et plicam utriusque lateris area rotundata speculari.

48. *Notoglyptus virescens*, sp. n. (figs. 42, 43).

Mas. Obscure viridi-aeneus, his partibus etiam obscurioribus, fere nigris: capite praeter tempora, genas et zonam juxta marginem anteriorem orbitae, mesoscuto praeter zonas marginales, axillulis foveis alveolisque omnibus dorsi metanoto praeter aream subnitidam inter carinam et plicam, utriusque lateris: foveis alveolisque omnibus dorsi et abdomine cum petiolo nigris. Oculi rufo-brunnei; antennarum scapus, mandibulae, tegulae et alarum nervi, pallide flavo-grisei; flagellum flavo-fuscum; pedes cum coxis lutei.

Caput sat magnum, crassum, thoracis latitudinem vix superans, antice visum oculis haud prominulis, glabris, $2/3$ eius longitudinis extensis, facie leniter convexa, antennis in linea oculari insertis; de supra inspectum diametro longitudinali dimidium transversum fere aequante, vertice subplano postice haud marginato, ocellis in angulum obtusissimum dispositis, externis inter se paullum

magis quam ab oculis remotis; de latere, ovatum, inferne truncatum, temporibus genisque latis, his carina obliqua divisus ex parte inferiore orbitae retrorsum decurrente, oculis latitudine sesquilongioribus, forma etiam cvata, at in dimidio inferiore postice recte marginatis. Superficies capitis lineis subtilibus reticulata, zona juxta marginem anteriorem orbitae, temporibus genisque, fere

FIG. 42.—*Notoglyptus virescens*, ♂.
Antennae pars ($\times 130$).

laevibus. Antennae sat longae atque tenues; scapo subrecto ocellum haud superante; flagello thoraci aequilongo, pilis longitudine articulos funiculi aequantibus; pedicello latitudine sua fere duplo longiore; annellis duobus, aequalibus, simul sumptis quam articulo sequente dimidio brevioribus; hoc pedicelli latitudinem paullo superante eiusque longitudine paulum minore;

reliquis funiculi articulis sensim brevioribus, at sensim crassioribus, ultimo subquadrato; clava articulis praecedentibus $2\frac{1}{2}$ aequilonga.

Thorax superne inspectus proncto duplo latiore quam longiore, collari in medio dorsi valde angusto, antice recte marginato; mesoncti parte praecaxillari brevi, triplo latiore quam longiore, scapulis plane discretis, triangularibus fere aequilateris; scuto antice duplo quam postice latiore; scutello quam scuto duplo longiore, latitudine sua sesquibreviore; axillis fere contiguis et axillulis magnis, his prope alae metathoracis radiculam mucronem conspicuum formantibus; dorsello lineari transverso; metanoti parte media scuto aequilonga, postice in nucham obtruncatam producta, medio obtuse carinata, lateribus plicis limitata fere totis rectis et in tertio posteriore tantum curvatis; spiraculis rotundis a postscutello et plicis satis remotis; callo parce at longe pilosulo. Pronotum transverse strigulosum, reliquum dorsum reticulatum, certis locis alveolis subquadratis vel foveis rotundis excavatum. Areolae reticuli super scutellum et scutum maiores, in hoc lineis elevatis, prope margines tamen minus conspicuis, salientibus, determinatae. Sulci scapulares serie singula alveolorum impressa. Scutellum nitens, basi alveolis sex excavatum, quorum duo mediani minores, in limbo apicali arcuato et in linea frenum limitante foveis impressum contiguis, seriatis. Pars media metanoti reticulo insculpta ex lineis elevatis, sicut super scutum, formato.

Proalae longitudine corpus cum capite aequantes, haud latae, basi fere omnino glabrae, reliquo spatio parce pubescentes, apice sat longe ciliatae; cellula costali in margine glabra, in superficie angusta pilis uniseriatis; cellula basali postice tantum pilorum serie limitata; speculo non infra nervum marginalem extenso; hoc dimidio quam cellula costali brevior et nervo postmarginali fere aequilongo, stigmatico dimidium postmarginalis aequante. Alae metathoracis angustae, cellula costali basalem non superante, nervo marginali sat lato, pilis marginis postici dimidia alarum latitudini subaequalibus.

Pedes longi, haud robusti. Coxae posticae metanoto paulum breviores, pilis paucis longis ornatae.

FIG. 43.—*Notoglyptus virescens*, ♂.

Thoracis dorsum cum coxis posticis et petiolo ($\times 45$).

Petiolus coxas longitudine aequans, neque propter insertionem superans, cylindricus, latitudine sua duplo longior, superficie minute granulosa.

Abdomen breve, obtruncatum, de supra inspectum forma semielliptica, de latere paullum depressum, segmentis post basale retractis et apiculum vix prominens formantibus. Segmenti basalis longitudo distantiam ab extremo anteriore thoracis usque ad scutelli frenum fere aequans, latitudo spatio hoc parum minor. Margo posticus leniter concavus, superficies laevis, nitida.

Long. 1,4 mm.

Habitat. Mahé: "from marshes on the coastal plain near Anse Royale."

Specimen unicum.

GEN. *Sphegigastrella*, n.

Hoc genus subtribui *Sphegigasterinorum* (recte *Sphecigasterinorum*) adscribere licet. Eius characteres praecipui hi sunt: flagellum annellis tribus, tertio, in maribus, quam secundo perspicue maiore; articuli quinque funiculi elongati; clava 3-articulata; sulcus scapularis in 1/3 postico obsoletus; scutellum freno haud discreto, hoc in parte eius extrema ac verticali quaerendo; metathorax carina et plicis destitutus, spiraculis ellipticis; petiolus in feminis coxis posticis brevior, in maribus aequilongus; abdomen elongatum, segmento, basali quam ceteris haud longiore. Genus a *Sphegigastro* praecipue differt articulo quinto annuliformi, genis haud compressis, petiolo quam coxis posticis non longiore, segmento abdominali secundo quam primo minore; *Eurydinotomorphae* Giraulti affine videtur.

49. *Sphegigastrella longigastra*, sp. n.

Femina. Obscure viridis, metanoti parte media nigra; oculis rubris; flagello et alarum nervis brunneis; scapo, tegulis pedibusque praeter coxas, interdum etiam his apice, obscure luteis, vel rufescenti-luteis, femoribus posticis obscurioribus; proalis hyalinis vel infuscatis.

Caput thorace latius proportionem $3/2$, longitudine sua proportionem $7:5$; antice visum vertice arcuato, oculis sat magnis $3/5$ faciei longitudinis extensis, glabris; genis fortiter curvatis; clypeo medio bidentato, haud discreto; antennis supra lineam ocularem in media facie insertis, radiculis spatio inter se remotis quam oculorum prominentia sesquibreviore. Vertex teres, ab occipite haud separatus, ocellis magnis, anteriore lineae posterioribus tangenti contiguo, his spatio ab orbitis remotis quam distantia inter eos intercedente sesquilongiore. Forma capitis de latere elliptica inferne truncata, oculis late ovatis diametro transversa $4/5$ longitudinalis aequante; genis sulcatis, teretibus. Superficies fere tota minute reticulata; clypeus radiatim subtiliter strigosus.

Antennae tenues, scapo tenui, recto, ocellum anteriorem haud superante, flagello capitis latitudini fere aequilongo. Pedicellus duplo longior quam lator; anelli tres simul sumpti dimidiam pedicelli longitudinem paullo superantes, 1. et 2. aequales, duplo latiores quam longiores, tertius vix maior; articuli quinque funiculi pedicelli longitudinem et latitudinem paullum superantes fere duplo longiores quam latiores; clava articulis duobus praecedentibus fere aequilonga, haud lator, apice haud acuto, articulis basali et apicali longitudine aequalibus, intermedio quam his parum longiore.

Thorax capitis longitudine fere duplo longior, prothorace sat magno, subconico, antice in articulatione capitis marginato-limbato, collari discreto, angusto,

antrorsum declivi et margine haud prominente; sulcis scapularum in $1/3$ postica non elongatis, abrupte terminatis; scutelli freno haud discreto; metanoto scutello aequilongo, carina et plicis destituto, prope dorselli extremitates laterales fovea sat magna oblique elliptica, postice haud limitata, impresso; nucha angusta, callo parce pilosulo, spiraculis ellipticis. Mesonoti pars praearillaris item atque scutellum lineis elevatis conspicue reticulata, areolis regulariter polygonis; sculptura axillarum et metathoracis prope sulcum spiraculi fere obsoleta, in parte media metanoti usque ad nucham concinne alveolata.

Proalae in parte tertia basali fere omnino glabrae, reliquo spatio confertim pubescentes, speculo distincto, nervo marginali tenui, dimidium cellulae costalis longitudine aequante, postmarginali paullum brevior, leniter curvato, stigmatico quam hoc dimidio brevior, versus apicem sensim dilatato et clava haud determinata, pilis marginis brevibus. Alae metathoracis cellula costali usque ad hamulos limbo angustissimo producta.

Coxae posticae pyriformes, modice elongatae, pilis brevibus in latere anteriore ornatae, in dimidio apicali lateris posterioris longe pilosae.

Petiolus metanoto parum brevior, $2/3$ coxarum longitudinis vix attingens, basi angustus, medio globosus et fere laevis, in tertio postico subcylindricus, transverse strigulosus; de supra inspectus duplo longior quam latior, de latere in dorso sinuatus et inferne leniter convexus.

Abdomen subfusiforme, valde elongatum, duplam thoracis longitudinem aequans, latitudinem haud superans, segmento basali $1/5$ longitudinis extenso, margine postico convexo, quinto conico et duobus praecedentibus fere aequilongo; superficie minute reticulata, areolis transversis, in segmentis tantum primo et secundo laevi, nitida; terebra haud prominente.

Long. 3.5–4 mm.

Mas abdomine, interdum etiam thorace, nigro-viridibus vel nigris, coxis posticis concoloribus vel item atque femoribus lutescenti-brunneis; annellis 1. et 2. aequalibus, 3. conspicue maiore, aequae longo atque lato, annulos praecedentes longitudine aequante, quam articulo primo funiculi dimidio brevior; hoc quam pedicello paullum magis et latitudine sua duplo longior; articulis sequentibus bene discretis, sensim brevioribus, ultimo latitudinem parum longitudine superante, omnibus sat longe pilosis; clava articulis duobus praecedentibus vix longior; proalis apice minus breviter ciliatis; pedunculo subcylindrico metanoto et coxis posticis aequilongo, harum apicem propter metathoracis prominentiam superante; abdomine angusto, usque ad segmentum septimum elongate triangulari, longitudine thoracem cum pedunculo fere aequante, latitudine maxima prope apicem $2/3$ thoracis attingente. Long. 2–3 mm.

Habitat. Silhouette: Mare aux Cochons plateau et foresta super hunc locum.—Mahé: "near Morne Blanc, including specimens from the high forest of Morne Pilot, at about 2,000 ft.; Cascade Estate, 1,000 ft."

Specimina duo ♀♀, quinque ♂♂.

50. *Sphegigastrella flavipes*, sp. n.

Species praecedenti similis, sed minor, petiolo pedibusque totis luteis praecipue distinguenda.

Femina. Capite thoraceque griseo-viridibus, nitidis; vertice viridi-aeneo;

oculis rubris; antennis flavo-griseis praeclava et clava fuscis, vel etiam scapo obscure luteo et flagello brunneo-luteo, clava vix obscuriore; pedibus cum coxis et abdominis petiolo luteo-rufis vel luteis; abdomine pallide brunneo, leniter viridi- et cupreo-nitente; alis plus minus infuscatiss, nervis griseis.

Caput quam in specie praecedente paulum latius, thoracem latitudine superans proportionem 7:5. Oculi ex latere inspecti ovato-rotundati, diametro longitudinali ac transverso subaequalibus.

Annellus tertius praecedentibus manifeste maior. Funiculus articulis minus attenuatis, sensim paulo brevioribus-longioribus, ultimo fere quadrato; clava quam articulis duobus praecedentibus aliquantulum longiore atque latiore.

Sculptura dorsi sicut in specie praecedente, sed areolis maioribus harumque fundo nitido; metanotum in parte media fere tota grosse alveolatum, prope sulcum spiraculi utrinque fere laeve, nitens.

Proalae pubescentia minus conferta, apice sat longe ciliatae, nervo marginali quam cellula costali sesquibreviore, postmarginali $\frac{3}{4}$ marginalis aequante, quam stigmatico longiore proportionem 5:3, hoc quam nervo marginali fere dimidio brevior.

Coxae posticae magis elongatae, metanotum aequantes.

Petiolus coxas haud superans, his fere sesquibrevior, antice tantum paulum attenuatus.

Abdomen thoracis longitudinem et $\frac{4}{5}$ huius latitudinis fere aequans, ad medium latissimum.

Long. 2 mm.

Mas differt pilis flagellum ornantibus articulis aequilongis, petiolo coxas posticas paulo superante, longitudine quintuplam latitudinem aequante, abdomine latitudine maxima post medium longitudinis sita.

Habitat. Mahé, Silhouette, Praslin, variis locis. "Mahé: from cultivated land at about 1,000 ft., and from endemic forest of rather stunted 'Capucin' (*Northea*) trees on summit of 'Montagne Anse Major' at about 2,000 ft.—Silhouette, from high endemic forests."

Adn. Huic speciei etiam attribuenda videntur specimina quinque masculina (quorum duo statura minima), petiolo cum coxis posterioribus et femore postico brunneis vel flavo-griseis.

Specimina plurima.

GEN. *Pachycrepis* Förster.

51. *Pachycrepis spilopterus*, sp. n. (fig. 44).

Femina. Obscure viridis, facie et propectore, auratis; scapo cum pedicello luteis, funiculo et clava fuscis; oculis nigris; pedibus cum coxis etiam luteis, his posticis basi extus virescente; tegulis obscure luteis, proalis nervis flavo-griseis et macula magna prope stigma nigra; abdomine nigro-cyaneo.

Caput magnum, thorace latius proportionem 9:7; antice visum longitudine $\frac{7}{10}$ latitudinis vix aequans, forma fere trapezoidali, vertice convexo, genis rectis, sat longis; de latere inspectum longitudine et latitudine subaequalibus, oculis rotundatis, genis fovea magna triangulari fere totis excavatis. Clypeus interne haud limitatus, in margine exteriori triarcuatus, sinu medio aliis parum angustiore. Mandibulae magnae, dentibus acutis, externo maximo, sinistra 4-, dextra 3-dentata (?). Ocelli in angulum obtusum dispositi, externi spatio inter

se remoti quam ab oculis sesquibreviore. Superficies faciei tota punctato-reticulata, verticis minute reticulata.

Antennae paullum supra lineam ocularem in medio faciei insertae, retrorsum flexae metanotum attingentes; scapo verticem valde superante; pedicello latitudine paullum longiore, basi vix constricto; annellis brevissimis, primo minimo; funiculi articulis elongatis, pedunculo brevissimo coniunctis, pilisque eorum latitudinem fere aequantibus ornatis; articulo primo fere duplo quam pedicello longiore et latitudine sua nonnihil longiore, articulis sequentibus gradatim paullum brevioribus ac latioribus, sexto vix longiore quam latiore; clava elongate ovata, articulis duobus praecedentibus haud crassiore et parum longiore, quam articulo primo funiculi sesquilongiore, suturis aequaliter tripartita.

Thorax brevis, altus; dorso valde curvato, item atque capitis vertice reticulato, super metanotum reticulo fortius insculpto; collari angusto, antice acute marginato; scutello antice zona fere plana, angusta, limitato, freno vix discreto; metanoto tecti instar in longitudinem plicato, juxta dorselli extremitates fovea incerte limitata, haud profunda, impresso; calli fimbria fere nulla.

FIG. 44.—*Pachycrepis
spilopterus*, ♂.
Proala (× 27).

Proalae nervo marginali et stigmatico aequilongis, $1/3$ costae aequantibus, nervo postmarginali quam his fere duplo longiore.

Pedes postici coxis laminato-compressis, ovatis, pilis fere omnino destitutis.

Petiolus aequae longus atque latus.

Abdominis latitudo $2/3$ thoracis aequans, longitudo huic subaequalis.

Long. 1,5 mm.

Mas facie magis aurata, flagello longius pilosulo, abdominis segmento primo, sive postpetiolo, lineari, brunneo-luteo, duplam coxarum longitudinem aequante.

Habitat. Mahé: "Mare aux Cochons district, and country above Port Glaud."

Specimina duo ♀♀, unum ♂.

GEN. *Dipara* Walker.

52. *Dipara rufescens*, sp. n.

Femina. Capite nigro, oculis concoloribus, facie inferne saepe testacea, corpore, cum coxis, testaceo-rufo et pro parte nigro, interdum fere toto rufo vel brunneo; pedibus flavo-rufis, tarsis pallidioribus apice fuscis, alis leniter griseiscentibus vel griseo-fuscis, nervis flavo-griseis, antennarum scapo obscure luteo, flagello interdum concolore, plerumque fusco.

Caput thorace latius proportionem 8:7, antice visum longitudine $5/6$ latitudinis aequans, vertice convexo inter ocellos posteriores magis elevato, ocello medio mox supra lineam ocularem sito, oculis glabris minus quam $2/3$ longitudinis extensis; linea oculari inferiore $2/7$ capitis longitudinis ab ore remota; hoc haud lato; genis fortiter curvatis; clypeo subquadrato in margine externo integro; facie supra clypeum modice elevata; antennis paullum supra lineam ocularem paullumque sub medium faciei insertis, eodem fere spatio inter se quam ab orbita remotis. Vertex de supra inspectus $3/4$ latitudinis occupans,

antrorsum leniter declivis, postice indistincte marginatus, tamen angulum fere rectum cum occipite formans; hoc linea circulari foramen includente satis elevata, superficie plana, verticali. Ocelli sat magni, in triangulum rectangularem dispositi, externi ab anteriore atque orbitis aequo spatio remoti, margini occipitali contigui. Forma capitis de latere duplo longior quam latior, postice linea recta limitata, antice fere aequaliter curvata, orbita latitudine sua parum longiore, ovato-elliptica; genis sulcatis. Scrobes latae sed inferne tantum impressae, haud profundae. Mandibula dextra acute tridentata. Superficies capitis minute reticulato-sulcata, setis nonnullis super verticem longis; eminentia infra antennarum insertionem et clypeus fere laeves, subnitidi.

Antennae longae, retrorsum flexae ad medium petioli productae; scapo recto ocellum anteriorem vix attingente; pedicello quam scapo haud latiore, latitudine sesquolongiore; anello haud conspicuo; articulis septem funiculi aequalibus, primo pedicellum latitudine aequante, omnibus bene discretis, pilis dimidiam latitudinem, sensillis fere totam longitudinem aequantibus; clava triarticulata, articulis praecedentibus $2\frac{1}{2}$ aequilonga.

Thorax brevis, haud robustus, fere gibbosus, latitudine longior proportionem 11 : 7, prothorace, scuto, scutello et metanoto fere aequilongis; collari magno longitudine latiore proportionem 5 : 3, antice haud marginato, lateribus rectis; scuto aequae longo atque lato, antice quadruplo quam in latere postico latiore; sulcis scapularum fortiter impressis, leniter sinuatis, cum axillarum extremitate contiguis; scutello ovato, convexo, latitudine sua sesquolongiore, sutura freni paullum pone medium longitudinis sita; metanoto plus minus distincte carinato, superficie rugoso-costata, apice truncato, spiraculis parvis, fere rotundis, a postscutello parum remotis. Collus transverse concinne striatus; superficies dorsii minute sulcato-reticulata, areolis inaequalibus, ad medium scutelli et super axillas minimis, foveolis rotundis nonnullis, setas longas ferentibus, sparse excavatis. Frenum in longitudinem striatum. Praesternum sat magnum, antice recte angulatum, inferne productum, fere laeve; mesosternum confertim alveolato-punctatum; mesopleura et collaris latera transverse strigulosa; metapleura triangularis, reticulata.

Proalae abdomen superantes, postcosta tenui, apice subtiliore, setisque quinque longis aliisque minoribus instructa, quam nervo marginali proportionem 7 : 9 brevior; nervo hoc cum postmarginali longe setosis; stigmatico $\frac{1}{5}$ marginalis fere attingente et clava parva fere semicirculari terminato, dente sat longo, tenui, munito; nervo postmarginali ad extremitatem marginis anterioris alae producto, postcostae aequilongo et quam stigmatico magis triplo longiore; cellula costali perangusta, basali nervo valde obliquo extus terminata, fere glabra; speculo secundum nervum marginalem disposito usque ad dimidium huius elongato, incerte limitato; pilis inter speculum et nervum marginalem minus confertis, in margine apicali sat longis. Alae metathoracis abdominis apicem attingentes, angustae, longitudine quintuplam latitudinem aequantes, margine anteriore fere toto recto, posteriore leniter curvato, nervo marginali $\frac{1}{3}$ longitudinis occupante, cellula costali super hunc non elongata, setis marginis postici et apicis longioribus.

Pedes cum coxis elongati, femoribus, tibiis tarsisque longitudine subaequalibus, tarsis tenuibus. Coxae anticae fere laeves, $\frac{2}{3}$ femoris aequantes, mediae atque posticae reticulatae-sulcatae, modice vitro auctae transverse strigulosae; haec ultimae magnae, subfusiformes, $\frac{1}{2}$ thoracis et $\frac{5}{6}$ petioli

longitudinis attingentes, latitudine sua triplo longiores, linea elevata in margine apicali aliaque prope hunc annulos formantibus.

Petiolus valde elongatus, deorsum declivis, interdum leniter arcuatus, dimidium thoracis longitudinis superans, latitudine $1/5$ longitudinis suae aequans, forma cylindrica, superficie scabra, satis vitro aucta punctato-alveolata.

Abdomen parvum, nitidum, segmentis post primum retractis, petioli longitudinem parum superans, de supra inspectum semiovale, margine postico recto et longitudine sesquibreviore, fovea postpetioli parva; de latere obovatum, longitudine duplam altitudinem fere attingens.

Long. 2 mm.

Mas feminae similis.

Habitat. "Mahé: marshy coastal plain near Anse Royale.—Silhouette: coast near Pointe Étienne, and forest above Mare aux Cochons.—Félicité Island."

DE SPALANGIINIS

Revisionem generum quae sunt *Cerocephalae* Westw. affinia, ad ea bene definienda et recognoscenda necessariam esse opinor. Nunc tentamen tabulae analyticae, species mihi observatione exemplarium vel descriptionibus notas includentis, hic referam, etsi marium characteribus saepe omissis et diagnosibus nimis brevibus, studiosis parvae utilitatis fore videatur.

Praeter species seychellenses in hac monographia descriptas, quarum unam subgeneri novo, duas generibus etiam novis adscribere licet, exemplaria observavi *Theocolaci formiciformi* Westw. pertinentia, masculinum et feminineum, quae mihi dominus Waterston (sub nomine "*Cerocephala formiciformis* Westw.") ex Anglia, comiter misit, aliaque generi *Chaetospilae* Westw. attribuenda, feminea, in Italia septentrionali (Veneto) inventa (ex collectione Magrettii, in Museo Civico Genuensi) alia denique, eiusdem sexus, a dominis Doderò et Mantero prope Genuam collecta. Haec ultima, quae alio loco describam, forma erunt typica generis novi quod *Sciatherodes* appellabo. In *Chaetospilae* exemplaribus eisdem characteres observavi, exceptis nonnullis specificae rationis, quos Westwood descriptione feminae et figuris indicavit, itaque in opinione Thomsoni atque Försteri non convenio, qui *Chaetospilam* ac *Cerocephalam* pro synonymis habuerunt: differentias inter haec genera Westwood ipse recognovit, neque hoc eum fefellisse videtur. Auctorum exemplum secutus, *Cerocephalam* formam illam appello quam Ratzeburg postea nomine *Sciathera* descripsit, at non satis certum iudico *Cerocephalam cornigeram* Westw. in Guerini "Magasin de Zoologie" descriptam, et *Sciatheram trichotum* Ratz., eidem speciei, immo eidem generi, pertinere. Crawfordi *Cerocephala atrovioacea* * et *bakeri*,† generi *Cerocephalae* juste relatae videntur.

In tabula analytica genera *Spalangia* Latr. et *Paralaesthia* Cam. omisi, hoc ultimum mihi non satis notum ex auctoris descriptione, forsan *Neosciatherae* mihi, est proximum.

A. Axillae remotae, sutura axillo-scutellaris haud immersa, dorsum nitidum.

a. Funiculus ♀ 5-articulatus Gen. *Chaetospila* Westw.

aa. Funiculus ♀ 6-, ♂ 7-articulatus.

b. ♂ et ♀ alati, metanoti sculptura saepe conspicua

Gen. *Cerocephala* Westw. (*Sciatheras* Ratz.).

* *Proc. U.S.N. Mus.* 1913. p. 314, ♀.

† *Philippine J. of Sc.* ix. No. 5. Se. D. 1914. p. 460, ♀.

Proalae nervo postmarginali et stigmatico brevibus; maris flagellum articulis hirtis Subgen. *Cerocephala*, n.

Proalae nervo postmarginali fere nullo, tenui; maris flagellum articulis setis longis in verticillum dispositis, clava biarticulata medio constricta Subgen. *Parasciatheras*, n.

bb. ♂ et ♀ apteri, metanotum sublaeve Gen. *Theocolax* Westw.

B. Axillae propinquae vel coniunctae, sutura axillo-scutellaris immersa, scutellum triangulare.

a. Superficies axillarum et scutelli laevis, pronotum et mesonotum nitida, metanotum fovea pone dorsellum nulla, praestigma setosum

Gen. *Sciatherodes*, n.

aa. Superficies axillarum oblique sulcata, scutelli strigosa, pronotum et mesonotum punctata, metanotum fovea transversa pone dorsellum profunde excavata, praestigma glabrum (an setis deciduis?).

b. ♀ antennis infra medium faciei, in linea oculari insertis, scapo ocellum non superante, funiculi articulo primo quam pedicello fere duplo longiore, proalis margine apicali fortiter curvato, nervo postmarginali et stigmatico brevibus subaequalibus Gen. *Neosciatheras*, n.

bb. ♂ antennis paullum supra medium faciei insertis, scapo verticem superante, pedicello brevi, funiculi articulis et clava valde elongatis, subcylindraceutis, illis medio constrictis, sensillis longis, hac articulis tribus subdiscretis; alveolis in sulco axillo-scutellari uniseriatis; proalis apice subtruncato-rotundato, nervo postmarginali fere nullo, stigmatico elongato clava mutica; pedibus sat longis, gracilibus

Gen. *Sciatherellus*, n.

GEN. *Cerocephala* Westw.

SUBGEN. *Parasciatheras*, n. (*vide ante*).

53. *Cerocephala* (*Parasciatheras*) *caelebs*, sp. n. (figs. 45-48).

Mas. Piceo-rufus, pronoto ac mesothoracis dorso aeneis, nitidis, capitis vertice violaceo; funiculi articulis apice obscurioribus, setis basi nigris, clavae articulo apicali itemque abdomine nigris; proalis macula dilute brunnea infra praestigma aliaque magna pone 5/9 longitudinis ornatis, spatio reliquo hyalino, pilis fimbriae griseis.

Caput antice visum aequè longum atque latum, superne arcuatum, inferne obtusum, genis buccatis, oculis sat magnis, haud prominulis, linea oculari superiore fere 1/5 longitudinis, inferiore 5/7 a vertice remota, facie in dimidio inferiore radiatim strigulosa. Forma capitis superne inspecti transverse elliptica longitudine parum latior, facie et occipite fere aequè prominentibus, ocellis in angulum rectum dispositis. Superficies in dimidio superiore laevis, nitida.

Antennae media facie insertae. Scapus ocellum anteriorem haud superans; funiculus articulis 1.-3. satis conspicue, 4. et 5. minus, versus ipsorum apicem

FIG. 45.—*Cerocephala* (*Parasciatheras*) *caelebs*, ♂.

1, caput antice visum; 2, idem superne; (× 30).

latitudine decrescentibus, itaque forma obconica, truncata, setis longis, crassis, instructis; clava articulis duobus aequalibus formata, medio constricta.

FIG. 46.—*Cerocephala* (*Parasciatheras*)
caelebs, ♂.
Flagellum ($\times 43$).

FIG. 47.—*Cerocephala* (*Parasciatheras*)
caelebs, ♂.
Proala ($\times 30$).

Sulci scapulares foveolis impressi rotundatis, uniseriatis, antrosum gradatim maioribus. Axillae remotae; earum superficies et scutelli laeves. Sulci axillo-scutellares alveolorum serie unica indicati, alveolis versus scutelli basim gradatim minoribus. Metanotum superficie reticulato-alveolata.

2

FIG. 48.—*Cerocephala* (*Parasciatheras*) *caelebs*, ♂.
1, proalae nervus stigmaticus;
2, praestigma; ($\times 80$).

Proalae apice rotundatae, pilis fimbriae ad angulum posticum longioribus, nervo stigmatico haud angustato $1/5$ marginalis aequante, lateribus parallelis, clava nulla, dente autem sat longo; praestigma setarum caespitibus instructum.

Petiolus coxas posticas superans.

Long. 1,7 mm.

Habitat. Mahé: Cascade Estate, "from forest at 1,000–2,000 ft."

Specimen unicum.

GEN. *Neosciatheras*, n. (*vide ante*).

54. *Neosciatheras laticeps*, sp. n. (figs. 49, 50).

Femina. Piceo-rufa, oculis concoloribus, abdomine brunneo-lutescente. Clava flavo-ochracea; scapus subtus atque lateribus, coxae anticae atque posticae, tarsi omnes et oviductus in dimidio basali, pallide flavo-grisei, oviductus dimidium apicale nigrum; coxae intermediae totae, anticae macula magna lateris exterioris, posticae apice, nec non alarum nervi, brunnei; proalae praestigmate nigro, ultra cellulam basalem flavido-grisescens, fascia sub praestigmate et macula juxta nervum stigmaticum obscurioribus, margine apicali pallido, pilis fimbriae albis apice nigris.

Caput thoracis latitudinem superans proportionem 7:5, longitudine sua paulum latius proportionem 10:9; antice visum vertice arcuato, oculis prominulis, glabris, linea oculari inferiore $1/3$ capitis longitudinis ab ore remota, genis inferne curvatis, peristomio sat lato, antennis paulum supra lineam ocularem et infra medium faciei insertis, ab oculis aequo spatio quam inter se remotis; scrobibus infra tantum determinatis et margine externo ad $1/3$ scapi longitudinis in angulum obtusum, de latere inspectum melius observandum, elevato. Faciei pars subantennalis sulcis duobus notata parallelis, a scrobibus ad os extensis; spatio interposito angulatim plicato. Forma capitis de latere oblonga, limite

antere et posteriore subrectis atque parallelis, latitudine $\frac{4}{7}$ longitudinis aequante; vertice cum fronte continuo, superne angustato; oculis ellipticis; orbita margine elevato et diametro longitudinali quam transversa sesquialongiore, hoc latitudinem capitis fere totam occupante.

Vertex, superne inspectus, lateribus orbita obliqua, postice occipite concavo terminatus; hoc distincte marginato et margine in parte media ocellis posterioribus propinquo. Ocelli mediocres, in declivio anteriore verticis angulum fere rectum formantes, externi ab oculis aequo spatio quam inter se remoti. Superficies capitis tota scabrosapunctata, pubescentia brevi, alba, satis conferta.

Antennae 10-articulatae, sine anello, funiculo 6-articulato, clavae articulo primo vix, ultimo minime, discretis. Scapi leniter curvati et convergentes, usque ad ocellum anteriorem elongati. Flagellum duplam scapi longitudinem paullo superans, fere glabrum, pilis paucis brevibus, adpressis; pedicellus parvus, latitudine sua haud sesquialongior; funiculi articulus primus elongatus pedicello duplo longior, haud apice latior, in dimidio basali magis attenuatus; secundus pedicelli longitudinem nonnihil superans, quam primus brevior proportionem 3:5; articuli sequentes gradatim breviores et

FIG. 49.—*Neosciatheras laticeps*, ♀.
1, thorax cum capite, abdominis petiolo et alarum parte basali (× 23); 2, caput antice visum (× 21); 3, pes anticus (× 27).

crassiores, ultimus quadratus; clava cylindro-conica, duplam praeclavae longitudinem paullo superans, articulo basali satis discreto medium eius non attingente.

Prothorax magnus, de supra inspectus in dimidio anteriore conico et sculptura minutissima granulosa, in posteriore collare formans lateribus rectis, parallelis, superficie scabra, in longitudinem irregulariter sulcata-rugosa. Scutum antrorsum declive, latitudine paulum longius, minute punctatum; scapulae (× 50) oblique rugosae. Axillae quam scapulae multo maiores, in medio dorso conniventes et scutellum depellentes, ab hoc sulco profunde impresso separatae, superficie per-

FIG. 50.—*Neosciatheras laticeps*, ♀.

1, flagellum (× 55); 2, scutellum cum axillis, dorsello et metanoto (× 45); 3, proalae pars stigmatica (× 80); 4, proala (× 40).

spicue rugoso-sulcata, rugis curvatis, versus apicem scutelli convergentibus et brevi spatio in huius superficiem productis. Scutellum triangulare subaequilaterum, in longitudinem curvatum, limite postico parum convexo,

superficie haud laevi. Postscutellum lineare arcuatum, dorsello indistincto. Metanotum carina destitutum, modice vitro auctum superficie scabra, satis magnificatum superficie reticulato-alveolata; pone dorsellum fovea transversa semielliptica, sat profunda, excavatum; spiraculis subrotundis a postscutello remotis. Mesothoracis latera vix perspicue sulcato-reticulata, mesosterno fovea rotunda impresso, episterno et epimero discretis, antice a mesosterno serie fovearum separatis.

Proalae abdominis apicem attingentes, haud latae, post nervum stigmaticum, id est ad $\frac{4}{5}$ longitudinis, margine elliptico aequaliter fimbriato terminatae; cellula costali lineari, longitudinem nervi marginalis cum postmarginali aequante, cellula basali extus valde oblique terminata, superficie reliqua sparsim punctata, pilis destituta, exceptis paucis (4-5) prope nervum stigmaticum, huius longitudinem superantibus. Postcosta, item atque nervus marginalis setis quinque instructa, portione ascendente in speciminibus quae observavi glabra (setis deciduis?) et crassiore. Nervus stigmaticus brevis, $\frac{1}{8}$ marginalis aequans, in dimidio basali attenuatus, clava haud determinata sed dente sat longo munita. Nervus postmarginalis stigmatico paullum brevior. Alae metathoracis longae, latae, apicem abdominis fere attingentes, margine postico et apicali sicut in alis anterioribus longe piloso.

Pedes normales, nec breves nec crassi. Coxae anticae in dimidio apicali lateris exterioris carina valde prominente instructae. Coxae intermediae quam anticae latiores, abdominis petiolo aequilongae et quam posticae dimidio breviores, haec pyriformes, anticis magis quam sesquilingiores et conspicue crassiores. Tibiae posticae confertim rigido-setosae.

Petiulus cylindricus, sulculatus, postice oblique terminatus, superne inspectus linea media dorsali quam lateralibus sesquilingiore, metanoto fere aequilonga; latitudine longitudinem lateris fere aequante.

Abdomen, absque oviductu, thoraci aequilongum, nec amplius, fusiforme, duplo longius quam latius, superficie laevi, nitida; de latere visum ventre magis convexo; segmento basali medio dorso haud inciso dimidiamque abdominis longitudinem attingente; secundo triplo brevior, reliquis hoc etiam brevioribus, subaequalibus. Oviductus $\frac{1}{3}$ abdominis aequans.

Long. 2,5 mm.

Habitat. Silhouette: Mare aux Cochons.

Specimina duo.

GEN. *Sciatherellus*, n. (*vide ante*).

55. *Sciatherellus orycinus*, sp. n. (figs. 51, 52).

Mas. Fulvo-ferrugineus, oculis brunneis, funiculi articulis in dimidio apicali nigris, coxis abdominisque petiolo pallidioribus, abdomine pro parte infuscato, proalis nervis griseo-fuscis, ante nervum marginalem fere hyalinis, reliquo spatio flavescienti-griseis, sub praestigmate umbratis, sub stigmate macula magna transversa pallide castanea ornatis, margine apicali infuscato pilisque fimbriae totis griseis.

Caput antice visum paullum longitudine latius, proportionem 100 : 87, oculis sat magnis, dimidiam capitis longitudinem superantibus (proportionem 5 : 9), linea

oculari inferiore post $3/4$ longitudinis sita, facie mucronibus et carinis nullis, in dimidio inferiore oblique strigosa.

Antennae nonnihil supra mediam longitudinem capitis alte insertae, scapo verticem valde superante et orbitis aequilongo; flagello longissimo, quam capite fere quintuplo, quam thorace et abdomine simul sumptis fere sesquilingiore; pedicello parvo globoso; articulis septem funiculi valde elongatis, subaequalibus, quam scapo vix crassioribus, non longioribus. Sensilli articulis dimidio breviores, fere ubicumque ordine duplici dispositi, ita ut articulorum numerus duplicatus apparet. Clava articulo praecedente longior proportione 4:3, indistincte in articulos divisa, sensillis omnibus aequilongis et ordine triplicato dispositis.

FIG. 51.—*Sciatherellus orycinus*, ♂.
1, caput antice visum cum antenna ($\times 24$); 2, funiculi articulus tertius ($\times 58$).

Prothorax de supra inspectus lateribus in dimidio posteriore parallelis; scuto ante scapulas prominente convexo-marginato; scutello triangulari a scuto nonnihil remoto, axillis magnis in medio dorso conniventibus, longitudinaliter strigosis, a scutello alveolorum serie late separatis; axillarum strigis super scutellum brevi spatio productis. Metanotum grosse, sed haud profunde alveolatum, alveolorum fundo inaequali, fovea pone dorsellum nulla.

Proalae abdomen superantes, versus apicem conspicue dilatatae, hoc subtruncato-rotundato, pilis fimbriae frequentioribus, sat longis, omnibus fere aequalibus; praestigmate in specimine haud setoso; nervo marginali pilis numerosis instructo; postmarginali fere nullo; stigmatico longo, $1/4$ marginalis aequante, marginibus subparallelis, clava haud determinata denteque nullo; superficie glabra, exceptis pilis quibusdam prope nervum stigmaticum, quam hoc paullum brevioribus.

FIG. 52.—*Sciatherellus orycinus*, ♂.
Proala ($\times 45$).

Pedes graciliores, sat longi. Coxae posticae parum dilatatae, diametrum coxarum primi paris vix superantes: hae in latere exteriori haud carinatae, quam intermediae fere sesquilingiores, quam posticae parum breviores.

Petiolus metathoracis apici conico alte supra coxas posticas adfixus, his longior proportione 5:3, thorace paullum magis quam dimidio brevior; de latere visus leniter curvatus; superficie strigosa.

Abdomen segmentis post secundum retractis, longitudine petiolum fere aequans, segmento basali magno, secundo $1/4$ huius non superante.

Long. 1,8 mm.

Habitat. Mahé: Cascade Estate.

Specimen unicum.

GEN. *Spalangia* Latreille.56. *Spalangia fallax*, sp. n. (fig. 53).

Femina. Nigra, alis flavo-griseis, harum nervis, tarsis praeter apicem, interdum tibia media, brunneo-luteis, tibia postica extremitatibus et trochanteribus omnibus minus obscuris.

Caput magnum, antice visum parum latitudine longius proportione 7 : 6, thoracis longitudinis $5/8$ aequans ; vertice alte elevato ; oculis haud prominulis, orbita antice sinuosa ; linea oculari superiore in $2/9$, inferiore in $1/3$ longitudinis sita ; genis mox infra oculos leniter tumescentibus, reliquo spatio haud curvatis, quam orbita paullum brevioribus ; areolis insertionis antennalis forma triangulari, angulis rotundatis, his externis spatio remotis dimidiam capitis latitudinem aequante ; area ocellari sulco limitata ; facie sulco divisa longitudinali profunde impresso, acute marginato, ex area ocellari ad lineam ocularem inferiorem extenso et strigis nonnullis transversis interrupto ; scrobibus latis, haud profunde excavatis, incerte limitatis ; spatio his interposito subconvexo. Superficies pilis hirta haud numerosis, nec ordine manifesto dispositis, fere

ubicumque laevis, polita, exceptis genis spatioque inter antennarum radículas, quae sunt grosse, profunde et confertim punctata.

Antennae thoraci fere aequilongae, flagello longitudinem capitis superante. Scapus dimidium flagelli aequans ; pedicellus $2/5$ scapi attingens ; funiculi articuli transversi, primus longitudine sua paullum latior, sequentes sensim latiores, item atque clava pedunculo brevi, angusto, conjuncti, ultimus fere duplo latior quam

FIG. 53.—*Spalangia fallax*, ♀.

1, antenna (× 58); 2, caput antice visum (× 30); 3, proala (× 52); 4, eiusdem nervus stigmaticus (× 150).

longior ; clava solida, subcylindrica, apice rotundata, articulis tribus praecedentibus aequilonga.

Collum minute at conspicue reticulatum ; pronotum minute reticulato-squamosum foveolisque rotundatis sparsis leniter impressis, quam scutum duplo longius ; hoc margine anteriore modice curvato, dimidiam scutelli longitudinem parum superans. Alveoli sulcos scapulares et axillares formantes, haud magni. Scutellum politum, sparsim et parce setosum, ad angulos exteriores tantum foveis piliferis 2–3 sat magnis impressum, freno nullo, huius sutura nec sulco nec foveis indicata ; dorsellum punctorum serie utrinque impressa, ex medio margine posteriore ad foveolam sublateralem oblique desinente ; metanotum in parte dimidia anteriore area instructum triangulari elongata, utrinque fovea conspicua limitata, his foveis fundo punctatis, postice confluentibus, in parte dimidia posteriore metanoti serie impari punctorum non usque ad petiolum continuatis. Mesopleura minute reticulata, areolis rectangularibus valde elongatis, oblique dispositis : modice vitro aucta potius oblique et concinne striata apparens.

Proalae latitudine longiores proportione 5 : 16, nervo marginali $\frac{4}{5}$ cellulae costalis aequante, stigmatico brevissimo sub angulo fere recto egrediente, superficie jam pone cellulam basalem pilis vestita, pubescentia brevi at conferta ad $\frac{1}{3}$ nervi marginalis incipiente.

Pedes posteriores trochanteris articulo secundo supra tumescente.

Petiolus $\frac{2}{3}$ metathoracis longitudinis aequans, ex basi ad apicem aequelatus, superficie minute granulosa, nec longitudinaliter sulcata neque costulata.

Abdomen depressum, latum, quam thorax, absque petiolo, paulum brevius, sesquialtius, segmentis minute reticulato-sulcatis, secundo et tertio longitudine aequalibus.

Long. 1,3–1,5 mm.

Habitat. Mahé : Cascade Estate, "at about 800 feet."

Specimina duo.

Adn. Species haec characteribus nonnullis, praecipue antennis, cum europaea *Sp. erythromera* Först. convenit, capitis structura cum *Sp. brasiliensi* Ashm.; affinis etiam videtur *Sp. impunctae* How. et *subpunctatae* Först. Petioli sculpturam, quae in generis sectionibus instituendis et speciebus distinguendis valde utilis mihi videtur, auctores saepe neglexerunt.

GEN. *Eunotomyia*, n.

Hoc genus ab *Amuscidea* Gir. differt annulo antennali nullo, funiculi articulis non elongatis, proalae nervo marginali stigmaticum aequante, nec duplo longiore, postmarginali fere obsoleto, segmento primo abdominis $\frac{1}{3}$ huius longitudinis superante. Cum *Muscidea* eiusdem auctoris satis convenit, tamen differt annulo antennali nullo. Metanotum in specimine seychellensi examinare non potui.

57. *Eunotomyia festiva*, sp. n. (figs. 54–56).

Femina. Capite cum scapo brunneo-luteis, oculis obscure testaceis, flagello nigro, occipitis angulis inter marginem et orbitas viridi-maculatis, genis infra oculum area fusca notatis; thorace obscure viridi, lateribus fere totis, collaris parte postica, axillis et scutelli freno plus minus auratis, hoc obliquitate quadam inspecto purpureo nitente; scutelli limbo apicali nec non metathoracis alveolis maculisque nonnullis ad insertionem setarum dorsi nigricantibus; pedibus cum coxis, tegulis, alarum nervis et proalarum disco usque ad marginem alae posticum brunneo-luteis, tibiis tantum obscurioribus tarsisque, praeter apicem, pallidioribus; abdomine obscure violaceo, segmentis apicalibus viridi-nitentibus, pedunculo cyanescenti-nigro.

Caput thoracis longitudinem latitudine aequans, antice visum triangulare, transversum, longitudine latius proportione 5 : 3, vertice subrecto, $\frac{5}{9}$ totius latitudinis extenso, spatio inter orbitas et ocellos laterales horum distantiam ab oculo anteriore aequante, spatio inter ocellos laterales quam dimidia verticis latitudine vix maiore; oculis hemisphaericis, glabris, dimidiam capitis longitudinem parum diametro superantibus; antennis

FIG. 54.—*Eunotomyia festiva*, ♀.

1, caput antice visum; 2, superne; ($\times 30$).

ad os insertis; facie fovea ovali haud profunda impressa, in medio huius inter radículas antennarum modice elevata. Vertex fortiter compressus, acute marginatus, ultra lineam ocularem haud prominulus. Caput ex latere inspectum subtriangulare, in longitudinem fere duplo quam in latitudinem extensum.

FIG. 55.—*Eunotomyia festiva*, ♀.
Antenna ($\times 65$).

Superficies subnitida, minute ac subtiliter reticulato-sulcata, areolis super occiput minoribus; facies pilis brevibus sparsis ornata.

Scapus ocellum anteriorem non attingens, subfusiformis, magis latere anteriore curvatus; flagellum quam scapus sesquilingius, pedicello latitudine sua longiore, proportionem 5:2, articulis quinque funiculi bene discretis pilisque sat longis instructis, primo quam ceteris parum minore, latitudine pedicello aequali paullumque latiore quam longiore, reliquis gradatim latioribus, ultimo duplo latiore quam longiore; clava ovata, articulis tribus praecedentibus aequilonga et latitudinem praeclavae superante, articulorum vestigio fere nullo.

Thorax latitudine maxima $\frac{3}{4}$ capitis aequans; collari lato, antice incerte limitato, margine postico modice curvato; mesonoti parte praeaxillari transversa, quam collari duplo tantum longiore et longitudine sua triplo latiore; scuto antice proportionem $\frac{5}{3}$ latiore quam longiore, basi longitudini aequilonga; scutello metathoracem non obtegente, aequae longo atque lato, quam scuto fere duplo longiore, freno distincto, limbo posteriore lunato, alveolis septem subquadratis impresso. Dorsum setis nonnullis perlongis instructum, sculptura reticulato-sulcata, axillis tantum laevibus, nitidis, scutello extremo apice laevi, dorsulo atque freno fere toto areolis elongatis haud magnitudine nec forma differentibus, insculptis. Metanotum breve, serie transversa alveolorum rectangularium circa decem instructum. Callus pilis longis albis ornatus. Metapleura triangularis subaequilatera, item atque mesosternum et mesopleura laevis, nitida.

Proalae apice rotundatae, sat longe ciliatae, superficie ultra lineam ex basi nervi stigmatici ad medium lateris posterioris productam setis haud confertis vestita, reliquo spatio fere glabra; nervis longe setosis, humerali ad juncturam cum basali, ubi cellula costalis latissima, fortiter angulatim plicato; marginali haud tenui, ad mediam alae longitudinem incipiente; stigmatico huic aequilongo, versus apicem sensim latiore et clava indistincta terminato; postmarginali fere nullo. Alae metathoracis item atque anteriores longe ciliatae, margine postico paullum ante medium fortiter arcuato-plicato.

Pedes postici coxis pyriformibus, tibiis magis setosis, calcari medium metatarsi fere attingente.

FIG. 56.—*Eunotomyia festiva*, ♀.
Alae ($\times 45$).

Abdomen thorace paulum longius, haud latius, breviter pedunculatum, ovatum, subdepressum, lateribus parum curvatis; pedunculo fere aequo longo atque lato, supra planiusculo, marginato ac ruguloso; segmentis apicem formantibus brevissimis, segmento basali maximo, $2/3$ abdominis longitudinis aequante, de supra inspecto fere quadrato, superficie laevi, nitida.

Long. 1,5 mm.

Habitat. Mahé.

GEN. *Mesopeltis*, n.

Species cuius descriptio sequitur, habitu et colore *Scutellistae cyaneae* Motsch. similis, sed scutello haud elongato ab ea facile distinguenda, media est inter hoc genus atque *Eunotum*: a *Megapelte* autem differt scutello non elongato segmentoque primo abdominis maximo.*

58. *Mesopeltis atrocyanea*, sp. n. (figs. 57-59).

Femina. Nigro-violascens, antennis fulvo-ochraceis, oculis et pedibus brunneis, tibiis apice, tarsis, praeter apicem nigrum, pallide testaceis, alarum nervis griseo-fuscis, alis metathoracis lenissime, mesothoracis fortius infumatis, his pone cellulam basalem et in disco obscurioribus.

Caput magnum, crassum, thorace latius, antice visum transversum forma trapezoidali, $3/5$ latitudinis longitudine aequans; vertice longitudini aequilongo; ocellis posterioribus ab oculis spatio eorum diametro aequali remotis; oculis glabris, ad dimidiam faciei altitudinem extensis; genis fere totis rectis inferne tantum curvatis; oris margine plano. Capitis superne inspecti forma lunata, limite anteriore semicirculari, posteriore etiam fortiter curvato, margine occipitali peracuto; forma de latere subtriangularis, latitudine sesquilingior, oculis ellipticis diametro longitudinali quam transversa parum brevior. Superficies sub nitida, sulcis tenuissimis minute reticulata. Facies modice convexa, antennis ad os insertis, scapis fere contiguis in fovea longitudinali leniter impressa receptis, non ultra dimidiam oculorum altitudinem extensis.

FIG. 57.—*Mesopeltis atrocyanea*, ♀.
Caput antice visum cum antenna
($\times 30$).

Flagellum scapo fere aequilongum; articuli tres primi funiculi simul sumpti quam pedicellum parum longiores, dimidium funiculi formantes, primus et secundus parvi, vix transversa, articulus quartus et quintus magni, haud multum longitudine latiores, ultimus latitudine pedicelli longitudinem aequans; clava ovata quam praeclava parum crassior et $1/3$ flagelli longitudinis, dimidiam funiculi, attingens, articulis tribus praecedentibus aequilonga, in articulos divisa suturis obliquis, vix conspicuis, coniunctos, quorum primus dimidium totius longitudinis occupans, reliqui duo subaequales.

Thorax robustus, fortiter in longitudinem curvatus, latitudine maxima $3/5$ capitis aequans. Pronotum de supra inspectum brevissimum, fere lineare,

* Dum haec descriptio imprimebatur, Waterston speciem novam illustravit, nomine *Eunoto truncatipenni*, in Africa in "Gold Coast" inventam, quam generi meo *Mesopelti* adhuc inedito pertinere ipse recognovit (*Bull. Entomol. Research*, London, vol. vii. 1917. p. 252-257. figs. 8, 9); metanotum *Mesopeltis atrocyaneae*, ex cotypo quem ego Museo Britannico misi, in descriptione sua effinxit (*l.c.* fig. 9b).

fortiter arcuatum. Scutum satis longum, antice quam postice proportionem 5 : 2 latius, basi quam longitudine sesquibrevius. Scutellum postice vix productum, metanoti dimidium anticus obtegens, aequale longum atque latum, scuti longitudinem superans proportionem 4 : 3, lateribus brevibus, rectis, margines parallelos formantibus, freno haud discreto, parte tertia postica margine fortiter arcuato limitata et foveis marginalibus impressa rotundatis, sat magnis, fere contiguis, omnibus in fundo punctis nitentibus obsitis. Metanotum fere duplo quam scutellum brevius, foveis in sculptum magnis, haud profundis, fere omnibus

transverse duplici ordine dispositis. Sculptura dorsi illi capitis similis, areolis in scapulis minoribus, in axillis minimis, in zona media longitudinali scutelli sat magnis at valde elongatis.

Proalae margine apicali recto, nervo humerali in eius parte ascendente crassiore et satis curvato, a nervo marginali hiato angusto separato; costa in parte distali item atque praestigmate arcuata; nervo marginali $1/6$ cellulae costalis aequante, stigmatico tenui huic subaequilongo, versus clavam subreniformem incerte limitato; postmarginali parum

FIG. 58.—*Mesopeltis atrocyanea*, ♀.

1, proala ($\times 65$); 2, eiusdem nervus postmarginalis et stigmaticus ($\times 167$).

breviore, truncato; his nervis, praeter stigmaticum, setis nonnullis longis instructis, marginali autem et postmarginali cum extremitate costae setis aliis minus longis, sat frequentibus, ornatis; cellula costali in dimidio proximali, cellula basali in dimidio posteriore cum spatio usque ad marginem posticum alae, glabris, area speculari, parte anteriore cellulae basalis et zona sub nervo marginali punctulatis. Alae metathoracis haud latae nec margine postico fortiter curvato, setis fimbriae sat longis, cellula costali ad medium nervi marginalis producta.

Abdomen latitudine thoraci subaequale paullumque longius, basi late sessile, hac in dorso foveis excavata magnitudine et forma alveolis metanoti similibus. Segmentum primum superne inspectum subquadratum, $3/4$ totius longitudinis aequans, politum, lateribus antice marginatis, ventre pone coxas posticas pube albida ornato; segmenta reliqua brevissima apicem breviter conicum formantia, cuius longitudinem terebra in uno specimine projecta paullum superat.

Long. 1,5 mm.

Mas differt antennis longioribus, crassis, 9-articulatis, pedicello latitudine et longitudine fere aequalibus, articulo primo funiculi quam pedicello duplo latiore et latitudine sua fere duplo longiore, articulis tribus huic sequentibus

FIG. 59.—*Mesopeltis atrocyanea*, ♂.

Abdomen atque metanotum cum scutelli apice ($\times 30$).

cylindricis, gradatim brevioribus, ultimo aequae longo atque lato, tribus apicalibus clavae pertinentibus ultimo funiculi subaequalibus.

Habitat. "Silhouette: Mare aux Cochons, and from long grass in low cultivated country.—Mahé: country above Port Glaud.—Long Island (a cultivated islet near Mahé)."

Specimina tria ♀♀, unum ♂.

SUBFAM. ELASMINAE.

GEN. *Elasmus* Westwood.

59. *Elasmus eximius*, sp. n. (figs. 60, 61).

Femina. Capite, praeter partem inferiorem flavo-griseam pronoto, mesonoti parte praeaxillari axillisque, obscure viridibus, metallicis; thoracis lateribus nigro-brunneis, praesterni disco, humeris et axillarum puncto prope tegulas rufescentibus; metathorace laete viridi, nitido; dorsello atque scutello aurantiacis, hoc basi et macula discoidali ad apicem fere nigris; abdomine usque ad segmentum quintum luteo-aeruginoso, basi tantum maculis duabus dorsalibus fuscis notato, in eius parte apicali nigro; scapo et pedicello lutescenti-griseis, illo in latere supero obscuriore, hoc fusco-maculato; funiculo et clava brunneo-luteis; pedibus flavo-griseis, tarsis obscurioribus, coxis mediis ac posticis dimidio basali, femoribus posticis etiam apice et lateribus versus apicem, nigris; alis griseis.

FIG. 60.—*Elasmus eximius*, ♀.
Flagellum (× 65).

Vertex foveolis insculptus rotundis fere contiguus, diametro dimidium ocellorum non superantibus; facies, praeter partem oralem, foveolis fere ubicumque spatio remotis diametro eorum aequali. Funiculi articuli elongati, primus pedicello duplo longior, longitudine sua duplam latitudinem paullum superans, tertius primo paullum brevior; clavae articulus basalis secundo vix longior, praeclava nonnihil brevior. Sensilli antennales in articulo primo funiculi transverse triseriati, in articulo tertio et duobus primis clavae biseriati. Tibiae posticae calcari maiore $1/4$ metatarsi non superante, spinarum seriebus lateris dorsalis extus rhombos quatuor semisque, valde elongatos, formantibus.

Long. 2,3 mm.

Habitat. Mahé: "cultivated country near sea-level at Cascade."

Specimen unicum.

FIG. 61.—*Elasmus eximius*, ♀.
Tibiae posticae pars apicalis (× 55).

Var. Specimen aliud, etiam feminine, a praecedente differens scutello flavo, at eisdem maculis nigricantibus, dorsello fusco, flavo-limbato; macula humerali punctiformi, axillari nulla.

Habitat. Mahé: "marshy coastal plain near Anse Royale."

Adn. Haec species ab *E. insulari* Gir. differre videtur macula humerorum non albida, abdomine basi haud omnino nigro, post segmentum quintum toto nigro, nec apice tantum zonaque praeapicali nigricantibus.

60. *Elasmus bellus*, sp. n.

Femina. Praecedenti similis, differt scutello parti praeaxillari dorsi concolore, dorsello in dimidio anteriore nigro, in posteriore albido, femore postico

pone medium infuscato at apice flavo-griseo; foveolis faciei minus confertis spatioque remotis earum diametrum sesqui vel duplo superante; spinis in latere dorsali tibiae posticae series tres sinuosas, nusquam confluentes, formantibus.

Long. 2,2 mm.

Habitat. Silhouette.

Specimen unicum.

61. *Elasmus*, sp. (fig. 62).

Femina. Nigro-aenea, interdum cyanescens, capite, metathrace et abdominis basi viridibus, metallicis, abdomine reliquo fere nigro, dorselli margine flavo-griseo; scapo ac pedicello brunneo-luteis, hoc supra fusco-maculato, funiculo et clava concoloribus vel brunneis; pedibus griseo-fuscis, genubus minus obscuratis; alis griseis.

Foveolae verticis et faciei diametro dimidium ocellorum aequantes, spatio remotae earum diametrum fere ubicumque sesqui-superante. Funiculi articuli subaequales, longitudine sesquilongiores, primus quam pedicellus haud multo longior, sensillis in serie unica transverse dispositis; clava articulis duobus primis quam praeclava brevioribus, medio hac latior, sensillis per totam fere articulorum longitudinem extensis. Tibiae posticae sat robustae,

FIG. 62.—*Elasmus*, sp., ♀.
Antenna ($\times 65$).

calcari maiore $1/3$ metatarsi attingente, latere dorsali confertim spinuloso, spinis longis rhombos extus formantibus tres semisque, longitudine duplam eorum latitudinem non superantes.

Long. 2 mm.

Habitat. Mahé: Port Victoria, Cascade Estate.—Anonyme Island.—Silhouette: Mare aux Cochons.

Specimina duodecim.

SUBFAM. EULOPHINAE.

GEN. *Elachertus* Spinola.

62. *Elachertus*, sp.

Mas. Niger, nitore vario, antennis scapo et pedicello flavis vel flavo-rufis, funiculo griseo, oculis brunneis, pedibus praeter coxas posticas flavis, alarum nervis pallidis, abdominis dorso testaceo-maculato. Caput interdum nigro-viride; prothoracis dorsum et mesothoracis pars praeaxillaris, cum scutelli zona marginali, aeneis, nitore aureo-purpureo; scutelli discus purpureo-violascens; metathoracis dorsum medio nigro-viride, lateribus nigrum; abdominis segmenta, oblique inspecta, nigro-viridia. Pili dorsi pallide grisei, oculorum albi.

Caput transversum, longitudine sesquilatius, latitudine thoracem fere aequans; vertice acute pone ocellos marginato, his in angulum fere rectum dispositis, posterioribus spatio duplo quam ab oculis inter se remotis; oculis magnis, sat dense pubescentibus; genis haud buccatis; scrobe profunda; superficie conspicue reticulato-sulcata, foveis non marginatis sparse impressa.

Antennae funiculi articulis subaequalibus pedicello aequilongis, compressis, clava fortiter medio constricta.

Prothorax scuto dimidio brevior; sulci scapulares cum illis scutelli haud

continui, ab eis axillis medio dorso proximis separati; scutellum scuto aequilongum, latitudine sua sesquialongius, sulcis impressum zonam marginalem limitantibus et prope eius apicem haud coniunctis, foveis duabus rotundatis in parte apicali zonae marginalis, inter se paullum remotis, notatum. Superficies scuti atque scapularum grosse reticulato-sulcata; areolae scutelli antice dimidio quam in scuto angustiores, sensim postice minores, in parte tertia apicali nullis; axillae fere laeves. Metanotum medio politum, carina elevata, sulcata, quam scutellum sesquibreviore. Mesothoracis latera et metapleura laevia.

Proalae nervis stigmatico et postmarginali longis, hoc incerte limitato.

Calcar pedum posticorum maius tibiae apicis latitudini aequilongum, calcar minus multo brevius.

Abdomen petiolo transverso brevissimo, thoraci aequilongum, vel segmentis posticis plus minus retractis.

Long. 1-1,1 mm.

Habitat. Mahé: Cascade Estate.

Specimina duo.

Adn. Haec species nulli ex tribus generis sectionibus quas Thomson instituit convenire potest. In eius characteribus hoc est praecipuum: vertex pone oculos acute marginatus, alarum speculum nullum, petiolus transversus, abdomen fere sessile. *Elachertus hyphanteriae* Crawf., texana species, huic quam descripsi valde affinis videtur, verum scapulis in angulis anterioribus non insculptis et femoribus posticis nigris differt.

GEN. *Stenelachistus*, n.

Hoc novum genus in subtribu *Elachertinorum*, inter *Elachertum* (= *Elachistum*) atque *Stenomesium* ponere licet, eiusque species duae nunc cognitae eodem sunt colore subluteo, maculis nigris, qui est *Stenomesio rufescenti* Rossii, aliisque huius generis speciebus. *Stenelachistus* a *Stenomesio* thorace, abdomine antennisque, omnibus elongatis, distinguas.

Generis *Stenelachisti* haec est diagnosis: Corpore elongato, nitore haud metallico; vertice cum occipite continuo; oculis glabris; flagello longe-articulato; scutello juxta marginem foveolis linearibus uniseriatis vel etiam sulco continuo impresso; callo parce at longe piloso; mesosterno a pectore sulco longitudinali discreto, mesepisterno pectori contiguo, inter mesosternum et epimerum disposito; proalis abdomen superantibus, cellula costali lineari, nervo stigmatico brevi, postmarginali longo; postpetiolo $\frac{1}{4}$ abdominis formante. —Quibus notis haec adjicere licet: corpus colore lutescente, nigro-maculatum; caput thorace latius; genae haud sulcatae; metanotum carina instructum vel carinae loco plicis incurvis, propinquis, spatium angustum limitantibus, interdum etiam nucha, terminatum.

Species huius generis margine occipitali, scutello, metanoto, nervi marginalis et articulorum antennalium longitudine, inter se valde differunt.

Genus *Stenomesioideus* quod Ashmead instituit, secundum auctoris tabulas analyticas (deest enim descriptio) a *Stenelachisto* bene distinguendum videtur, quum sulcis scutelli careat eiusque clava in articulos tres sit divisa.

63. *Stenelachistus impressus*, sp. n. (figs. 63-65).

Femina. Lutea, nigro-maculata, alis hyalinis, nitore pingui. Vertice interdum rufescente; area ocellari, oculis et flagello nigris; pronoto et scuto partim,

scutello in dimidio posteriore, dorsello toto, etiam nigris; tarsorum apice, abdominis macula dorsali post medium sita, lateribus et apice fuscis.

Caput crassiusculum, thorace latius proportionem 4:3, antice visum triangulare, longitudine $\frac{7}{9}$ latitudinis aequans; vertice leniter arcuato; oculis sat prominulis, glabris; orbitis paullum infra convergentibus; linea oculari inferiore $\frac{1}{4}$ longitudinis ab ore remota; genis vix curvatis; peristomio angusto; clypeo haud discreto, parte media eius marginis incisuris duabus limitata; antennis paullum supra lineam ocularem infra medium faciei insertis, ab oculis aequo spatio quam inter se remotis. Forma capitis de latere ovata; diametrum transversum $\frac{5}{7}$ longitudinalis aequans; oculus $\frac{3}{5}$ capitis latitudinis formans; diametrum longitudinale orbitae quam transversum paullum longius. Tempora pone oculos callo instructa, id est eminentia quadam oblonga, haud bene limitata, quae de supra melius est inspicienda. Genae sine sulco, teretes. Caput superne inspectum duplo latius quam longius, diametro longitudinali quam latitudine verticis minima sesquibreviore, vertice terete, cum occipite superficiem convexam, continuam, formante; pars pone oculos, id est tertium posticum longitudinis, lateribus valde obliquis, modice curvatis; linea occipitalis marginem elevatum collo adpressum formans; ocelli in triangulum subaequilaterum dispositi, posteriores in linea oculis tangente dispositi, ab his aequo spatio quam inter se remoti. Superficies totius capitis laevis.

Antennae 9-articulatae, clava 2-articulata, scapo ocellum superante, sat longe rigido-piloso, pilis tamen in

FIG. 63.—*Stenelachistus impressus*, ♀.
Flagellum ($\times 45$).

dorso brevioribus, at magis numerosis; flagello elongato, tenui, quam scapo triplo longiore, quam diametro transverso capitis fere duplo longiore; pedicello $\frac{1}{3}$ scapi longitudinis et $\frac{7}{9}$ funiculi articulorum

aequante, anello satis distincto; funiculi articulis quatuor triplo longioribus quam latioribus, breviter pedunculatis; clava quam articulo praecedente fere sesquilongiore, haud crassiore, articulo basali pedicello aequilongo, apicali $\frac{5}{7}$ huius attingente.

Thorax haud robustus, duplo longior quam latior, prothorace sat longo, conico, supra quam mesoscutum sesquibreviore, scapulis sulcis profundis separatis, mesoscutum antice dimidiam thoracis latitudinem aequante, aequae longo atque lato; axillis superne inspectis scapulis subaequalibus, angulis internis satis remotis, latere anteriore recto in lineam cum scutello disposito; hoc ultimo latitudinem scuti aequante, longitudinem paullum superante, setis quatuor instructo, lateribus rectis, limite postico vix arcuato, superficie foveis impressa elongatis, latis, seriem singulam formantibus unicuique lateri parallelam, his seriebus postice arcuatim coniunctis et apicem scutelli tangentibus; dorsello sat magno latitudine quam scutello sesquibreviore, in tota parte postica profunde foveis tribus transversis, contiguis, excavato; metathorace quam scutello paullum brevior, lateribus curvatis, parte postica angusta in nucham parvam

FIG. 64.—*Stenelachistus impressus*, ♀.

Thoracis latus cum coxis: *pr*, prothorax; *prs*, praesternum; *ms*, mesosternum; *ep*, episternum; *pc*, pectus; *em*, epimerum; *mt*, metapleura; 1, 2, 3, coxae; ($\times 45$).

semicylindricam, fere aequae longam atque latam, desinente; carinis duabus metanoti incurvis, lineae mediae propinquis, versus hanc convexis, spatium limitantibus antice quam scutellum dimidio angustius, postice minus latum et ad medium minimum; spiraculis rotundis linea elevata pro parte circumdatis; callo pilis paucis, circa 8, valde longis, instructo. Superficies dorsi reticulato-sulcata, metanoti vero fere laevis; setae nonnullae longae, praecipue in scapulis, ordine dispositae. Praesternum triangulare, altitudine quam eius basi sesquolongiore; episternum mesosterno et epimero interpositum, cum latere superiore pectoris item atque mesosternum late coniunctum; hoc forma subquadrangulare.

Proalae abdomen superantes, cellula costali haud glabra, angusta, latitudinem nervi marginalis aequante et $5/7$ eius longitudinis attingente, cellula basali glabra, superficie reliqua fere tota sat dense pilosa, speculo nullo, pilis fimbriae apicalis in parte postica marginis magis elongatis et quam dimidia nervi stigmatici longitudine brevioribus, nervo marginali quam stigmatico quadruplo longiore, hoc clava haud lata, apice acuta, unco tenui instructa, nervo postmarginali $4/7$ marginalis attingente, duplam stigmatici longitudinem superante. Alae metathoracis angustae, pilis marginis posterioris quam earum latitudine maxima dimidio brevioribus.

Pedes elongati, tarsorum articulis subaequalibus, postici unicalcarati, calcari tenui tibiae apicis latitudinem aequante.

Abdomen longitudinem thoracis cum capite aequans, thorace haud latius, elongate ovatum, apice acuto. Petiolus vix conspicuus, deorsum versus; postpetiolus mesonoto subaequilongus et $1/4$ abdominis occupans. Superficies laevis, nitida, longe at parce pilosa.

Long. 1,8–2,3 mm.

Habitat. Silhouette: "from cultivated country near coast at Pointe Étienne."

—Mahé: "marshy coastal plain near Anse Royale."

Specimina duo.

FIG. 65.—*Stenelachistus impressus*, ♀.
Dorsum cum abdominis segmento basali ($\times 30$).

64. *Stenelachistus brevicornis*, sp. n.

Femina. Lutea, nigro-maculata, alis fere hyalinis, nitore pingui. Flagellum fuscum; verticis area ocellaris, pronotum, mesoscutum in dimidio anteriore, scutellum totum cum dorsello, episternum, epimerum, mesopectus pro parte, abdominis latera et apex, nigra.

Caput crassum, superne visum fronte et occipite excavatis, diametro longitudinali $1/4$ transversi haud superante, parte pone oculos brevior, occipite haud linea saliente marginato, ocellis angulum fere rectum formantibus, posterioribus ante lineam dispositis orbitis postice tangentem; oculis de latere inspectis magnis, subrotundis. Flagellum minus attenuatum, latitudinem capitis vix superans, funiculi articulis aequalibus, latitudine duplo longioribus, clava quam articulo praecedente fere sesquolongiore.

Thorax latitudine $3/4$ capitis aequans. Mesoscutum in linea media postice impressum sed haud sulcatum. Axillae minus remotae, ita ut scutellum $1/3$ scuti suturae latere anteriore occupat; scutelli latus posterius fortiter curvatum,

superficies sulco impressa utroque lateri parallelo, postice curvato at marginem posteriorem scutelli non attingente. Dorsellum magnum, forma lunata, postice integrum ac metathoraci contiguum. Metanotum carina instructum quam dorsellum sesquibreviore, lineis duabus elevatis et contiguis formata. Nucha nulla. Superficies dorsi praeter metanotum reticulato-sulcata. Proalae cellula costali quam nervo marginali vix brevior, hoc duplam stigmatici longitudinem paullum superante, proportionem 9 : 4, quam nervo postmarginali sesquilongior.

Abdomen petiolo brevi at distincto, longitudine thoracem cum capite haud superans, latitudinem thoracis fere aequans.

Long. 1,6 mm.

Habitat. Mahé : "Mare aux Cochons district, 1,000–2,000 ft."

Specimen unicum.

GEN. *Euplectrus* Westwood.

65. *Euplectrus bicolor* (Swed.) Hal.

Pteromalus bicolor Swederus, *Svensk. Vet.-Akad. nya Handl.* xvi. 1795. p. 204.

Euplectrus bicolor Haliday, *Trans. Entom. Soc. London*, iii. pl. 4, 1843. p. 297.

Euplectrus bicolor Thomson, *Hymen. Scandin.* v. 1878. p. 187.

Euplectrus bicolor Masi, *Boll. Labor. Zool. gen. e agr.*, Portici, iii. 1908. p. 124. F. 27–29.

Specimina : septem feminae, sex mares.

Habitat. Silhouette : Mare aux Cochons.—Mahé : Cascade Estate, "country above Port Glaud," "high forest of Morne Blanc and Pilot."—Praslin, Côtes d'Or Estate.

Species etiam in Britannia, Alemagna, Suecia et Italia reperta.

Characterum varietatem quae in hac *Euplectri* specie nec non in aliis eiusdem generis occurrit, auctores non satis recognovisse videntur. Itaque species nonnullas quas iidem auctores descripserunt, *bicolori* plus minus similes et dorsi sculptura eorum iudicio distinguendas, non bene esse definitas existimo. Quum ego specimina plurima *Euplectri bicoloris*, ex Turingia atque Italia meridionali provenientia, examinaverim, haec de characteribus observavi. Variat in scutello reticuli areolarum amplitudo, quum illae sint quam areolae scuti plus minusve maiores, interdum etiam forma elongatae atque paene lineares, interdum vero polygonae. Sed in uno ex speciminibus seychellensibus areolas dorsales fere ubicumque eadem magnitudine inveni. Interdum scuti carina huius partem posteriorem tantum occupat, nec raro omnino est oblitterata. Proalarum cellula basalis spatiumque angustum, quod est speculi loco, glabra sunt vel pilis nonnullis instructa. Color lutescens quo plerumque capitis pars inferior est praedita, in speciminibus quibusdam frontem fere totam occupat, itemque macula eiusdem coloris quae abdominis dorsum ornat, magnitudine valde variat. Saepe autem funiculus et clava sunt plus minus infuscati, colore hoc versus antennae apicem sensim obscuriore ; unum ex maribus seychellensibus flagello fere nigro observavi.

GEN. *Sympiesis* Förster.

66. *Sympiesis laetus*, sp. n.

Femina. Capite, cum oculis, brunneis ; scapo aeruginoso, flagello nigro ; thoracis dorso abdominisque basi laete viridibus, exceptis scutello atque meta-

noto cyanescentibus; thoracis lateribus cum coxis posterioribus nigris; coxis anticis et reliquis pedum partibus stramineis, tarsorum apice infuscato; alarum nervis pallide brunneis; abdomine post segmentum basale nigro-aeneo, lateribus cyaneo-nitente.

Caput thorace paulum latius, antice visum $\frac{3}{4}$ latitudinis suae longitudine aequans; oculis magnis, prominulis, glabris, linea oculari inferiore in $\frac{1}{6}$ longitudinis ab ore remota; genis brevibus, convexis; clypeo haud discreto; peristomio antice marginato, integro; mandibulis 7-dentatis, dentibus post secundum apicalem minimis; antennarum insertione $\frac{1}{3}$ longitudinis ab ore distante; de supra inspectum triplo latius quam in medio longius, verticis latitudine minima dimidium formante, ocellis in angulum fere rectum dispositis, anteriore lineae posterioribus tangenti contiguo, his ab oculis et anteriore aequae distantibus, inter se spatio sesquilingiore remotis. Superficies minute reticulata, infra lineam ocularem etiam minus conspicue insculpta.

Antennae pedicello latitudine sesquilingiore, anello minimo, funiculi articulis duobus primis et clava quam pedicello duplo longioribus, quarto sesquilingiore, clavae articulo basali dimidium superante, tertio mucronem apicalem formante.

Prothorax conicus, collari nullo, latitudine scutum antice tantum discretum aequans, $\frac{3}{5}$ diametri transversi thoracis haud superans, longitudine quam scutum dimidio brevior. Hoc setis ternis in quoque latere instructum; scutellum sesquibrevius, subquadratum, 4-setosum setisque anterioribus angulo interno axillarum propinquis; metanotum scutello aequilongum, carina et plicis destitutum, postice haud marginatum, area media spiraculis interposita elevata. Epimerum parvum, trilaterum, margine anteriore convexo, reliquis rectis. Sculptura prothoracis, mesothoracis dorsi, metanoti cum metapleura et praesterni, reticulato-alveolata, conspicua, areolis lineis valde elevatis, crassis, limitatis, forma varia, plerumque quadrangulari; areolae super axillas, scutelli partem mediam et metanoti aream inter spiracula, minores; mesosternum et mesopleura reticulato-squamosa, episternum sculptura reticulata parum conspicua.

Proalae nervo stigmatico $\frac{1}{9}$ marginalis, $\frac{1}{3}$ praestigmatis et nervi postmarginalis aequante, cubito ad medium arcuato ibique nervum spurium linea glabra indicatum emittente; pilis infra nervum marginalem longioribus, reversis, haud seriatis.

Tibiae posticae calcaribus brevibus, subaequalibus. Tarsi omnes articulis fere aequilongis.

Abdomen laminato-depressum, thoraci cum capite aequilongum, nec thorace angustius, elongate ellipticum, apice acutum; segmento primo convexo-marginato quam secundo duplo longiore, laevi, nitido, sequentibus subaequalibus superficie reticulato-squamosa, in secundo tamen fere obsoleta.

Long. 3 mm.

Habitat. Praslin: Côtes d'Or Estate.

Specimen unicum.

Adn. A *S. sericeicorni* Neesi, specie generis typica, differt metathorace punctulato, neque carina neque plicis neque costula marginali postica instructo; articulis tarsalibus subaequilongis; abdominis forma elliptica; denique capitis pedumque colore. *Sympiesis grenadensis* How., cui quoque metanotum est punctulatum, huius carina praecipue distinguitur.

GEN. *Crateulophus*, n.

Hoc genus in *Eulophinorum* subtribu, prope *Sympiesidem* et *Dimmockiam* ponere licet, sed habitu *Micropectro* et *Comedoni* (= *Cratotrecho*) etiam accedit. Characteres eius praecipui hi sunt: antennae 10-articulatae, funiculo 4-articulato; mandibulae dentibus sex instructae (? — dentium numero 4 certe superante); thorax robustus, dorso aspectu granuloso, re vera minute atque dense punctulato; scapulae haud discretae; scutellum sulcis nullis; metanotum longius, carinatum, manifeste punctulatum; alarum nervatura illae *Sympiesidis* similis; abdomen distincte petiolatum, thoraci aequilongum, forma ovata, depressum; denique maris abdomen spatuliforme, antennaeque ramis tribus longis instructae.

67. *Crateulophus niger*, sp. n. (figs. 66, 67).

Femina. Nigra, metanoto aeneo, abdomine in dimidio anteriore supra et infra late ferrugineo-maculato, oculis castaneis, ocellis obscure rubris, scapo fulvo vel flavo-albido, flagello fusco, alis leniter infumatis nervis flavo-fuscis, pedibus praeter coxas fulvis, femoribus anticis plerumque brunneis vel nigris, setis dorsi et calli fimbriae albis.

Caput thoraci aequae latum, antice visum latitudine brevius proportionem 9:13, forma subtriangulari, vertice non arcuato, inter ocellos magis elevato, oculis magnis, $\frac{3}{4}$ longitudinis extensis, glabris, tamen fortiter vitro auctis pilis brevissimis rarisque instructis; linea oculari inferiore in $\frac{1}{5}$ longitudinis, antennarum insertione in $\frac{1}{3}$ a margine orali remotis; clypeo angusto transverse lineari, nitido, labrum simulante, interne costula subrecta limitato. Mandibulae 6-dentatae. Vertex antice declivis, margine postico oculis ocellisque externis tangente, inter hos acuto; ocelli fere in lineam dispositi, aequo spatio inter se atque ab oculis remoti. Latitudo capitis de latere inspecti $\frac{5}{7}$ longitudinis aequans, oculorum fere eadem. Genae sulco parum conspicuo, pone hunc fere obsolete insculptae. Facies sculptura minute et confertim reticulata; areolae lineis parum elevatis limitatae, infra antennarum insertiones minores, subtransversae, super verticem minus conspicuae.

Antennae 10-articulatae, anello brevissimo, funiculo 4-articulato, clava articulo apicali minimo. Scapus ocellum anteriorem fere attingens, flagellum capite sesquilingius. Articuli funiculi et clava compressi, pilosuli, aequae lati, primus valde elongatus, pedicello sesquilingior, latitudine sua quadruplo longior, secundus atque tertius $\frac{3}{4}$ huius aequantes, quartus paullum brevior et pedicello aequilongus; ultimi item atque clava distincte pedunculati; haec ovato-acuta, articulo basali medium superante.

Thorax robustus, sculptura dorsi reticulato-punctata quam capitis magis conspicua. Prothorax de supra inspectus brevis, longitudine duplo latior, in utroque latere fortiter sinuatus, collari nullo; mesonotum prothorace longius proportionem 4:3, setis paucis longis instructum, scapulis haud discretis; scutellum subquadratum scuto aequilongum, 4-setosum, haud sulcatum; dorsellum magnum; metanoti pars media longitudinem scutelli fere aequans, alte elevata, carina conspicua, lateribus rectis fere parallelis, acute marginatis, plicas spiraculis contiguas simulantibus, area triangulari in angulis anterioribus depressa et leniter concava, superficie tota sculptura quam in dorso magis conspicua, lineis areolas limitantibus nitidis; spiracula magna, elliptica; callus longe pilosus. Mesothoracis partes laterales, praeter epimerum et zonam marginalem praesterni ac

mesosterni nitida, item atque dorsum insculptae; praesternum et metapleura magna, mesosternum latum epicnemio haud discreto, episternum parvum supra epimerum dispositum.

Proalae nervo marginali et postmarginali longis, stigmatico brevissimo, postcosta multisetosa, nervo spurio pilosulo post medium cubiti egrediente, nervo hoc ad medium obtusissime angulatim plicato, pilis marginis apicalis brevibus, superficie usque ad $2/5$ longitudinis fere glabra, setis nonnullis longis sub nervo marginali seriatim dispositis atque reversis; cellula costali nervo marginali aequilonga, hoc cum postmarginali ex basi versus apicem sensim attenuato, nervo stigmatico $1/6$ marginalis, $2/5$ postmarginalis aequante (cfr. fig. 67).

Tibiae posticae calcaribus duobus instructae, altero parvo, altero brevissimo.

Abdomen ovatum, fere laminato-depressum, thoracis longitudinem atque latitudinem aequans, petiolo distincto sed brevissimo, transverso, segmento basali quam secundo duplo longiore, convexo-marginato, sequentibus longitudine subaequalibus, recte marginatis, post segmentum tertium minute reticulato-sulcatis, parce at longe pilosis.

Long. 1,8–2 mm.

Mas scapo plerumque ferrugineo, alis obscurioribus, dorso interdum nigro-aeneo, macula abdominis minus lata, femore postico praeter $1/3$ basalem nigro, femore antico haud infuscato; antennis scapo versus apicem attenuato, pedicello brevi latitudine sua vix longiore, anello fere inconspicuo, funiculi articulis

FIG. 66.—*Crateulophus niger*, ♂.
Antenna ($\times 25$).

FIG. 67.—*Crateulophus niger*, ♂.
Alae ($\times 25$).

tribus primis ramum emittentibus medium clavae attingentem pilisque articulis aequilongis ornatum, articulo primo quam secundo et tertio brevior, quarto tribus praecedentibus simul sumptis et clavae subaequilongo; huius articulis tribus quam ultimo funiculi haud latioribus, basali longitudinem apicalium superante, tertio minus discreto; abdomine spatulato, latitudine maxima in margine

segmenti quarti $3/4$ thoracis latitudinis aequante, segmento basali medium fere attingente, segmentis reliquis usque ad sextum sensim paulum longioribus, superficie laevibus. Long. 1,7–2 mm.

Habitat. Silhouette: Mare aux Cochons, Pointe Étienne.—Mahé: Cascade Estate, and Port Victoria.—Félicité Island.

Specimina 11 ♀♀, 5 ♂♂.

GEN. *Hemiptarsenus* Westwood.68. *Hemiptarsenus antennalis*, sp. n.

Femina. Viridis, vel grisescenti-viridis, thorace leniter aurato, abdominis apice interdum obscuro; facie infra antennarum insertionem violacea, supra viridi; scapo testaceo vel flavo-albido, latere superiore infuscato, flagello nigro, clava in $1/3$ vel $1/2$ apicali alba; pedibus cum coxis anticis flavo-albidis, post articulum primum tarsorum gradatim versus apicem obscurioribus, praetarsis brunneo; alis leniter fumatis, nervis et abdominis petiolo flavo-griseis.

Caput tegumento tenui post mortem fortiter plicato, oculis glabris, superficie minute reticulato-granulosa. Antennae flagello longissimo thoraci cum capite aequilongo, pedicello brevi, anello parvo, articulis funiculi usque ad tertium aequalibus et latitudine fere quadruplo, quam pedicello fere triplo longioribus, articulo quarto paullum brevior et vix latiore, clava huic aequilonga.

Thorax latitudine $4/9$ longitudinis aequans. Mesonotum antice valde convexo-productum, conspicue reticulato-punctatum, areolis ante scutellum plerumque ellipticis, in scutello angustioribus, fere linearibus; frenum lunatum et dorsellum magnum laevia, subnitida. Metanotum scutello brevius, area media haud lata, sulcis postice convergentibus limitata, superficie inter sulcos fere laevi, carina et plicis nullis; spiracula parva, rotunda, in sulco sat longe a postscutello locata. Praesternum magnum, episternum in margine superiore profunde excavatum, metapleura parva elongate triangularis.

Proalae cellula costali angustissima fere nervo marginali aequilonga, nervo stigmatico $1/5$ huius aequante, postmarginali quam stigmatico haud sesquilingiore, pilis marginis apicalis longis.

Pedes graciles, elongati, tarsorum articulis sensim brevioribus, primo $1/3$ tibiae aequante.

Petiulus crassus, longitudine paullum latior.

Abdomen longitudinem mesothoracis cum metanoto aequans, latitudinem superans, postpetiolo haud brevi $1/3$ longitudinis attingente, polito, segmentis reliquis aequilongis, apicali tantum sat conspicue insculpto.

Long. 1,4 mm.

Habitat. Mahé: "marshy coastal plains of Anse aux Pins and Anse Royale." Specimina tria.

GEN. *Sympiesomorpha* Ashmead- (?).

Ashmeadi *Sympiesomorphae* characteres, quos auctor in eius opere "Classification of Chalcid Flies" indicavit, ad species recognoscendas non satis sufficere opinor. Quum vero species tres, quas sum descripturus, cum generis diagnosi atque *Sympiesomorphae brasiliensis* et *obscurae* descriptionibus conferuntur, notis duabus praecipue congruentes videntur, quum *Sympiesidibus* persimiles sint et ab his scapulis plane separatis differant. Eae verum a speciebus Ashmeadi, saltim a *brasiliensi*, differunt oculis glabris, eaque quam *ornatam* appello, metanoto etiam differt carina destituto, abdomineque thoracis longitudinem non aequante. Denique species seychellenses abdominis macula flava non sunt praeditae.

69. *Sympiesomorpha ornata*, sp. n.

Femina. Capite brunneo, leniter purpureo-nitente; oculis griseo-rubris; scapo, pedicello annelloque obscure luteis, articulis reliquis flagelli fuscis; thoracis dorso fere toto viridi-aureo, setis albis instructo; metanoto cuprescente; scapulis, scuto antice, atque thoracis lateribus, cum coxarum posticarum basi, nigris; macula prothoracis super coxas anticas, coxis intermediis totis, posticis inter basim et apicem, aurantiacis; reliquis pedum partibus flavis, praetarsis tantum leniter infuscatis; tegulis etiam flavis; alarum nervis pallide brunneis; abdomine nigricante, basi viridi-cyanea, linea media ventrali flavida.

Caput thorace latius proportionem 6:5, antice visum $\frac{7}{9}$ latitudinis suae longitudine aequans, oculis magnis, prominulis, glabris, linea oculari inferiore $\frac{1}{5}$ longitudinis ab ore remota, clypeo haud discreto, peristomio antice marginato, integro, mandibulis 6-dentatis (?) dentibus post secundum apicalem parvis, antennis mox supra lineam ocularem insertis; de supra inspectum triplo latius quam in medio longius, vertice saltim dimidium capitis latitudinis occupante, area elevata ocellari haud determinata, ocellis posterioribus ab anteriore et oculis aequo spatio, inter se spatio fere duplo, remotis, ocello anteriore lineae aliis tangenti propinquo, occipite haud marginato, pilosulo. Superficies sculptura reticulato-sulcata minuta et conferta at parum conspicua.

Scapus ocellum vix superans, flagellum duplam capitis longitudinem fere attingens, pedicello brevi, annello parvo, articulis funiculi et clava compressis, sensim at vix conspicue latioribus, pilis eorum latitudinem fere aequantibus, haud numerosis, instructis; articulis duobus primis funiculi duplo quam pedicello et quam latitudine sua triplo, longioribus, articulo quarto $\frac{3}{4}$ longitudinis primi aequante, clavae articulo basali etiam brevior, dimidium paullo superante, reliquis subaequalibus.

Thorax elongatus, prothorace magno, conico, longitudine in medio dorso quam latitudine maxima mesothoracis sesquibrevior; scapulis bene discretis, scuto antice convexo-marginato; scutello $\frac{2}{3}$ scuti longitudinis vix attingente, aequae longo atque lato, latitudine maxima post $\frac{2}{3}$ eius longitudinis sita, lateribus in tertio ultimo curvatis, setis anterioribus angulo postico axillarum propinquis, sulcis nullis; dorsello magno duplo latiore quam longiore; metanoto $\frac{2}{3}$ scutelli longitudinis aequante, carina et plicis omnino destituto. Spiracula magna, rotundata. Epimerum parvum, triangulare, antice recte marginatum. Superficies dorsi minute reticulato-sulcata, areolis in parte anteriore scuti superque axillas minoribus, super scutellum maioribus, regularibus; metanotum minus evidenter insculptum; dorsellum laeve.

Proalae subcostae parte ascendente sensim crassior, quam nervo stigmatico duplo longior, hoc fere $\frac{1}{8}$ nervi marginalis ($\frac{2}{15}$) et $\frac{1}{3}$ postmarginalis aequante; fimbria apicali brevi.

Calcar maius quam tibiae apicis latitudo paulum brevius.

Abdomen ellipticum, longitudinem mesothoracis cum metanoto attingens, latitudinem superans; petiolo parvo, transverso; segmento primo quam secundo et tertio aequalibus paulum longiore, fere toto laevi, sequentibus reticulato-sulcatis; segmento apicali quam praecedente multo brevior.

Long. 2,6 mm.

Habitat. Silhouette: Mare aux Cochons.

Specimen unicum.

70. *Sympiesomorpha pulchella*, sp. n.

Femina. Capite toto, thorace pro parte, aeruginosis, pronoto, mesoscuto praeter margines laterales et marginem anteriorem, scutello praeter anteriorem, nec non metathoracis dorso, aureo-viridibus; axillis extus nigris, interius aeruginosis; mesosterno cum meso- et metapleura nigris; abdomine aeneo, basi viridi; scapo luteo, flagello nigro-brunneo; pedibus fulvis, coxis auriatis; tegulis flavis, alarum nervis brunneo-griseis; linea oculari inferiore in $1/6$, antennarum insertione in $1/3$ capitis longitudinis sita; metanoto carina tenui instructo; abdomine valde elongato, thoracem cum capite conspicue superante, quam thorace haud latiore. Long. 3 mm.

Habitat. Silhouette: Mare aux Cochons.

Specimen unicum.

71. *Sympiesomorpha modesta*, sp. n.

Femina. Viridis, obscura, capite aeneo, scapulis, thoracis lateribus abdomineque subtus, nigris; antennarum scapo luteo, flagello brunneo-nigro; coxis nigris, anterioribus apice flavidis, reliquis pedum partibus flavo-griseis; tegulis flavis, alarum nervis brunneo-griseis; linea oculari inferiore in $1/6$, antennarum insertione in $1/3$ capitis longitudinis; metanoto carina conspicua; abdomine thoraci cum capite aequilongo, quam thorace haud latiore. Long. 2,5 mm.

Habitat. Silhouette: "near sea-level in cultivated country, Pointe Étienne."

Specimen unicum.

GEN. *Allomphale* Silvestri.

Boll. Labor. Zool. gen. e agr., Portici, ix. 1914. p. 217.

72. *Allomphale aemula*, sp. n.

Femina. Obscure viridis, subaurea, capite opaco, scapo ochraceo, pedicello metallico, funiculo et clava fuscis; thoracis lateribus pro parte coxisque fere nigris; tibiis anticis fuscis, mediis in dimidio apicali, posticis praeter marginem exteriorem, ochraceis; tarsis pallide testaceis, apice nigricante; alarum nervis brunneo-griseis; abdominis dorso post segmentum basale interdum cuprescente; ocellis magnis, posterioribus spatio ab anteriore remotis eorum diametrum vix superante; mesepimero itemque praesterno conspicue reticulato-squamosis; metanoto juxta costam transversam dorsello contiguam alveolis sat determinatis, seriatis, insculpto.

Long. 2,5–3 mm.

Mas. Scapo tibiisque fuscis, abdomine post segmentum basale, dimidium formans, nigro. Long. 1,5 mm.

Habitat. Silhouette: Mare aux Cochons, Pointe Étienne.—Praslin, Côtes d'Or Estate.—Mahé, Cascade Estate.

Specimina 5 ♀♀, 2 ♂♂.

Adn. Species *Allomphalae cavasolae* Silv. (*l.c.*), unicae huius generis hucusque inventae, similis et affinis, ab ea differens colore, sculptura dorsi minus minuta, epimeri sicut praesterni conspicua. In *Allomphale cavasolae* epimerum sculpturam reticulato-sulcatam, areolis rhombicis transversis, ostendit; ocelli posteriores ab anteriore distant spatio quam eorum diametro duplo longiore;

scapus etiam in feminis fuscus est ; pedes, praeter tarsos, sunt obscure cyanei vel violacei. Speciem hanc, cuius cotypum examinavi, Silvestri in Colonia Erythraea invenit.

GEN. *Achrysocharis* Girault.

(= *Closterocerus* Westwood, partim).

73. *Achrysocharis cardigaster*, sp. n. (fig. 68).

Femina. Aurato-viridis, nitida, scapo pedibusque cum coxis, albis, tarsorum apice et flagello fuscis, alis hyalinis, nervis griseo-luteis.

Funiculus articulis aequalibus quam pedicello parum longioribus ; clava longitudinem funiculi cum pedicello fere aequans. Metathorax area media triangulari indistincte partibus elevatis limitata, vertice antice verso parum a dorsello remoto ; spiraculis parvis, rotundis, tuberculis nullis. Nervus stigmaticus, cum clava, pyriformis, dente post medium oblique prominente ; nervus postmarginalis quam stigmaticus haud longior, sensim versus apicem attenuatus. Alae metathoracis pilis marginis posterioris $\frac{1}{4}$ earum latitudinis maximae nonnihil superantibus. Petiolus brevis at distinctus. Abdomen cordiforme, subdepressum, thorace haud longius, paullum latius, valvula ventrali sat prominula, segmentis post primum aequalibus, hoc quam ceteris duplo longiore.

Long. 1 mm.

Habitat. Mahé : "marshy ground near sea-level at Cascade."—Silhouette : Mare aux Cochons.

Specimina duo.

Adn. Species *Closterocero formoso* Westw., praeter abdominis formam, similis.

FIG. 68.—*Achrysocharis cardigaster*, ♀.
Abdomen (× 45).

GEN. *Coccophagus* Westwood.

74. *Coccophagus eleaphilus* Silvestri, var. n.

Coccophagus eleaphilus Silvestri, *Boll. Labor. Zool. gen. e agr.*, Portici, ix. 1905. p. 318. fig. 64.

Specimina quinque ♀♀, unum ♂.

Habitat. Mahé : Cascade Estate.

Adn. Speciei forma typica, quam Silvestri descripsit, ab ipso in Colonia Erythraea apud Nefasit inventa, ubi *Philippiae chrysophyllae* larvarum est parasita, ab exemplaribus seychellensibus pedum colore differt. Hunc tamen colorem in hac specie varium recognovi. Nam, exceptis coxis mediis atque posticis, pedes interdum omnino lutei sunt ; hos Silvestri femoribus omnibus et tibiis posticis spatio quodam nigricantes descripsit. Coxae anticae interdum sunt nigrae, tibiaeque eiusdem paris in latere anteriore brunneo-lutescentes. Femora postica in uno specimine obscurata, in alio nigra sunt. Scutellum interdum omnino est luteum, quo colore etiam dorsellum praeditum esse potest. Maris vero caput pedesque sunt flavo-citrina. Equidem partium obscurarum et pallidarum distributionem in *C. eleaphilo* variam esse opinor, quod in aliis generis speciebus etiam fieri aliquoties observavi.

Huius varietatis sensilli antennales, scutelli setarum taxis atque longitudo, nervi stigmatici forma, alarum fimbriae, seta prope apicem femoris medii inserta, articuli tarsalis primi longitudo; cum notis quas Silvestri descriptione vel figura indicavit, bene conveniunt.

GEN. **Tetrastichus** Haliday.

Tetrasticho nomini eandem significationem nunc attribuo, quae est in Thomsoni opere de "Hymenopteris Scandinaviae," quod mihi facere licebit secundum Silvestrii exemplum (*Boll. Labor. Zool. gen. e agr.*, Portici) atque Waterstoni (*Bull. Entomol. Research*, London, vi. 1915) qui nuper species nonnullas descripserunt. An sint *Aprostocetus* et *Geniocerus* valida genera vel subgenera, sicut Kurdjumow opinatur (*Revue Russe d'Entom.* xiii. 1913) nolo hic disserere, hoc tantum dicam, ii, meo iudicio, naturali specierum consociationi repugnare. Hic error etiam in opere Thomsoni occurrit, quum in eadem generis sectione *Aprostocetum* aliasque species subcosta plurisetosa instructas auctor descripserit.

Species quatuordecim quae sunt in collectione seychellensi, hac tabula analytica possunt dignosci.

A. Capite thoraceque rufis, abdomine nigro-brunneo. Parvus (1 mm.)

T. aeruginosus, sp. n.

B. Corpore nigro.

= Abdomine quam thorace duplo longiore. Longitudine 2 mm.

T. inunctus (Nees) Thoms. (?).

= Abdomine longitudinem thoracis aequante vel paullo longiore. Statura parva.

+ Proalae setis marginalibus brevibus . . . *T. stictococci* Silv. (?)

+ Alarum setis marginalibus latitudinem alae posterioris aequantibus.

T. longifimbriatus, sp. n.

C. Colore corporis alio.

= Abdomine longo, acuminato, saepe longitudinem thoracis cum capite superante.

+ Abdomine longitudinem thoracis cum capite duplo superante.

T. longiventris, sp. n.

+ Abdomine minus elongato.

× Corpore viridi-aureo, nervo marginali pedibusque sulphureis.

T. theioneurus, sp. n.

× Aliter pictus, abdominis dimidio basali rufescente.

* Funiculi articulo primo quam secundo manifeste brevior.

T. dolichocerus, sp. n.

* Funiculi articulo primo quam secundo et tertio plus minus longior.

— Pronoti longitudine margini postico scuti aequali.

T. distinguendus, sp. n.

— Pronoto brevior *T. agnatus*, sp. n.

= Abdomine thoraci subaequilongo, haud acuminato.

+ Scuto lateribus tantum setoso, medio longitudinaliter sulcato.

× Coxis posticis fere nigris, nervo humerali seta una longa instructo.

T. nigricoxa, sp. n.

- × Coxis posticis in latere exteriori pro parte viridibus. Nervo humerali seta tantum una longa antice instructo. *T. nigriceps*, sp. n.
- × Coxis posticis luteis. Nervo humerali setis duabus instructo, marginali et stigmatico crassioribus . . . *T. dispar*, sp. n.
- + Scuto setis multis sparsis ornato, sulco longitudinali nullo; coxis posticis luteis.
- × Thorace supra metallico-nitente, scutello, interdum scuto, purpureis, setis super hoc tenuibus . . . *T. metalliferus*, sp. n.
- × Thorace supra plus minus obscure virescente, setis super scutum brevibus nec tenuibus . . . *T. hagenowii* (Ratz.).

75. *Tetrastichus longiventris*, sp. n.

Femina. Aurato-viridis, abdomine fere toto nigricante, terebrae valvis nigris; oculis griseo-rubris; antennis brunneis, pedicello lutescente; facie infra lineam ocularem, tegulis, coxis anterioribus apice et reliquis pedum partibus, pallide flavis, excepto tamen tarsorum articulo apicali plus minus infuscato; alarum nervis griseis.

Flagellum thoraci subaequilongum, articulo primo funiculi triplo longiore quam latiore, secundo et tertio sensim brevioribus, latioribus, tertio autem latitudine sua paullum longiore; clava articulo primo funiculi fere aequilonga, quam praeclava paullum latiore.

Pronotum minute, at evidenter, reticulatum. Mesothoracis dorsum confertim, minute, in longitudinem striatum. Scutum haud medio sulcatum, postice leniter concavo-marginatum, setis prope margines laterales ternis instructum. Scutellum scuto fere aequilongum, extremitatibus anterioribus sulci submediani externique ab extremitate sulci scapularis aequae remotis, spatio mediano quam submedianis sesquialtiore. Metathorax dorsello magno, quam scutello triplo tantum brevior, carina dimidiam dorselli longitudinem vix aequante, superficie reticulata, sulcis lateralibus fortiter impressis, parte postica profunde excavata. Praesternum minute reticulatum; mesosternum sculptura parum conspicua, superne areolis reticuli transversis; episternum fere laeve; epimerum magnum, triangulare, sutura recta cum episterno coniunctum, angulo superiore ad altitudinem metapleurae desinente, lineis subtilibus sat grosse reticulatum. Metapleura parva, basi angusta.

Proalae apicem tergiti apicalis attingentes, duplo longiores quam latiores, nervo marginali quam cellula costali sesquialtiore, quadruplam stigmatici longitudinem vix superante; postcosta bisetosa, seta prima nonnihil radicae propinqua; speculo non ultra praestigma extenso; pilis fimbriae in dimidio inferiore marginis apicalis quam illis superficiei sesquialtioribus, pilis nervi marginalis $\frac{2}{3}$ nervi stigmatici vel dimidium aequantibus. Alae metathoracis in dimidio apicali latiusculae, apice acutae, margine posteriore prope apicem fortius curvato, pilis marginis anterioris brevissimis, posterioris $\frac{1}{3}$ earum latitudinis aequantibus.

Pedes tenues, tarsorum articulis subaequalibus.

Abdomen quam thorax cum capite duplo longius, compressum, longe acuminatum, terebrae valvis $\frac{1}{5}$ totius longitudinis formantibus.

Long. 2,5 mm.

Habitat. Silhouette.

Specimen unicum.

Adn. Hanc speciem *Aprostoceto quadrimaculato* Först. proximam esse opinor. Eius characteres praecipui in abdominis colore ac forma, terebrae longitudine, alae metathoracis fimbria et apice acuto, proalarum magnitudine, scutelli sulco nullo, flagello quam thorace paulum brevior, funiculi articulis apicem versus sensim curtantibus, sunt quaerendi.

76. *Tetrastichus dolichocerus*, sp. n.

Femina. Capite thoraceque saturate viridibus, nitore dorsi subaureo vel cyaneo; oris margine pallido, oculis obscure rubris, funiculo et clava brunneis, pedicello et scapo dilute brunneis, hoc ultimo interdum griseo-albido; pedibus cum coxis anterioribus coxisque posticis in dimidio apicali, ligneis, praetarsis nigro; alarum nervis griseis; abdomine basi ventrique fere toto aeruginosis, superficie reliqua obscure viridi.

Antennae elongatae; flagellum thoracis longitudinem superans (proportione 5:4), pedicello brevi, articulo primo funiculi quam hoc paulum longior, quam secundo et tertio fere dimidio vel sesquibrevior; clava quam articulo praecedente sesquilongior, articulo basali dimidium eius attingente.

Pronotum breve, longitudine dimidium marginis posterioris scuti haud superans, superficie reticulata. Scutum medio sulcatum, interdum sulco linea obscura, laevi, tantum indicato, prope margines laterales setis binis instructum, superficie, item atque scutelli, confertim et minute in longitudinem striata. Alae metathoracis versus apicem minus attenuatae, extremo apice haud acuto, pilis marginis posterioris dimidiam earum latitudinem non attingentibus. Pedes valde longi, postici abdominis apicem articulo primo tarsali attingentes; tarsi omnes attenuati.

Abdomen longitudinem thoracis cum capite aequans, terebrae valvis $1/6$ totius longitudinis prominentibus.

Long. 1,3–1,6 mm.

Mas differt abdomine thoraci aequilongo, basi et dimidio apicali brunneis, in parte media lutescente; flagello tenui thoraci cum capite aequilongo, funiculi articulis aequalibus, quadruplo longioribus quam latioribus et pilis eorum longitudinem non superantibus, setis anterioribus elongatis nullis, clava quam articulo praecedente sesquilongior, coxis anticis funiculi articulis aequilongis.

Long. 1,3 mm.

Habitat. Mahé: "Cascade Estate, at about 1,000 ft., and near sea-level; marshy coastal plain near Anse Royale."—Silhouette; Mare aux Cochons.

Specimina 4 ♀♀, 1 ♂.

Adn. Huius speciei hi sunt characteres praecipui: flagelli longitudo, funiculi articulus secundus atque tertius primo valde longiores, tertius autem clavae articulo basali vel scilicet duobus apicalibus simul sumptis aequilongus, scutum haud sulcatum, abdomen basi rufescens.

77. *Tetrastichus distinguendus*, sp. n.

Femina. Praecedenti similis, praecipue differt scapo brunneo, flagello pallidior, pedicelli margine apicali pilisque albidis; alis lenissime griseo-virescentibus, anguste fusco-limbatis, nervis brunneis; tarsis articulo apicali plus minus infuscato; flagello thoracis longitudinem parum superante; articulo

primo funiculi quam pedicello fere duplo longiore, quam secundo et tertio aequalibus sequilongiore et clavae aequilongo, hac in articulos aequales divisa; pronoto haud brevi, longitudine marginem posteriorem scuti aequante et superficie conspicue reticulata, prope marginem posticum, ad medium, sulco transverso impressa; scuto et scutello omnino subtilissime strigosis, modice vitro auctis politis, nitidis; scuti sulco vix indicato vel nullo; pilis in margine apicali proalae quam in superficie triplo vel quadruplo longioribus; alis metathoracis pilis fimbriae quam earum latitudine paullum brevioribus (proportione 7:11); abdomine quam thorace longiore proportione 5:3, latitudine $\frac{1}{3}$ longitudinis suae non attingente, segmentis 3.-5. aequalibus, terebrae valvis $\frac{1}{6}$ totius longitudinis prominentibus.

Long. 1,6 mm.

Habitat. Mahé: "Mare aux Cochons district, 1,000-2,000 ft."

Specimina duo.

Adn. Species haec, habitu praecedenti valde similis, differt articulo primo funiculi quam secundo ac tertio, qui sunt longitudine aequales, conspicue longiore, clavae articulis tribus etiam aequalibus, pronoto longo, scuto haud sulcato vel tantum vestigio sulci impresso, superficie minutissime striata, ita ut si modice vitro sit aucta, magis quam in specie praecedente polita ac nitida videatur, denique alarum fimbria atque colore, nec non articulo quarto tarsorum et praetarsis brunneis. In specie praecedente praetarsus tantum est infuscatus.

78. *Tetrastichus agnatus*, sp. n.

Femina. *T. dolichocero* et *T. distinguendo* similis, capitis dimidio inferiore, vel etiam facie fere tota, flavo-albidis, antennis scapo ac pedicello brunneoluteis, reliqua parte obscurioribus, alis vitreis, praetarsis infuscatis; flagello longitudinem thoracis fere attingente, funiculi articulis atque pedicello subaequalibus, primo tamen funiculi longiore, clava quam articulo praecedente sesquilongiore, aequaliter divisa; pronoto brevi; scuto sulco medio magis minusve profunde impresso, superficie conspicue striata; alis posterioribus apice acuto terminatis, fimbria longa; pedibus brevioribus; tarsis posticis non attenuatis, articulis subaequilongis; abdomine longitudinem thoracis cum capite non superante, terebrae valvis $\frac{1}{6}$ eius longitudinis prominentibus.

Long. 1,3 mm.

Habitat. Anonyme Island ("a cultivated islet near Mahé").

Specimina duo.

Adn. Species characteribus *T. dolichocero* simulque *T. distinguendo* similis. At eius abdomen minus est elongatum, sunt pedes breviores et graciliores, funiculi articulus primus quam secundus vel tertius paullo longior, capitis dimidium inferius albicans. Ex speciminibus altero setae sunt duae juxta sulcum scapularum insertae, altero tres, primo pedes leniter obscurati, secundo pallidi.

79. *Tetrastichus theioneurus*, sp. n. (fig. 69).

Femina. Aurato-viridis, nitens; oculis obscure rubris; scapo lutescenti-brunneo, subtus pallido, interdum obscure luteo, pedicello concolore, flagello griseo-brunneo; pedibus cum coxis anterioribus, coxis posticis in dimidio apicali,

pallide sulphureis; tarsorum articulo ultimo brunneo, tarsis anticis, interdum posticis, flavo-fuscis; alis hyalinis, nervis alae posterioris, anterioris saltem marginali, item atque pedibus, pallide sulphureis; terebrae valvis nigris.

Caput antice visum rotundato-triangulare, transversum, oculis glabris, genis modice curvatis, peristomio angusto, superficie item atque scutum insculpta, punctis piliferis sparsis parum conspicuis; antennis in media facie paullum supra lineam ocularem insertis. Flagellum longitudinem prothoracis cum

FIG. 69.—*Tetrastichus theioneurus*, ♀.
1, flagellum ($\times 65$); 2, ala metathoracis ($\times 45$).

mesothorace aequans, pedicello brevi, hoc et funiculi articulis tribus aequilongis, articulo primo cum annellis arete contiguis quam sequentibus evidenter longiore, secundo et tertio sensim paullum latioribus, pilis instructis eorum longitudinem aequantibus, clava quam articulo tertio fere duplo longiore, articulis aequalibus.

Scutum haud medio sulcatum, prope margines laterales setis binis

vel ternis instructum, margine postico leniter concavo, superficie reticulata, areolis rhombicis valde elongatis, fere linearibus, lenissime excavatis. Scutellum scuto sesquibrevius, de supra inspectum spatio mediano quam submedianis bis et dimidio latiore, extremitatibus anterioribus sulci submediani et externi ab illa sulci scapularis aequae remotis, sensillo punctiformi mox pone setas anteriores instructum, superficie confertim et minute in longitudinem striata. Metathorax postice truncatus, dorsello magno quam scutello fere dimidio brevior, tecti instar in longitudinem angulato-plicato, sulcis tenuissimis difficulter inspicendis reticulato; superficie metanoti reticulata; carina dorsello aequilonga. Metapleura magna, basi lata, quam epimerum superficie maior; hoc superne apice rotundato $3/4$ metapleurae longitudinis attingens.

Proalae abdomen superantes, longitudine triplum fere earum latitudinis aequantes; nervo marginali quam cellula costali sesquilongiore et quintuplam nervi stigmatici longitudinem fere attingente, pilis ornato nervo stigmatico aequilongis; postcosta bisetosa, setis aequae ab eius extremitatibus et inter se remotis; speculo fere nullo, non ultra praestigma extenso; superficie in dimidio apicali pilis brevibus sat confertis instructa; pilis fimbriae his quadruplo longioribus. Alae metathoracis apice haud rotundato, pilis marginis posterioris dimidia earum latitudine vix longioribus.

Pedes tenues, antici articulis tarsi subaequalibus, fere quintuplo longioribus quam latioribus; primo spinis confertis seriatis instructo; pedes postici articulis tarsalibus, praecipue 1. et 2., longioribus.

Abdomen elongate ovatum, acuminatum, quam thorax duplo longius, lateribus haud compressum, terebrae valvis $1/4$ totius longitudinis prominentibus, superficie reticulato-squamosa.

Long. 1,4–1,6 mm.

Habitat. "Silhouette; Mare aux Cochons, and from near the coast at Pointe Étienne.—Mahé: Cascade Estate, about 1,000 ft., and marshy coastal plains near Anse Royale."

Specimina 20 ♀♀.

Varietas. Specimina duo ♀♀, thoracis area dorsali incerte limitata, abdominis dimidio anteriore ventraeque fere toto obscure ferrugineis.

Habitat. Mahé, "Cascade Estate, and near Anse Royale."

Adn. Species ab affinibus hic descriptis, scilicet *Tetrasticho longiventri*, *distinguendo*, *agnato*, qui autem omnes generi *Aprostoceto* secundum Kurdjumow pertinerent, praecipue differt colore, tarsorum anticorum articulo basali serie conferta spinarum munito, funiculi articulis subaequalibus, scuto haud medio sulcato.

80. *Tetrastichus inunctus* (Nees) Thomson (?) (figs. 70, 71).

(?) *Eulophus inunctus* Nees, *Hymen. Ichneum. affin. Monogr.* ii. 1834. p. 183. ♀.

(?) *Entedon oleinus* Ratzeburg, *Ichneum. d. Forstinsect.* ii. 1848. p. 169.

(?) *Tetrastichus inunctus* Thomson, *Hymen. Scandin.* v. 1878. p. 294.

(?) *Geniocerus inunctus* Kurdjumow, *Revue Russe d'Entom.* xiii. 1913. p. 249 (tabula analytica).

Femina. Brunneo-nigra, abdomine et thoracis lateribus subnitidis, dorso opaco, oculis griseo-rubris, antennis fere totis grisescenti-brunneis, alis hyalinis; his partibus luteis; peristomio, orbitalum margine anteriore, scapo subtus, tegulis et alarum nervis, dorsello, femoribus anticis in dimidio apicali, posterioribus basi et apice, tibiis, tarsisque fere totis; articulo apicali tarsorum brunneo, interdum articulis 1.-3. tarsi antici griseis; sulco praeocellari lineisque ab ore ad antennarum insertionem saepe brunneo-luteis.

Caput thoracis latitudinem aequans, antice visum subtriangulare, paullum longitudine latius, facie post mortem foveam semicylindricam formante, superficie punctis piliferis conspicuis sparsis, minute reticulata, areolis infra antennarum insertiones regulariter polygonis, in reliqua facie rhombicis et oblique seriatis. Antennae scapo subcompresso, pedicello sat longo, funiculi articulis subaequalibus, primo longitudine fere quadruplam latitudinem aequante, secundo huic aequilongo, vix latiore, tertio paullum brevior, proportionem 7 : 8, et latitudine dimidiam longitudinem parum superante; clava quam articulo praecedente duplo longiore, maiore latitudine et articulo basali medium eius fere attingente.

Scutum magnum, convexum, sulco medio haud profunde impresso, prope margines laterales setis instructum brevibus, tenuibus, difficulter inspicendis, aliis ad marginem subseriatis, aliis paucis remotioribus, sparsis; superficie in dimidio postico et lateribus foveolis oblongis, contiguis, alte et crasse marginatis, oblique subseriatis, minute inculpta, antice, in area semicirculari, reticulato-punctata, foveolis etiam minoribus, subrotundis, acute marginatis. Scutellum quam scutum sesquibrevius, superne inspectum spatio inter sulcos medios duplo quam spatii submedianis latiore, his in medio lateris anterioris cum sulco scapulari contiguus; superficie in longitudinem confertim ac minute striata, sculptura a mesoscuto valde differente. Dorsellum lineare transversum. Metano-

FIG. 70.—*Tetrastichus inunctus*, ♀.
Antenna (× 90).

tum breve, medio quam dorsellum vix longius, ibique, carinae loco, area elevata instructum subquadrata, costis transversis anticis et posticis confluentibus formata; superficie minute reticulata, sulco spiraculi inconspicuo. Mesosternum linea duplicata fortiter curvata postice marginatum; epimerum mediam metapleurae longitudinem apice rotundato haud superans, cum episterno sutura lenissime curvata coniunctum. Praesternum sicut dimidium scuti posterius et prothoracis latera et metapleura, reticulata; mesosternum sculptura minus conspicua; epimerum minute reticulato-sulcatum; episternum laeve.

Proalae abdominis apicem vix superantes, latitudine dimidiam longitudinem fere attingentes; subcosta 4-setosa; nervo marginali quam cellula costali

longiore proportionem 7:4, quam stigmatico proportionem 9:2; speculo antice non ultra $\frac{1}{3}$ nervi marginalis extenso, praestigma saepe non superante; nervo basali plerumque bisetoso, cubitali prope cellulam basalem saepius glabro; superficie in parte dimidia basali pilis haud frequentibus, sat longis, instructa, in dimidia apicali brevioribus, magis confertis, quam fimbriae apicalis dimidio brevioribus. Alae metathoracis margine anteriore usque ad apicem fere recto, pilis marginis posterioris $\frac{1}{4}$ earum latitudinis fere aequantibus.

FIG. 71.—*Tetrastichus inunctus*, ♀.
Alae ($\times 26$).

Pedes robusti, postici coxis in latere exteriori reticulatis, in anteriore confertim striatis, femoribus crassis, quam anterioribus fere duplo latioribus. Tarsi omnes articulo apicali quam ceteris subaequalibus longiore.

Abdomen thorace fere duplo longius, triquetrum, apice acuminatum, terebrae valvis spatio tergito ultimo aequilongo prominentibus; superficie reticulata.

Long. 2-2,3 mm.

Habitat. "Silhouette: from near Mont Pot-à-eau and Mare aux Cochons, 1,000-2,000 ft.—Mahé: Cascade Estate, about 1,000 ft.; Mare aux Cochons district, 1,000-2,000 ft., etc."

Specimina 35.

Varietas. Scapo atque pedicello, linea praeocellari lineisque ab ore ad insertiones antennarum luteis; margine orbitali anteriore haud flavo-lineato; femoribus luteis, posticis tantum in latere dorsali fusco-umbratis vel macula brunnea notatis; coxis anticis interdum fere totis luteis; alis haud hyalinis; scuto minus opaco et sculptura scutello simili, setis uniseriatis.

Habitat. Mahé: "high forest of Morne Blanc and Pilot, about 2,000 ft.; summit of Mount Sebert, about 1,800 ft., etc."

Specimina 4 ♀♀.

Adn. An sint huic speciei exemplaria quae descripsi attribuenda, non sane quidem mihi certum est, etsi cum descriptionibus satis congruant: nam cum Neesi diagnosi hoc tantum non conveniunt, abdomine thoraci aequilongo, femoribus apice obscuris. Ratzeburgi descriptio varietati attribuenda videtur.

81. *Tetrastichus hagenowii* (Ratz.).

Entedon Hagenowii Ratzeburg, *Ichneum. d. Forstins.* iii. 1852. p. 211.

Tetrastichus hagenowii Ashmead, *Fauna Hawaiiensis*, i. Cambridge 1901. p. 329.

Geniocerus hagenowii Kurdjumow, *Revue Russe d'Entom.* xiii. 1913. p. 249 (tabula analytica).

Geniocerus hagenowii Crawford, *Proceed. U.S. Nat. Museum*, xlviii. 1915. p. 584. ♀ (fig. antennæ).

Femina. Aeneo-viridis, abdomine saepius in dorso, praeter basim et apicem, violascenti-nigro, basi brevi spatio flavo-grisea; flagello griseo-brunneo versus apicem plerumque pallido-pubescente; scapo, pedicello, abdominis petiolo pedibusque fere totis luteis; coxis anticis brunneis vel aeneis, tarsorum apice nigro; alis lenissime infumatis, nervis dilute brunneis.

Caput minute reticulatum, areolis frontis paullum elongatis, oblique subseriatis, infra antennarum insertiones minimis ac subrotundis; punctis piliferis parum conspicuis, confertis sed leniter impressis; oculis parce, breviter, pilosis.

Flagellum capitis latitudinem paullo superans, pedicello triplo longiore quam latiore, annellis quatuor, si fortiter vitro auctis manifestis, quorum ultimus postannello connatus, articulis sequentibus sat longe pilosis, primo funiculi elongato, pedicellum longitudine et latitudine nonnihil superante et clavae aequilongo, secundo ac tertio subaequalibus, quam primo sesquibrevioribus, secundo interdum $4/5$ primi, tertio $3/5$, aequantibus.

Thorax robustus, latitudine $3/4$ eius longitudinis haud superans. Dorsum convexum, sculptura reticulata, areolis super scutum minutis, elongatis, angustis, fere omnibus rhombicis, in eius parte anteriore minoribus, super scutellum etiam minus conspicuis, plerumque rectangularibus, in longitudinem seriatis. Dorsellum atque metanotum nitida, reticulo lineis modice elevatis, subtilibus, formato. Scutum tecti instar in angulum obtusissimum plicatum, foveis piliferis conspicuis 20–28 sparsis impressum. Scutellum aequale longum atque latum, superne inspectum area media quam submedianis duplo latiore, setis anterioribus post $2/3$ longitudinis insertis, sensillis inter setas utriusque lateris nullis. Metanotum conspicue carinatum, carina postice areolam triangularem formante, deinde costas duas metathoracem limitantes emittente. Metapleura reticulato-sulcata, areolis haud elongatis. Prothoracis latera atque praesternum reticulato-alveolata. Mesosternum et mesopleura subtiliter reticulato-sulcata; epimerum triangulare, apice $2/3$ metapleurae longitudinis attingens.

Proalae longitudinem thoracis cum abdomine fere aequantes, earum latitudine longiores proportionem 21 : 50; margine apicali bene rotundato; postcosta setis quatuor vel quinque, interdum septem instructa; nervo marginali quam cellula costali longiore proportionem 7 : 6, quadruplam nervi stigmatici longitudinem superante (proportionem 35 : 8) setisque $2/3$ huius nervi aequantibus instructo; speculo non ultra praestigma extenso, setarum serie nervi cubitalis a cellula basali incipiente. Alae metathoracis pilis marginis posterioris $1/4$ earum latitudinis parum superantibus.

Pedes longiusculi, antici articulis tarsalibus primo et secundo aequilongis, tertio et quarto vix brevioribus, etiam aequilongis; postici articulo tarsali primo elongato, secundo $3/4$ huius aequante, tertio et quarto subaequalibus dimidiam primi longitudinem vix attingentibus; intermediis articulis sicut in pedibus posticis at paullum brevioribus.

Abdomen oblonge ovatum, apice acuto, longitudinem thoracis cum capite aequans, superficie reticulato-sulcata.

Long. 1,6—1,9 mm.

Mas antennarum annellis vix conspicuis, funiculi articulis aequalibus, quam pedicello parum longioribus, clava in articulos tres aequales divisa et duobus praecedentibus simul sumptis aequilonga; setis flagelli brevioribus latitudinem articulorum aequantibus, longioribus, in articulis singulis funiculi et primo clavae insertis, usque ad dimidium articuli sequentis elongatis.

Habitat: passim, *Periplanetas* parasitizans.

Specimina plurima, in insulis Mahé et Silhouette collecta.

Adn. Hanc speciem, cuius exemplaria Hagenow plurima in Greifswald obtinuit ex ootheca *Blattae* in spolio avis seychellensis latente, Ratzeburg breviter descripsit. Specimina igitur quae ego examinavi, quasi cotyporum praetium habent. Species haec valde est diffusa, blattarum oothecas inquinans, et etiam, quorundam virorum iudicio, parasita occurrit *Evaniae appendigastris* vel aliarum generis specierum, oothecas inquinantium. Inter exemplaria in Insulis Seychellensibus collecta eaque quae dr. Martelli in Sicilia, prope Cataniam, invenit, quaeque is mihi comiter misit, nulla est differentia. Clavam maris in hac specie biarticulatam esse, sicut in *Tetrasticho xanthopodo* Ratz., Kurdjumow affirmavit, ego vero articulos tres haud difficulter numeravi.

82. *Tetrastichus metalliferus*, sp. n.

Femina. Corpore metallico, capite cum prothorace aeneis, scuto et scutello purpureis, mesothoracis lateribus fere nigris, axillis, dorsello, metanoto abdominisque basi pallide aeneis (id est virescenti-griseis, metallicis) nitidissimis, abdomine reliquo nigro-brunneo; — vel etiam fronte et scutello purpureis, reliquo thoracis dorso aeneo, scuto tantum leniter aurato —; antennis brunneis, scapo cum pedicello, pedibusque cum coxis posterioribus, stramineis vel luteis, tarsorum articulis apicalibus infuscatis; tegulis brunneo-luteis, nervo marginali et stigmatico flavo-griseis.

Caput punctis piliferis numerosis, conspicuis.

Antennae pedicello sat longo; funiculi articulo primo quam pedicello paulum brevior, secundo et tertio subaequalibus, $\frac{2}{3}$ pedicelli fere aequantibus; clava quam pedicello haud multo longiore, in articulos aequales divisa.

Thorax latitudine $\frac{3}{5}$ eius longitudinis aequans, dorso plano, prothorace et scapulis conspicue reticulatis, his ultimis tamen prope scuti latera fere laevibus; axillis minute reticulatis; scuto areolis valde elongatis, fere linearibus, oblique subseriatis, foveolis piliferis haud numerosis sparsis; scutello quam scuto minus conspicue insculpto (si modice vitro augeas, sericeo), areolis dimidio angustioribus et brevioribus, superficiem striatam simulantibus; dorsello et metanoto lineis subtilibus reticulatis, areolis magnis. Scutum ab axillis late, scapulis interpositis, separatum, sulco medio nullo, setis tenuibus longis, ad margines laterales ternis vel quaternis, in superficie nonnullis, sparsis. Scutellum latum, margine postico lenissime curvato, area media quadrata quam submedianis angustis quadruplo latiore, setis, in areis submedianis, longis, sensillo nullo interposito. Dorsellum magnum. Metanotum dorsello duplo longius, carinae loco costis longitudinalibus arcuatis instructum versus lineam mediam convexis ac fere contiguus. Metapleura angusta, subtiliter reticulato-sulcata, areolis elongatis.

Proalae corpori aequilongae, latitudine dimidiam longitudinem fere aequantes,

apice bene rotundatae; subcosta setis quinque vel quatuor instructa; nervo marginali longitudinem cellulae costalis paullum superante, quam nervo stigmatico quadruplo longiore setisque instructo quam hoc dimidio brevioribus; speculo non ultra praestigma extenso; setarum serie nervi cubitalis a cellula basali incipiente. Alae metathoracis apice rotundatae, pilis fimbriae $1/4$ earum latitudinis aequantibus.

Pedes sat longi, tenues, tarsorum articulis duobus ultimis brevioribus.

Abdomen ovatum, distincte petiolatum, thoracis longitudinem et latitudinem aequans, terebrae valvis prominentibus, superficie reticulato-squamosa.

Long. 1,25 mm.

Habitat. Mahé: "Mare aux Cochons district, and Cascade Estate and the forest above, 1,000-2,000 ft."

Specimina tria.

83. *Tetrastichus dispar*, sp. n.

Femina. Obscure grisescenti-cyanea, abdomine castaneo, scapo luteo, pedicello obscuriore, funiculo et clava brunneis, oculis griseo-rubris, pedibus cum coxis fulvis, femoribus anticis postice in dimidio apicali infuscatis, tarsis apice obscuro, tegulis brunneis, alarum nervis flavo-griseis.

Caput thorace et longitudine sua paullum latius, punctis piliferis conspicuis impressum. Flagellum mesothoracis dorso aequilongum; pedicellus dupla latitudine vix longior, funiculi articulus primus pedicelli longitudinem aequans, sequentes sensim breviores et latiores, ultimus aequae longus atque latus; clava conica articulis duobus praecedentibus aequilonga.

Thorax latitudine $5/7$ eius longitudinis aequans, scuto profunde medio sulcato, setis ternis ad margines laterales instructo, sculptura reticulata conspicua; scutello in longitudinem striato, areis submedianis de supra inspectis quam area media fere dimidio angustioribus; dorsello rectangulari, reticulato; metathoracis dorso minute at fortius reticulato, carina instructo mox pone dorsellum divisa et carinas duas formante parum divergentes, cum costa posteriore metanoti foveolam fere linearem includentes. Praesternum, metapleura et area triangularis mesosterni post huius marginem reticulato-alveolata; epimerum, item atque episternum, fere laeve, forma haud triangulari, potius subrectangulari, at latere anteriore leniter sinuato insertionem alae metathoracis fere attingente.

Proalae longitudinem thoracis cum abdomine aequantes, earum latitudine longiores proportionem 9:4; margine apicali bene rotundato; postcosta unisetosa; nervo marginali quam cellula costali vix brevior setisque instructo quam nervo stigmatico dimidio brevioribus, hoc $1/3$ marginalis fere aequante; speculo non ultra praestigma extenso; setarum serie nervi cubitalis a nervo basali incipiente. Alae metathoracis ad apicem magis attenuatae, apice extremo rotundatae, pilis marginis posterioris $1/3$ earum latitudinis aequantibus.

Pedes postici calcari dimidium metatarsi haud superante, tarsorum articulis elongatis, subaequalibus.

Abdomen ovatum, apice acutum, longitudine thoracem parum superans, latitudine aequans, segmentis 2.-4. basi, sequentibus totis reticulato-sulcatis.

Long. 1,6 mm.

Habitat. Mahé, Cascade Estate, "about 1,000 ft."

Specimen unicum.

84. *Tetrastichus nigriceps*, sp. n.

Femina. Capite nigro, oculis et ocellis rubris, antennis flavescenti-griseis, scapo subtus et lateribus albido; thorace saturate aureo-viridi, tegulis pedibusque luteis, coxis posticis extus fere usque ad apicem viridibus, tarsis articulo apicali infuscato, alarum nervis dilute brunneis, abdomine obscure viridi basi rufo-flavescente, segmentorum 2.-4. dorso cupreo.

Antennae scapo fusiformi valde compresso, quam pedicello duplo longiore, flagello thoracis longitudinem fere attingente, pedicello et funiculi articulis subaequalibus, in specimine exsiccato duplo longioribus quam latioribus, clava quam articulo praecedente fere duplo longiore, in articulos subaequales divisa.

Thorax latitudine $5/7$ eius longitudinis aequans, scuto medio sulcato setisque binis ad margines laterales instructo, in longitudinem minute reticulato-striato; scutello minute striato; area media quam submedianis de supra inspectis vix latiore; dorsello subtiliter reticulato-sulcato; metanoto sat conspicue reticulato-squamoso et carina elevata instructo dorsello aequilonga.

Proalae sat longae, corpus longitudine aequantes, duplo longiores quam latiores, margine apicali modice arcuato, postcosta bisetosa, nervo marginali quam stigmatico longiore, proportionem $5:2$, pilis instructo quam nervo stigmatico sesquibrevioribus, dente clavae angustae satis elongato; speculo non ultra praestigma extenso; setarum serie nervi cubitalis a nervo basali incipiente. Alae metathoracis pilis marginis posterioris $1/3$ earum latitudinis vix aequantibus.

Tarsorum articuli subaequales.

Abdomen thoraci aequilongum, superficie reticulato-squamosa.

Long. 1,5 mm.

Habitat. Silhouette: Mare aux Cochons.

Specimen unicum.

85. *Tetrastichus nigricoxa*, sp. n.

Mas. Obscure viridis, mesothoracis lateribus, coxis, femoribus abdomineque nigris, hoc basi et apice aeneo; genubus, tibiis tarsisque luteis, his versus apicem infuscatis; antennis brunneo-luteis; tegulis brunneis, alarum nervis griseis.

Antennae scapo compresso, longitudine triplam eius latitudinem paullum superante, post medium carina instructo latitudini aequilonga; flagello mesothoracis dorsum haud superante, setis elongatis nullis; pedicello duplo longiore quam latiore; anello conspicuo, longitudine dimidiam pedicelli latitudinem attingente; funiculi articulis aequalibus, vix elongatis, $3/4$ pedicelli longitudinis attingentibus; clava articulis duobus ultimis funiculi simul sumptis aequilonga, in articulos aequales divisa.

Thorax latitudine $7/9$ eius longitudinis aequans, scuto medio sulcato, setis instructo quaternis ad margines laterales, versus scutellum sensim remotioribus et longioribus, superficie item atque scutelli minute in longitudinem striata; scutelli areis submedianis de supra inspectis quam area media fere dimidio angustioribus; dorsello subtiliter reticulato-sulcato; metanoto reticulato-squamoso, carina elevata instructo quam dorsello fere sesquilongiore.

Proalae longitudinem corporis sine capite aequantes, latitudine quam dimidia earum longitudine minore proportionem $2:5$, margine apicali modice arcuato;

postcosta unisetosa; nervo marginali cellulae costali aequilongo, crasso, $1/9$ eius longitudinis latitudine attingente, setisque instructo quam nervo stigmatico sesquibrevioribus, hoc etiam crasso, quam marginali triplo brevior; nervo basali glabro, speculo magno ad medium marginalis extenso. Alae metathoracis apice rotundatae, pilis marginis posterioris $1/4$ earum latitudinis aequantibus.

Pedes postici calcari metatarso aequilongo, tarsorum articulis sensim vix longioribus.

Abdomen ovatum, longitudine thoracem aequans, latitudine $5/7$ tantum attingens, superficie reticulato-squamosa.

Long. 1,65 mm.

Habitat. Mahé: "Mare aux Cochons district, 1,000–2,000 ft."

Specimen unicum.

86. *Tetrastichus aeruginosus*, sp. n.

Femina. Aeruginosa, abdomine brunneo basi flavescente, flagello griseo-fusco, oculis et ocellis rubris, pedibus cum coxis flavo-albidis, alarum nervis pallidis.

Caput magnum, lenticulare, antice visum rotundatum, oculis parum prominulis, fere glabris, antennis in linea oculari post $1/3$ longitudinis capituli insertis, scapo quam orbita brevior, flagello thoraci aequilongo, articulis funiculi sensim vix longioribus, clava quam articulo praecedente duplo longior.

Thorax brevis, altus. Scutum setis longis, binis in utroque latere, sat procul a margine instructum, sulco medio distincto; scutellum dimidiam scuti longitudinem vix superans, latitudinem aequans, margine postico fere recto, sulcis mediis nullis; metathorax postice truncatus, dorsello magno, carina parum prominente quam dorsello dimidio brevior. Mesothoracis dorsum minutissime et confertim in longitudinem striatum, latera item atque metanotum lineis subtilibus reticulata, areolis magnis. Mesosternum postice fortiter curvatum; epimerum triangulare, apice dimidiam metapleurae longitudinem superans.

Proalae duplo longiores quam latiores, nervo marginali quam cellula costali longiore proportionem 10 : 7, quintuplam nervi stigmatici longitudinem attingente; postcosta setis tribus instructa; pilis in superficie haud confertis, post dimidiam alae longitudinem in margine sesquilongioribus; speculo non ultra praestigma extenso. Alae metathoracis in dimidio exteriori triangulares, pilis marginis postici quam earum latitudine paulum brevioribus.

Pedes longi, haud robusti, postici femore, tibia et tarso aequilongis, hoc ultimo articulo apicali quam ceteris subaequalibus vix longior. Tarsi antici articulis sensim longioribus, apicali evidenter longior.

Abdomen oblongo-ovatum, longitudine thoracem cum capite aequans, latitudine paulum superans, apice nervum stigmaticum attingens, terebra haud prominula.

Long. 1 mm.

Mas differt scapo compresso, pedicello et articulo primo funiculi aequalibus, articulo tertio et quarto evidenter longioribus, omnibus setis duplam eorum longitudinem superantibus instructis; clavae articulo basali quarto funiculi aequilongo.

Habitat. Mahé: Cascade Estate.

Specimina 1♀, 2 ♂♂.

87. *Tetrastichus stictococci* Silv. (?).

? *Tetrastichus stictococci* Silvestri, *Boll. Labor. Zool. gen. e agr.*, Portici, ix. 1915. p. 370, fig. 26.

Sunt in collectione specimina duo, ex Mahé (Cascade Estate) provenientia, quorum characteres omnes examinare non potui; ea vero *Tetrasticho stictococci* attribuenda videntur, silvestrianæ speciei, quam auctor in Côte d'Or (in Africa Occidentali) invenit cuiusque mas tantum est notus. Speciminibus mahensibus, quæ feminae sunt, corpus est brunneo-nigrum, thoracis dorso leniter cyanescente; funiculus cum clava obscure griseus, scapus atque pedicellus flavo-grisei; idemque color est tibiis tarsisque, excepto horum articulo apicali obscurato; femora primi et secundi paris pedum non ultra dimidium basale sunt nigra. *Tetrasticho strictococci*, secundum Silvestrii descriptionem, nulla est pars pedum nigro picta; quod vero sexus character esse potest. Aliaque est differentia in setis scuto insertis, quæ in *Tetrasticho seychellensi* quatuor sunt prope scapularum sulcum: in uno autem specimine seta quinta juxta marginem posticum et prope ultimam seriei lateralis inseritur: at secundum Silvestrii descriptionem tres numerantur. In specimine seychellensi setis quinque instructo, setae ipsae parti posteriori scuti vel scutello adfixae, setaque axillulae, anomalam longitudinem attigisse videntur. De thoracis lateribus hoc dicere licet. Praesterni et metapleuræ superficies, etiam si fortiter vitro augeas, transverse atque minute strigulosa apparet; metapleuræ et epimeri eadem est magnitudo; hoc apice eius acuto marginem superum metapleuræ attingit.

88. *Tetrastichus longifimbriatus*, sp. n. (fig. 72).

Mas. Nigro-brunneus, peristomio, antennis, pedibus præter femora postica et coxas flavis vel flavo-griseis, dorsello nigro vel brunneo-luteo, alis griseo-virescentibus, tegulis et nervis pallide brunneis.

Antennae scapo compresso triplo longiore quam latiore, carina apicem fere attingente; flagello quadruplam scapi longitudinem æquante, pedicello latitudine sua paullum longiore, funiculi articulo primo brevi pedicello æquilongo, sequentibus et clavae duobus primis æqualibus, duplo longioribus; setis in latere dorsali articuli secundi usque ad medium clavae elongatis, in latere ventrali apicem articuli paullum superantibus, illis articuli tertii et quarti triplae unius articuli longitudini æqualibus.

Scutum medio sulcatum, item atque scutellum minute in longitudinem striatum. Dorsellum magnum, carinae metanoti æquilongum, haec autem brevis, lata.

FIG. 72.—*Tetrastichus longifimbriatus*, ♂.

Proala (x 45).

Proalae abdomen valde superantes, longitudini huius cum thorace æquales, latitudine $2/5$ earum longitudinis attingentes; postcosta bisetosa, nervo mar-

ginali quam stigmatico sextuplo longiore pilisque instructo huic æquilongis; pilis fimbriae valde elongatis, nervum stigmaticum æquantibus; hoc clava haud determinata, apice truncato et mox ad apicem dentato. Alae metathoracis

angustae, $1/6$ earum longitudinis latitudine aequantes, in dimidio externo elongate triangulares, apice acuto. Pili fimbriae in alis anterioribus et posterioribus aequilongi, harum latitudini aequales.

Tarsi postici articulis aequilongis.

Abdomen thorace paulum brevius.

Long. 0,9 mm.

Habitat. Mahé: "Cascade Estate, from forest near Mount Harrison, about 1,700 ft.; slopes of Morne Seychellois, about 2,000 ft."

Specimina duo.

Adn. Haec species quam nunc *Tetrastichis* adscripsi, characteribus genericae rationis ab illis forsan non differt quas Ashmead et Howard *Gyrolasiae* Först. attribuerunt; hae femineo sexu tantum cognitae, omnes Americae pertinent.

GEN. *Syntomosphyrum* Förster.

89. *Syntomosphyrum trichops*, sp. n.

Femina. Nigra, parum nitens, oculis brunneis, ocellis rubris, antennis, alarum nervis et abdominis petiolo griseo-luteis, tegulis brunneis, alis haud limpidis, pedibus cum coxis posterioribus fulvis, femoribus anticis basi nigris, praetarsis omnibus leniter infuscatis.

Caput thorace parum latius, antice visum rotundato-triangulare, paulum latitudine sua brevius (proportione 5:6), vertice arcuato, oculis dense hirtis, linea oculari inferiore $1/5$ eius longitudinis ab ore remota, clypei margine medio foveola punctiformi impresso, antennis paulum supra lineam ocularem et infra medium faciei insertis. Forma capitis de latere ovato-triangularis, diametro transverso dimidium fere longitudinalis aequante, oculis subrotundis totam fere latitudinem occupantibus, genis teretibus sulco impressis. Vertex de supra inspectus medio tantum propter foveam antennalem angustato, margine postico acuto, ocello anteriore lineae posterioribus tangenti fere contiguo, his ab anteriore et ab oculis aequo spatio remotis. Superficies tota reticulata, foveolis piliferis crebris impressa, pilis sat longis hirta.

Scapus lineam ocularem superiorem non attingens; flagellum breve longitudinem capitis vix aequans, pedicello duplo longiore quam latiore, annellis coalescentibus articulum minimum formantibus, funiculi articulis tribus sensim latioribus, vix brevioribus, primo subtransverso, ultimo longitudine sua $3/5$ longitudinis haud superante; clava conica, quam articulo praecedente duplo longiore, haud latiore, in articulos tres divisa, quorum primus ultimo funiculi subaequalis.

Thorax latitudine $3/4$ longitudinis aequans, pronoto sat longo, sed collari minime discreto; mesonoti scuto haud sulcato et margine posteriore dimidium eius latitudinis maximae, longitudine $7/9$ huius attingente; scutello brevior (proportione 11:14) aequae longo atque lato, sulcis etiam nullis; axillis a lateribus scuti valde remotis; metathorace dorsello magno, carina media elevata, carinis lateralibus spiraculis extus tangentibus, angulis posterioribus reflexo-marginatis. Sculptura pronoti, mesoscuti et scapularum fortiter reticulato-sulcata, areolis forma irregulari, foveis piliferis conspicuis sed haud profundis neque marginatis, sparsis; axillae, axillulae atque scutellum sculptura magis minuta, areolis fere dimidio minoribus, regularibus, foveis piliferis nullis; dorsellum etiam reticula-

tum, metanotum subsquamosum. Callus parce pilosus. Metapleura et mesosternum conspicue reticulata, epimerum cum episterno fere laevia, praesternum sicut thoracis latera alveolatum, foveolae autem prothoracis subquadratae. Mesosterni latus posticum fortiter sinuatum, aream episterni depressam, rhomboidalem, antice limitans. Pili super pronotum, super scutum et scapulas frequentes, aequilongi, super axillas et axillulas nulli: scutellum setis quatuor longis instructum, anterioribus scuto propinquis, sensillo discoidali setis cuiusque lateris interposito.

Proalae abdominis apicem vix superantes, latae, dimidiam earum longitudinem latitudine fere aequantes, subcosta trisetosa, nervo marginali quam cellula costali sesquilongiore et quintuplam nervi stigmatici longitudinem vix superante (2:11), setis circa duodecim instructo nervo stigmatico aequilongis; cellula basali fere glabra, speculo non ultra praestigma extenso; pilis fimbriae in parte postica longioribus. Alae metathoracis cellula costali super nervum marginalem angustissima usque ad hamulos extensa, apice rotundatae, pilis marginis posterioris $\frac{1}{3}$ earum latitudinis vix aequantibus.

Pedes longiusculi, intermedii articulo primo tarsali quam secundo et tertio longiore, postici articulo secundo quam primo nonnihil longiore et tertio brevi.

Abdomen distincte petiolatum, ovatum, thoracis longitudinem et latitudinem paullum superans, duplo longius quam latius; segmento primo duplam secundi longitudinem aequante, hoc cum tertio et sexto brevibus, subaequalibus, segmentis vero quarto et quinto cum primo longioribus; terebrae valvis vix apice prominulis; superficie tota reticulato-squamosa, pilis longiusculis sat crebris ornata.

Long. 1,35 mm.

Mas femoribus omnibus leniter infuscatis, flagello capitis longitudini aequilongo, articulo primo funiculi subquadrato, paullum longitudine sua latiore et quam pedicello fere dimidio brevior; sequentibus pedicello aequilongis, sensim vix latioribus, ultimo latitudine paullum longiore; clava in articulos tres subaequales divisa, quorum primus praeclavae longitudinem aequans; funiculi articulis omnibus pilis eorum longitudini aequalibus ornatis, duobus primis antice etiam setis paucis funiculo aequilongis instructis; abdomine quam thorace paullum longiore, nonnihil angustiore, magis depresso.

Statura quam feminae vix minor.

Habitat. "Silhouette: Mare aux Cochons, about 1,000 ft.—Mahé, Cascade Estate."

Specimina 2 ♀♀, 1 ♂.

Adn. Species haec *Syntomosphyro glossinae* et *phaeosomati*, Waterstoni, est proxima.

GEN. *Melittobia* Westwood.

90. *Melittobia hawaiiensis* Perkins.

Proc. Hawai. ent. Soc. 1907. p. 124.

Femina. Corpus nigro-brunneum; oculi concolores, ocelli rubri, antennae grisescienti-brunneae, scapo, pedicello inferius, flavo-griseis; os aeruginosum; pedes pallide flavo-ochracei, femoribus ad basim antice plus minus fusco-maculatis, coxis brunneis antice flavescantibus; alae lenissime griseo-virescentes, nervis griseis.

Caput thorace paululum latius, discoideum, vertice elevato, oculis hirtis, labri incisura media lobulos duos rotundatos separante, mandibulis 3-dentatis. Antennae ad os, infra lineam ocularem, insertae, scapo compresso ocellum haud attingente, prope apicem latiore eiusque superficie tota pilis paucis brevibus instructa; flagello duplo fere quam scapo longiore, quam capitis latitudine brevior, annellis inconspicuis, microscopio inspectis quasi duplicata lamella perspiciendis; funiculi articulis tribus sensim latioribus, primo longitudine parum, ultimo fere sesquialtioribus; clava brevi, triarticulata.

Thorax, cum abdomine, valde depressus, hoc ultimum vix brevius. Prothorax longus, conicus; scutum medio haud sulcatum, scutellum sulcis duobus parallelis; metathorax etiam longus, dorsello fere lineari, spiraculis parvis rotundatis, carina nulla. Callus pilis paucis instructus. Pars thoracis superior minute reticulata, areolis scutelli fere linearibus.

Proalae abdominis apicem nonnihil superantes, latitudine dimidia earum longitudini fere aequali, apice leniter rotundato, nervo submarginali setis longis tribus, interdum duabus vel quatuor instructo, marginali quam cellula costali vix longiore, postmarginali brevissimo, latitudine sua haud longiore, stigmatico $1/3$ marginalis parum superante (proportione 7 : 18), parte basali glabra, excepto spatio quodam cellulam basalem inferius limitante; speculo infra praestigma nullo, hoc autem a nervo humerali non bene discreto setaque instructo quam illis nervo marginali antice adfixis nonnihil longiore. Metathoracis alae ipsarum latitudine quintuplo longiores, cellula costali ad hamulos extensa, pilis marginis postici $1/3$ latitudinis vix longioribus.

Pedes robusti, tarsorum articulis longitudine subaequalibus, calcaribus brevibus metatarsum non superantibus.

Abdomen distincte petiolatum, latitudine maxima $2/3$ eius longitudinis attingens, quam thorax aliquantulum latius, lateribus fere rectis, apice parum rotundato, terebrae valvis vix prominentibus, segmentis subaequalibus, pilis numerosis sparsis, longiusculis, superficie in longitudinem confertim striata.

Long. 1 mm.

Habitat. Mahé: Cascade Estate.

Specimina plurima.

Adn. Hanc speciem amplius et apte describere nequeo, quum sint exemplaria adeo exsiccatione deformata ut ne quidem solutione alcalina partes omnes in priorem formam restitui possint, quod saepe huius generis speciebus occurrit.

Gratias nunc agam domino Watersten qui hanc speciem recognovit et cum europaea *M. acasta* (Walk.) comparavit; is de characteribus *Melittobiae hawaiiensis* notas quasdam scripsit, quas libenter hic referam. "The mandibles are shorter and broader than in *acasta*. The median clypeal incision is much shorter and the lobes are truncate, not rounded (a condition not found in others of the genus). The eyes are for this genus densely pubescent and the face more hairy, the scrobes are smaller, and the impressed lines on the mid frons more approximated. In the antennae the scape is shorter and broader and the joints of the funicle are all much broader than long; the sensoria are more numerous. In the prothorax the spiracular emargination is very slight and the spiracle is not deeply embedded. This is an extremely bristly form all over. It may be separated at a glance from *acasta* by comparing the mid lobes of their respective mesonota. In the European insect there are about 40 bristles (20, 20) while in the Seychelles form the bristles are about 80 (40, 40). The wing has stronger

bristles and the radius of the Seychelles species bears apparently 8-9 bristles, while *acasta* has 5-6."

SUBFAM. TRICHOGRAMMINAE.

GEN. *Centrobia* Förster.

91. *Centrobia mahensis* Kieffer.

Hanc speciem, adhuc ineditam, cl. Kieffer descripsit (*vide* p. 230).

SUBFAM. MYMARINAE.

GEN. *Gonatocerus* Nees.

(*Rachistus* Förster).

92. *Gonatocerus silhouettae*, sp. n. (fig. 73).

Femina. Corpore nigro, abdominis dimidio basali et apice obscure ochraceis, dorsello, antennis, praeter scapi latus dorsale ac ventrale nigricantia, trochanteribus, femoribus basi, genubus, femoribus anticis etiam dimidio toto apicali, flavo-griseis; tibiis fuscis; tarsis tibiis concoloribus at apicem versus magis infuscatis; alis dilute brunneo-flavidis, nervis pilisque flavo-fuscis.

FIG. 73. — *Gonatocerus silhouettae*, ♀.

1, antenna; 2, 3, alae; ($\times 45$). Pili in superficie proalae non sunt delineati.

Caput thorace parum latius, oculis glabris, setis duabus brevibus in linea oculari, genis minutissime reticulatis, areolis parum elongatis. Antennarum radícula $\frac{2}{5}$ scapi longitudinis aequans, pedicellus $\frac{1}{2}$ vix superans, pyriformis; funiculi articuli sensim latiores, duo primi pedicello breviores, tertius huic subaequalis, reliqui sensim longiores, breviter, anguste, pedunculati, octavus latitudine sua duplo longior; clava etiam breviter pedunculata, indivisa, articulis duobus et dimidio praecedentibus aequilonga, quam

praeclava parum magis quam sesquialtor, forma oblonga, apice haud acuto, pube brevissima, vix conspicua, sat dense vestita.

Scutum atque scutellum sculptura reticulata, areolis in dimidio anteriore scuti fere linearibus, brevibus ac contiguis, in dimidio posteriore multo maioribus, oblongis, verum ad scutelli suturam subrotundis.

Proalae setis fimbriae ante dimidium marginis anterioris et in parte dimidia externa marginis posterioris, maximis, at $\frac{1}{4}$ alae latitudinis haud superantibus. Alae metathoracis pedunculo $\frac{1}{5}$ totius longitudinis formante, latitudine in $\frac{1}{3}$ apicali $\frac{1}{25}$ longitudinis, setis lateris anterioris huic latitudini aequalibus, posterioris triplo vel paulo amplius longioribus.

Femora ad medium crassiora. Calcar pedis antici spinulosum, articulus tarsalis primus secundo sesquilongior, strigili toto spatio instructus. Tarsi posteriores articulo primo secundo sesquilongiore.

Abdomen thoraci aequilongum, petiolo transverso, terebra fere ad basim egrediente.

Long. 0,8 mm.

Habitat. Silhouette : Mare aux Cochons.

Specimen unicum.

GEN. *Polynema* Haliday.

93. *Polynema seychellense*, sp. n. (fig. 74).

Mas. Niger, ocellis ferrugineis, scapo ac pedicello flavis, antennae articulis reliquis flavescenti-fuscis; abdominis petiolo, alarum nervis pedibusque cum coxis flavo-griseis, tarsis, absque articulo apicali brunneo, pallidioribus; proalis ante medium longitudinis fascia leniter fumata ornatis.

Caput parum thorace latius; vertice antice viso haud curvato, de latere inspecto angulatim plicato, plica marginem superiorem capitis formante; ocellis externis in huius extremitatibus prope orbitas locatis, oculo medio in declivitate anteriore et setis sex, haud erectis, circumdato, quarum duae infra vergentes, binae laterales; occipite sulcis duobus ab ocellis ad foramen magnum productis impresso; oculis glabris, orbitis late marginatis; antennis corpori aequilongis, margini orbitali contiguis, pedicello brevi, articulis sequentibus aequalibus, latitudine sesquilongioribus, isthmo brevissimo coniunctis, apice truncatis, pilis brevibus instructis, ultimo forma ovali, extremitate obtuso.

Dorsum superne inspectum scapularum sulcis conspicuis, subrectis; scuto convexiusculo, latitudine sesquilongiore et margine antico fortiter curvato; scapulis sat magnis, scutello subelliptico quam scuto fere sesquilongiore atque manifeste latiore.

Superficies capitis et thoracis polita, etiam si 100 diam. magnificata, sculptura nulla.

Proalarum fimbria setis apicis $\frac{2}{5}$ earum latitudinis, setis in parte postica exteriori $\frac{3}{5}$ aequantibus. Alae metathoracis antice setis instructae earum latitudini aequalibus, postice triplo longioribus.

Calcar tibiae anticae pilis nonnullis brevissimis instructum, tibiae mediae atque posticae harum latitudine haud longius, glabrum, apice acutum, subrectum, at latere exteriori manifeste curvato. Articulus basalis tarsi antici strigili munitus, idem tarsorum posteriorum longitudinem secundi tertiique aequans, articuli tres ultimi subaequales.

Abdominis petiolus tenuis, coxis posticis aequilongus.

Abdomen globosum, longitudine dimidium thoracis paullum superans et huius latitudinem aequans.

FIG. 74.—*Polynema seychellense*, ♂.
1, antenna; 2, proala; ($\times 45$).

Long. 0,66 mm.

Habitat. Silhouette : apud Mare aux Cochons ("high jungle").

Specimen unicum.

EINE NEUE TRICHOGRAMMIDE VON DEN SEYCHELLEN INSELN.

BESCHRIEBEN VON PROF. DR. J. J. KIEFFER (BITSCH).*

Centrobia mahensis, n. sp. (fig. 75).

♂. Hellgelb, Abdomen schwarzbraun. Augen unbehaart, länger als die Wangen, Ocellen einen sehr flachen Bogen bildend; Mandibeln wenigstens so breit wie lang, fast viereckig, am abgestutzten Ende mit drei kleinen Zähnen, Maxillarpalpen eingliedrig, walzenförmig, sehr dünn, mit einer Endborste, welche länger als das Glied selbst ist; Labialpalpen durch eine Papille ersetzt. Antenne 6-gliedrig, unterhalb der Augenbasis entspringend; 1. Glied vom Grunde bis zur Spitze allmählich verdickt, länger als die drei folgenden zusammen; 2. Glied walzenförmig, kaum länger als dick, ebenso dick wie das 1.; das 3. fast halbkuglig, proximal etwas schmaler als das 2.; 4.-6. zusammen eine längliche, zugespitzte Keule bildend, welche wenig kürzer und wenig dicker als das 1. Glied ist, und spärliche, wenig abstehende Haare

FIG. 75.—*Centrobia mahensis*, ♂.

(J. J. Kieffer del.).

1, Antenne; 2, Vorderflügel.

trägt, deren Länge der Dicke der Keule gleichkommt, 1. und 2. Glied kaum quer, das kegliche Endglied länger als breit, die Trennung zwischen den drei Keulengliedern wenig deutlich. Thorax ziemlich flach, gleichbreit, um die Hälfte länger als das Abdomen, mit dem er, in seiner ganzen Breite, verbunden ist; Pronotum schmal, bogig, weit vor den Tegulae aufhörend; Mesonotum nach hinten verschmälert und abgestutzt, länger als breit, so lang wie das Scutellum und das Metanotum zusammen. Vorderflügel am Distalende breit abgerundet, und bewimpert, in der proximalen Hälfte allmählich und stark

verschmälert und kahl, in der distalen Hälfte mit Längsreihen kleiner Borsten; Marginalis lang und breit; Stigmatica lang und breit, halb so lang wie die Marginalis aber breiter, schwach bogig, distal von der Flügelmitte liegend. Hinterflügel sehr schmal, fast linealförmig, distal zugespitzt, im proximalen Drittel, am Vorderrande, bis zu den zwei Frenalhüekchen ausgeschnitten, mit drei Längsreihen von Wimpern, die mittlere Reihe aus kleinen Borsten bestehend, die vordere, nahe am Vorderrand des Flügels, mit längeren Borsten, die hintere am Hinterrand, mit sehr langen Wimpern, welche fast doppelt so lang wie die Flügelbreite sind. An den 4 Vorderbeinen sind die Tibien kaum dicker als die Tarsen und wenig dünner als die Femora; an den zwei Hinterbeinen sind die Femora und die Tibien stark verdickt, etwa 3 mal so dick wie die Tarsen, die Femora am dicksten in der Mitte, die Tibien vom Grunde bis zum Distalende allmählich dicker; Tarsus so lang wie die Tibien, die 3 Glieder desselben etwa gleichlang, 3 mal so lang wie dick; Krallen einfach. Abdomen ziemlich flach gedrückt. Länge: 0,5 mm.

Vorkommen. Seychellen. Mahé: "Cascade Estate, about 800-1,500 ft., 1909."

* See p. 121 (footnote). Figs. 75, 1 and 2, are probably to be regarded as diagrammatic,

ON SOME APPARENTLY NEW *NOTODONTIDAE*

BY LORD ROTHCHILD, F.R.S., PH.D.

*Pls. III - VIII*1. *Spatalia affinis* spec. nov.♀. Similar to *plusiata* Walk., but much darker.

Differs from *plusiata* on the forewings in the colour being deep black-brown **not** chocolate, in the silver *T* and stigmatic grille being larger and farther away and not fusing with pale area of forewing, in the brown apical quadrate patch extending farther back into the pale area, and in the hindwings having the basal two-thirds pale buff and outer one-third only dull brown.

Length of forewing: 30 mm. Expanse: 68 mm.

Habitat. Upper Aroa River, British New Guinea, March 1903 (A. S. Meek),
2 ♀♀.

2. *Spatalia indistincta* spec. nov.♀. Nearly related to *laticostalis* Hmps. but paler.

Differs in the pale area of the forewing being less well defined and variegated with small streaks and clouded spots, and there is a pale spot in the dark apical patch; the dark portion of the forewing is paler and clouded with pale violet.
—Hindwing is much paler brown.

Length of forewing: 24 mm. Expanse: 56 mm.

Habitat. Townsville, North Queensland (Dodd), 1 ♀.3. *Naprepa fusconubilata* spec. nov.Nearest to *flexifera* Schaus, but has shorter and broader wings.

♂. Forewing much less rufous, the outer one-third obliquely clouded and streaked with greenish grey, the two obliquely vertical white spots above vein 1 absent and replaced by a longitudinal white line on vein 1, the oblique zigzag dark band of forewing less distinct.—Hindwings rufous wood-brown **not** dark rufous chestnut, the white and black ocellate spot above tornus enclosed in a grey irrorated patch, the lighter postmedian line longer and more evenly curved. Thorax dark chocolate *without* whitish tufts.

♀. Similar, but much larger, and has a large whitish tuft on first abdominal segment.

Length of forewing: ♂ 41 mm., ♀ 62 mm. Expanse: ♂ 92 mm., ♀ 136 mm.

Habitat. Las Quignas, near San Esteban, Venezuela (S. M. Klages); San Esteban, Venezuela, July 1909 (S. M. Klages) (type, ♂ San Esteban), 2 ♂♂, 1 ♀.

4. *Naprepa adusta* spec. nov.♀. Resembles nothing else in the genus, but nearest to *pulcheria* Druce.

Antennae brown; head, thorax, and abdomen buffish cinnamon, a darker median line on patagia.

Forewing buffish cinnamon suffused with rusty brown, giving the appearance of having been scorched, this burnt appearance being much stronger

on the outer half of the wing; median three-fifths of costal area and for part of cell creamy greyish buff; a sinuate postmedian line of black dots and a black dot under base of vein 2; lobe of inner margin hardly produced; in outer two-thirds of wing are a number of dark striae reaching from apex of cell and median nervure to termen.—Hindwing buffish cinnamon, a postmedian sinuate band consisting of an inner portion darker than rest of wing and an outer one paler; a brownish patch at tornus and traces of dark half-moons along margin.

Length of forewing: 40 mm. Expanse: 87 mm.

Habitat. Tinguri, Carabaya, South-east Peru, 3,400 ft., August 1904 (G. Ockenden), 1 ♀.

5. *Antiora affinis* spec. nov.

♂. Differs from *A. subrufula* Walk. in the wings being shorter and broader. The forewings appear darker and more maroon, owing to the reduction of the grey irroration; the white stigma and postmedian transverse band are **absent**; between veins 2 and 4 is a postmedian ill-defined cloudy whitish patch.

The hindwings differ in being quite black and having a median cloudy whitish patch.

Below entirely black, and the cloudy whitish patches on fore- and hindwings much more sharply defined and whiter.

Length of forewing: 19 mm. Expanse: 43 mm.

Habitat ?.

6a. *Cargida pyrrha intensa* subsp. nov.

Differs from *pyrrha pyrrha* in being much darker and in the pattern being much more strongly marked.

Habitat. Nogales, Arizona, July 1903 (Oslar), 4 ♂♂, 1 ♀.

7. *Nystalea nigriplaga* spec. nov.

♀. Nearest to *idonea* Walk.

Antennae dark brown; frons and palpi wood-buff, vertex sooty grey; the two tufts at base of antennae, the tegulae, and patagia sooty blackish grey edged with buffish, the rest of thorax and abdomen dark wood-grey slightly variegated with buff.

Forewing dark blackish wood-brown variegated all over with buffish and rusty brown-buff, which on costa consists of bent streaks in basal three-fifths and of square dots on outer one-fifth. A black round velvety stigma ringed with buffish on lower corner of discocellulars with a dark rufous spot above it and a dull sooty black quadrate spot behind it; an oblong sooty black patch extends obliquely from end of cell to termen, in this patch is an oblique buff streak and some indications of buffish dots; a row of black chevrons on margin and fringe of termen.—Hindwings sooty black-brown; basal half suffused with buff; fringe and abdominal margin buff.

Length of forewing: 42 mm. Expanse: 92 mm.

Habitat. La Oroya, Rio Inambari, South-east Peru, 3,100 ft., December 1905 (G. Ockenden), 1 ♀ type; 1 ♀ Santo Domingo, Carabaya, 6,500 ft., December 1902 (G. Ockenden).

8. *Nystalea cossoides* spec. nov.

♂. Nearest to *guzmani* Schaus.

Antennae black-brown; head and tegulae deep chestnut; thorax silvery grey and deep chestnut mixed with a pale chestnut tuft on hind edge; abdomen dark wood-brown, last segment and anal tuft cinnamon.

Forewing clouded mouse-grey, the central three-fifths suffused with brown, a basal chestnut patch on upper half of wing; a convex curved double transverse line, inwardly dull chestnut, outwardly black, a similar double sinuous postmedian line, but with the inner part black and outer chestnut; in between these two transverse bands are a number of short and irregular black hair-lines and rings, and some grey patches in the browner ground-colour; some black subapical hair-streaks and a black crenulated terminal line.—Hindwing: basal two-thirds greyish, somewhat thinly scaled and hyaline, outer one-third sooty black-brown, fringe white.

Length of forewing: 23 mm. Expanse: 52 mm.

Habitat. Santo Domingo, Carabaya, South-east Peru, 6,000 ft. (G. Ockenden), 1 ♂.

9. *Nystalea zeuzeroides* spec. nov.

♂. Nearest to *discalis* Schaus.

Antennae dark brown; palpi buff at the upturned third joint, rest streaked grey and chestnut; head, antennal tuft, and tegulae deep bright chestnut; basal half of patagia roan-grey, rest of patagia and thorax bright maroon-brown; abdomen brown with mauve tinge.

Forewing silvery mouse-grey variegated with a large number of sinuate and zigzag transverse lines of different widths of bright brown, wood-brown or whitish; at end of cell is a stigma of dark grey surrounded by a brown line, a postdiscal dark brown streak on subcostal.—Hindwings dark brown, basal two-thirds variegated with some buffish clouding.

Length of forewing: 29 mm. Expanse: 66 mm.

Habitat: Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 6 ♂♂.

10. *Nystalea ocellata* spec. nov.

♂ ♀. Antennae brown serrated with pale rusty teeth; head yellowish cinnamon rufous; antennal tufts short, some colour; tegulae and base of patagia cinnamon rufous, some of the hairs tipped with violaceous grey; rest of patagia and thorax violaceous brown tipped with grey and mauve; abdomen wood grey-brown, a chestnut tuft on first segment.

Forewing liver-brown with a series of streaks on costa, some chestnut, others brown, buff, or mauve, and some darker and paler transverse crenulate shadow-lines on basal half of wing; a median basal black spot and a similar larger one on vein 1; beyond the cell is a broad band from costa to median vein, the inner half of this band is half rufous, half black, the outer half rufous with two marginal silvery-mauve lines and between these lines powdered with silvery mauve; this band is followed by three or four crenulate angled dark lines variegated with streaks and freckles of silvery mauve and blue; a subapical velvety black spot surrounded by a buff and speckled area giving somewhat the effect of an ocellus; a submarginal row of slate-blue somewhat ocellated dots.

—Hindwing: basal half dirty buff suffused with earth-brown, outer half earth-brown.

Length of forewing: 21–25 mm. Expanse: 47–56 mm.

Habitat. La Oroya, Rio Inambari, South-east Peru, 3,100 ft., December 1905 (G. Ockenden), 5 ♂♂, type; Rio Demerara, British Guiana, 1 ♂, 1 ♀.

11. *Bardaxima molossus* spec. nov.

♂. Antennae brown; palpi, head, tegulae, and centre of thorax dark chocolate-brown; a small tuft of buffy-yellow hair below antennae; patagia very large olive-grey, pale grey at base; abdomen wood-brown.

Forewing: basal two-fifths greyish wood-brown densely strigillated and suffused with darker brown; a median slightly curved double black-brown transverse line, two blackish dots in median fold in basal one-fifth; outer three-fifths wood-grey strigillated with yellowish brown and dark brown; the striae in some places so arranged as to form transverse bands more or less distinct; outer one-fifth of costa with double excision; a large chestnut subapical patch.

—Hindwing greyish wood-brown, fringe buff.

Length of forewing: 31 mm. Expanse: 73 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 1 ♂.

12. *Bardaxima castaneobrunnea* spec. nov.

♂. Antennae red-brown; head and thorax deep chocolate-rufous; abdomen similar but washed with black.

Forewing bright rufous chocolate, suffused here and there with purplish mauve; a number of crenulate streaks and spots more or less indistinct rufous cinnamon; a rufous cinnamon stigma at apex of cell containing two black lunules; a large round ocellate subapical patch blackish chocolate.—Hindwings blackish chocolate-brown.

Length of forewing: 20 mm. Expanse: 46 mm.

Habitat. Rio Demerara, British Guiana, 2 ♂♂.

13. *Eragisa basifera* spec. nov.

♂. Antennae brown; head and thorax mossy green-grey; abdomen mouse-grey suffused with pinkish cinnamon.

Forewing mossy green-grey, a dull chestnut broad subbasal transverse band edged outwardly by a triple black line, the outermost line being interrupted; postmedian and submarginal lines of white spots.—Hindwing cream-buff; abdominal area brownish buff; termen and tornus suffused with cinnamon.

Length of forewing: 23 mm. Expanse: 52 mm.

Habitat. Potaro, British Guiana, February–June 1908 (S. M. Klages), 6 ♂♂; Aroewarwa Creek, Maroewym Valley, Surinam, May 1905 (S. M. Klages), 2 ♂♂; La Union, Rio Huacamayo, Carabaya, South-east Peru, 2,000 ft., December 1904 (G. Ockenden), 3 ♂♂. Type, Potaro.

13x. *Eragisa tenebrosa* spec. nov.

♂. Antennae strongly pectinated sooty black; head deep blackish chocolate; thorax blackish chocolate mixed with rufous chocolate; abdomen dirty brown-buff at base and on sides of first four segments.

Forewing deep blackish chocolate suffused with a slaty purple bloom from a dusting of bluish scales, a number of more or less distinct transverse crenulate and waved lines of black spots and lunules; a buff stigma outlined in black. —Hindwing sooty brown, basal one-third and abdominal area suffused and mixed with buff; a rusty buff broken line in fringe.

Length of forewing: 33 mm. Expanse: 75 mm.

Habitat. Chiriqui, Panama, 1 ♂.

14a. *Crinodes striolata fuscipennis* subsp. nov.

♂ ♀. Differ from *striolata striolata* from Brazil in their darker duller forewings and in the hindwings being uniform grey-brown, **not** variegated with buff.

Habitat. Venezuela and Costa Rica and Peru (type ♂, Tinguri, Carabaya, South-east Peru, August 1904, G. Ockenden), 10 specimens.

14b. *Crinodes striolata insularis* subsp. nov.

♂ ♀. Differ from *striolata striolata* in being suffused with dark brownish cinnamon which gives it a washed-out appearance.

Habitat. Trinidad, 10 specimens.

15. *Crinodes schausi* spec. nov.

Mr. W. Schaus was the first to point out that the insect figured by Huebner as the ♀ of his *beskei* was a distinct species which he named *striolata* but Mr. Schaus lumped together under the name of *striolata* specimens with striolated forewings and without; considering the non-striolated ♀♀ to be the ♀♀ of his *striolata*. However, I have a big series of the non-striolated form containing both ♂♂ and ♀♀, and I consider it a good species.

♂ ♀. Differ from *ritsimae* in the rufous chocolate **not** sooty black-brown colour, in the long narrow **not** short kidney-shaped stigma and which is **not** buff, in the more striated baso-costal region of forewing, and in the longer and narrower pale wedge on inner margin.

Habitat. Mexico and Costa Rica, 57 specimens.

16a. *Lepasta bractea gigantea* subsp. nov.

♂ ♀. Much larger than *bractea bractea*, and much more sooty grey without any trace of cinnamon.

Length of forewing, *bractea bractea*, ♂ 19 mm., ♀ 21 mm.; expanse, ♂ 43 mm., ♀ 47 mm.

Length of forewing, *bractea gigantea*, ♂ 26 mm., ♀ 26 mm.; expanse, ♂ 58 mm., ♀ 58 mm.

Habitat. Santo Domingo, Carabaya, 6,500 ft., December 1902 (G. Ockenden), 1 ♀ (type); La Union, Rio Huacamayo, 2,000 ft., November 1904 (G. Ockenden), 1 ♂.

17. *Tachida cossula* spec. nov.

♂ ♀. Antennae brown; head and tegulae dark cinnamon suffused with sooty grey; rest of thorax variegated with various shades of grey.

Forewing mauve-grey clouded with various band-like suffusions of brown

and grey; an indistinct subbasal band black and rufous; a double crenulate antemedian band inwardly buffish, outwardly black; a pale stigma with dark grey centre, a heavy velvety black postmedian band slightly angled or rather projecting at vein 3; beyond this an indistinct sinuate crenulate and interrupted line, and a black terminal hair-line.—Hindwings dirty white, buffish on abdominal area, a brown marginal line somewhat spreading into wing.

Length of forewing: 20 mm. Expanse: 46 mm.

Habitat. Buenavista, East Bolivia, 750 m. = 2,438 ft., August 1906—April 1907 (J. Steinbach), 2 ♀♀; Santo Antonio do Javary, Upper Amazons, June 1907 (S. M. Klages), 6 ♂♂. (These ♂♂ have much less conspicuous antemedian bands, but are not fresh.)

18. *Dyasia stigmatica* spec. nov.

♂. Antennae orange-brown; head, thorax, and abdomen purplish sooty black-brown.

Forewing purplish sooty brown; basal one-third with scattered rusty striae joined to velvety black ditto; these on the outer edge of this part of wing conglomerated to form a rather ill-defined broad antemedian rufous band containing black spots; outer two-thirds with hardly any of these striae, an oblique postmedian line of rufous spots with black centres; a large subapical rust-red patch like a brand in the centre of which is a broad brown-black band.—Hindwings dirty white; costal and abdominal areas dirty grey; termen greyish.

Length of forewing: 25 mm. Expanse: 57 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 1 ♂.

19. *Dyasia melanoleuca* spec. nov.

♂. Antennae brown; head purplish blackish chocolate; thorax dirty white; abdomen brownish buffy grey; basal segment whitish; anal tuft buff.

Forewing purplish sooty black-brown, paler on outer one-third; basal one-seventh obliquely pure white; dark portion of basal two-thirds of wing crossed by a lot of very indistinct crenulate lines of dots, a more distinct postmedian double curved band of such spots; costa spotted with dark spots, two larger round black subapical spots obliquely placed; a black spot above vein 2.—Hindwing: abdominal two-thirds white, costo-terminal one-third dirty sooty brown.

Length of forewing: 15 mm. Expanse: 34 mm.

Habitat. St. Jean de Maroni, French Guiana, 3 ♂♂.

20. *Dyasia punctata* spec. nov.

♂. Antennae brown; head and thorax cinnamon-brown; abdomen yellowish wood-grey; a black round spot on anal segment.

Forewing mauve pinkish cinnamon clouded with band-like cloudings of brown and with numerous streaks and specklings; a round black subbasal spot in median fold, a blurred blackish broad antemedian black-brown band followed by a somewhat curved line of different-sized black spots; a postmedian line of black spots; two large subapical black spots and one about vein 3.—Hindwing wood-brown, basal two-thirds washed with buff; fringe buff.

Length of forewing: 26 mm. Expanse: 59 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 1 ♂.

21. *Lirimiris guatemalensis* spec. nov.

♂ ♀. Differs from *truncata* Herr.-Sch. in having the head and tegulae dark brown like the thorax, the antennae much darker, and the pectinations longer, and in the pale costal two-fifths of the forewing being white **not** yellow.

Length of forewing: ♂ 35 mm., ♀ 37 mm. Expanse: ♂ 77 mm., ♀ 81 mm.

Habitat. Ciudad de Guatemala (Rodriguez), 2 ♂♂, 1 ♀.

22. *Lirimiris chimaera* spec. nov.

♂. Allied to *truncata*, but at once distinguished by its very long, narrow, and strongly curved forewings.

Antennae chestnut rufous with enormously long pectinations; head and tegulae cream-buff; rest of thorax deep chocolate-brown with an olive tinge on patagia; abdomen sooty brown-grey, segments 5 and 6 paler.

Forewing strongly curved and very narrow; costal two-fifths cream-buff, a streak in cell along median, outer one-third of costal area, a band below it, and a subterminal band rust-red; a few scattered rust-red scales in cream-buff area; rest of wing chocolate-brown washed with olive.—Hindwing dull white tinged strongly on nervures and on abdominal area with dirty grey, margin and tornus rusty brown.

Length of forewing: 49 mm.; breadth at lobe: 13 mm.; breadth at tornus: 13 mm. Expanse: 108 mm.

Habitat. Santo Domingo, Carabaya, July 1902, 6,000 ft. (G. Ockenden), 1 ♂.

23. *Lirimiris lemoulti* spec. nov.

Allied to *meridionalis* Schaus, but much smaller and darker.

♂. Antennae deep brown heavily pectinated; head wood-buff; thorax olive wood-brown; tegulae sprinkled with buffish grey; abdomen dark wood-brown.

Forewing deep wood-brown grained and striated similar to wood; basal one-sixth much paler and with two chevron-like double marks, a large irregular stigma outlined with white, an irregular ill-defined postmedian double row of evanescent dusky spots, some black and white streaks on inner margin, an oblique ill-defined pale patch from costa to antemarginal white line divided in middle by dark streak, an antemarginal curved and minute white line followed by two white and black crenulate submarginal hair-lines.—Hindwing sooty brown, a postmedian pale band indicated and a series of pale and black bands round and on tornus.

Length of forewing: 25–26 mm. Expanse: 56–58 mm.

Habitat. St. Jean de Maroni, French Guiana.

[*Lirimiris elongata* Schaus and *L. euribya* (Druce).]

Mr. Schaus has united these two insects as the same species, but they are really two very distinct species. *L. euribya* is much smaller and has the costa much straighter, *i.e.* much less convex. The basal two-thirds of the forewings are orange-cinnamon and the outer one-third cinnamon-buff, while in *elongata* the basal half of the forewing is greyish wood-brown, the outer half being wood-

grey with a buffish tinge. Moreover, within the last two years both species have been bred by the Rev. Miles Moss at Para, and the larvae are totally different and feed on quite different trees.

Length of forewing, *elongata*, ♂ 38–45 mm. Expanse, 83–98 mm.
 „ „ *euribya*, ♂ 28–36 mm. Expanse, 62–78 mm.
 „ „ *elongata*, ♀ 48–58 mm. Expanse, 105–127 mm.]

23 bis a. *Lirimiris elongata postpallida* subsp. nov.

♂. Differs from *elongata elongata* from Peru in its almost white hindwings, and the forewings being less grey, more suffused with pale buff.

Habitat. Costa Rica, Tuis (W. Schaus).

23 bis b. *Lirimiris elongata orientalis* subsp. nov.

♂. Differs from *e. elongata* in having the forewings suffused with brownish buff, and the hindwings, although dark brown as in *e. elongata*, also show a more yellowish tone.

Habitat. Potaro, British Guiana, February 1908 (S. M. Klages); Omai, British Guiana; British Guiana bought at Georgetown (Rev. Mr. Whitford) (type); St. Jean de Maroni, French Guiana; Fonte Boa, Upper Amazons, September 1906 (S. M. Klages). 9 specimens in all.

24. *Lirimiris mirabilis* spec. nov.

♂. Antennae strongly pectinated amber-brown; head and thorax buff; abdomen sooty grey-black; last segment and anal tuft grey.

Forewing: basal two-fifths buff with some slightly darker marks; a large cream-white round spot in a larger olive-brown patch at end of cell, from which runs a broad cream band towards apex; outer four-fifths of costa sooty black, extending into the wing beyond cell as low as base of vein 5 and then narrowing again towards apex, a subapical chocolate patch, rest of wing buff shaded somewhat with brown, a postmedian doubly zigzag line somewhat faint and shadowy; between veins 4 and 6 some irregular pale rufous-brown patches and a marginal band of pale rufous from vein 4 to vein 1; wing strongly excised between veins 4 and 1; along outer half of vein 1 wing is sooty grey.—Hindwing white.

♀. Similar but paler; forewing less excised between veins 1 and 4; margin of hindwing slightly rufous.

Length of forewing: 37 mm. Expanse: 81 mm.

Habitat. Pozuzu, Peru, 900 m. = 2,925 ft. (W. Hoffmann), 1 ♂ (type); Valencia, Venezuela, 1 ♀.

25. *Arhacia postbrunnea* spec. nov.

♂. Antennae shaft dark brown, pectinations paler; palpi chocolate; head olive-buff; thorax olive-buff striped with pale brown, and tegulae ringed with chocolate; abdomen sooty black-brown, anal tuft edged and suffused with paler brown.

Forewing olive-buff with a chocolate border all round except on basal one-sixth of costa; a yellow-buff stigma with two darker lines in it, a brown smear

in median fold and various streaks and smears of darker and paler olive-buff on disc; an indistinct zigzag postdiscal brownish line and in the chocolate border along termen are two pinkish submarginal hair-lines and a broader buff line along inner side of terminal portion of chocolate border.—Hindwing sooty black-brown; basal two-thirds of costal, one-third of wing and abdominal area suffused with olive-buff; two pinkish lines at tornus.

Length of forewing: 25 mm. Expanse: 56 mm.

Habitat. St. Jean de Maroni, French Guiana.

26. *Drugera pallidiflava* spec. nov.

♀. Antennae pale brown; head and thorax rusty buff mixed with grey and brown hairs; abdomen yellowish wood-grey, an orange patch on second segment.

Forewing shining buff; base olive-brown, an oblique rather indistinct antemedian olive-rufous band and curved concave broad postmedian similar band; three anteapical rufous-chocolate spots on costa, which is washed with rusty rufous; a rufous interrupted antimarginal line, outer margin strongly convex.—Hindwing buff suffused with mauve or purplish brown.

Length of forewing: 22 mm. Expanse: 49 mm.

Habitat. La Oroya, Rio Inambari, South-east Peru, January 1906, 3,100 ft. (G. Ockenden).

27. *Drugera muscosa* spec. nov.

♂. Antennae amber-brown serrated deeply on one side, one-fourth from base is a large comblike structure consisting of prolonged and widened teeth, first joint very long, rest of antennae attached to first joint by a flat tongue on underside only; head and thorax dark chocolate-brown washed with olive-green; abdomen cinnamon chocolate-brown.

Forewing blackish moss-green, with subbasal, antemedian, median, three postmedian, and submarginal irregular lines of lighter and darker coalescent half-moons, the submarginal row is greyish white inside.—Hindwings cinnamon chocolate-brown.

Length of forewing: 27–29 mm. Expanse: 61–65 mm.

Habitat. Maraval, Trinidad, July 1891 (type); Calama, Rio Madeira (W. Hoffmanns).

28. *Psilacron sericeus* spec. nov.

♂. Antennae strongly pectinated, decreasing regularly to the apex, rufous, shaft buff; head and thorax very shaggy, cinnamon-chocolate much mixed with buff and greenish hairs; abdomen chocolate-cinnamon, anal tuft buff.

Forewing bright buff clouded with greyish and cinnamon, giving it a greenish olivaceous tinge; costal area chocolate-cinnamon much shaded with buff, a basal chocolate line, a double antemedian band, upper half thick and chocolate, lower half thin and grey; a somewhat ill-defined and hazy large wedge-shaped patch of chocolate suffused with buff occupies the costal three-fifths of disc of wing, within which is a large double buff stigma; the forewing has a strong satiny lustre and is very thickly scaled.—Hindwing chocolate-cinnamon.

Length of forewing: 22 mm. Expanse: 51 mm.

Habitat. 4 Huancabamba, Cerro de Pasco, Peru (E. Böttger) (type); 1 Oconeque, Carabaya, 7,000 ft., South-east Peru, July 1904 (G. Ockenden).

29. *Psilacron divisa* spec. nov.

♂. Antennae rufous; head and thorax rufous cinnamon-chestnut; abdomen black-brown, anal tuft dull rufous.

Forewing chestnut cinnamon-rufous; costa with oblique darker streaks, a number of ante- and postmedian lines of darker coalescent lunules, a small black stigmatic spot, and a yellowish streak beyond cell.—Hindwings black-brown.

Length of forewing: 16 mm. Expanse: 36 mm.

Habitat. 1 Fonte Boa, Upper Amazons, May 1906 (S. M. Klages) (type); 1 La Union, Rio Huacamayo, South-east Peru, 2,000 ft., November 1904 (G. Ockenden).

30. *Notoplusia distinguenda* spec. nov.

♂. Antennae brown; head and thorax pale mauve suffused with red; abdomen mauve-brown with an upright deep red tuft on first segment, and on second and third segments similar mauve-brown tufts tipped or sprinkled with red; anal tuft large mauve-brown tipped with dark brown.

Forewing: basal half obliquely dull brown tinged with mauve, with indistinct lines of darker streaks, and a large dumbbell-shaped patch of apple-green; outer half cinnamon-mauve, an irregular submarginal band of maroon-red spots, forked in upper half, one patch on inner fork very large; termen maroon-red.—Hindwings: basal half pale wood-grey, outer half darker brownish grey.

♀ larger with hindwing all dark grey.

Length of forewing: ♂ 22 mm., ♀ 26 mm. Expanse: ♂ 48 mm., ♀ 57 mm.

Habitat. 2 ♂♂, 1 ♀, Fonte Boa, Upper Amazons, October 1906 (S. M. Klages); 1 ♂, 1 ♀, Santo Antonio do Javary, Upper Amazons, May 1907 (S. M. Klages); 1 ♂, Allianca below San Antonio, Rio Madeira, November 1907 (W. Hoffmanns) (type); 1 ♂, St. Jean de Maroni, French Guiana.

31. *Trichomoplata dimorpha* spec. nov.

♂. Antennae amber-brown; head, thorax, and abdomen dirty greyish buff.

Forewing semihyaline dirty white; basal three-fourths of costal area and basal half of wing more heavily scaled, dirty yellowish grey clouded, and also similar though much fainter cloudings at apex and along subterminal area, a large rusty orange patch on basal half of vein 2.—Hindwing semihyaline white; costal and abdominal areas dirty pale yellowish grey.

♀. Much larger; antennae rufous cinnamon; head and thorax buffish cinnamon; abdomen darker.

Forewing buffish cinnamon with indistinct darker lines and streaks, central part of disc beyond middle semihyaline whitish with bands and streaks of cinnamon; on vein 2 is a large blood-red patch and obliquely below it one of rusty brown, a submarginal curved double hair-line white and deep rufous.—Hind-

wing semihyaline whitish, more or less thickly clothed with rusty cinnamon hairs especially on abdominal and costal regions.

Length of forewing: ♂ 22 mm., ♀ 29 mm. Expanse: ♂ 50 mm., ♀ 67 mm.

Habitat. 3 ♂♂, 6 ♀♀, Fonte Boa, Upper Amazons, May 1906 (S. M. Klages) (♀ type).

32. *Trichomoplata stigmatica* spec. nov.

♂. Antennae amber-yellow; head dark buff; thorax and abdomen rusty cinnamon.

Forewing rusty cinnamon, disc beyond middle semihyaline, basal one-third of wing washed with pale brown in type and with blackish in second specimen; at apex of cell a veniform black stigma with buff centre and an orange spot outside it distad; a large rufous orange patch on vein 2.—Hindwing semihyaline white; costal and abdominal areas densely clothed with cinnamon-buff hairs.

Length of forewing: 20 mm. Expanse: 46 mm.

Habitat. 2 ♂♂, Fonte Boa, Upper Amazons, May 1906 (S. M. Klages).

33. *Stauropus nitidus* spec. nov.

♂. Antennae amber-brown; head and thorax yellowish golden bronze; abdomen brownish cinnamon.

Forewing deep rufous chocolate densely powdered with metallic green; a subbasal spot and an angulated streak below median white, a white irregular discocellular patch; a postmedian band of white lunules angled outwards and a postdiscal green band angled inwards meet between veins 3 and 4 and form a cross (×), the inner, upper, and lower arms being formed by the band of white lunules and the outer by the green band.—Hindwing: basal three-fifths pale cinnamon clothed with yellowish hairs, outer two-fifths darker cinnamon.

♀. Similar, but the metallic green powdering much denser, and in consequence the insect appears almost green.

Length of forewing: ♂ 22 mm., ♀ 24 mm. Expanse: ♂ 49 mm., ♀ 53 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., January–February 1911 (A. S. Meek), 7 ♂♂, 2 ♀♀.

34. *Stauropus flavicollis* spec. nov.

♂ ♀. Antennae brown; head and tegulae buffish yellow, base of tegulae white; rest of thorax chocolate-purple, most of the hairs with small white tips; abdomen clayey wood-brown.

Forewing chocolate-purple powdered with white scales, the absence of these white scales in places causes the wing to appear banded with sinuous and zigzag dark transverse lines; along costa patches of metallic apple-green, some similar green scales near centre of disc, three postdiscal green lunate patches.—Hindwing pale cinnamon, apex with chocolate-purple and white patch.

Length of forewing: ♂ 20 mm., ♀ 23 mm. Expanse: ♂ 45 mm., ♀ 52 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., February 1911 (A. S. Meek), 1 ♂, 1 ♀ (♀ type).

35. *Stauropus purpurascens* spec. nov.

♂. Antennae deep brown; head and thorax chocolate maroon-purple powdered somewhat with white; abdomen pale wood-brown.

Forewing chocolate maroon-purple powdered with pale lavender and metallic apple-green scales, the absence in places of these scales gives the wings the appearance of being spotted with brighter purple patches; a cinnamon-white discocellular stigma, an irregular broken postdiscal green band produced by the conglomeration of the green scales.—Hindwing whitish washed with purplish cinnamon, darker towards margins; a deep purple-cinnamon patch at apex.

♀. Similar, larger, and with denser green scaling; no stigma in forewing; hindwing cinnamon grey-brown; purple apical patch powdered with green.

Length of forewing: ♂ 19 mm., ♀ 25 mm. Expanse: ♂ 42 mm., ♀ 56 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., February 1911 (A. S. Meek), 4 ♂♂, 2 ♀♀.

36. *Stauropus viridinitens* spec. nov.

♂ ♀. Antennae cinnamon-brown; palpi dark brown, third joint orange, very shaggy; head grey with large tuft of hair on vertex; thorax brown, the very long hair tipped with long tips of yellowish green; abdomen chocolate-cinnamon.

Forewing greyish white, densely covered over with metallic green scales; a double antemedial line purple-brown, a double irregular sinuous postmedian band partly of lunules, partly of irregular patches purple-brown, a purple-brown subterminal band of streaks.—Hindwing chocolate-cinnamon; apical patch purple-brown, densely coated with green scales.

Length of forewing: ♂ 24 mm., ♀ 27 mm. Expanse: ♂ 55 mm., ♀ 62 mm.

Habitat. Biagi, Mambare River, North-east British New Guinea, 5,000 ft., January 1906 (A. S. Meek) (type ♀), 7 ♂♂, 1 ♀.

37. *Stauropus leucophaeus* spec. nov.

♀. Antennae bright brown; head and thorax pale coffee-brown mixed with dirty white; abdomen dirty brownish cinnamon.

Forewing deep chocolate-brown powdered densely with white scales, a band before middle, a broken irregular patchlike postmedian band, and a zigzag subterminal line entirely without white scales; a broad irregular postdiscal area grey, as is the double stigma.—Hindwing pale chocolate-cinnamon; apical patch brown and white.

Length of forewing: 25 mm. Expanse: 55.5 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., February 1911 (A. S. Meek), 1 ♀.

38. *Stauropus glaucoviridis* spec. nov.

♀. Antennae amber-brown; head and thorax pale bluish sage-green, hairs each tipped with white, inner edges of patagia and patch in centre of thorax dirty grey; abdomen cinnamon wood-brown.

Forewing bluish sage-green encrusted with a here-and-there broken layer

of thick white scales, the ground-colour appearing in patches, a broad oblique postmedian band and a broad anteterminal band in which latter runs a subterminal white line of short streaks; some black spots on costa and a black antemedian band reaching to above vein 1; fringe chequered sooty grey and sage-green.—Hindwing cinnamon grey-brown.

Length of forewing: 23 mm. Expanse: 52 mm.

Habitat. Biagi, Mambare, North-east British New Guinea, April 1906 (A. S. Meek), 1 ♀.

39. *Stauropus triplagosus* spec. nov.

♀. Antennae brown; head cinnamon-grey; thorax brown, each hair with outer half dirty whitish grey so that the colour appears grizzled; abdomen very pale cinnamon-brown.

Forewing whitish grey powdered with darker scales and in several large patches washed with greenish buff; a large patch beyond discocellulars running from costa into the wing, a baso-subbasal patch below median, and a patch between inner margin and centre of vein 2 dark brown slightly sprinkled with grey; double zigzag ante- and postmedian lines and a sinuous subterminal hair-line also dark brown.—Hindwing pale cinnamon-brown, costal one-third grey with large subapical dark brown patch.

Length of forewing: 28 mm. Expanse: 63 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 500 ft., February 1911 (A. S. Meek), 1 ♀.

40. *Stauropus frugilegus* spec. nov.

♂. Antennae brown; head and thorax mouse-grey; abdomen mouse-grey.

Forewing mouse-grey suffused with olive-green, double ante- and postmedian darker lines, the space between the double lines and also between the two lines of each double line a sprinkling of bluish or lavender scales producing a glaucous appearance; a sinuous subterminal dark line beyond which are also bluish scales.—Hindwing dirty white; abdominal area hairy buff; costal area same colour as forewing, outer one-fifth below this pale brownish cinnamon, tapering to vein 1.

Length of forewing: 23 mm. Expanse: 52 mm.

Habitat. Rook Island (New Guinea), August–September 1913, 2 ♂♂ (A. S. Meek).

41. *Stauropus viridogrisea* spec. nov.

♂. Antennae brown; head rufous cinnamon, strongly mixed with whitish; thorax cinnamon so strongly mixed with white as to appear dull whitish grey; abdomen pale cinnamon-brown.

Forewing brown, outer half densely, basal half less densely suffused with white and spangled with patches of metallic green scales; a number of dark indistinct sinuous double lines cross the disc of the wing, a waved subterminal dark brown hair-line.—Hindwing pale greyish cinnamon-brown, a large dark brown subapical patch powdered with green scales.

♀. Much larger and paler with the sinuous lines much more distinct.

Length of forewing : ♂ 20 mm., ♀ 29 mm. Expanse : ♂ 45 mm., ♀ 66 mm.

Habitat. Biagi, Mambare, 5,000 ft., April 1906 (A. S. Meek), 1 ♂ (type); Upper Aroa River, British New Guinea, March 1903 (A. S. Meek), 1 ♀.

42. *Stauropus albviridis* spec. nov.

♀. Antennae rufous; head and thorax cinnamon maroon strongly mixed with white; abdomen pale cinnamon brown.

Forewing white; basal one-fifth and inner area running along beyond vein 1 and into a patch reaching vein 2 metallic green, in the latter patch a white spot, terminal area suffused with metallic green, a large costo-subcostal green patch with white in it, and two lines proceeding to join patch below vein 2.—Hindwings pale greyish cinnamon; costal area white with large subapical chocolate patch powdered with green.

Length of forewing : 25 mm. Expanse : 55 mm.

Habitat. Biagi, Mambare, 5,000 ft., January 1906 (A. S. Meek), 2 ♀♀.

43. *Stauropus germana* spec. nov.

♂. Similar to *pallidifascia* Hmps. but at once distinguished by the double postmedian band **not** being angled, but evenly curved.

Antennae black-brown; head and thorax chocolate rufous; centre of abdomen rufous maroon, sides rufous cinnamon.

Forewing : base and outer one-third slate-grey, the latter with rufous brown cloud-marks and a maroon subterminal hair-line; rest of wing deep rufous with indistinct cloudings, a double curved postmedian band of blood red with cinnamon rufous interspace; a pale stigma.—Hindwing buffy cream-colour; costal one-third maroon rufous with slate-grey apex.

♀. Larger markings similar but deep rufous replaced by chocolate and postmedian double line followed by a broad band of bluish-grey white; hindwing grey-brown.

Length of forewing : ♂ 24 mm., ♀ 29 mm. Expanse : ♂ 54 mm., ♀ 66 mm.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 3 ♂♂, 2 ♀♀ (♂ type); Biagi, Mambare, 5,000 ft., March 1906 (A. S. Meek), 1 ♀.

44. *Stauropus rufescens* spec. nov.

♂. Antennae deep brown; head white tinged with cinnamon, vertex pale lemon; tegulae white mixed with deep rufous, rest of thorax deep maroon rufous; abdomen grey-brown.

Forewing : basal one-fourth pale rufous densely sprinkled with metallic apple-green scales; disc of wing bright maroon rufous, outer one-fourth sprinkled with apple-green giving it a deep brown appearance.—Hindwing inner half cream-white slightly tinged with rufous, rest of wing deep maroon rufous.

♀. Differs in the whole head being pale lemon, the tegulae whiter, and the rest of the thorax dark cinnamon.

The forewing has the basal three-fourths of forewing dark rufous chocolate and the apple-green scales intermixed with grey; the outer fourth is rufous grey with only green scaling along terminal area.—Hindwings darker.

Length of forewing: ♂ 18 mm., ♀ 20 mm. Expanse: ♂ 40 mm., ♀ 46 mm.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 1 ♂ type; Biagi, Mambare, 5,000 ft., April 1906 (A. S. Meek), 1 ♂, 1 ♀.

45. *Stauropus sikkimensis khasianus* subsp. nov.

♂. Differs from *s. sikkimensis* in the thorax and base of the forewing being apple-green **not** grey, and rest of the wing deep spinach-green, as is also the large square apical patch on the hindwing.

Habitat. Khasia Hills, Assam, 8 ♂♂ (compared with 7 ♂♂, 2 ♀♀ from Darjeeling in Tring Museum).

46. *Stauropus affinis* spec. nov.

♀. Similar to *sikkimensis* and *s. khasiana*, but distinguished by the absence of definite cross bands on the forewing, by a pale subcostal patch one-third from apex, and by three black patches in and near apex of cell. Base of forewing and thorax mixed lavender-grey and apple-green; large apical patch on hindwing black.

Length of forewing: 26 mm. Expanse: 57 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 6,000–7,000 ft., February 1911 (A. S. Meek), 2 ♀♀.

47. *Stauropus mediolinea* spec. nov.

♂. Antennae dark brown; head and thorax mouse-grey; abdomen slightly browner.

Forewing pale mouse-grey, a double median irregular rufous band, the outer part only reaching median vein, basad from this some traces of zigzag lines and spots also rufous; a terminal line of black and white dots.—Hindwings darker mouse-grey with a terminal line of cuneate dark brown spots.

Length of forewing: 26 mm. Expanse: 58 mm.

Habitat. Chung-Kiang, West China, August 1911, 1 ♂.

48. *Stauropus incisus* spec. nov.

♀. Antennae dark brown; head, thorax, and abdomen yellowish grey mixed with white hairs.

Forewing white; base and basal four-fifths of wing below median and vein 2 olive-green into which runs a pure white wedge-shaped patch from median on which are some scarlet scales; rest of wing clouded and speckled with scarlet, green, and dark grey scales and spots.—Hindwing greyish brown-cinnamon, a black subapical streak.

Length of forewing: 20 mm. Expanse: 45 mm.

Habitat. Ogrugu, Niger.

49. *Stauropus apiculatus* spec. nov.

♂ ♀. Antennae deep brown; head and thorax pale maroon-cinnamon; abdomen cinnamon-brown, last segment and anal tuft ash-grey.

Forewing claret-cinnamon; base, inner margin below vein 1, a large lunate

postdiscal patch, and a smaller patch below vein 3 pinkish silver-grey.—Hindwings cinnamon-brown.

Length of forewing : ♂ 21 mm., ♀ 28 mm. Expanse : ♂ 47 mm., ♀ 63 mm.

Habitat. Penang, January—April 1898 (Curtis), 2 ♂♂, 1 ♀ (type ♀); 1 ♀ Khasia Hills, April 1897 (Native coll.).

50. *Stauropus notodontina* spec. nov.

♂. Antennae dull brown; head dirty white; thorax grey freckled with white and cinnamon brown-grey.

Forewing: basal three-fifths slate-grey clouded with paler grey, a double semicoalescing antemedian black line and a postmedian dark serrated band beyond which is a broad black sharply angulated line separating the basal three-fifths from rest of wing, an indication of a discocellular stigma; outer two-fifths of wing pale ash-grey, a dark grey streak from costa to vein 4 outside angled band; a black marginal hair-line.—Hindwing dirty white with brownish grey shaggy hair at base and on abdominal area, a black tornal spot and a dark grey terminal hair-line; fringe chequered grey and white with two black spots near tornus.

♀. Larger; forewing ground-colour uniform, grey bands and lines very distinct, angled black band broken between veins 2 and 3.—Hindwings cinnamon-grey with a darker and paler double median line.

Length of forewing : ♂ 25 mm., ♀ 29 mm. Expanse : ♂ 57 mm., ♀ 67 mm.

Habitat. Khasia Hills, Assam, May 1897 (Nat. coll.), 5 ♂♂, 4 ♀♀ (♀ type).

51. *Stauropus bipunctus* spec. nov.

♀. Similar to the last but more uniform grey.

Forewing mouse-grey with paler and darker shadowy serrated lines; two black spots obliquely vertical, one in cell and one below median, a postmedian serrated black band from costa to vein 4 outside, which is a black costal patch from which runs a dark grey serrated line also to vein 4.—Hindwings yellowish grey.

Length of forewing : 26 mm. Expanse : 60 mm.

Habitat. Penang, January 1897 (Curtis), 1 ♀.

52. *Cascera albiscripta* spec. nov.

♀. Antennae black-brown; head white, vertex buffish green; tegulae buffish green, rest of thorax buffish green shaded with pale brown and sprinkled with white; abdomen bronzy wood-brown.

Forewing olive-bronze, basal three-fifths with double white spots on costa, inside of cell white, reaching beyond median near base; an antemedian white curved hair-line and a dumbbell white patch beyond it below median; a large black reniform stigma and beyond it a broad white oblique band reaching from costa to vein 2; subterminal and terminal area whitish with cinnamon spots, a zigzag white line bordering it basad.—Hindwing: basal half bronzy wood-brown, outer half darker.

Length of forewing : 24 mm. Expanse : 55 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., February 1911 (A. S. Meek), 1 ♀.

53. *Cascera albiscripta virens* subsp. nov.

♀. Similar to *a. albiscripta* but paler bronzy olive-green.

Habitat. Angabunga River, affluent of St. Joseph's River, British New Guinea, November 1904—February 1905 (A. S. Meek), 1 ♀.

54. *Cascera marginata* spec. nov.

♀. Antennae brown; head brownish buff; thorax creamy brown, tegulae and patagia on inner side broadly with hairs tipped with white; abdomen brownish cinnamon.

Forewing dirty white variegated with streaks and cloudings of olive-brown, a deep chocolate stigma and a square pure white patch between basal half of veins 2 and 3; outer fourth of wing and area below median nervure chocolate-brown suffused with olive; some indistinct whitish lines and spots in area below median and an irregular white marginal line.—Hindwing brownish cinnamon.

Length of forewing: 25 mm. Expanse: 56 mm.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 1 ♀ type; near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek), 2 ♀♀.

55. *Cascera flavovirens* spec. nov.

♀. Antennae brown; head vinaceous mixed with cream-white; tegulae claret-colour edged with greenish white, patagia pale yellowish sea-green mixed with white and edged with claret-colour; rest of thorax and abdomen cinnamon.

Forewing mossy yellowish sea-green variegated with darker and whitish lines and clouds; costa with alternate maroon and white oblique bands and patches, a large antemedian angled maroon patch below median with white spot in angle, a pale maroon stigma, a white patch above vein 2, a broad irregular postdiscal maroon band, and a subterminal line of maroon and white cuneate spots.—Hindwings cinnamon.

Length of forewing: 28 mm. Expanse: 63 mm.

Habitat. Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek), 1 ♀.

56. *Cascera olivacea olivacea* spec. nov.

♂ ♀. Antennae rusty brown; head olive mixed with white; tegulae orange-buff, dark brown at base, rest of thorax buff washed with olive and with central dark brown spot; abdomen dark cinnamon.

Forewing velvety olive-brown, with irregular buff and green baso-subbasal marks, costa with white and olive on greenish buff markings, a central irregular olive-buff patch clouded with olive-brown and sharply reduced to half its width from base of vein 2 and with a large and smaller dark olive-brown patch above median; a white patch above vein 2 and an olive-buff zigzag subterminal line; fringe golden olive.—Hindwing dark cinnamon.

Length of forewing: ♂ 25 mm., ♀ 27 mm. Expanse: ♂ 57 mm., ♀ 61 mm.

Habitat. Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek), 1 ♂, 1 ♀.

56a. *Cascera olivacea flavolavata* subsp. nov.

♂. Differs from *o. olivacea* in being much paler and looks as if it had been soaked in a sulphur bath.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 1 ♂.

57. *Cascera irrorata* spec. nov.

♂. Antennae rufous brown; head cinnamon; tegulae cinnamon, hairs along edges tipped with white, rest of thorax dark cinnamon-brown with many hairs tipped with white; abdomen rufous cinnamon.

Forewing bright chocolate slightly washed with olive and streaked and lined irregularly with pale whitish pink; a white mark under median near base and an oval white patch on vein 2; an irregular sinuate white subterminal line; fringe mixed pale grey and brown.—Hindwings dark cinnamon.

Length of forewing: 21.5 mm. Expanse: 49 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., February 1911 (A. S. Meek), 1 ♂.

57a. *Cascera irrorata pallida* subsp. nov.

♂. Differs from *i. irrorata* in the forewings being paler and more washed with olive and the white and pinkish white marking much extended.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 1 ♂.

58. *Cascera perscripta* spec. nov.

♂ ♀. Antennae brown; head brownish buff; tegulae brownish orange-buff, rest of thorax deep cinnamon-brown mixed with cream-white; abdomen cinnamon.

Forewing velvety olive-green scribbled all over with pale buff lines and streaks, those in centre of disc tinged with bright pink.—Hindwing cinnamon.

Length of forewing: ♂ 23 mm., ♀ 25 mm. Expanse: ♂ 51 mm., ♀ 56 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., February 1911 (A. S. Meek), 2 ♂♂, 6 ♀♀.

59. *Cascera variegata* spec. nov.

♂. Antennae brown, basal three segments white; head cream-white; tegulae amber-yellow mixed with buff, rest of thorax amber-brown mixed with white and olive-green; abdomen cinnamon.

Forewing golden olive-bronze, banded, spotted, and streaked with buff, white, and pink, a postdiscal cloud-band of bronzy green.—Hindwings dark cinnamon.

♀. Larger and darker.

Length of forewing: ♂ 22 mm., ♀ 26 mm. Expanse: ♂ 49 mm., ♀ 57 mm.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 3 ♂♂, 3 ♀♀.

60. *Malocampa bucephaloides* spec. nov.

♂. At first sight this and the next species resemble the genus *Phalera*. Antennae very large and long, heavily pectinated on basal three-fourths, bright amber-brown; head rusty chestnut; thorax purple-chocolate, hinder half densely sprinkled with white, giving it a roan colour; abdomen cinnamon rufous.

Forewing rusty chocolate-brown; base dark grey edged with white, a broad central band 7 mm. wide of greyish mauve irrorated with black scales, this band is ill defined on the basal side, spreading far towards base below median, on the distad side it is sharply defined by a concave transverse triple line first black, then white, then rufous orange, the black portion of this line is sharply angled inwards; the outer two-fifths of the wing are rufous chocolate fading into greyish cloudy mauve; fringe rufous and grey.—Hindwing cinnamon rufous tinged with brown, an angled rufous-cream postmedian band; fringe rufous white.

Length of forewing: 35 mm. Expanse: 78 mm.

Habitat. St. Jean de Maroni, French Guiana, 1 ♂.

61. *Malocampa phaleroides* spec. nov.

♂. Very closely allied to the last species. Antennae brownish amber-yellow; head rusty chestnut; thorax purple-chocolate, hinder edges and hind edge of patagia with the hairs tipped with dirty white; abdomen rusty cinnamon.

Forewing brownish cinnamon-chocolate washed with yellowish grey; a double discocellular stigma; base of wing obliquely violet-chocolate; a sub-basal white band starting from vein 1 runs obliquely to costa and along latter except outer one-third, and spreads to subcostal vein, and slightly beyond it; a postdiscal double lunate crenulate mauve and brown shadow-line, and a sub-terminal line of mauve and brown spots; fringe rusty rufous.—Hindwing cinnamon rufous with darker median line edged outwardly with rusty white ending in a chocolate and white tornal patch; fringe rusty rufous.

Length of forewing: 35 mm. Expanse: 79 mm.

Habitat. La Oroya, Rio Inambari, Peru, 3,100 ft., September 1904 (G. Ockenden), 2 ♂♂.

62. *Rhuda opalistriga* spec. nov.

♂ ♀. Similar to *difficilis* Schaus, but smaller, and the baso-subbasal streak prolonged in a band along four-fifths of vein 1, and consisting of an opalescent blue band with a white central line; above this band the brown colour runs in a perfectly straight oblique band below the pale pink fascia and ends on vein 2 one-sixth from termen in a round black spot.

Length of forewing.

Expanse.

<i>difficilis</i> , ♂ 31 mm., ♀ 37 mm.	.	.	.	♂ 70 mm., ♀ 83 mm.
<i>opalistriga</i> , ♂ 25 mm., ♀ 29 mm.	.	.	.	♂ 56 mm., ♀ 64 mm.

Habitat. Amazons, 1 ♀; Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 1 ♂ type.

63. *Rhuda posttriangulum* spec. nov.

♂. Differs from *tuisa* Schaus in the forewing being narrower and more pointed, and in the baso-subbasal bluish white oblique band being prolonged farther along vein 1. On the hindwing in the **absence** of the terminal brown band, in having an indistinct or rather ill-defined dirty brown bar running up from tornus to almost base of wing, and in the termen being deeply concave **not** convex, and the apex and tornus are produced to long blunt points, making the wing absolutely triangular instead of rounded. The hindwing is yellow suffused with dirty brownish grey.

Length of forewing: 31 mm. Expanse: 69 mm.

Habitat. Potaro, British Guiana, May 1908 (S. M. Klages), 3 ♂♂ type; Omai, British Guiana, June 1908 (S. M. Klages), 1 ♂.

64. *Hoplitis cinnamomea* spec. nov.

♂ ♀. Close to *strigata* Moore. Antennae deep rufous; head brown; thorax grey, slightly mixed with brown hairs; abdomen rufous cinnamon.

Forewing rufous cinnamon; costa and a concave band from apex curving round to middle of costa deep rufous; within this line and just behind it three pale grey patches; a slate-grey cloudy patch in centre of disc; termen and inner margin from vein 4 to middle of inner margin including vein 1 broadly slate-grey; a large deep rufous patch above tornus.—Hindwing semihyaline white, a blackish patch at tornus.

Length of forewing: 33 mm. Expanse: 75 mm.

Habitat. Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 3 ♂♂, 1 ♀ (♂ type).

65. *Hoplitis insignifica* spec. nov.

♀. Antennae rufous brown, shaft grey; head and thorax dirty brownish mouse-grey, a dark streak in centre of thorax and on patagia; abdomen dirty brown-grey.

Forewing mouse-grey with dark grey streaks on costa; ante- and post-median dark grey lines.—Hindwing dirty white, passing into grey-brown along costa, apex, and termen; an ash-grey and dark patch at tornus.

Length of forewing: 34 mm. Expanse: 74 mm.

Habitat. Dammer Island, November 1898 (H. Kühn), 2 ♀♀.

66. *Hoplitis dasychiroides* spec. nov.

♀. Antennae shaft crimson, pectinations black; head and thorax mouse-grey; abdomen greyish white, a root patch on first segment.

Forewing mouse-grey; three or four black-brown lines run from costa across cell to median nervure and some oblique dark grey bands one-third from apex on costo-subcostal area; a postdiscal curved and slightly sinuous black line and a shadowy darker grey subterminal band.—Hindwing semihyaline white, outer one-third slate-grey. Second specimen forewing more brownish.

Length of forewing: 31 mm. Expanse: 68 mm.

Habitat. Isumeb, S. W. African Protectorate.

67. *Hoplitis curvatula* spec. nov.

♂. Very curiously curved and narrow forewings. Antennae black; frons orange-buff, vertex dark brown-grey; thorax greyish olive mixed with dirty buff, tegulae edged with black; some black on thorax; abdomen sooty brown ringed with dirty white, anal tuft orange.

Forewing costa very strongly convex and outer one-third strongly curved downwards; termen from apex abruptly truncated and excised at tornus, giving the narrow wing a unique appearance; olive-brown washed and splashed with patches of deep moss-green; in cell running from costa is a truncated black $\times$, and on outer one-third of costo-subcostal area are black bands and spots, and a large black mark above tornus.—Hindwings: basal two-thirds white; long hair on abdominal area buff; outer one-third black-brown; some black streaks above tornus.

Length of forewing: 42 mm. Expanse: 93 mm.

Habitat. Kasai River, Congo Region.

68. *Chadisra albobrunnea* spec. nov.

♀. Antennae brown, basal five joints cream-colour; head buff, palpi brown; tegulae buff, patagia chocolate, rest of thorax yellowish grey; abdomen greyish cinnamon.

Forewing: basal half obliquely chocolate-brown; costal area, some marks above vein 1 and in cell amber-brown; outer half whitish grey suffused with very pale olive; a similar coloured patch runs up from the inner margin into the basal half of wing, and a deep brown patch runs into the wing from costa near apex.—Hindwing dirty wood-brown, a dark spot above tornus.

♂. Similar, but duller and paler; the two halves of forewing less distinctly different in colour and hindwing pale whitish grey.

Length of forewing: ♂ 25 mm., ♀ 30 mm. Expanse: ♂ 56 mm., ♀ 67 mm.

Habitat. Khasia Hills, Assam, December 1895 (Nat. coll.), 1 ♂, 3 ♀♀ (♀ type).

69. *Chadisra meeki* spec. nov.

♂. Antennae dark brown; head and thorax dark coffee-brown mixed with cinnamon-buff hairs; abdomen bright cinnamon, anal segment with black hair-lines.

Forewing: basal two-fifths dark brown, edge of inner margin and a patch near base of costa brownish buff, this dark brown area deeply incised between veins 1 and 2; outer three-fifths of wing dull isabel-buff clouded and streaked with yellowish olive and blackish brown; a black brown patch on and under costa just before apex.—Hindwing: basal two-thirds dirty buff; outer one-third brownish cinnamon, a brown streak above tornus.

Length of forewing: 29 mm. Expanse: 66 mm.

Habitat. Mount Goliath, Central Dutch New Guinea, 5,000–7,000 ft., January 1911 (A. S. Meek), 3 ♂♂.

70. *Chadisra striata striata* spec. nov.

♂. Antennae brown; head buff mixed with black hairs; tegulae buff mixed with black hairs, rest of thorax black mixed with brownish hairs; abdomen brownish buff.

Forewing greyish cinnamon with broad black band like longitudinal streaks from base to termen, and a number of blackish vertical striations; a median sinuous and strongly angled black line.—Hindwing buff, margins pale cinnamon, a dark brown spot above tornus.

♀. Larger.

Length of forewing: ♂ 22 mm., ♀ 25 mm. Expanse: ♂ 50 mm., ♀ 56 mm.

Habitat. Kumusi River, North-east British New Guinea, low elevation, August 1907 (A. S. Meek), 1 ♂, 1 ♀ (♂ type); Upper Aroa River, British New Guinea, April 1903 (A. S. Meek), 1 ♂.

71. *Chadisra striata divisa* subsp. nov.

♀. Differs from *S. striata* in the basal half obliquely being strongly suffused with brown, thus dividing the wing into two parts.

Habitat. Goodenough Island, 2,500–4,000 ft., May 1913 (A. S. Meek), 2 ♀♀.

72. *Chadisra plagosa* spec. nov.

♂. Antennae brownish buff; head, thorax, and abdomen buffish wood-brown.

Forewing buffish cinnamon with a number of indistinct zigzag brownish lines; a pale greenish subbasal patch under costa, basal one-fourth of wing paler, more buffish; a large black-brown sharply angled band runs from median to tornus and from median to near base of inner margin; all below this band brownish slate-grey; a large subapical patch pale lavender-grey tinged with green.—Hindwings wood-brown; fringe, base, and median shadow buffish.

Length of forewing: 21 mm. Expanse: 47 mm.

Habitat. Warri, Niger, April 1897 (Dr. Roth), 1 ♂.

73. *Tarsolepis rufobrunnea* spec. nov.

♂. Antennae deep brown, pectinations short; head and thorax vinaceous chocolate; abdomen deep brown, no crimson tuft on underside.

Forewing deep rufous chocolate; basal two-thirds of costal area entirely suffused with pale mauve and freckled; silver patches as in *sommeri*, but much larger; submarginal area washed strongly with vinaceous and with four lines, inner one orange-buff, outer three various shades of brown.—Hindwings paler chocolate.

Length of forewing: 37–49 mm. Expanse: 83–109 mm.

Habitat. Travancore (Place), 1 ♂ type; Khasia Hills, Assam (Nat. coll.), 1 ♂.

74. *Tarsolepis sericeus* spec. nov.

♂. Antennae dark rufous brown; head and thorax deep rufous chocolate; abdomen sooty blackish grey, anal segment buff with dark brown streaks and two large fan-shaped and pointed buff tufts.

Forewing vinaceous chocolate streaked and clouded with cinnamon so as

to resemble watered silk; termen deeply serrated with pale median streak to each tooth; a yellow quadrate spot under middle of vein 4.—Hindwing golden buff suffused with brown-grey.

Length of forewing: 34 mm. Expanse: 77 mm.

Habitat. Java.

75. *Phalera postaurantia* spec. nov.

♂. Antennae black, pectinations very long; head and thorax rufous and buff mixed, patagia and patch at back of thorax grey tipped with white; abdomen orange ringed indistinctly with brownish orange.

Forewing vinaceous wood-brown suffused with grey and white, becoming whiter towards inner margin; a double antemedian line, inner less pronounced rusty brown, outer black; a postdiscal double line of coalescent lunules, inner black, outer dark rufous; an apical olive-buff patch below which is an irregular heavy black angled line.—Hindwings golden orange; edge of termen and nervures black.

Length of forewing: 27 mm. Expanse: 60 mm.

Habitat. Itumba, German East Africa (Dr. Baxter), 1 ♂ type; Mpuapua, German East Africa (Dr. Baxter), 1 ♂.

76. *Phalera elongata* spec. nov.

♂ ♀. This species is distinct from all others by its long and narrow wings and long silken hair on the body.

Antennae rusty rufous, pectinated in both sexes, shorter in ♀; head and thorax golden buff, margins of tegulae and two median transverse lines deep rufous, hind part of thorax clothed with long silky sooty brown hairs, patagia white edged with grey; abdomen clothed with long silky hair, basal segment sooty brown, anal segment and tuft buff washed with dirty grey; rest of abdomen orange.

Forewing brown-grey washed with pink; base white, a subbasal black-brown line, followed by seven indefinite darker grey crenulate and sinuate lines; apical one-fourth to vein 3 buff with darker buff clouding, bordered inwardly by a bright rufous and brown double concave band, black streaks in buff on veins 3 and 4.—Hindwings sericeous bronzy grey-brown.

Length of forewing: ♂ 28–30 mm., ♀ 33 mm. Expanse: ♂ 62–66 mm., ♀ 75 mm.

Habitat. Khasia Hills, Assam, February 1896 (Nat. coll.), 2 ♂♂, 1 ♀ (♂ type).

77. *Phalera inexpectata* spec. nov.

♂. Antennae black; head cream-white; thorax white; tegulae, a median convex band and three spots behind dirty black-brown, tegulae being palest; abdomen white washed with brownish and with broad brown rings on each segment, anal tuft brownish white.

Forewing vinaceous brown on outer one-third freckled with white scales, basal two-thirds cream-white freckled densely with vinaceous scales thickest on basal one-third and least in cell and round discocellulars; base white with black dot; this freckling gives the forewing a roan appearance; an antemedian deep purple

line angled in cell, joined to which outwardly is a similarly coloured wedge-shaped patch on median; a similarly coloured wedge spot beyond middle of costa and a small spot below it on inner margin.—Hindwing white, outer one-fourth brown-grey.

Length of forewing: 34–39 mm. Expanse: 76–88 mm.

Habitat. Ilesha, South Nigeria (Captain Humphrey), 2 ♂♂.

78. *Rifargia cossoides* spec. nov.

♂. Antennae: shaft dark brown, pectinations short, amber-brown; head and thorax deep chocolate-brown, hind part of thorax pale greenish grey, edge of tegulae dark rufous; abdomen rufous cinnamon-chocolate, anal segment above greenish grey, anal tuft mixed greenish grey and rufous.

Forewing: basal one-third above median fold deep chocolate-brown with some dark rufous marks, a deep chocolate-brown apical patch tinged with rufous, rest of wing greenish grey washed with brownish with a number of more or less obsolete double brownish sinuate bands, a black crenulate-angulate subterminal hair-line.—Hindwing deep brownish chocolate, a median paler indefinite band, and a grey and black tornal patch. ♀ similar but paler, and light part of forewing whitish grey with no greenish tinge.

Length of forewing: 32–38 mm. Expanse: 72–87 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 5 ♂♂ type; Santo Antonio do Javary, Upper Amazons, May 1907 (S. M. Klages), 1 ♂; Aroewarwa Creek, Maroewym Valley, Surinam, April 1905 (S. M. Klages), 1 ♂; Christianeburg, Rio Demerara, British Guiana, 1 ♀.

79. *Rifargia terebroides* spec. nov.

♂. This insect looks exactly like a melanistic *Cossus terebra*.

Antennae serrate, shaft black, serrations amber-brown; head and thorax sooty brown, two transverse black lines on the tegulae; abdomen brownish cinnamon-chocolate, first two segments suffused with sooty brown.

Forewing olivaceous cinnamon suffused, clouded, and patched with sooty brown, greyish moss-green, and dark grey, giving the wing at first sight a mummy-brown appearance; subbasal and antemedian somewhat obliterated double crenulate black lines, a greenish brown oval stigma, two double postmedian bands, the first sooty brown, sinuate, reaching inner margin where it meets a white spot, the second black, convexly curved, only reaching vein 3, two subapical black streaks and a black crenulate subterminal hair-line.—Hindwing dull brownish chocolate.

Length of forewing: 31 mm. Expanse: 70 mm.

Habitat. Potaro, British Guiana, May 1908 (S. M. Klages), 3 ♂♂ type; Tumatumari, British Guiana, January 1908 (S. M. Klages), 1 ♂; British Guiana bought at Georgetown (Rev. M. Whitford), 1 ♂; Aroewarwa Creek, Maroewym Valley, Surinam, March–April 1905 (S. M. Klages), 2 ♂♂; Fonte Boa, Upper Amazons, October 1906 (S. M. Klages), 2 ♂♂.

80. *Rifargia biplaga* spec. nov.

♂. Antennae dark rufous brown; head and thorax black-brown, out half of tegulae rufous brown; abdomen brownish cinnamon.

Forewing black-brown slightly variegated with paler brown and olive ; basal one-third to vein 1 deeper black-brown, a basal dull cinnamon patch below vein 1, a long black apical streak and two large lavender-grey patches on vein 1, reaching inner margin below it and halfway to vein 2 above it.—Hindwing dirty cinnamon wood-brown with traces of paler central cloud-band.

Length of forewing : 32 mm. Expanse : 72 mm.

Habitat. Tinguri, Carabaya, South-east Peru, 3,400 ft., August 1904 (G. Ockenden), 4 ♂♂ type ; La Oroya, Carabaya, 3,100 ft., September 1905 (G. Ockenden), 1 ♂.

81. *Rifargia basiplaga* spec. nov.

♂♀. Antennae sooty black ; head and thorax chestnut-brown, tegulae and patagia mixed with brownish buff ; abdomen sooty brown.

Forewing : basal one-third cinnamon, rusty brown to vein 1, edged and rayed with rufous chocolate, outer two-thirds of wing and all below vein 1 dark dull brown ; above vein 3 on outer two-thirds of forewing densely suffused and sprinkled with whitish grey, a postmedian sinuous rufous hair-line and black terminal hair-line.—Hindwing sooty black-brown, base suffused slightly with cinnamon.

Length of forewing : ♂ 23–26 mm., ♀ 28 mm. Expanse : ♂ 51–59 mm., ♀ 63 mm.

Habitat. St. Jean de Maroni, French Guiana, 2 ♂♂ type ; Potaro, British Guiana, April–May 1906 (S. M. Klages), 2 ♂♂ ; Rio Demerara, British Guiana, 2 ♀♀ ; Fonte Boa, Upper Amazons, May–October 1906 (S. M. Klages), 5 ♂♂.

82. *Rifargia steinbachi* spec. nov.

♂. This and the following species are distinguished by their long, narrow, and pointed wings.

Antennae amber-brown ; head cinnamon-brown ; thorax greenish grey ; abdomen rufous cinnamon.

Forewing rusty cinnamon above median fold, shaded and clouded with mossy olive-grey and green ; outer one-fifth of wing and all below median fold dark olive mouse-grey ; a band from base along basal one-third of median fold and a broad ill-defined zigzag cloud-like band from one-fifth before apex obliquely to below middle of median fold rusty brown-black.—Hindwing white washed with brown on termen and abdominal area. The Fonte Boa ♂ is much more rufous on forewing, but is much rubbed.

Length of forewing : 26 mm. Expanse : 59 mm.

Habitat. Buenavista, East Bolivia, 2,438 ft., August 1906–April 1907 (J. Steinbach), 1 ♂ type ; Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 1 ♂.

83. *Rifargia muscosa* spec. nov.

♂. Antennae dark brown, serrations amber-yellow ; head chestnut rufous ; tegulae chestnut rufous edged with soot-brown black, rest of thorax soot-brown black mixed with green-grey ; abdomen first two segments chestnut rufous, sides golden orange, rest of abdomen and anal tuft sooty black with a few scattered yellow hairs, lateral line except on last two segments golden orange.

Forewing mossy grey-green densely mottled with black and tinged in centre with pale cinnamon rose ; an antemedian double black line and two or indistinct postmedian crenulated ones, a crenulated marginal black line ; an orange basal tuft below vein 1.—Hindwing : centre grey ; veins and portion dull brown ; base and abdominal one-fourth golden orange on which is a dark brown smear.

Length of forewing : 25 mm. Expanse : 57 mm.

Habitat. Aroewarwa Creek, Maroewym Valley, Surinam, April 1905 (S. M. Klages), 1 ♂.

84. *Rifargia intermedia* spec. nov.

♂. Is intermediate between *picta* Schaus and *merita* Schaus, having the continuous median longitudinal band of *merita* and pale band above vein 1 of *picta*, but differs from both in its golden buff coloration.

Antennae brown ; head and thorax orange rufous, patagia dirty greenish mouse-grey ; abdomen yellowish cinnamon.

Forewing vinaceous cinnamon, median band from base of costa to middle of termen brownish buff washed with pink ; the band above vein 1 buff washed on outer half with grey.—Hindwing golden buff slightly suffused with brown on margin. ♀ larger, darker ; hindwing suffused with brown.

Length of forewing : ♂ 24 mm., ♀ 29 mm. Expanse : ♂ 54 mm., ♀ 64 mm.

Habitat. San Esteban, Venezuela, June 1909 (S. M. Klages), 5 ♂♂, 1 ♀.

85. *Anita gigas* spec. nov.

♂. Antennae black-brown ; head and thorax slate-grey variegated with white ; abdomen slate-grey.

Forewing slate-grey ; costal area and subbasal one-fifth white streaked with grey ; rest of wing with lines of darker grey barely showing up from ground-colour ; a subterminal zigzag black line.—Hindwing brownish slate-grey.

Length of forewing : 33 mm. Expanse : 73 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 2 ♂♂.

86. *Cargetta albstigmata* spec. nov.

♂. Antennae : shaft cinnamon grey, pectinations black ; head and thorax sooty brown-black, a few irregular marks more rusty ; abdomen sooty grey-brown.

Forewing sooty black-brown, paler towards termen, a few darker lines near base apparently of raised scales ; a white spot at end of cell.—Hindwing grey-brown.

Length of forewing : 21 mm. Expanse : 48 mm.

Habitat. Goodenough Island, 2,500—4,000 ft., April 1913 (A. S. Meek), 1 ♂.

87. *Cargetta flavibasis* spec. nov.

♂. Antennae sooty black ; head and palpi sooty black-brown with buff and white scales ; thorax sooty black-brown ; abdomen dark wood-brown.

Forewing sooty black-brown, with some faint traces of rusty markings ; a black dot in white ring below middle of subcosta, white dots along outer one-

third of costa and a subterminal line of similar dots and a few one-fourth from termen; three raised dots of scales in centre of disc and some patches of dark green scales along upper or costal portion of wing.—Hindwing: basal half buffish yellow, outer half sooty brown-black.

♀. Similar, but has either the forewing with patches of dark green scales all over and a rusty patch beyond cell or entirely dark green with some discal sinuate brown-grey lines.

Length of forewing: ♂ 21–24 mm., ♀ 25–28 mm. Expanse: ♂ 47–53 mm., ♀ 55–61 mm.

Habitat. Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October–December 1910 (A. S. Meek), 1 ♂ type; Upper Setekwa River, Snow Mountains, 2,000–3,000 ft., August 1910 (A. S. Meek), 2 ♀♀; Kumusi River, North-east New Guinea, low elevation, May 1907 (A. S. Meek), 1 ♂.

88. *Cargetta bipuncta* spec. nov.

♂♀. Antennae brown; head olive; thorax olive-grey on greyish olive; abdomen pale cinnamon-brown.

Forewing pale olive-green, subbasal, antemedian, and postmedian crenulate sinuous rusty cinnamon bands edged with brown; a subterminal crenulate brown line; two white spots one above the other at end of cell.—Hindwing cinnamon grey-brown.

Length of forewing: ♂ 22 mm., ♀ 26 mm. Expanse: ♂ 49 mm., ♀ 58 mm.

Habitat. Biagi, Mambare River, North-east British New Guinea, 5,000 ft., February 1906 (A. S. Meek), 1 ♂, 1 ♀ (♀ type).

89. *Turnaca mediofascia* spec. nov.

♀. Antennae brown; head and thorax vinaceous pink suffused with cinnamon-grey; abdomen chocolate-cinnamon.

Forewing: costal half vinaceous pink suffused with grey and freckled with rufous; lower half dark chocolate-cinnamon freckled with grey; a slightly sinuous rufous band from base of cell to termen.—Hindwing chocolate-cinnamon.

Length of forewing: 28 mm. Expanse: 62 mm.

Habitat. Khasia Hills, Assam, April 1896 (Nat. coll.), 2 ♀♀.

90. *Turnaca phragmatoecioides* spec. nov.

♂. Antennae brown, pectinations rufous; head and thorax buffish brown mixed with cream hairs; abdomen greyish brown-buff.

Forewing pale buffish pinky grey suffused with darker grey below median; three oblique brown streak-like spots on costa, a few scattered shadowy spots on disc, and a postmedian curved line of intraneural black streaks.—Hindwings white; base and abdominal area buff.

Length of forewing: 22 mm. Expanse: 49 mm.

Habitat. Luebo, Kasai River (P. Landbeck), 1 ♂.

91. *Turnaca lanuginosa* spec. nov.

♂. Very woolly; anal tuft large. Antennae brown, shaft whitish; head and thorax buffish grey washed with cinnamon; abdomen pinkish cinnamon, anal tuft whitish.

Forewing pale pinkish cinnamon washed with grey with a number of cloud-marks and freckled with rufous cinnamon; a postdiscal line of indistinct darker dots.—Hindwing rufous cinnamon.

Length of forewing: 21–22 mm. Expanse: 47–50 mm.

Habitat. Luebo, Kasai River (P. Landbeck), 1 ♂ type; Akassa to Onitsha, River Niger (Dr. Cook), 1 ♂.

92. *Turnaca nigripuncta* spec. nov.

♂. Antennae rufous brown; head and thorax grizzled isabel-grey; abdomen isabel-grey, anal tuft grizzled.

Forewing greyish isabel; costa and disc with numerous black-brown dots, a black line from base to termen along median fold, two curved postdiscal lines of black-brown dots.—Hindwing white.

Length of forewing: 17–21 mm. Expanse: 38–48 mm.

Habitat. Takwa, Gold Coast (R. E. James), 3 ♂♂.

93. *Baradesa omissa* spec. nov.

♂ ♀. Very similar to *lithosioides* Moore, but smaller and duller; has hitherto been confused with *lithosioides*.

Differs in being duller above; on forewing the discal black dots except a single postmedian line are absent, stigma more distinct; hindwing has brown outer portion much narrower; the dark apex of abdomen does not reach so far up the abdomen. Below the nervures are dark **not** yellow.

Length of Forewing.

Expanse.

<i>lithosioides</i> , ♂ 44–49 mm., ♀ 53 mm.	.	.	♂ 97–107 mm., ♀ 115 mm.
<i>omissa</i> , ♂ 38–41 mm., ♀ 45 mm.	.	.	♂ 84–90 mm., ♀ 98 mm.

Habitat. Khasia Hills, Assam (Nat. coll.), 7 ♂♂, 1 ♀ (type ♂); Mount Tahan, Malay Peninsula (J. Waterstradt), 1 ♂; Gunong Ijau, Malay Peninsula, 1 ♂. (Compared with 11 ♂♂, 3 ♀♀ of *lithosioides* from Buxa Bhutan, Sikkim, and Khasia Hills.)

94a. *Euhamponia niveiceps occidentalis* subsp. nov.

♂. Differs from *n. niveiceps* in being much paler, and in the markings on the forewings being almost obsolete.

Habitat. North-west Himalayas; Kumaon, July 1893 (J. G. Pilcher), 1 ♂ type; Kulu, 1 ♂; Dalhousie, July 1891, 1 ♂.

95. *Euhamponia magnifica* spec. nov.

♀. Antennae very large and heavily pectinated, amber-brown; head and thorax scarlet, a sooty patch at base and one at edge of tegulae; hindmost part of thorax deeper red; abdomen scarlet, last three segments vinaceous red-brown.

Forewing: basal one-fifth scarlet with basal and subbasal zigzag black lines, the latter only to vein 1; rest of wing, basal half brick-red somewhat tinged with brown and with two double lunate crenulate purple-grey cross-bands and a small black stigma, outer half purplish sooty brown-grey with a buffish yellow space between veins 4 and 1 just beyond middle of wing, 1 indistinct median dark crenulate line and 2 postmedian distinct ones.—Hindwings bright brick-red washed slightly with grey on outer one-third.

Length of forewing: 62 mm. Expanse: 136 mm.

Habitat. Near Oetakwa River, Snow Mountains, Dutch New Guinea, October—December 1910 (A. S. Meek), 1 ♀.

96. *Macronadata brunnea* spec. nov.

♂. Uniform mummy-brown; hindwings paler; antemedian and postmedian lines dark rufous indistinct, a subterminal line of streaks chocolate rufous, a large stigma.

Length of forewing: 22 mm. Expanse: 49 mm.

Habitat. Waya, Lado Enclave, June 1912.

97. *Omichlis pseudolibatrix* spec. nov.

♀. Except the red colouring, this species has a general appearance of *Scoliopteryx libatrix*.

Antennae brown; head brownish lavender-grey; thorax pale wood-brown suffused with lavender-grey; abdomen pale sooty brown.

Forewings wood-brown tinged with yellow; a yellowish grey stigma, on basal half some indistinct buff and dark subbasal spots, and beyond these some incomplete serrated dark sinuous lines from costa to median vein, basal two-fifths of inner margin and a large patch joining on to it buff strongly freckled with rufous; on outer half an oblique sooty crenulate line followed by two curved lines of sooty coalescent lunules and a zigzag whitish subterminal line.—Hindwing sooty grey-brown, a buff and rufous patch on abdominal fold above tornus.

Length of forewing: 24 mm. Expanse: 53 mm.

Habitat. Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek), 1 ♀.

98. *Omichlis plusiotis* spec. nov.

♂ ♀. Antennae brown above, white below; head frons dark rufous, vertex white; thorax vinaceous brown, patagia dark rufous; abdomen sooty vinaceous brown.

Forewing vinaceous yellowish grey freckled with dull rufous and with some indistinct cloudy streaks; a subbasal chocolate patch below vein 1 followed by a silver line from median fold to inner margin consisting of two joined silver moons; an oblique median dark brown band between which and the silver line is a rufous mark, a curved postmedian dark sooty grey line, and a crenulate dark rufous subterminal line.—Hindwing rufous chocolate grey-brown, a silver dot above tornus.

Length of forewing: ♂ 23 mm., ♀ 21 mm. Expanse: ♂ 52 mm., ♀ 47 mm.

Habitat. Near Oetakwa River, Snow Mountains, Dutch New Guinea, up

to 3,500 ft., October—December 1910 (A. S. Meek), 1 ♂ type; Upper Setekwa River, Snow Mountains, 2,000–3,000 ft., September 1910 (A. S. Meek), 1 ♂; Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3,500 ft., November 1908—January 1909 (A. E. Pratt), 1 ♀.

99. *Omichlis mediofasciata* spec. nov.

♂. Antennae brown, shaft pale cinnamon; head mixed pale grey and cinnamon; thorax brownish cinnamon washed with grey; abdomen cinnamon-brown.

Forewing vinaceous cinnamon; stigma pale rufous, two antemedian and one postmedian double darker lines, between the stigma and the postmedian double line is a sooty single line from below subcostal vein to inner margin; a heavy chocolate rufous band from base to termen at vein 5 (angle) along median.——Hindwing brownish cinnamon, some irregular rufous-brown marks above tornus.

Length of forewing: 22 mm. Expanse: 50 mm.

Habitat. Biagi, Mambare River, North-east New Guinea, 5,000 ft., April 1906 (A. S. Meek), 2 ♂♂.

100. *Pachychira excellens* spec. nov.

♂. Antennae rufous; head vinaceous mauve; thorax vinaceous mauve passing into cream-buff behind; abdomen creamy white suffused with mauve.

Forewing bright heliotrope-mauve with strong silvery gloss; a buff stigma, a mauve line from base along median to vein 4 where it is sharply angled upwards and reaches apex; below this line are a number of cloudings giving a watered silk appearance; a subapical duller more sooty mauve patch; there is a large projecting lappet from inner margin.——Hindwing white.

Length of forewing: 32 mm. Expanse: 73 mm.

Habitat. Prestea, 70 miles inland from Sekondi, Gold Coast.

101. *Pachychira olivaceofusca* spec. nov.

♀. Antennae brown; head and thorax olivaceous mauve-brown; abdomen wood-brown.

Forewing mauve-brown, some dark olivaceous buff markings and patches in cell and on subterminal one-third of wing; a deep chocolate rufous band runs from middle of inner margin to just below apex.——Hindwing wood-brown, paler on costal half.

Length of forewing: 26 mm. Expanse: 58 mm.

Habitat. Moyamba, Sierra Leone (Dr. Cator), 1 ♀.

102. *Scalmicauda bisecta* spec. nov.

♀. Antennae dark brown; head black-brown freckled with lavender-grey; tegulae black-brown; rest of thorax greyish cinnamon mauve; abdomen dark buff.

Forewing greyish cinnamon-mauve, costal two-fifths, a wedge-shaped band along postmedian line, and a patch behind tornus brownish chocolate; two oblique antemedian and an oppositely oblique postmedian line whitish, as are

the margins of a large hour-glass-shaped patch across cell and a quadrate one beyond; a subterminal row of chocolate and whitish lunulate dots.—Hindwing bright buff.

Length of forewing: 24 mm. Expanse: 55 mm.

Habitat. Sierra Leone (Major Bambridge), 1 ♀; Assaba River, Niger (Dr. Cator), 1 ♀.

103. *Moresa hieroglyphica* spec. nov.

♀. Antennae buff, pectinations amber-yellow; head buff tinged with rust-red; thorax dark grass-green; abdomen orange-buff, suffused with rufous at base.

Forewing dark grass-green; costal one-fourth of wing buff, apical one-fifth of this salmon-colour; from cell partly coalescing with orange-buff stigma there spreads a broad buff threefold band of crossed bars and digit-like bands to termen, this band is tinged or splashed with rufous, a buff line from it to inner margin and one to vein 6.—Hindwings buff suffused with salmon.

Length of forewing: 32 mm. Expanse: 69 mm.

Habitat. Tefié, Amazons, October 1907 (M. de Mathan), 1 ♀.

104. *Moresa obliquifascia* spec. nov.

♂. Antennae brownish buff; head bright buff; thorax deep grass-green; abdomen salmon-orange.

Forewing deep grass-green; costo-subcostal area buff, outer half washed with brown; an irregular broad oblique bar from middle of cell almost to tornus deeply notched at each end buff with sooty grey splashes.—Hindwing salmon-buff; abdominal one-third salmon-colour.

Length of forewing: 22 mm. Expanse: 50 mm.

Habitat. St. Jean de Maroni, French Guiana, 1 ♂.

105. *Moresa plumbeiplaga* spec. nov.

♀. Antennae black, pectinations amber-yellow; head buff; thorax deep green; abdomen brownish buff.

Forewing deep green, costal edge sooty black-brown; a large irregular oblique brownish leaden-grey patch from below middle of subcostal almost to termen between vein 4 and just below vein 2; a small white streak followed by some very minute white dots runs into wing from costa about one-fifth from apex.—Hindwing: costal one-third buff, rest of wing buffish salmon-pink.

Length of forewing: 24 mm. Expanse: 52 mm.

Habitat. St. Jean de Maroni, French Guiana, 1 ♀.

106. *Rosema klagesi* spec. nov.

♂. Antennae rufous brown; head and thorax deep green; abdomen crimson-scarlet.

Forewing dark grass-green, costo-subcostal area buff tinged with rufous and brown expanding from base of vein 6 and running thence to termen along this vein; a large oval pale olivaceous apple-green patch occupies the wing from termen to one-third from base and from inner margin to two-thirds the

space between veins 1 and 2.—Hindwing white, costal one-fifth salmon-crimson, abdominal one-fourth buff.

Length of forewing : 25 mm. Expanse : 56 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 4 ♂♂.

107. *Apella acutidivisa* spec. nov.

♂. Nearest to *neobule* Druce. Differs in forewing being entirely cinnamon-buff and the oblique band being single **not** double and deep maroon rufous. —Hindwing paler and rosy cinnamon.

Habitat. St. Jean de Maroni, French Guiana, 4 ♂♂.

108. *Apella ovalis* spec. nov.

♂ ♀. Antennae pale brown ; head bright rufous ; thorax tegulae bright rufous, rest of thorax cinnamon-buff ; abdomen yellowish cinnamon-buff.

Forewing : basal half obliquely cinnamon-buff faintly strigillated with brown, outer half cinnamon-brown, an oblique dark rufous line from subcostal to tail of inner margin separating the two halves of the wing ; just beyond the dividing rufous line is an almost circular large cinnamon-grey patch just below subcostal also faintly strigillated with brown ; a cinnamon-buff half-moon-shaped patch on and below vein 1 in the centre of wing broadly edged with dark rufous.—Hindwing golden orange-buff.

Length of forewing : 16 mm. Expanse : 35 mm.

Habitat. San Esteban, Venezuela, June 1909 (S. M. Klages), 1 ♂ type ; Caracas, Venezuela, 1 ♀.

109. *Maschane costipuncta* spec. nov.

♂. Antennae dark brown ; head white suffused with brown ; thorax tegulae orange-buff, rest of thorax violaceous brown ; thorax rufous cinnamon suffused with smoky brown.

Forewing rufous cinnamon suffused with smoky violaceous brown less strongly on outer two-fifths, costa strongly bowed out beyond middle of wing, a powdering of white scales on and below costa ; one-third from base a curved maroon-red patch runs into wing from costa.—Hindwing buffish cinnamon suffused with rufous cinnamon.

Some specimens are entirely rufous cinnamon without the smoky brown suffusion.

Length of forewing : 17 mm. Expanse : 39 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 3 ♂♂ type ; St. Jean de Maroni, French Guiana, 3 ♂♂.

110. *Dylomia nubiloviolaceus* spec. nov.

♂ ♀. Antennae rufous ; head buffy yellow washed with rufous ; thorax tegulae buffy orange, rest grey-cinnamon-buff ; abdomen rufous cinnamon-buff.

Forewing golden buff ; costal and terminal area broadly maroon-purple, on the latter this colour is suddenly constricted between veins 5 and 7 and from vein 5 to tornus, bordered inwardly by a darker line ; a double fan-shaped

brownish purple less strongly marked patch on each side of vein 1.—Hindwings buff washed with purplish rufous.

Length of forewing : 16 mm. Expanse : 36 mm.

Habitat. St. Jean de Maroni, French Guiana, 7 ♂♂ type ; St. Laurent de Maroni (Le Moul't père), 1 ♂ ; Fonte Boa, Upper Amazons, June 1906 (S. M. Klages), 3 ♀♀ ; Aroewarwa Creek, Maroewym Valley, Surinam, May—June 1905 (S. M. Klages), 1 ♀.

111. *Hapigia rufocinnamomia* spec. nov.

♂ ♀. Antennae rufous ; head and thorax rufous cinnamon strongly suffused with purplish vinaceous ; abdomen sooty grey-brown.

Forewing violaceous cinnamon with a buff antemedian bandlike area, and two postmedian buff patchlike areas, one near tornus above which is an orange spot, and one near apex ; the whole wing crossed with numerous lines of coalescent lunules, some with olivaceous centres ; an olivaceous stigma and olive sub-apical spot.—Hindwings smoky grey-brown.

Length of forewing : ♂ 37 mm., ♀ 47 mm. Expanse : ♂ 82 mm., ♀ 102 mm.

Habitat. Potaro, British Guiana, February 1908 (S. M. Klages), 3 ♂♂, 1 ♀ (♂ type) ; Omai, British Guiana, 1 ♂ ; Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 2 ♂♂.

112. *Antaea pseudosmerinthus* spec. nov.

♂. At first sight resembles *Laothoe amurensis*. Antennae yellowish grey ; head and thorax brown-grey suffused with vinaceous, distal half of patagia freckled with ash-grey, a crimson smear at back of thorax ; abdomen dark grey-brown.

Forewing pinkish grey washed somewhat with vinaceous, two antemedian lines whitish edged outwardly with vinaceous, an ovoid vinaceous patch in cell ringed with darker vinaceous and then whitish ; at the end of cell is a large looped line between costa and median vein inside vinaceous and outside whitish, the distal arm of the loop stained with scarlet ; a postmedian bent sinuate whitish line edged outwardly with vinaceous ; a postdiscal similar line concavely curved and slightly crenulate from costa to vein 4, strongly zigzag from vein 4 to vein 1, from above vein 4 to vein 1 this line is strongly stained with scarlet ; the termen has a deep brown terminal line and is deeply serrated, from apex to vein 4 the wing is truncate and concave, from vein 4 to vein 1 it is obliquely cut off.—Hindwing dark sooty grey-brown.

Length of forewing : 43 mm. Expanse : 95 mm.

Habitat. Fonte Boa, Upper Amazons, May 1906 (S. M. Klages), 11 ♂♂ type ; Santo Antonio do Javary, Upper Amazons, June 1907 (S. M. Klages), 1 ♂ ; Humayta, Rio Madeira, July—September 1906 (W. Hoffmanns), 1 ♂.

Some specimens have some sooty patches on the intranervular spaces between veins 2 and 4.

113. *Chlora mediostriga* spec. nov.

♂. Antennae brown ; head, thorax, and abdomen dark vinaceous cinnamon.

Forewing brownish orange-buff with numerous cross-lines of vinaceous cinnamon coalescent lunules in basal and outer thirds of the wing ; central

one-third of wing with a broad band of vinaceous cinnamon narrowing to inner margin from median (this band is 11 mm. wide at costa and 5 mm. at inner margin, the outer edges are lunate-crenulate, and the band encloses two buff stigmata); a double subterminal line of black lunules and a black central striga from base to within one-fourth of termen along median and vein 4.—Hindwing pale vinaceous buffy cinnamon; fringe buff.

Length of forewing: 26 mm. Expanse: 58 mm.

Habitat. Tumatumari, British Guiana, December 1907 (S. M. Klages), 1 ♂ type; Codaljas, Upper Amazons, April 1907 (S. M. Klages), 1 ♂; Fonte Boa, Upper Amazons, November 1906 (S. M. Klages), 1 ♂.

114. *Hapigiodes klagesi* spec. nov.

♂. Antennae dark brown; head and thorax violaceous pomegranate-red; abdomen isabel buffish washed with pale vinaceous.

Forewing purplish pomegranate-brown patched and suffused in several places with maroon and washed with violaceous pink; some sooty cloudy black patches beyond cell, and a dark stigma and a black cloud patch occupying most of wing below median round and above inner excision; a curved postmedian indistinct sooty hair-line with grey dots, a zigzag subterminal black hair-line.—Hindwing grey-buff.

Length of forewing: 26 mm. Expanse: 57 mm.

Habitat. Fonte Boa, Upper Amazons, July 1907 (S. M. Klages), 2 ♂♂.

EXPLANATION OF PLATE III.

No.	1.	<i>Psilacron sericeus</i> Rothsch.	.	.	.	.	.	.	p. 239
„	2.	<i>Notoplusia distinguenda</i> Rothsch.	-	-	-	-	-	-	p. 240
„	3.	<i>Phalera postaurantia</i> Rothsch.	.	.	.	.	.	.	p. 253
„	4.	<i>Maschane costipunctata</i> Rothsch.	-	-	-	-	-	-	p. 262
„	5.	<i>Dyasias punctata</i> Rothsch.	.	.	.	.	.	.	p. 236
„	6.	<i>Stauropus glaucoviridis</i> Rothsch.	-	-	-	-	-	-	p. 242
„	7.	„ <i>rufescens</i> Rothsch.	♂	.	.	.	.	.	p. 244
„	8.	„ „ „	♀	-	-	-	-	-	p. 244
„	9.	„ <i>purpurascens</i> Rothsch.	♂	.	.	.	.	.	p. 242
„	10.	„ „ „	♀	-	-	-	-	-	p. 242
„	11.	<i>Apella ovalis</i> Rothsch.	.	.	.	.	.	.	p. 262
„	12.	<i>Moresa obliquifascia</i> Rothsch.	-	-	-	-	-	-	p. 261
„	13.	<i>Lirimiris chimaera</i> Rothsch.	.	.	.	.	.	.	p. 237
„	14.	<i>Stauropus nitidus</i> Rothsch.	♂	-	-	-	-	-	p. 241
„	15.	„ „ „	♀	.	.	.	.	.	p. 241
„	16.	„ <i>flavicollis</i> Rothsch.	-	-	-	-	-	-	p. 241
„	17.	„ <i>apiculatus</i> Rothsch.	.	.	.	.	.	.	p. 245
„	18.	„ <i>viridigriseus</i> Rothsch.	♂ *	-	-	-	-	-	p. 243
„	19.	<i>Tachida cossula</i> Rothsch.	.	.	.	.	.	.	p. 235
„	20.	<i>Drugera pallidiflava</i> Rothsch.	-	-	-	-	-	-	p. 239
„	21.	<i>Dyasias melanoleuca</i> Rothsch.	.	.	.	.	.	.	p. 236
„	22.	<i>Dylomia nubiloviolaceus</i> Rothsch.	-	-	-	-	-	-	p. 262
„	23.	<i>Stauropus viridigriseus</i> Rothsch.	♀ *	.	.	.	.	.	p. 243
„	24.	<i>Lepasta bractea gigantea</i> Rothsch.	-	-	-	-	-	-	p. 235
„	25.	<i>Turnaca nigripuncta</i> Rothsch.	.	.	.	.	.	.	p. 258
„	26.	<i>Stauropus frugilegus</i> Rothsch.	-	-	-	-	-	-	p. 243

* Originally printed *viridogrisea*, by mistake.

To be inserted here.

EXPLANATIONS OF PLATE IV.

(Corrected)

No.	1.	<i>Gargetta allostigmata</i> Rothsch. (<i>Cargetta</i> in text, err.) .	.	p.	256
„	2.	<i>Hapigiodes klagesi</i> Rothsch. - - - - -	-	p.	264
„	3.	<i>Omichlis plusiotis</i> Rothsch.	.	p.	259
„	4.	<i>Bardaxima castaneobrunnea</i> Rothsch. - - - - -	-	p.	234
„	5.	<i>Moresa hieroglyphica</i> Rothsch.	.	p.	261
„	6.	<i>Hoplitis insignifica</i> Rothsch. - - - - -	-	p.	250
„	7.	<i>Rifargia biplaga</i> Rothsch.. . . .	.	p.	254
„	8.	<i>Trichomoplata dimorpha</i> Rothsch. ♀ - - - - -	-	p.	240
„	9.	<i>Lirimiris elongata</i> Schaus ♀	.	p.	237
„	10.	„ „ „ <i>orientalis</i> Rothsch. ♂ - - - - -	-	p.	238
„	11.	„ „ <i>eurybia</i> Druce	.	p.	237
„	12.	<i>Tarsolepis japonica</i> Wileman.			
„	13.	<i>Gargetta bipuncta</i> Rothsch. (<i>Cargetta</i> in text, err.) . . .	.	p.	257
„	14.	<i>Lirimiris lemoulti</i> Rothsch. - - - - -	-	p.	237
„	15.	<i>Macronadata brunnea</i> Rothsch.	.	p.	259
„	16.	<i>Brachychira olivaceofusca</i> Rothsch. (<i>Pachychira</i> in text, err.)		p.	260

EXPLANATIONS OF PLATE V.

No.	1.	<i>Stauropus notodontina</i> Rothsch.	.	.	.	.	.	p. 246
„	2.	„ <i>bipunctus</i> Rothsch.	-	-	-	-	-	p. 246
„	3.	<i>Chadisra meeki</i> Rothsch.	.	.	.	.	.	p. 251
„	4.	„ <i>albobrunnea</i> Rothsch.	-	-	-	-	-	p. 251
„	5.	<i>Hoplitis dasychiroides</i> Rothsch.	.	.	.	.	.	p. 250
„	6.	<i>Chadisra striata divisa</i> Rothsch.	-	-	-	-	-	p. 252
„	7.	<i>Naprepa fusconubilata</i> Rothsch.	.	.	.	.	.	p. 231
„	8.	„ <i>adusta</i> Rothsch.	-	-	-	-	-	p. 231
„	9.	<i>Hapigia rufocinnamomea</i> Rothsch.	.	.	.	.	.	p. 263
„	10.	<i>Pachychira excellens</i> Rothsch.	-	-	-	-	-	p. 260
„	11.	<i>Rifargia terebroides</i> Rothsch.	.	.	.	.	.	p. 254
„	12.	<i>Scalmicauda bisecta</i> Rothsch.	-	-	-	-	-	p. 260
„	13.	<i>Rhuda opalistriga</i> Rothsch. ♂	.	.	.	.	.	p. 249
„	14.	„ „ „ ♀	-	-	-	-	-	p. 249
„	15.	<i>Chadisra striata striata</i> Rothsch.	.	.	.	.	.	p. 252
„	16.	<i>Tarsolepis sericea</i> Rothsch.	-	-	-	-	-	p. 252
„	17.	<i>Chlora mediostriga</i> Rothsch.	.	.	.	.	.	p. 263
„	18.	<i>Gargetta flavibasis</i> Rothsch. ♀ (<i>Cargetta</i> in text, err.)	-	-	-	-	-	p. 256

EXPLANATIONS OF PLATE VI.

No.	1.	<i>Trichomoplata stigmatica</i> Rothsch.	.	.	.	.	.	p. 241
„	2.	<i>Stauropus incisus</i> Rothsch.	-	-	-	-	-	p. 245
„	3.	<i>Cascera variegata</i> Rothsch.	.	.	.	.	.	p. 248
„	4.	<i>Rifargia steinbachi</i> Rothsch.	-	-	-	-	-	p. 255
„	5.	<i>Turnaca lanuginosa</i> Rothsch.	.	.	.	.	.	p. 258
„	6.	<i>Cascera irrorata irrorata</i> Rothsch.	-	-	-	-	-	p. 248
„	7.	<i>Euhampsonia gigantea</i> (Druce) = <i>Euhampsonia magnifica</i> Rothsch.	.	.	.	.	.	p. 258
„	8.	<i>Baradesa omissa</i> Rothsch.-	-	-	-	-	-	p. 258
„	9.	„ <i>lithosiodes</i> Moore (for comparison)	.	.	.	.	.	p. 258
„	10.	<i>Antaea pseudosmerinthus</i> Rothsch.	-	-	-	-	-	p. 263
„	11.	<i>Hoplitis curvatula</i> Rothsch.	.	.	.	.	.	p. 251
„	12.	<i>Apella acutidivisa</i> Rothsch.	-	-	-	-	-	p. 262
„	13.	<i>Chadisra plagosa</i> Rothsch.	.	.	.	.	.	p. 252
„	14.	<i>Gargetta flavibasis</i> Rothsch. ♂ (<i>Cargetta</i> in text, err.)	-	-	-	-	-	p. 256
„	15.	<i>Omichlis mediofasciata</i> Rothsch.	.	.	.	.	.	p. 260
„	16.	„ <i>pseudolibatrix</i> Rothsch.	-	-	-	-	-	p. 259
„	17.	<i>Cascera perscripta</i> Rothsch.	.	.	.	.	.	p. 248
„	18.	„ <i>olivacea olivacea</i> Rothsch.	-	-	-	-	-	p. 247
„	19.	<i>Moresa plumbeiplaga</i> Rothsch.	.	.	.	.	.	p. 261

EXPLANATION OF PLATE VII.

No.	1.	<i>Rifargia basiplaga</i>	Rothsch.	.	.	.	.	.	.	p. 255
„	2.	<i>Cascera flavovirens</i>	Rothsch.	-	-	-	-	-	-	p. 247
„	3.	„ <i>marginata</i>	Rothsch.	.	.	.	.	.	.	p. 247
„	4.	„ <i>albiscripta</i>	Rothsch.	-	-	-	-	-	-	p. 246
„	5.	<i>Rifargia muscosa</i>	Rothsch.	.	.	.	.	.	.	p. 255
„	6.	<i>Hoplitis cinnamomea</i>	Rothsch.	-	-	-	-	-	-	p. 250
„	7.	<i>Malocampa bucephaloides</i>	Rothsch.	.	.	.	.	.	.	p. 249
„	8.	„ <i>phaleroides</i>	Rothsch.	-	-	-	-	-	-	p. 249
„	9.	<i>Rifargia cossoides</i>	Rothsch.	.	.	.	.	.	.	p. 254
„	10.	<i>Phalera inexpectata</i>	Rothsch.	-	-	-	-	-	-	p. 253
„	11.	<i>Tarsolepis rufobrunnea</i>	Rothsch. (type)	.	.	.	.	.	.	p. 252
„	12.	„ „ „	(Khasia Hills)	-	-	-	-	-	-	p. 252
„	13.	<i>Rifargia intermedia</i>	Rothsch.	.	.	.	.	.	.	p. 256
„	14.	<i>Turnaca mediofascia</i>	Rothsch.	-	-	-	-	-	-	p. 257
„	15.	<i>Rhuda posttriangulum</i>	Rothsch.	.	.	.	.	.	.	p. 250
„	16.	<i>Turnaca phragmatoecioides</i>	Rothsch.	-	-	-	-	-	-	p. 257
„	17.	<i>Phalera elongata</i>	Rothsch.	.	.	.	.	.	.	p. 253
„	18.	<i>Rosema klagesi</i>	Rothsch.	-	-	-	-	-	-	p. 261

EXPLANATION OF PLATE VIII.

No.	1.	<i>Spatalia affinis</i> Rothsch.	.	.	.	.	.	.	p. 231
„	2.	„ <i>indistincta</i> Rothsch.	-	-	-	-	-	-	p. 231
„	3.	<i>Nystalea nigriplaga</i> Rothsch.	.	.	.	.	.	.	p. 232
„	4.	<i>Antiora affinis</i> Rothsch.	-	-	-	-	-	-	p. 232
„	5.	<i>Nystalea ocellata</i> Rothsch..	.	.	.	.	.	.	p. 233
„	6.	„ <i>cossoides</i> Rothsch.	-	-	-	-	-	-	p. 233
„	7.	„ <i>zeuzeroides</i> Rothsch.	.	.	.	.	.	.	p. 233
„	8.	<i>Trichomoplatia dimorpha</i> Rothsch. ♂	-	-	-	-	-	-	p. 240
„	9.	<i>Eragisa tenebrosa</i> Rothsch.	.	.	.	.	.	.	p. 234
„	10.	<i>Lirimiris mirabilis</i> Rothsch.	-	-	-	-	-	-	p. 238
„	11.	<i>Bardaxima molossus</i> Rothsch.	.	.	.	.	.	.	p. 234
„	12.	<i>Dingera muscosa</i> Rothsch.	-	-	-	-	-	-	p. 239
„	13.	<i>Stauropus triplagosus</i> Rothsch..	.	.	.	.	.	.	p. 243
„	14.	„ <i>affinis</i> Rothsch.	-	-	-	-	-	-	p. 245
„	15.	„ <i>mediolinea</i> Rothsch.	.	.	.	.	.	.	p. 245
„	16.	<i>Arhacia postbrunnea</i> Rothsch.	-	-	-	-	-	-	p. 238
„	17.	<i>Dyasias stigmatica</i> Rothsch.	.	.	.	.	.	.	p. 236
„	18.	<i>Stauropus germanus</i> Rothsch. ♂ (<i>germana</i> in text, err.)	-	-	-	-	-	-	p. 244
„	19.	„ „ „ ♀	.	.	.	.	.	.	p. 244
„	20.	„ <i>leucophaeus</i> Rothsch.	-	-	-	-	-	-	p. 243
„	21.	„ <i>viridinitens</i> Rothsch..	.	.	.	.	.	.	p. 242
„	22.	„ <i>alboviridis</i> Rothsch.	-	-	-	-	-	-	p. 244
„	23.	<i>Eragisa basifera</i> Rothsch.	.	.	.	.	.	.	p. 234
„	24.	<i>Psilacron divisa</i> Rothsch.	-	-	-	-	-	-	p. 240

ON SOME *RALLIDAE*.

By ERNST HARTERT, PH.D.

I. THE NAME OF THE AFRICAN "PURPLE COOT."

THE large African Purple Coot or Purple Moorhen—*Porphyrio* is next allied to the Moorhen, and not to the Coot—has been known as *Porphyrio smaragnotus*, *smaragdonotus*, or *madagascariensis*, which names all refer to it, and it has also been named *chlorynothos*, *chloronotus*, and *aegyptiacus*. In 1894 Sharpe introduced for it the name *Porphyrio porphyrio*, pretending that it was Linné's "*Fulica porphyrio*" of 1766, and this name was adapted by Reichenow, in the *Vögel Afrikas*, as of 1758!

Linnaeus (*Syst. Nat.* ed. x. i. p. 152, 1758) called *Fulica porphyrio* a bird which he diagnosed as follows: "*Fulica fronte calva, corpore violaceo, digitis simplicibus.*" He quotes as his sources: (1) "Brown, Jamaica, 479." Brown, of course, described the American species! (2) "Albin, av. 3, p. 79, t. 84." Albin figured and described a bird which is all over uniform purplish blue and has a white tail. This can only be *P. caeruleus* and not the African species, which has a green back. Albin does not say where the home of his bird was, but refers to the one described by Plinius, Gesner, and Aldrovandus, who must all have had *P. caeruleus* in their mind, though they mostly described it from pictures only. (3) "Raj. av. 116, n. 13." Ray says he only saw pictures and does not know if the bird really existed. "An detur hujusmodi avis dubitatur?" (4) "Edwards, av. 87, t. 87." Edwards figures and describes a bird which was all over "of a fine blue, inclining to violet." He gives no locality, but says a Mr. Bell told him he had seen male birds in China. (5) "Dodart. act. 3, p. 30?" I have not seen this book, but Dodart had, so far as I know, only black-and-white figures and no text; moreover, as Linné queried his figure, this quotation is of no avail.

Last but not least: Linné said: "Habitat in Asia, America."

In 1766 (*Syst. Nat.* ed. xii. i. p. 258) Linné described his *F. porphyrio* as *corpore viridi, subtus violaceo*, and added some more quotations, Bellonius, Gesner, Aldrovandus, Clusius, Willoughby, and Brisson. Most of these were compilers who referred to the bird described by Plinius, Gesner, Aldrovandus, but Brisson gave a description of a bird with a green back which he says came from Cayenne, though it seems that he really did describe an African specimen, as he says it is nearly as large as a fowl, and afterwards the "Petite Poule Sultane," also from Cayenne. In any case, this cannot alter the meaning of Linné's "*Fulica porphyrio*," of which in 1766 he said, "Habitat in India Asiae, Americae."

It is thus clear that Linné's "*Porphyrio*" of 1758 was a mixture of the South American *Porphyrio martinica* and the Mediterranean *P. caeruleus*, but has absolutely nothing to do with the African species. There is therefore no justification whatever for adopting this name for the African species.

In 1766 Linné altered his diagnosis, and described a species with a green back, but as he did not mention the size and says no word of the occurrence in Africa, that may just as well refer to the American species. Therefore even

Sharpe, who disregarded the description of 1758, because he began his nomenclature with the year 1766, should not have adopted Linné's name for the African species.

The oldest available name for the latter is *Fulica madagascariensis* Latham, 1801. As there seems to be no difference between African and Madagascar specimens, this name covers them both, and the change proposed by Sharpe and Reichenow need not take place.

II. *PORPHYRIO POLIOCEPHALUS CASPIUS* SUBSP. NOV.

While there is evidently no difference whatever in colour, I find that the tropical (Indian) form of *Porphyrio poliocephalus* is smaller than the palaearctic one from the shores of the Caspian and Persia.

Of the Indian form there is a large series in the British Museum (cf. *Cat. B. Brit. Mus.* xxiii. p. 199), and their wings measure 240–269 mm. Unfortunately, quite a number are not sexed at all, and some apparently not correctly, but, taking one or two errors for granted, it seems that the males measure from 257–269, females 240–256 mm. There are only four Ceylon skins, and their wings measure 240–243 mm., in one, but perhaps abnormally, only 230 mm., but Legge gives the same length! It would thus seem that the Ceylon birds are smaller again, but a larger series must be measured in order to verify this supposition.

Of the Irano-Caspian form I have measured five skins from Lenkoran and eleven from East Persia, and find that they measure 259–286 mm. in the wing—i.e. ♂♂ 270–286, ♀♀ 259–266 mm.

There is thus, if specimens of similar sex are compared, a close approach, but not even an overlapping, and the two forms must therefore be separated.

The Indian bird was named *Gallinula poliocephala* by Latham (*Ind. Orn. Suppl.* p. lxxviii. 1801), and again *Porphyrio neglectus* by Schlegel (*Mus. Pays-Bas*, Ralli, p. 53, 1865).

The larger Caspian and Persian form has no name. It is frequently called "*Porphyrio veterum*," but this is not correct. S. G. Gmelin (*Reise durch Russland*, iii. p. 79, pl. 12, 1774) tells us of the occurrence of the Purple Coot in North Persia, and give an uncoloured figure of it. He thought this bird was the *Porphyrio* of the older writers, and does not, therefore, give it a name. In a footnote he says that it is the *Porphyrio veterum*, meaning the *Porphyrio* of the old authors, and recapitulates the diagnoses of Klein, Brown, and Linné, of their *Porphyrio*. These authors, however, had different birds in mind, and the name *veterum* has therefore no standing; besides that, it was not meant to be a name.

I therefore propose for the large form the name—

Porphyrio poliocephalus caspius subsp. nov.

because it chiefly inhabits the basin of the Caspian.

Type: ♂ ad., Lenkoran, in the Tring Museum.

We must distinguish the following palaearctic *Porphyrio*:

1. *Porphyrio caeruleus* (Vandelli).

South Portugal and Spain, Marocco, Algeria, Tunisia, Sardinia, and Sicily, formerly Balearic Isles and Malta. It was probably this species which occurred,

according to Geoffroy St. Hilaire and Erhard, over half a century ago in Greece, in the swamps of Osman-Aga, the plain of Helos, on the lakes Dystos and Kopai, but it might possibly have been another species.

2. *Porphyrio madagascariensis* (Lath.

Madagascar and Africa to the Sahara, in Egypt along the Nile to Fayum, Lake Menzaleh and Alexandria.

3. *Porphyrio poliocephalus caspius* Hart.

Wings : ♂ 270–286, ♀ 258–266 mm.

Shores of Caspian, very numerous at Lenkoran, rare in the Volga delta, in Persia, especially in Seistan, East Persia, in Mesopotamia, and probably Afghanistan, from where only one unsexed specimen could be measured.

3A. *Porphyrio poliocephalus poliocephalus* (Lath.).

Wings : ♂ 257–269, ♀ 240–256 mm.

India from Ceylon to the Himalaya, Burma to Tenasserim.

Possibly the Ceylon form smaller again ?

4. *Porphyrio alleni* Thomps.

Tropical Africa, as a straggler once Alexandria, twice Sicily, twice Lucca in Italy, a number of times on the Azores, once in Madeira, once on the Mar Menor south-east of Murcia, in December 1902 near Bizerta in Tunisia, in December 1902 near Mazagan in West Morocco, in January 1902 at sea near Yarmouth.

It is certainly very remarkable that a species which breeds south of the Sahara should occur so frequently in Europe, and I do not think that it is impossible that it occurs regularly and nests in Southern Morocco, which is, so far, not at all thoroughly explored. It might thus belong to the birds which, like the *Telephonus*, *Pycnonotus barbatus*, *Asio capensis tingitanus*, *Melierax canorus metabates*, *Francolinus bicalcaratus* (subsp.), and *Streptopelia senegalensis phoenicophila*, have extended their range from the Senegal along the coast to Africa Minor, where most of them became changed into distinct subspecies.

III. THE FORMS OF *GALLINULA CHLOROPUS*.

The "Moorhen" or "Water-hen," being very widely spread, and in most countries not or only partially migratory, offers a very interesting subject for the study of geographical variation. As usual, series from many breeding-areas are not available, but from the material I was able to compare I am convinced that we can distinguish the following races :

1. *Gallinula chloropus chloropus* (L.).

Fulica chloropus Linnaeus, *Syst. Nat.* ed. x. i. p. 152 (1758—"Habitat in Europa." Restricted terra typica, from the first quotation, England).

Outward appearance of wings olive-brown. Wings : ♂ 175–188, ♀ 165–176 mm.

Europe generally from Norway and Russia to the Mediterranean, east-

wards to Turkestan, and North Africa, north of the Sahara. I am not able to say whether the specimens obtained in Dauria (Transbaikalia) belong to this form or to the Chinese one. Wholly or partially migratory in the northern portions of its area. (Series from North Africa not available.)

2. *Gallinula chloropus parvifrons* Blyth.

Gallinula parvifrons Blyth, *Journ. As. Soc. Bengal*, xii. p. 180 (1843—Calcutta).

(? *Gallinula burnesi* Blyth, *op. cit.* xxiii. p. 737, 1854. Described from a drawing which presents no white under tail-coverts and no white stripes on the flanks. From Kabul.)

In every way like *G. c. chloropus*, but smaller, wings shorter. Wings: ♂ 156–176, sometimes to 182, ♀ 155–165 mm.

India, south to Ceylon, eastwards through China to the Riu-Kiu (Loo-Choo) Islands, and Japan, where it is, however, by no means common. Probably Thibet specimens belong to this race, too. Cf. C. H. B. Grant, *Ibis*, 1915, p. 48.

3. *Gallinula chloropus orientalis* Horsf.

Gallinula orientalis Horsfield, *Trans. Linn. Soc. London*, xiii. p. 195 (1820—Java).

Easily distinguishable by its bluish slate-coloured upper wing-coverts, which lack the olivaceous brown edges which are found in *G. c. chloropus* and other races. Wings short, 145–167 mm.

Java, Sumatra, Malay Peninsula; Celebes (rare). Specimens from the Philippine Islands seem mostly to belong to this form, but some have the wings much browner. Their wings are sometimes longer than in *G. c. orientalis*. They stand thus somewhat between *G. c. orientalis* and *parvifrons* and resemble *G. c. guami*. Unfortunately not many specimens could be examined.

4. *Gallinula chloropus guami* subsp. nov.

Upper wing-coverts darker than in *G. c. chloropus* and *parvifrons*, with very little olive-brown, but not uniform slate-colour as in *orientalis*. Wings: ♂ ♀ 165–175, exceptionally as long as 180 mm.

Island of Guam, Marianne Islands.

Type: ♂ ad., Guam, 11. xii. 1894. Collected by the late Alan Owston's Japanese collectors. In the Tring Museum.

I have examined thirty-six examples from Guam. Cf. *Nov. Zool.* 1898, pp. 62–64, where I not only described the status of the Moorhen on Guam, but also discussed some of the other forms of *Gallinula*. That short review, however, was very incomplete and faulty, and does not favourably compare with our present knowledge.

5. *Gallinula chloropus brachyptera* (Brehm).

Stagnicola brachyptera Brehm, *Vogelfang*, p. 331 (1855—"Mittelafrika").

(Mr. C. H. B. Grant [*Ibis*, 1915, p. 48] adopts for this race Brehm's name *meridionalis*, published on the same page, one line above *brachyptera*. I cannot follow this; Brehm said it had the edge of the wing and under wing-coverts ferrugineous ("rostfarben"), which is not the case in any *Gallinula chloropus*,

nor is there a specimen in the Brehm Collection from which this description could be taken.)

Very similar to *G. c. orientalis*, but toes and tarsus as a rule distinctly shorter, sometimes however difficult to distinguish. Wings about 150–175 mm.

Tropical Africa to Cape Colony, St. Thomé and Annobon. Also the Seychelle Islands, Praslin, Ile aux Fous, St. Digne, and probably Ile Aride. The four skins from Ile Aride have the under tail-coverts more or less buff, almost as in *pyrrhorhoa*, and the wings are rather shorter than in the majority of *brachyptera*. I believe, however, that they must all be females, though sexed as males, but the collector, Thibault, was not reliable in that respect. Curiously the upper wing-coverts are also rather more brownish than they usually are in *brachyptera*. It is hardly credible that on the small islet called Ile Aride, close to the Ile aux Fous, a special form should exist!

6. *Gallinula chloropus pyrrhorhoa* Newt.

Gallinula pyrrhorhoa Newton, *Proc. Zool. Soc. London*, 1861, p. 18 (Mauritius).

Under tail-coverts always distinctly deep buff. In other subspecies, chiefly in *G. c. chloropus*, the lateral under tail-coverts are sometimes, especially in freshly moulted autumn specimens, more or less buff, but not regularly and so intensely as in this form.

Mauritius, Réunion, and Madagascar.

7. *Gallinula chloropus sandvicensis* Streets.

Gallinula sandvicensis Streets, *Ibis*, 1877, p. 25 (Oahu).

At once recognisable by the extended frontal shield in old birds. Toes rather short and slender, more red in front of tarsus.

Sandwich Islands. Though better differentiated than most other forms, after all only subspecies according to my present views.

8. *Gallinula chloropus galeata* (Licht.).

Crex galeata Lichtenstein, *Verz. Doubl. Mus. Berlin*, p. 80 (1823—Sao Paulo, Brazil).

Easily recognisable by the widely extended frontal shield, which is truncate (not rounded) behind.

Southern Brazil, Paraguay, Uruguay, Northern Argentina, Eastern Bolivia.

9. *Gallinula chloropus pauxilla* Bangs.

Gallinula chloropus pauxilla Outram Bangs, *Proc. New England Zool. Club*, v. p. 96 (1915—West Colombia).

Like *G. c. galeata*, but much smaller.

West Colombia, probably also West Ecuador, and perhaps even farther south.

10. *Gallinula chloropus cachinnans* Bangs.

Gallinula chloropus carchinnans Bangs, *Proc. New England Zool. Club*, v. p. 96 (1915—North America. Type Florida).

Easily separable by the colour of the back and scapulars, which are of a more or less reddish brown, though variable, according to Bangs, from “argus

brown" through "Brussels brown" to "raw umber." "In most fully adult individuals the whole back, rump and wings, except lesser coverts, are brown." Size and proportions as in *G. c. galeata*. Wings, 169–178 mm.

"North temperate Eastern and Central North America, south to Nicaragua, and as a rare straggler to Costa Rica; Bermudas; Greater Antilles; Northern Lesser Antilles; Bahamas, rare and local; an isolated colony in California and another at Cape San Lucas" (Bangs, *l.c.*).

Specimens from the Galápagos Islands appear to be inseparable for the present, but a larger series would probably show them to be a smaller subspecies!

Bangs (*l.c.*, p. 98) separated, from comparison of two specimens, a race from S. Lucia, Lesser Antilles, as—

Gallinula chloropus cerceris.

A specimen in the Tring Museum, collected on S. Lucia by Selwyn Branch, agrees with other West Indian specimens, and shows nothing of the characters on which Bangs founded his *cerceris*. I therefore believe that *G. c. cerceris* should be regarded as a synonym, and that the type is abnormal. Bangs's second specimen is immature.

11. *Gallinula chloropus garmani* Allen.

Gallinula garmani Allen, *Bull. Mus. Comp. Zool.* iii. p. 357 (1876—Lake Titicaca).

Much larger than other American forms, upperside very dark.

Lake Titicaca in Southern Peru. According to Bangs also in Western Bolivia and Chile. This may be correct, but specimens from Eastern Bolivia which I examined belong to *G. c. galeata*.

It seems doubtful if *Gallinula frontata* Wall. (*G. frontata* Wallace, *Proc. Zool. Soc. London*, 1863, p. 35, Buru) should be included in the subspecies of *Gall. chloropus*. It is easily separable, besides other details, from all other forms by the red legs and larger bill, with more extended frontal shield. These differences, though obvious, would not deter me from calling it *G. chloropus frontata*, but it seems to occur together with *G. c. orientalis*, in Celebes. I think, therefore, that we must await further investigations, before treating it as a form of *G. chloropus*, though Stresemann (*NOVITATES ZOOLOGICAE*, 1914, p. 55) did it without hesitation. *G. frontata* seems to be rare on Celebes, and so does *G. c. orientalis*, and it may be that either of them is only an occasional straggler on the great island, but this is not yet certain. Besides Celebes, *G. frontata* occurs on Buru, Ceram, Amboina, New Guinea, Sumba, Flores, and Borneo, but on the latter almost certainly as an exceptional straggler, if the record is correct.

LITERATURE ON THE FORMS OF *GALLINULA CHLOROPUS*.

1894: Sharpe, *Cat. B. Brit. Mus.* xxiii. pp. 168–180.

1894: Hartert, *Nov. Zool.* v. pp. 62–64.

1915: Claude H. B. Grant, *Ibis*, pp. 47–49.

1915: Outram Bangs, *Proc. New England Zool. Club*, v. pp. 93–99 (review of the American forms).

IV. THE FORMS OF *PORZANA FUSCA* (L.).

In the *Cat. B. Brit. Mus.* xxiii. pp. 146-148, Sharpe united the various forms of this species, only separating *phaeopygus*, because he did not know it, or he would undoubtedly not have kept it as another species.

Sharpe admitted that the species "varies considerably in size," but concluded that "it would seem impossible to recognise more than one form." He gave some measurements which clearly showed that specimens from South India and Ceylon and likewise those from the Philippines are smaller than birds from Northern India on the one hand and from China and Japan on the other.

It is impossible, according to present ideas, to unite all these forms, nor are they, of course, "species," but clearly "subspecies," though their present knowledge is not final, and the distribution of some of the forms not clear and somewhat peculiar.

Linnaeus described the bird from Brisson, who had it from the Philippines. The Philippine form is therefore *Porzana fusca fusca* (L.). As birds from Java are not separable from the latter, Temminck's *Rallus rubiginosus*, described from Java, is a synonym.

"*Zapornia flammiceps*" Hodgson, Gray's *Zool. Misc.* p. 86 (1844), is a *nomen nudum*, and I consider the name too unsuitable to adopt it for the North Indian form.

I distinguish the following forms :

1. *Porzana fusca erythrothorax* (Temm. & Schleg.).

Gallinula erythrothorax Temminck & Schlegel, Siebold's *Fauna Japon.* Aves, p. 121. pl. 28 (1849—Japan).

Forehead to about middle of eyes or greater part of crown rufous ; upper-side dark olive-brown, in fresh plumage with rusty tinge. Underside and forehead as a rule less deep, paler rufous, than in allied forms. Larger, wings 105-120 mm. (thirty-five measured).

Japan from Yesso to Kiushiu and Yaku, Eastern China to Yunnan and Siam.

In Yunnan specimens are sometimes rather darker on the underside, so it is not easy, if at all possible, to distinguish them from large specimens of *P. f. bakeri*. The largest specimens I have seen are from Japan (wings mostly 110-120 mm., shortest 105 mm.); those from China measure 105-118 mm., once 120 mm. This is probably accidental, and I do not think that the Chinese form is really smaller. The wings of 10 ♂ from Mengtze or Mongtze in Yunnan measure, according to Mr. Outram Bangs, in litt., 97 to 105 mm., but as he measured the wings "in their natural curve, not flattened against the rule,"* we may add 3 or 4 mm., so that they come to about 100-109 mm.

* I am afraid that Mr. Bangs's way of measuring the wing is still the usual one, but it is undoubtedly the wrong way. An absolutely uniform measurement can only be obtained if the wing is flattened against the rule and thus stretched to its fullest extent. By having the same birds measured by brother (and sister) ornithologists in various countries I have proved that we measure absolutely equal, while no uniformity could be attained by measuring "the natural curve." It is also desirable to have a small brass plate fixed at a right angle to the end of the rule, and to press the wing against that plate; if the finger is used to hold the wing in its position at the end of the rule, small deviations are unavoidable.

2. *Porzana fusca phaeopyga* Stejn.

Porzana phaeopyga Stejneger, *Proc. U.S. Nat. Mus.* x. p. 394 (1887—Yayeyama, Riu-Kiu Islands).

Very closely allied to *P. f. erythrothorax*, but with bills as a rule thicker and longer, the rufous colour of the chest perhaps a little more saturated.

Stejneger's description is not in agreement with these specimens. They are not darker on the upperside than Japanese examples, and the whitish spotting of the first primary is aberrational. None of our Riu-Kiu specimens shows this, but one from Ceylon has pale rusty, one from Java whitish spots on the outer webs of the first primary. Large series should be compared!

Riu-Kiu Islands: Yayeyama, Amami, Okinawa.

3. *Porzana fusca bakeri*, subsp. nov.

Zapornia flammiceps (sic) Hodgson, *Gray's Zool. Misc.* p. 86 (1844—*Nomen nudum!* Nepal).

As already pointed out by Sharpe, specimens from North India are larger than those from Ceylon or South India and from the Philippine Islands. They are nearly and sometimes quite as large as *P. f. erythrothorax*, but the rufous underside is deeper, darker. The crown, as a rule, is entirely rufous. Wing 97–108 mm., once 110 mm.

Type: ♀ ad., Bhim-Tal, Kumaon 20.vi. (Tring Museum.)

Northern India from Kashmir to Cachar, Upper Assam and Burma, south to Calcutta. Possibly northern birds may partially move south in winter, for a specimen from Patani, Malay Peninsula, with a wing of 111 mm. can hardly be *P. f. fusca*, which is evidently resident in the Malay Peninsula (Selangor).

Named after my friend E. C. Stuart Baker, whom I first met in Calcutta, twenty-nine years ago.

This form is common in Assam, especially near Margherita. Mr. Baker gave me the following measurements of eggs:

31.8 × 23.6	} 30. vii. 1905, Margherita.
30.8 × 24.2	
31.0 × 24.0	
31.0 × 23.6	
31.2 × 23.6	

30.2 × 22.8	} 9. vii. 1907, Margherita.
30.3 × 23.3	
30.2 × 23.2	
29.3 × 23.0	
30.4 × 23.0	

31.8 × 22.5	} 28. v. 1905, Margherita.
31.0 × 23.3	
33.5 × 21.8	

28.5 × 21.6	} 12. vii. 1907, Margherita.
28.4 × 22.2	

30.8 × 22.1	} 15. vi. 1902, Margherita.
29.9 × 21.5	
29.2 × 21.1	
29.6 × 22.2	
29.9 × 21.5	

32.5 × 23.0	} 15. v. 1903, Margherita.
30.0 × 23.0	
32.1 × 22.3	
30.8 × 23.0	
31.8 × 23.3	

29.8 × 23.0	} 1 vi. 1903, Margherita.
29.8 × 23.2	
29.2 × 23.2	
29.4 × 22.8	
29.4 × 23.2	

29.8 × 22.2	} 16. vii. 1893, Silchar in Cachar.
29.2 × 22.3	
29.8 × 22.2	
29.9 × 22.2	
30.5 × 22.1	

32.6 × 22.0	} 5. i. 1898, Sind Valley, Kashmir.
32.0 × 22.5	
31.8 × 22.4	
30.6 × 22.4	

28.8 × 23.3	} 24. viii. 1910, Dacca.
28.3 × 22.4	

36.0 × 24.5 26. vi. 1907, Behar (an addled egg).

4. *Porzana fusca fusca* (L.).

Rallus fuscus Linnaeus, *Syst. Nat.* ed. xii. i. p. 262 (1766—Philippines, ex Brisson).

Colour as in *P. f. bakeri*, i.e. the whole crown, as a rule, rufous, and its tint as well as that of the underside as deep and bright as in *P. f. bakeri*. Size much less, wings 89–99 mm.

This form inhabits the Philippine Islands, Celebes, Java, Christmas Island, Borneo, Sumatra, and the Malay Peninsula. Two males from Flores have wings of 102 and 103 mm. It is also found on Ceylon and in South India, where it is very rare, though known from Kanara, Travancore, the Wynaad, and Mysore. These skins appear to be indistinguishable from Philippine and Malayan ones; sometimes they are on the upperside more yellowish, less olive, but this seems to be due to the state of plumage. It is not the only case that Ceylon forms are more related to Malayan forms than to those of India; as an instance I recall the case of *Accipiter virgatus* (cf. *Nov. Zool.* 1910, p. 210).

It is a mistake to suppose that *Porzana fusca* is a winter visitor only in Ceylon. If so, it would surely come from North India and be *P. fusca bakeri*. In fact it nests, though locally and not commonly, in South India and Ceylon.

Also the eggs confirm the smaller size of the South Indian form. Mr. Baker sent me the following measurements :

28·4 × 21·5	}	24. vii. 1900, Travancore.
29·0 × 22·0		
28·3 × 21·8		
28·6 × 22·2		

28·2 × 22·0	}	20. viii. 1889, Karwar, Kanara, South Bombay.
27·8 × 22·3		
28·4 × 22·2		
28·6 × 22·2		
28·4 × 22·4		

29·5 × 22·5 25. vii. 1903. A single addled egg.

NOTES ON GAME-BIRDS.

BY ERNST HARTERT, PH.D.

I. THE GENERIC NAME OF THE RED-LEGGED PARTRIDGES.

CURIOUSLY enough, these birds have hitherto almost universally been called "*Caccabis*." But Kaup (*Skizzierte Entwicklungs-Geschichte und Natürl. Syst. der Europ. Thierwelt*, 1829) gave two names to the group: one, *Alectoris*, on p. 180 (and p. 193), Monotype *A. petrosa* = *barbara*; another, *Caccabis*, on p. 183 (and p. 194), Monotype *C. saxatilis*. We must undoubtedly go by the strictest priority, and accept the first name. Therefore, as *Accipiter palumbarius* has given way to *A. gentilis* and *Anas boschas* to *A. platyrhyncha*, so *Caccabis* must be replaced by *Alectoris*. This would probably have been done before, if in the *Cat. B.* xxii. p. 110, *Caccabis* had not been quoted before *Alectoris*, though both names are given with the correct pages. In lists of synonyms the first name should, of course, always be placed first, even if the author rejects it.

II. THE CORRECT NAME OF THE BARBARY PARTRIDGE.

While Latham and Gmelin did not identify Edwards's Barbary Partridge and Buffon's Perdrix de Roche ou de la Gambra as one and the same bird—this blunder was apparently first committed by Temminck in *Hist. Nat. Pigeons et Gallin.* iii. pp. 368, 369, and since then everybody has mixed them up—probably no modern ornithologist has read Buffon's description, on which Gmelin's name *Tetrao petrosus* was based, or consulted its source.

Gmelin, *Syst. Nat.* i. 2, p. 758, gave the name *Tetrao petrosus* solely to Buffon's Perdrix de Roche ou de la Gambra (Buffon, *Hist. Nat. Ois.* ii. p. 446). Now, this is what Buffon wrote:

"Cette Perdrix prend son nom des lieux où elle a coutume de se tenir par préférence; elle se plaît comme les perdrix rouges, parmi les rochers et les précipices: sa couleur générale est un brun obscur, et elle a sur la poitrine une tache couleur de tabac d'Espagne. Au reste, ces perdrix se rapprochent encore de la perdrix rouge par la couleur des pieds, du bec et du tour des yeux; elles sont moins grosses que les notres, et rétroussent la queue en courant; mais, comme elles, elles courent très-vite, et ont en gros la même forme; leur chair est excellente" (Voyez *Journal de Stibbs*, p. 287; and *l'Abbé Prevôt*, tome iii. p. 309).

There is very little in this description that could lead one to believe that the Barbary Partridge was meant by it; no mention of the red, white-spotted band around the throat, none of the brightly coloured flank-feathers, none of the red tail, and the size being less than that of our partridges, and that they erect the tail when running, and last, but not least, the locality, are absolutely against it. But let us see what Stibbs himself said. In Francis Moore's *Travels into the Inland Parts of Africa, etc., to which is added Capt. Stibbs'*

Voyage up the Gambia [formerly often called *Gambra*], in the Year 1723, we find, on p. 287, in the Captain's "Journal of a Voyage up the Gambia,"* the following :

"Thereabouts are great Stocks of diverse Sorts of Game, particularly Rock Partridges : I call them so, as being mostly amongst Rocks and Precipices. They are of a dark-speckled Colour, having a round Snuff-colour'd Spot on the Breast about as big as a Half-Crown, the Legs and Beak are red, as also a Circle about the Eyes, just as some Pigeons have ; they are not altogether so big as Partridges, but in Shape exactly like them and run as fast, only then this erects the Tail, and appears like a large Chicken. They are exceeding fine Meat, but difficult to kill."

First of all, we must consider where Stibbs obtained these birds: Not far from Barrucunda, about two degrees of longitude up the river, many days inland, under about 14° long. west. It is quite clear that no *Alectoris* (*Caccabis*) is found there. Then the "dark-speckled Colour" disagrees (Buffon left out the important "speckled"), the spot on the breast is only the size of a "half-crown" (in *Alectoris barbara* it is much larger), the size of the bird itself is considerably less than that of a Partridge (while *A. barbara* is not), and, last but not least, it erects its tail when running! No Partridge does this, but the African *Ptilopachus fuscus* (Vieill.) does it, and, in fact, there can be no doubt this is the bird described by Stibbs, and which Gmelin called *Tetrao petrosus*, the dark speckled plumage, the light brown patch on the breast, red feet, beak, and circle round eyes, approximate size, the habit of running with tail erect, and the locality, all agreeing with it, so that the name *Ptilopachus petrosus* will have to take the place of that of *P. fuscus*.

Fortunately, another name is available for the Barbary Partridge. Bonnatte (*Tabl. Encycl. et Méth.* i. p. 208 (1791)) called it "*Perdix Barbara*." This was taken from Edwards, *Nat. Hist. B.* ii. p. 70, pl. 70 (1747). Edwards called the bird "The Red-legged Partridge from Barbary," and figured and described a dark bird. He says: "A pair of these birds were sent to me alive by my good friend Mr. Thomas Rawlings, Merchant, residing at Santa Cruz, in that part of Barbary which lies without the Streights of Gibraltar, on the Atlantic Ocean." We have thus a definite locality, but which "Santa Cruz" can this have been? It is not the old Spanish fort of Santa Cruz near Oran, and I doubt if at that time (though some portions of "Barbary" were safer then than afterwards) Englishmen resided at the present Agadir (formerly Santa Cruz de Berberia), or at Hini, still farther south, formerly called Santa Cruz de Mar Pequeña). Santa Cruz being a very frequent place, Edwards's place of that name was probably in North Marocco, not very far from the Straits of Gibraltar. In any case, the name *barbara* is doubtless applicable to the dark North African Barbary Partridge. Its name will therefore henceforth be:

***Alectoris barbara barbara* (Bonn.).**

It inhabits Tunisia, Algeria, and Marocco from Tangiers to the southern Atlas. In Tunisia it is found in the north of the Atlas, in Algeria also, and on the Hauts

* A translation is also found in Arkstee & Markus, *Allgem. Historie der Reisen*, iii. p. 78, 1784, but it is not quite complete, the—to the translator—less important sentences being left out.

Plateaux here and there in suitable places ; we have traced it as far south as Laghouat. In West Algeria we have not come across any Barbary Partridges, except once on the Djebel Murdjadjo near Oran, where we could not shoot them. (Also in Sardinia !)

In Algeria and Tunisia, south of the Atlas, *A. b. barbara* is represented by the very much paler *A. b. spatzi*. Of Marocco south of the Atlas we have no ornithological knowledge whatever.

On the islands of Tenerife, Gomera, and Lanzarote a strikingly more greyish form, *A. b. koenigi*, occurs.

III. THE FORMS OF THE GREEK PARTRIDGE.

In the *Catalogue of Birds*, xxii. (1893), Mr. Ogilvie-Grant was "satisfied that it is impossible to distinguish more than one subspecies of *C. saxatilis*," and he thus had only one in Europe, "*Caccabis saxatilis*," and another from Greece to China which he called "*Caccabis chukar*." Under the latter name he comprises all forms with the lores white and the ear-coverts chestnut, the throat being more or less buff. The distribution is given as follows :

"*C. saxatilis*. Mountains of Europe : Eastern Pyrenees, Alps, Carpathians, Apennines, and Balkans, also Sicily. (It is doubtful if this bird is the species found in Greece.)

"*C. chukar*. Ranging in the west to the Ionian Islands (and perhaps found on the mainland of Greece), in the east to China, in the north to Mongolia and Turkestan, and in the south to the Persian Gulf and apparently to Aden (*C. arenarius* Hume). Island of St. Helena (introduced)."

This supposed distribution requires considerable alteration, apart from the fact that nowadays even Mr. Ogilvie-Grant would not lump all the Asiatic forms, *i.e.* the "*chukar*-group."

First of all we must consider the specific name, and that is *graeca*, not *saxatilis*. Dr. Richmond in Washington called my attention to the fact that Meisner, *Syst. Verz. der Vög. welche die Schweiz bewohnen*, p. 41, 1804, gave the name *Perdix graeca* to the bird figured on Daubenton's *Pl. Enl.* 231, which must have been a Greek specimen, as Buffon in his text only talks of Greece, the Greek Islands and Cyprus, and not of the Alps at all, as the habitat of the "*Bartavelle ou Perdrix Grecque*." Meisner, of course, believed that the Swiss birds were the same as those inhabiting Greece, but that was not a very great mistake, as the two forms are very closely allied and have only quite recently been separated. I believe Othmar Reiser (*Ornis Balcanica*, iii. pp. 411, 412) was the first to call attention to their differences ; the fact is that the Alpine bird, which must be called *Alectoris graeca saxatilis*, is, on the upperside, less brightly coloured, the grey more tinged with yellowish brown, the interscapulum less reddish, duller, while in *A. graeca graeca* the upper surface is brighter, the colours purer, the interscapulum more reddish, brighter, the edges to the scapulars, rump, and upper tail-coverts purer ash-grey, almost or quite without the dull brownish wash of *A. g. saxatilis*.

A. g. saxatilis inhabits the Alpine region from Savoy to Styria, but is absent from the Jura ; probably the birds from the Carpathians (Galicia, Bukowina)

and the "Krassó-Szörényer Komitat" in South-east Hungary also belong to the Alpine form, but I have not examined specimens from there.

A. g. graeca inhabits Greece (mainland) and the Ionian Islands (west of Greece), Macedonia, Albania, and ranges westwards to Montenegro, the Herzegovina and Bosnia to Dalmatia, evidently to the Karst. I have examined a few Italian specimens, and I consider that they too, and therefore, I should say, also the few that have survived, so far, in Sicily, and those formerly found on Elba, belong to the south-eastern form. Mr. Ogilvie-Grant had unfortunately not a single skin from Greece, and the one from Zante which he believed to be a "*chukar*" is certainly a *graeca*. Though at present apparently not found on Zante, *A. g. graeca* still occurs on other Ionian Islands.

Forms of the *chukar*-group occur westwards to Asia Minor, Rhodes, Cyprus, and, curiously enough, to the Cyclades and Northern Sporades, which, unlike Cyprus and Rhodes, which belong to Asia Minor, belong geographically to Greece.

The form from Cyprus, of which I have examined a fine series, mostly collected by Glaszner, differs from all named forms. It is nearest to *A. g. koroniakovi* and *falki*, but the upperside is duller, the hind-neck darker grey, back more reddish, and especially the crown of the head is darker, often almost quite dark blue-grey without brown, or with only a faint brown tinge. It is not so dark as *A. g. chukar*, and the crown is less brown. Wings: males, 162–169 mm.; females, 153–157 mm. I name the Cyprus race:

***Alectoris graeca cypriotes* subsp. nov.**

Type: ♂ ad., Galata, Cyprus, 21. iii. 1906. Ch. Glaszner leg. (In the Tring Museum.)

I have compared some specimens from Asia Minor (Smyrna, Eregli, Taurus) and Rhodes; some of these agree well with the Cyprus form, others are (especially on the rump) more brownish. I must, provisionally, unite these with *A. g. cypriotes*, but I am not sure if, when a good series from similar months of the year is compared, they cannot be again separated.

A great uncertainty prevails about the Greek Partridges inhabiting Palestine and the neighbouring countries. A specimen from Moab, east of the southern part of the Dead Sea, is very pale and belongs probably to the Sinai form (*sinaica* Bp.), of which I have, unfortunately, not been able to compare examples. Also two skins in the British Museum, collected during the last third of March near Karyatein (not Kuryatein!) in the northern Syrian desert, on the road to Palmyra, are very pale, very near to *pallida*, but more reddish. Do they perhaps also belong to *sinaica*?

Two specimens from Engeddi (west of the Dead Sea) and from the "hills of Judaea" are also very reddish, reminding one strongly of *pubescens*; they agree somewhat with the description of *Caccabis chukar*, var. *margaritae* Dawydoff (*Travaux Soc. Imp. Nat. St. Pétersbourg*, xxix. livr. 1898, pp. 57–63 (Russian), p. 86 (German digest)), but Dawydoff says that the crown is pure grey! This is not the case with the Engeddi and Judaea skins, which have the middle of the crown reddish brown. I know only one subspecies with a pure grey crown, and that is *werae*, described from South-west Persia. Specimens from El Bussah and Hule in the Tristram Collection are again a shade darker than those

from Engeddi and Judaea. Dawydoff says that in Western Palestine, his *margaritae* is replaced by *sinaica*! The question is if that is correct—most likely the author had not compared Sinai specimens; he adds that *margaritae* is larger than *sinaica* and darker on the back, but that it differs from "*chukar*" (by which he probably meant *falki* or *koroviakovi*) by the pure grey crown and wide white stripes under the eyebrows, which extend over the greater part of the vertex.

This *margaritae* is said to live quite isolated in the southern part of the depression called El Ghor, and especially on the shores of the Dead Sea (the northern part is meant, no doubt, not the Ghor south of the Dead Sea).

Alectoris graeca werae is the large, very pale form, with pure grey crown, which inhabits the Persian provinces of Luristan, Arabistan (Chusistan), and Farsistan, also Bushire. Judging from two very worn summer specimens from Mesopotamia, it would seem that they, too, belong to *werae*, and if that is so, it might even extend further (?? into Palestine).

Alectoris graeca koroviakovi was described by Zarudny under the name of *Caccabis kakelik koroviakovi* (!) in *Messenger Orn.* 1914, p. 55, in Russian! In this same article (pp. 54, 57, 59) Zarudny renames Hume's *Caccabis pallidus* and calls it *Caccabis kakelik humei*, because Naumann, in 1833, had called a pale variety of the Red-legged Partridge "*Perdix rubra pallida*." This, however, is no reason for the rejection of that name, as Naumann's names of aberrations have no nomenclatorial standing. Not only are names given to aberrations not considered in the Code of Nomenclature, but it is especially clear that Naumann did not consider his names as of nomenclatorial value, because he used the same names (such as *albus*, *candidus*, *varius*, *pallidus*, *luteus*) over and over again in species after species in the same genus for white, white-spotted, pale, or yellowish aberrations. Buturlin and Zarudny call the species "*kakelik*." This name was given by Falk (not Falck) in *Beyträge zur topogr. Kenntn. d. Russ. Reichs*, iii. p. 390 (1786). The whole description is: "Schreit beständig kakelik. Grösse einer Kropftaube, Schnabel, Augenbrauen und Füsse brenned roth, Brust grau, Rücken von weiss und grau gewässert. Bucharey, Chiwa, Soongarey." This description is certainly quite insufficient to identify the species. No doubt the bird calls "*kakelik*," but the description of the cry is not diagnostic, and, no mention being made of the black circle round the throat, none of the most striking coloration of the sides, and the back not being waved white and grey, the name is unacceptable.

Now as regards the name *koroviakovi*. This name was given to specimens from Eastern Persia (except Khorassan), from the Birdjand Mountains to Persian Baluchistan. From the somewhat conversational and lengthy description (in Russian!) the following description can be extracted: It does not belong to the pale forms (what is meant is, such as *werae*, *pallida*, and *sinaica*). "It is decidedly darker and more strongly pigmented than the Khorassan and Transcaspian," and the "brightness of colouring is also superior to most of the representatives of the larger *C. kakelik kakelik* from Russian Turkestan. It is specially remarkable for the strong development of a chestnut-brown colour along the middle of the upper part of the head and a deep pink-red-brown colour of the forepart of the back." Besides the coloration, the small size of *koroviakovi* is remarkable.

These statements of Zarudny are correct. Compared with *Alectoris graeca*

chukar from the Indian hills, *koroviakovi* is distinctly lighter and brighter in colour, the breast of a somewhat lighter grey. Wings, ♂ 144–156 mm., once 163 mm., ♀ 140–148 mm.

It is true that the birds from Russian Turkestan, Buchara, and Transcaspia are not the same; they are larger, the colour is less bright, not so reddish, and they appear therefore to me duller, generally darker, though not so dark and dull as *chukar*. Wings, ♂ and ♀ 150–172 mm. I think that the birds from Northern Khorassan are the same too, and probably also those from North Persia south of the Caspian, but Zarudny evidently thinks that they are different again. It is this bird (the one from Russian Turkestan and Buchara) which Zarudny calls "*kakelik*," and it is the one which probably Falk meant to describe. I therefore call it:

***Alectoris graeca falki* subsp. nov.**

Type: ♂ ad., near Przewalsk, east of Lake Issik Kul, in Russian Turkestan, 26. xi. 1901, collected by Kutzenko. (Tring Museum.)

In the Russian (Moscow) journal *Messenger Ornithologique*, 1914, p. 59, Zarudny also described another form, which he called "*Caccabis kakelik subpallidus*," and which I call *Alectoris graeca subpallida* (Zar.). According to the author this form is quite different from "*Caccabis kakelik kakelik*"—my *Alectoris graeca falki*, which belongs to the "dark forms"—and belongs to the "pale forms." Zarudny—evidently only from the descriptions of *pallida*, without having seen specimens—comes to the conclusion that his birds differ from *pallida* (his "*humei*") in being smaller, five males having wings of 161–165 mm., fourteen females wings of 148–157 mm. This form inhabits the hills of the desert of Kysyl Kum, west of Semiretchysk and north of Buchara, and those of Southern Buchara, between the Rivers Surchan and Kafirnagan, Wachschan and Pjändj. Birds from those hills were united by Bianchi with his *pallidus*, with which he also associated Hume's *pallida*. Bianchi was evidently not far wrong in doing this, because the types of *pallidus* and *pallida* are very similar to each other, though the latter appears to be still a bit lighter, and the rump not so greyish, but as the birds are in very worn plumage, this cannot decide anything. While true "*pallida*" is the bird of Eastern Turkestan, being found in Karakash, Yarkand, the Russian Chain (Kwen-Lun) to the Pamir, the distribution of the birds which Hume called *pallidus* is somewhat difficult to explain. They were found at Leh, Ak Masjid and Karbu in Ladak and Cashmere, but are not the form inhabiting Cashmere generally, for nearly all over that country we find birds which do not differ from typical *chukar*, even at Gilgit and as far east as Kohat (Whitehead). I therefore believe that the pale form of East Turkestan ranges over the border into and over the Karakorum Mountains into a few highly elevated districts of Cashmere (Ladak), and that Bianchi was correct in uniting *pallida* and *pallidus*—the latter, unfortunately, being the first name, according to page-priority. In any case Sharpe was wrong when he (*Scientif. Res. Second Yarkand Mission*, Aves, p. 121, 1891) separated "*pallida*" as a species and united "*pallidus*" with *chukar*!

Alectoris graeca pubescens (Swinhoe).—This is a somewhat variable form; the characteristic vinous tinge is strongly developed in some, less so in others, and even from the same localities. I am by no means certain that Altai speci-

mens belong to *pubescens*, though Bianchi gives its distribution as "North-western Mongolia and Altai and mountain regions of the middle and lower Yellow River up to the Pechiliski Bay." A skin from the Gobi Desert in the British Museum looks more like *chukar* than like *pubescens*.

IV. *AMMOPERDIX*.

The *Catalogue of Birds* recognises two species, *A. heyi* and *bonhami*. Later on Mr. Ogilvie-Grant described *A. cholmleyi* from North-east Africa, and Zarudny separated two forms of *bonhami*—i.e. *Ammoperdix bonhami bucharensis* from Buchara and *A. b. ter-meuleni* from Arabistan.

A. cholmleyi was described in *The Handbook Game-B.* ii. p. 293 (1897), as inhabiting "Egypt and Nubia," but the types came from the Erba Mountains near Suakim. It was said that *cholmleyi* is darker on the upperside and lacks entirely the white forehead and lores characteristic of *A. heyi*. This is perfectly correct, and *cholmleyi* must be considered a good subspecies of *heyi*. Curiously enough, both Mr. Louis Bonhote and Michael Nicoll objected to *cholmleyi* because they had seen, in the Tring Museum, a Palestine specimen without the white lores and forehead. It is very curious that Mr. Nicoll calls the bird *A. heyi heyi*, though he admits that he has not seen an Egyptian male with a white forehead and that they are all darker than *A. h. heyi*. Mr. Nicoll talks of several *A. heyi heyi* without a white forehead, but probably this is a slip. All I can find out is that: North-east African (Suakim, Nubia, Egypt north to Heluan) specimens are darker on the upperside and under-surface (both males and females), and that the males have no white lores or forehead, that ♂ *A. h. heyi* (from South Palestine to Sinai) are paler and have two white loreal spots, more or less distinctly connected by a white frontal line with the exception of one from the Wadi-Kelt (where other males have the white lores and frontal line) which has neither white loreal spots nor frontal line!; the Wadi Kelt birds, however, are quite as light-coloured as other typical *A. h. heyi*. The females of *cholmleyi* are also darker than those of *A. h. heyi*, and in fact like some of "*A. bonhami*."

Unfortunately the latter species must no longer be called *bonhami* but *griseogularis*. That name, "*Perdix griseogularis*," was published April 24, 1843, the description of "*Caccabis Bonhami*" by Gray in May 1843, that of "*Perdix Bonhami*" by Fraser not before November of the same year.

Zarudny (*Orn. Monatsber.* 1911, p. 83) described "*Ammoperdix bonhami bucharensis*" from Buchara, but I cannot admit this supposed subspecies, as the alleged differences are, in my opinion, individual, and specimens from Buchara which I examined are not smaller and agree in every way with typical *griseogularis*.

Zarudny and Loudon (*Orn. Jahrb.* 1904, p. 226) described also an *A. bonhami ter-meuleni* from Arabistan. According to their description the upperside is much more rusty, the back with a vinous tinge, so that the grey colour almost disappears, the crown has a distinct vinous tinge, the light spots on the sides of the neck are "nearly always" strongly rusty.

This description sounds quite convincing, and we are accustomed to paler and more sandy forms in Arabistan. On the other hand, specimens from Bushire and further inland in Farsistan (Witherby coll.) are so very little more sandy on the head and back than typical *griseogularis* in very fresh plumage, in fact one

from the Salt Range in North-west India and another from Kandahar are not distinguishable from those of Farsistan, so that I think this *ter-meuleni* requires confirmation, unless it is quite restricted to Arabistan.

In the *Catalogue of Birds*, xxii. p. 126, the distribution of *heyi*, as I have said above, includes that of *cholmleyi*, and, moreover, it is said to extend "eastwards to Muscat, Persian Gulf." That is a rather sweeping statement, for nothing was then known of any *Ammoperdix* between the west coast of the Red Sea and Sinai and Muscat, though Rüppell, in 1845, said that his *heyi* occurred also at Djedda. Therefore the isolated occurrence at Muscat was remarkable and gave rise to doubts of its identity with the other subspecies. Now several specimens are in the British Museum from Muscat. Mr. Bury found some near Timil in South Arabia, and a female has been obtained near Lahej, north of Aden. One may therefore say that an *Ammoperdix* ranges from Lahej (Aden) to Muscat. This form, however, is neither *A. h. heyi* nor *A. h. cholmleyi*. The males agree with the latter in coloration, but have the two white loreal patches, more or less completely connected by a white line. The ♀ is like those of *A. h. cholmleyi*. Wings of the males, 125–129 mm.

I name this form:

***Ammoperdix heyi intermedia* subsp. nov.**

Type (in the British Museum), ♂ ad. Timil, South Arabia, Bury coll.

I therefore distinguish the following forms of *Ammoperdix*:

1. *A. heyi heyi* (Temm.), 1825: Sinai Peninsula north to the Dead Sea and ravines of the Jordan Valley.
2. *A. heyi cholmleyi* O.-Grant, 1897: western shore of the Red Sea, Nubia, Egypt north to Heluan (Wadi Hof).
3. *A. heyi intermedia* Hart., 1917: South Arabia.
4. *A. griseogularis griseogularis* (Brandt), April 1843: Greater part of Persia, west to Birejik and Kum-Kale on the Euphrates, north to Transcaspia and Buchara, Afghanistan, Baluchistan to Sind and the Indus, and across the Indus Valley to the Khariar Hills and Salt Range in the Punjab.
5. *A. griseogularis ter-meuleni* Zar. and Loud., 1904: Arabistan; distribution and constancy of differences require confirmation.

V. FORMS OF *PERDIX PERDIX*.

The "Grey Partridge" being distributed over nearly the whole of Europe and large parts of Western Asia, and not a migratory, but an entirely or almost entirely sedentary bird, might *a priori* be expected to form a number of local races. This expectation is realised, though not to such an extent as one might have thought. In the *Cat. B. Brit. Mus.* xxii. no subspecies were recognised, nor could the author be expected to describe any, as the series in the British Museum was then very poor and deficient in nearly all the most striking forms, and even now it is poor; for example, there is only one specimen of the Spanish Grey Partridge, not a single one from Italy, none from Brittany or Normandy,

only one from Asia Minor, and hardly any, certainly not enough to draw conclusions from, from the rest of Asia. With regard to the latter, we are just as hopeless in the Tring Museum, but fortunately we have brought together some Pyrenean and a series of Italian examples, and others of value for the study of local races.

The Partridge inhabiting the higher elevations of the Pyrenees and Northern Spain has been fully dealt with in the *Proceedings of the Fourth Ornithological Congress* (London and Tring, 1905) by Professor Dr. Louis Bureau. I need not, therefore, here dwell on its differences and distribution, and will only say that it is a very distinct subspecies.

Comparing a series of Italian Partridges I was not a little surprised to find that they differed at a glance from the Central European *Perdix perdix perdix* and so closely resembled the Pyrenean *P. perdix hispaniensis* (= *charrela*) that at first they seemed to be practically indistinguishable. A more careful comparison showed that they differed from the latter as follows:

In both sexes the upperside is less dark and distinctly more brownish; jugulum and chest not so dark grey; the horse-shoe mark in the male (and when present in the female) not blackish brown but chestnut as in normal *P. p. perdix*. The ♂ differs from *P. p. perdix* chiefly by the less rusty or rufous upperside, especially dark brown instead of rufous cross-bars on the rump, and much darker, less reddish brown spots on the upper wing-coverts. The females, because of their coarser markings with the wider light shaft-lines and spots, look rather different from females of *P. p. perdix*. Wings, ♂ 155–159 mm., ♀ 152–158.5 mm.

I name this form:

***Perdix perdix italica* subsp. nov.**

Type: ♂ ad., near Chianti, 20.i.1905. In the Tring Museum fourteen specimens, compared with nine of *P. p. hispaniensis* and a large series of *P. p. perdix*.

Another very striking Partridge is the one inhabiting the hills of Brittany and Normandy, the so-called "armorican massive." It has been described by Bureau in the very excellent and thorough article on the Pyrenean Partridge in *The Proceedings of the Fourth International Ornithol. Congress*, pp. 497, 498. Its upperside is so entirely rufous brown that the grey ground-colour has quite disappeared and is only visible at the utmost bases when one lifts the feathers. The chest is washed with rufous. The horse-shoe of the male is of a darker chestnut than in normal *P. p. perdix*. Wing, ♂ 153, ♀ 152 mm., but according to Bureau the wing of the male sometimes to 165 mm.

Professor Bureau did not name this form because, on account of the absence of a zone in which no *Perdix* is found (as in the case of *hispaniensis*, the area of which is separated from the regions inhabited by *P. p. perdix* by the "Midi de France," where only *Caccabis* occurs) separating it from its neighbour, *P. p. perdix*, the absence of mountain-ranges or seas, etc., forming a sharp boundary, and the consequent occurrence of intermediate specimens in the stretches along the boundary of the two races. On the other hand, he admits that an ornithologist's eye cannot confound them with the Common Partridge. Reading his remarks I cannot hesitate, though I have examined only one adult male

and female of this race, to name this subspecies, and I propose for it the name :

***Perdix perdix armoricana* subsp. nov.**

Type : ♂ ad., Riaillé, Loire Inférieure, October 1900. Received, with its female, from Dr. L. Bureau. (Tring Museum.)

The other races of *Perdix perdix* will be discussed in one of the forthcoming parts of my book on the palaearctic birds—inshállah.

VI. THE CORRECT NAMES OF THE "BLACK-BELLIED SANDGROUSE"
AND THE "COMMON FRANCOLIN."

These two species have been called "*Pterocles arenarius*" and "*Francolinus francolinus*" in the *Catalogue of Birds*, and this nomenclature has been followed almost universally. In the *Cat. B.*, however, the twelfth edition of Linnaeus' *Systema Naturae* was generally adopted as the starting-point of nomenclature and not the tenth, which is now taken as the beginning. Therefore Linné's "*Tetrao orientalis*," *Systema Naturae*, ed. x. i. p. 161, is not quoted in the *Cat. B.* xxii., but under *Pterocles arenarius* we find as a synonym "*Tetrao orientalis* Hasselquist, *Reise Paläst.* p. 330, 1762," though the name was not adopted, because of its date being previous to 1766. The more correct quoting would have been as follows : *Tetrao orientalis* Linnaeus, in Hasselquist's *Iter Palaestinum*, p. 278, 1757, as the "Reise" of 1762 is only a translation of the Swedish edition of 1757, which has the title *Iter Palaestinum eller Resa til Heliga Landet*. It was written by Linné, after Hasselquist's death, and Linné says that he added the names of the animals and plants and brought the technical terms into uniformity, without altering the meaning of the author in any way. It is thus clear that the descriptions of the species were actually made by Hasselquist, and this is also evident from their nature, as so many items could only have been taken from fresh specimens, but the names were given by Linné. The name "*Tetrao orientalis*," though before the starting-point of nomenclature in 1757, was adopted by Linné in *Syst. Nat.* ed. x. i. p. 161, and therefore the Black-bellied Sandgrouse must henceforth be called *Pterocles orientalis* (L.), as this name antedates Pallas's *Tetrao arenarius* by thirteen years.

This would be quite a simple matter, but, unfortunately, the appearance of the name *Tetrao orientalis* has also been noticed by Mr. Sergius Buturlin, who misunderstood it and thus caused great confusion.

In an article (in Russian !) in the *Messenger Ornith.* 1910, p. 50, Mr. Buturlin comes to the erroneous conclusion that Linnaeus's name refers to the Francolin, and he therefore calls the latter *Francolinus orientalis* ! Unfortunately, Buturlin's article is full of mistakes from beginning to end, and his conclusions are absolutely wrong. Let us examine his article (translated by Roston's Translation Bureau) and see how he came to be so mistaken.

He begins by explaining that Linnaeus had two sections of *Tetrao*, one "*Pedibus hirsutis*," the other "*Pedibus nudis*." Now, *Tetrao orientalis* has the tarsus feathered in front, naked behind. It should therefore have been placed into a third section, but Linnaeus—in whose *Systema Naturae* occur many inaccuracies, obscurities, and errors, as Buturlin truly said—put it into the second

one, with naked tarsi, although in the diagnosis he said, "pedibus antice pilosis," which clearly means, "hairy in front." Buturlin translates this "at the front part slightly hairy," but this is an arbitrary proceeding which cannot be permitted, and when, later on, he says that "pilosus" "may refer to the upper part of the metatarsus of the francolin," this is mere sophistry, as the tarsus is, to all intents and purposes, naked all round and certainly just as bare as in other species in Linnaeus's second section with bare legs. It is true that the words "abdomine gulaque atra, collari ferrugineo" can be applied to both the *Pterocles* and the Francolin, and even more literally to the latter, but they are also (if you like "cum grano salis") applicable to the male Sandgrouse, and the last sentence, "cauda cuneiformi," can only refer to the Sandgrouse, which has a cuneiform tail, and never to the Francolin, which has a very slightly rounded one. If Buturlin says that the tail of the Francolin is "slightly cuneiform," then he is wrong, for it is not, and Linné did not talk of a "slightly cuneiform," but of a "cuneiform" tail.

The crucial point, however, is: Where did Linné get his diagnosis from?

Linné quotes as follows:

Tetrao orientalis Hasselq. it. 278, n. 43.

Perdix damascena Will. orn. 128.

Francolin Tournef. it. i. p. 158, t. 158.

Referring to these, Buturlin says: "If we turn to Linné's quotations for the confirmation of his deductions, we see that not a single one refers to the Sandgrouse, but the first quotation is *Tetrao orientalis* Hasselq. it. 278, No. 43."

The fact is that Linné took the deciding portions of his diagnosis entirely from (his own) description in Hasselquist's journey, and that, as I have shown above, they refer to the *Pterocles* and not to the Francolin. He then carelessly and erroneously added two quotations, the first of which, from Willughby, referred to a partridge, the second to the Francolin. The deciding source, therefore, is Hasselquist. This has been, apparently, admitted by Buturlin, and that he failed to recognise it is the greatest mistake in his deductions. He says:

"If we turn to that source, that is to Hasselquist's journey in the Levant in 1749-52 (published by Linné himself), we find (I possess the London edition 1766), under No. 43, only the mention of '*Tetrao orientalis*' or 'the Eastern Partridge,' without any description of the plumage. It mentions that its size is that of an ordinary Partridge (which is nearer to the Francolin than to the Sandgrouse) and that it is found in groves and forests of Anatolia. But the Sandgrouse avoids forests and lives in desert tracts; nor is it found in the western parts of Asia Minor."

Thus Mr. Buturlin brings forward three more points against the name *Tetrao orientalis* referring to the Sandgrouse, and in favour of the Francolin, but unfortunately in all three he is wrong.

First of all, the assertion that Hasselquist's book gives no description of the plumage is utterly wrong, and only due to Buturlin not having seen the book at all, but only the *London edition*, 1766. This latter I have not seen, as I only know the original Swedish work of 1757, and the German translation of 1762, which is a good and complete one, and in which the descriptions of animals and plants, in fact the whole second part, is not translated, but reprinted in the original Latin text. Now, both these give a full description, over a whole page,

of both sexes of *Tetrao orientalis*. To show that every word refers only to the Sandgrouse, I quote a few sentences: "Cauda cuneiformis." "Pedum crura brevissima, antice plumosa, postice nuda." "Digiti omnes breviusculi et satis crassi, membrana crassa, parum lobata ad basin juncti." "Ferruginea sunt margines Capitis inferiores, Gula, Collum ad latera. Cana sunt Caput supra et Pectus." "Atra sunt Gula, Abdomen." "Crura anterieus albicant." And the description of the female: "Caput totum, collum, dorsum, humeri & cauda ex lineis transversalibus, irregularibus, atris & spatiis irregularibus, majusculis, pallide ferrugineis mixta. Pectus pallide ferrugineum adpersum maculis regularibus, subrotundatis, atris. Margo humeri ferrugineus. Reliqua ut in mari."

The next point raised by Buturlin is the size. He says that in the (mutilated) English text it is described as of "the size of an ordinary partridge," and that the latter is, in his opinion, nearer to the Francolin than to the Sandgrouse. I do not think that this is a point of any importance at all, because there is not much difference between the two, and probably, had Hasselquist, or Linné, described both the Sandgrouse and Francolin, he would in both cases have made a similar comparison. Moreover, in the original text it is said: "Magnitudo Perdici ruffae."

Lastly, objection is made to the locality, because the Sandgrouse is not an inhabitant of forests, and because it did not occur in Western Asia Minor. First of all, to be strictly accurate, we must refer to the original text, and there we find: "Locus: Natoliae saltus." That means, probably, forest-pastures of Asia Minor, and we may add near Smyrna, where Hasselquist was. This objection, too, is of no importance and cannot decide the question, because probably the birds were received from natives, and the exact place added from information received from the latter or some sportsman. Moreover, "saltus" may, according to the dictionary, not only mean forest-clad districts, but also "ravines," and in stony ravines Sandgrouse occurs. Lastly, Mr. Buturlin is badly informed if he says that *Pterocles orientalis* (= *arenarius* auct.) is not found in Western Asia Minor, for it must be common somewhere near Smyrna, because it used to be sold there in the market and Gonzenbach found its eggs.

I am convinced that Buturlin would not have written his unfortunate and misleading article if he had seen Hasselquist's *Iter* or the German translation, instead of an English, obviously incomplete and inaccurate translation, in which evidently such unimportant details (?!) as descriptions of animals were left out.

There is only one more sentence in Buturlin's article which requires a short consideration. He says that "in other parts of his book Hasselquist mentions several times this new Game-bird found by him (letters from Smyrna of December 16, 1749, and of January 29, 1750), and each time under the name of 'Francolin,' a name which has always been applied to the francolins and not to the Sandgrouse." A comparison with the original Swedish text shows that this is quite correct, but the notes are only casual remarks without descriptions, and a supposed vernacular name alone decides nothing about the name of the species. As the real Francolin occurs also in Asia Minor, the name was evidently known to the Europeans in Smyrna and was by them misapplied to the Sandgrouse. Such misapplications of vernacular names are frequent—I know, for

example, that in Marocco some Spanish residents called the Little Bustard "Francolin."

After all this it is, I hope, clear that the Francolin cannot, under any circumstances, be called "*Francolinus orientalis*," as Buturlin would have it, and that the Black-bellied or Imperial Sandgrouse is to be named:

***Pterocles orientalis* (L.).**

Now to the correct name of the Francolin. Linné called a bird *Tetrao francolinus* (*Syst. Nat.* ed. xii. i. p. 275, 1766). The short diagnosis is: "*Tetrao pedibus nudis calcaratis, abdomine gulaque atris, cauda cuneata.*" Wretchedly short as this description is, it does well for the Francolin and excludes any Sandgrouse ("pedibus nudis calcaratis"), except the description of the tail, which is not cuneate in the Francolin; this mistake might either have arisen from Linnaeus mixing up his own *Tetrao orientalis* of 1758 with the *francolinus* of 1766, or from the figure of Tournefort, in which the tail looks as if it were pointed. We must now turn to Linnaeus's quotations. These are rather puzzling, for he first quotes his *Tetrao orientalis*, though not as of 1758 (*Syst. Nat.* ed. x.), but only "Hasselquist, *iter* 278, n. 43." As I have shown above, there is no doubt whatever that the latter is purely and entirely the *Pterocles*, and as the diagnosis (feet bare and with spurs) excludes the latter, the "archiater" clearly made a mistake in thinking (very carelessly) that the *Tetrao orientalis* was the same as the *T. francolinus*. He further quotes Gesner, Tournefort, Olina, Edwards, and Brisson. Of these only Edwards and Brisson give full descriptions, Edwards a coloured, Brisson a black-and-white plate, Tournefort a recognisable black-and-white figure but no description, Gesner contains irrelevant short notes. Olina figures and describes a bird which appears to be the female of the Francolin, and he calls it "franquellino," but he says that it lives in Barbary, in great numbers in Tunisia, but also in Spain, Sicily—and the Alps! Thus most of his localities are wrong. As the spurs (which are only found in the male) are only seen in Edwards's plate, Linnaeus must principally have used Edwards. The locality given by Tournefort is Samos, while Edwards (1758) described the bird from Cyprus. Brisson (1760) mentions Italy, Cyprus, Samos, and Egypt, from where it is said to have been brought to Malta.

In Italy the bird appears only to have been introduced, though it lived formerly in Sicily; in Samos it was common, and may exist now; but it is Cyprus where it occurs even now and used to be common, and from Cyprus specimens Edwards fully described and figured it. I therefore accept *Cyprus* as the terra typica for the *Tetrao francolinus* L., and this is, in my opinion, the only course one can take, moreover the same form occurs in Asia Minor and Samos.

VII. THE FORMS OF *FRANCOLINUS PONDICERIANUS*.

In the *Catalogue of Birds*, xxii. pp. 141–143, no subspecies of *F. pondicerianus* were separated, but three forms are distinguishable.

Tetrao pondicerianus Gmelin, *Syst. Nat.* i. 2, p. 760 (1789—ex Sonnerat, *Voyage aux Indes*, ii. p. 165), was described from Pondicherry on the Coromandel coast. The name, therefore, refers to the form inhabiting South India, for example, Tuticorin, Pondicherry, Madras, Mysore, to Ahmednagar and Belgaum, and the northernmost part of Ceylon (Jaffna). This bird is distinguished from

the other forms by the large longitudinal ochraceous patch on the throat, which is surrounded by a (more or less incomplete) line of black spots, and there is a strong ochraceous tinge on the chest.

The rest of British India, from Sindh, the Punjab and Rajputana eastwards to about the 88th degree of longitude, is inhabited by a very similar form, but the middle of the throat is not ochraceous but creamy white, and there is no or very little ochraceous tinge on the chest. This form has no name—it is figured in Gray and Hardwicke's *Ill. Ind. Zool.* as *Perdix orientalis*, but that name is antedated by *Perdix orientalis* of Horsfield, and I name it therefore:

***Francolinus pondicerianus interpositus* subsp. nov.**

Type: ♂ June 1870, Oudh. (Tring Museum.)

A third form inhabits South Persia, Southern Afghanistan, and Baluchistan, and there is a skin from Muscat in the British Museum. This form is like *F. pondicerianus interpositus* in the colour of the throat and chest, but the upperside is very much paler, much more greyish. It has been well described as:

Francolinus pondicerianus mecranensis

by Zarudny and Härms, *Orn. Monatsber.* 1913, p. 53, the type being from Persian Baluchistan.

We have thus:

F. pondicerianus pondicerianus (Gm.), South India and North Ceylon.

F. pondicerianus interpositus Hart., North-western India.

F. pondicerianus mecranensis Zar. and Härms, South Persia, Baluchistan, Afghanistan.

VIII. THE SUBSPECIES OF *FRANCOLINUS FRANCOLINUS*.

Like so many other game-birds, the non-migratory members of the genus *Francolinus* have developed into a number of geographical races. In the *Catalogue of Birds*, vol. xxii., the latter were, as a rule, not distinguished, though the author, even at that time, condescended now and then to acknowledge subspecies, which, however, in some cases (*vide Perdix damascena*, *Chrysolophus obscurus*) were not geographical forms.

The disentangling of the subspecies of *Francolinus francolinus* has caused me considerable difficulty. Not only is material wanting from several important areas, but not less than six supposed new forms have been named by Messrs. Buturlin and Zarudny.

Even a cursory glance at the boxes of *Francolinus francolinus* in the British or Tring Museums shows that there are a number of conspicuous geographical races.

The *francolins* from Cyprus, Asia Minor, and Palestine are separated from those of India and Persia by their large size (long wings); the spurs of the males are always present and often long and pointed, the coloration is dark. As I have explained before, Cyprus is the "terra typica" for the name *francolinus*; *Francolinus vulgaris* is only a new name for *Tetrao francolinus*, *Francolinus tristriatus* (Cyprus) a clear synonym.

Francolinus francolinus caucasicus Buturlin, 1907, from "Transcaucasia,"

was described as being large, the rufous ring round the neck wide and very dark chestnut, underside strongly spotted with white, even on the chest and sides of chest. Of these characters (and some others not worth mentioning) the width of the chestnut ring is of no value as it varies according to preparation; the large size and dark chestnut colour of the neck-ring agree fully with *F. francolinus francolinus*. I have only seen one male of this supposed subspecies, in the British Museum; it is said to be from Lenkoran and was received from the Florence Museum, or rather its late director, Professor Giglioli, who had got it from Radde. The locality must be wrong, as Radde expressly stated that it was never found near Lenkoran, and it is probably from the Kura Valley or the Lower Araxes. It agrees with *F. francolinus francolinus*, but is more profusely spotted on the underside, there being some white spots even on the chest—just as described by Buturlin, who had seven males! In this great amount of white spotting the specimen is approached by two males from Cyprus and Asia Minor, but under the circumstances we must, for the time being, provisionally admit this form, *F. f. caucasicus*, as a subspecies. On the same page Buturlin also described a "*Francolinus orientalis sarudnyi*"* from four males from North Persia and the Lower Atrek. I have hardly any doubt that this "*sarudnyi*" is the same as *caucasicus*, as it differs, in the opinion of Buturlin, merely by wider white bars on the rump, which are about 1 mm. instead of 0.5 mm. wide; the width of these bands varying to some extent, this character cannot, without further material, be admitted as of any value.

A third, very distinct, form is the one inhabiting Sindh, Baluchistan, South-eastern and Southern Persia to Fao and Baghdad. It is altogether paler, lighter, and much smaller. The females, too, are very much lighter. I accept for this form Bonaparte's name *henrici* (*Compt. Rend. Acad.* [Paris], xlii. p. 882, 1856, Sindh). It is true that the description is insufficient, all that is said being "major, alis brevioribus," but as it *has* smaller wings, this, in connection with the definite locality, makes the name acceptable. That the type was generally larger, was probably due to a greater amount of straw on cotton-wool. As the Sindh birds are quite like those from Persian Baluchistan and Seistan in East Persia, Zarudny's name *bogdanovi* ("*Francolinus orientalis bogdanovi*," *Orn. Monatsber.* 1906, p. 151) becomes a synonym. As I find that examples from Fao, from Farsistan (collected by Witherby), and Baghdad (British Museum) are indistinguishable, I am almost sure that "*Francolinus orientalis arabistanicus*," Zarudny and Härms, *Orn. Monatsber.* 1913, p. 54, from the "*Zagrossische und Mesopotamische Gebiet Persiens*," described on feeble grounds, must be the same, too.

Quite different from *F. francolinus francolinus* and *henrici* is the bird from the north-western parts of India. It is, in both sexes, very much like *F. f. francolinus* in coloration, but considerably smaller. The spurs of the male are always short and blunt and sometimes absent. In order not to be obliged to make a new name or to accept the absurd name "*europaeus*," we are justified in adopting Bonaparte's name "*asiae*" for this form. It is true that the whole diagnosis is "Minor ex Asia"—but not "Asia Minor," as Ogilvie-Grant wrongly quoted in the *Catalogue of Birds*! The above of course means that "*asiae*"

* In phonetic transliteration this ornithologist's name is spelt with an S in German, with a Z in English. Therefore species or subspecies named in his honour have also been spelled with s and z; we have, of course, to preserve the original spelling in each case.

lives in Asia, and is smaller than *F. f. francolinus*. As Bonaparte expressly separated "*henrici*" and was not likely to have the rarer "*melanonotus*," we may accept the name *asiae* for the Francolin from the north-western parts of India. It seems to me that "*Francolinus orientalis europaeus*" Buturlin, *Orn. Monatsber.* 1907, p. 81, is a synonym. It was described from a specimen with uncertain locality, believed to be from Greece. As of the many statements of the occurrence of Francolins in Greece none are creditable, we must assume that Francolins never lived in Greece, and therefore dismiss Buturlin's suggested locality. The description of "*europaeus*" suits best our "*asiae*." There is only one possibility, *i.e.* that the now extinct Sicilian Francolin was smaller than *F. f. francolinus*, as Dresser said it seemed to be; in that case the name "*europaeus*" might refer to that extinct form. I hope to receive, before long, information about this, from Italy, where some specimens from Sicily are preserved, according to Arrigoni degli Oddi.

A last distinct form is *F. francolinus melanonotus* (Hume, *Stray Feathers*, xi. p. 305, 1899, Assam and Manipur). This form ranges from easternmost Nepal to Assam, Manipur, Dacca, Maunbhoom. It has the barring of the rump much finer, the white bars being quite narrow, besides some other differences. The name *melanonotus* was overlooked, and therefore not quoted by the author of vol. xxii. of the *Catalogue of Birds*.

IX. *FRANCOLINUS BICALCARATUS* AND ITS RACES.

When Mr. Ogilvie-Grant wrote vol. xxii. of the *Catalogue of Birds*, the British Museum possessed only specimens of the typical *bicalcaratus*, which was described by Linné (1766) from the Senegal (ex Brisson). In 1815, not considering the name *bicalcaratus* suitable, Temminck renamed it *adansonii*, and gave as its locality "Gambia, Niger." Another synonym is *albiscapus* Reichenbach, 1853.

Reichenow (*Vög. Afr. i.*) mentioned the dark coloration of the Sierra Leone specimens, and in 1902 Ogilvie-Grant described them as a new species, under the name of *Francolinus thornei* (*Bull. B. O. Club.* xiii. p. 22). Sierra Leone specimens are indeed much darker on the back, crown, rump, and tail, and the chestnut colour on the breast is, as a rule, darker, the creamy colour less in extent. This is very striking in a series, but some specimens are less typical than others. There can be no doubt that *thornei* is merely a subspecies of *bicalcaratus*, although its distribution is most peculiar. Typical *F. b. bicalcaratus* is not only found in Senegambia, but also on the Niger below Timbuktu, in Hausaland (Zaria), on the Gold Coast (Accra). Also a series collected by Ansorge in Portuguese Guinea (Bissao, etc.) agrees well with Senegal specimens (ten specimens collected by Riggenbach, all very constant), but a few are somewhat darker, and one is not, so far as I can see, distinguishable from Moroccan specimens. A dark form has also been described by Oscar Neumann (*Orn. Monatsber.* 1915, p. 73) from Garua in Adamaua. According to the description it must be very similar to *thornei*, and a male which the Tring Museum received in exchange from the Berlin Museum, labelled—

Tetrao bicalcaratus L.

Mal. Adamaua ? Ostgrenze ?

Kamerun 33741 v. Carnap,

therefore surely from near Garua, as in Kamerun proper the species does not

occur, is, in my opinion, quite indistinguishable from *thornei*. We would thus have a most extraordinary distribution of this dark form, which requires further investigation.

There is, moreover, a third form of *F. bicalcaratus*. The species occurs also in Western Morocco, *i.e.* within the palaearctic region.

According to Reid (*Ibis*, 1885, p. 251) the late Olcese, natural history dealer in Tanger, received six specimens alive, which were caught by natives inland of Casa Blanca (not Cape Blanco, as Ogilvie-Grant says), and the same author says that this Francolin is said to be "common" near Mogador. Irby states that it is found as far north as Rabat.

The specimens received by Olcese died and were converted into skins. From Mogador several consignments of live specimens have been received in England, but I doubt that the bird is "common" near that town, for F. W. Riegenbach, who very successfully collected there for about two years, in spite of our repeated requests for Francolins, failed to come across it. In fact, I am not aware of a single Francolin obtained in a wild state in Morocco. Of the birds received by Olcese I have examined three, two in the Dresser collection, kindly lent me by the authorities of the Manchester Museum, and one in the British Museum. These birds differ at a glance from our series of topo-typical *bicalcaratus*, the crown being not so pale and more reddish, I should say cinnamon rufous or dark reddish cinnamon. The rest of the upperside is more rufescent, the back slightly darker. The underside is also less light, agreeing with that of *F. b. thornei*. I am convinced that this Moroccan form is a subspecies distinct both from *F. b. bicalcaratus* and *thornei*. The colour-differences of the upperside are not likely to be, the markings of the underside cannot be, due to captivity. Moreover, with these three birds agrees absolutely a well-made skin in the Tring Museum, which is evidently that of a wild bird. Unfortunately its locality is unknown. It is labelled "*Francolinus bicalcordus*" (sic!), South Africa, Dr. Smith. Now, it is certain that no *F. bicalcaratus* occurs in South Africa, therefore this specimen must be from somewhere else, and it might just as well be from Morocco as from elsewhere. Thus far the Moroccan bird would be "all right," but the male collected by Giffard in Gambaga, Togoland Hinterland, is also indistinguishable from the Moroccan birds, and one of *F. b. thornei* from Sierra Leone is on the upperside like it too, while two from the Senegal in the British Museum (G. Blaine coll.) and one of Riegenbach's Senegal males have similarly reddish crowns of the head. The throat feathers of the Moroccan birds are not quite creamy white, but pale reddish cinnamon on their edges, but this is probably of no consequence, as it is found also in some *thornei* and indicated in some Senegal specimens.

The fact of the occurrence of this tropical African species in Morocco is so interesting, that it must be emphasised, and I therefore—though, after all the explanations I have given, I am well aware of the risk and possibility of adverse criticism—propose to separate the Moroccan Francolin and call it:

Francolinus bicalcaratus ayesha* subsp. nov.

Type: ♂ ad., said to be from Rabat, in Morocco, in the Dresser Collection now in Manchester.

* *Ayesha* (in the Maghrebin *Aïsha*) was the favourite wife of Mohammed, and a frequent name in Mohammedan countries.

On the labels of the specimens from the Dresser Collection, which were once in the Lilford Museum, the Arab name is given as "Hadjel-es-Sahara" and "Rarâgh." The former is evidently nonsense, for "Hadjel" is the *Caccabis* (rectius *Alectoris*—see above), but "Rarâgh" may be the genuine name of this species. The label also says that the Britons of Mogador call the Francolin "English Partridge," which would imply that it *was* not rare there—but why did Riegenbach not get it?

There is an excellent plate of this form in Dresser's *Suppl. B. Europe*, pl. 703.

The occurrence of this tropical species in Morocco is only known along the Atlantic coast. Like all the other representatives of tropical species, it must have found its way there along the coast of the Western Sahara, for, as I have pointed out before, all of them are either found only in the north of Morocco, Algeria, and Tunisia, or in the west. The other species to which I refer are:

Telephonus senegalus cucullatus, Northern Morocco, Algeria, and Tunisia.

Pycnonotus barbatus barbatus, Northern Morocco, Algeria, and Tunisia.

Asio capensis tingitanus, Morocco, northernmost Algeria.

Melierax canoras metabates, Mogador to Mazagan in Western Morocco.

Streptopelia senegalensis phoenicophila, Northern Oasis of Western Sahara.

Otis arabs, Morocco and West Algeria.

If any of these birds had crossed the Sahara, they would be most frequent in the southern parts of Africa Minor.

X. THE SYNONYMY OF *TETRAO PARVIROSTRIS*.

In the *Cat. B. Brit. Mus.* xxii. p. 66, Mr. Ogilvie-Grant quotes as synonyms of *Tetrao parvirostris*, "*Tetrao urogallus*, var. *rupestris* and *T. u.*, var. *minor* Pallas, *Zoogr. Rosso-Asiat.* ii. p. 58." Both quotations are wrong, as Pallas did not give any such names. Pallas only said that Messerschmid described a smaller variety, and that the bird was called by the Russians "Kamenoi Gluchar," which meant Rock-Capercaillie. ("Messerschmidius *minorem* statuebat *varietatem* *Urogalli*, *cujus* *foeminam* *describit*:" follows description. Further on, on p. 59: "Russis *Kamenoi Gluchar* (*Urogallus rupestris*) *vocatur*").

Both names, *rupestris* and *minor*, would have priority over *parvirostris*, if they had been given by Pallas to the species, but *rupestris* would be anticipated by Gmelin in 1789.

The first name of the species is *Tetrao urogalloides* Middendorff, which, however, was anticipated by Nilsson.

I have compared specimens from Sachalin and found them to be indistinguishable from others from the mainland. "*Tetrao urogalloides*, var. β *sachalinensis*" Bogdanoff, 1884, is therefore a synonym of *parvirostris*.

ON NEW AND INSUFFICIENTLY KNOWN INDO-AUSTRALIAN
GEOMETRIDAE.

BY LOUIS B. PROUT, F.E.S.

SUBFAM. OENOCHROMINAE.

1. *Celerena angustisignata* spec. nov.

♀, 60–62 mm. Head yellow. Terminal joint of palpus rather short, black. Thorax and abdomen concolorous with wings, front of thorax more orange.

Forewing deep chrome or cadmium yellow; proximal third of costal margin slate-grey, black at extreme base and very narrowly along costal edge; a narrow slate-grey, distally black-edged band arising at the end of this grey shading, running at first in the direction of tornus or hinder end of termen, but curving very slightly in the end of the cell, interrupted at the fold 6 or 7 mm. from termen, reappearing merely as some feeble grey shading at and behind SM²; distal border slate-grey, narrowly edged proximally (except at extreme posterior end) with black; 8 or 9 mm. wide at costa, narrowing rapidly to R¹ (where it is about 3 mm. wide), then more gradually (scarcely 1 mm. at tornus). — *Hindwing* with the slate-grey border quite narrow throughout, its black proximal edging thick anteriorly, tapering posteriorly.

Underside with the markings mainly black; apex of forewing and fringes greyer; proximal band of forewing broadened and rather diffuse.

Sudest Island, January–February 1916 (type) and March 1916, Mount Riu, 2,000 feet (paratype); both in coll. Tring Museum, collected by Eichhorn brothers.

Perhaps a local form of *prodroma* Meyr. or *probola* Prout (Nov. Zool. xiii. 5). In any case it will require a name.

SUBFAM. HEMITHEINAE.

2. *Hypodoxa emiliaria subleprosa* subsp. nov.

♂, 42–44 mm.; ♀, 44–48 mm. Markings of name-typical *emiliaria* Guen., except that the antemedian line makes a rather stronger outward projection in the cell; coloration of upperside in both sexes closely like that of *leprosa leprosa* Warr., the distal area in the ♀ participating in some measure in the heavy dark markings of *fulgurea* Prout (which I now regard as another subspecies of *emiliaria*).

Underside nearly as in *e. emiliaria*, the ♀ (but not the ♂) with a black discal dot or small dot developed on the hindwing.

Mount Rossel, Rossel Island, November–December 1915 (W. F. Eichhorn), 2 ♂♂, 4 ♀♀, in coll. Tring Museum.

3. *Dysphania endoleuca* spec. nov.

♀, 84–92 mm. Face cadmium yellow at sides, blackish down the middle. Palpus blackish, first and second joints cadmium yellow beneath. Thorax in front

cadmium yellow with a few dark markings, pectus mostly yellow; thorax above mostly concolorous with forewing, a narrow yellowish transverse band behind middle. Abdomen above purple-brown with whitish belts, on the last few segments cadmium yellow; beneath belted, cadmium yellow and blackish.

Forewing with costal margin very slightly curved, at least in distal part; blackish purple, with the markings white; an oblique band from base of hindmargin nearly to the origin of M^2 , mostly bounded anteriorly by M ; a somewhat oblique transverse median band, nearly as in *cyane* Cram., but rather more regular; the postdiscal spots between the radials small and well separated, the subapical series nearly as in *cyane*, the mark between M^2 and tornus small, sinuous and vague, especially in its posterior part.—*Hindwing* similar to that of *cyane*, the dark subbasal area rather more oblique, connected with the dark border by some shading in front of SC, the cell-mark smaller, the projection of the white median area behind it rather more shallow, the submarginal zigzag band lighter and brighter (cadmium yellow), with the outward teeth less acute and with a single, rather broad projection to termen along submedian fold, whereas *cyane* shows two slender projections or dashes (on M^2 and fold).

Underside similar, the hindwing with subbasal band only connected with the dark border in front of C, the yellow submarginal band broadened.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October–December, 1910 (A. S. Meek), 2 ♀♀ in coll. Tring Museum.

Rather recalls some ♀ forms of *tyrianthina* Butl., in which, however, *inter alia*, the white median area of the hindwing is interrupted by the ground-colour at abdominal margin and the venter is not yellow-belted. I conjecture that *endoleuca* may be the *cyane* of Oberthür's "Lep. Dorei" (*Ann. Mus. Genova*, xii. 469, indescr.) and possibly of Pagenstecher's "Lep. Aru-Inseln" (*Jahrb. Nass. Ver. Nat.* xxxix. 162, indescr.); I have only seen true *cyane* Cram. from Ceram, Gisser Island, Amboina, and Saparoea, and would provisionally alter the given range (*Lep. Cat.* pt. 14, p. 26) accordingly.

4. *Dysphania militaris abnegata* subsp. nov.

Paler yellow than *m. militaris* L., abdomen without dark belts.

Forewing with the oblique antemedian black streak between SM^2 and hindmargin almost invariably reduced to a very fine and slight dash, very often entirely obsolete.—*Hindwing* with basal band usually slender or obsolete; very generally with postmedian band more slender than in *m. militaris*, often more or less interrupted.

Hainan, type (Weng Chang, July 1902) in coll. Tring Museum.

Out of a series of nearly 60 examined, from various localities on the island, only three show the hindmarginal black streak of forewing in at all good development, and these remain distinguishable by the pale ground-colour. In the very few aberrations of *M. militaris* in which the corresponding mark is reduced, the rest of the antemedian band participates in the reduction, which is rarely the case in *m. abnegata*.

5. *Dysphania latiplaga* ab. *chrysostathes* ab. nov.

All the normally white parts of forewing concolorous with the normally yellow parts of hindwing.

Kolawi, Central Celebes, June, August, October, and November, 1912 (Dr. Martin), 7 ♂♂ in coll. Tring Museum, together with 5 which agree with the normal South Celebes form of *latiplaga* Warr.; Palos Bay, Celebes, 1 ♂ in coll. Joicey.

6. *Ornithospila succincta* spec. nov.

♂ ♀, 38–40 mm. Very similar to *cincta* Walk. ♂ antenna with similar (rather short) pectinations, which, however, are continued a little farther distally. Palpus on outer side sometimes with some weak green admixture; in ♀ shorter than in *cincta* ♀.

Forewing of the same green as in *cincta*; costal edge more narrowly darkened and with some whitish admixture; dark yellow-green lines and cell-mark as in *cincta*; distal border redder, narrower, scarcely more than a line, which thickens slightly between the veins; fringe distally and at vein-ends whitish.—*Hindwing* on an average more elongate towards tornus than in *cincta*; termen as on forewing; fringe narrowly white proximally between the veins from SC² to SM².

Government Hill, Penang, 1,000 ft., May 19–24, 1898 (Curtis), type and others in coll. Tring Museum. Also in coll. British Museum from Penang, 2,260 ft., March 22, 1898, 1 ♂ (S. S. Flower), Sandakan, N.E. Borneo, 1 ♂ (W. B. Pryer), and Sarawak, 1 ♀.

7. *Gelasma auspicata* spec. nov.

♂, 32 mm. Face and palpus dark red, the latter strongly mixed with black, its underside whitish. Vertex and antennal shaft whitish ochreous; antenna pectinate to the 30th joint. Occiput and upperside of thorax green; thorax beneath and most of abdomen whitish ochreous.

Forewing with apex rather acute, termen nearly straight, but not quite so straight as in *veninotata* Warr.; opaque grey-green, very slightly greyer at the position of the blotch of underside; costal edge ochreous, irregularly dotted with dark purple-red; lines very fine, lunulate-dentate, whitish, with cleaner white dots on some of the veins; antemedian from about one-fourth costa to one-third hindmargin, in the type very indistinct; postmedian at just beyond two-thirds, with deeper lunule inward between M² and SM²; a small and faint dark-green cell-dot; terminal line dark purple-red, interrupted by small pale ochreous dots at the veins; fringe pale ochreous, with conspicuous dark-red spots opposite the veins and with a slight reddish darkening distally.—*Hindwing* quadrate (section *Thalerura*), but with the tail at R³ shorter than in *veninotata*; as forewing except in the unmarked costa and lack of first line and in the elongation of the discal mark.

Underside paler, especially the hindwing and posterior part of forewing; forewing with the ochreous costal edge unspotted, terminal line slightly thickened, a purple-fuscous terminal blotch of about 2 mm. width from tornus about to R³ and some slight strigulae anteriorly; hindwing with corresponding blotch from apex about to R² and some strigulae posteriorly.

Khasis. Type in coll. Tring Museum; paratype in coll. L. B. Prout.

Differs from *veninotata* in shape, in the red terminal line and the more strongly spotted fringes.

8. *Thalassodes furvifimbria* spec. nov.

♂, 37 mm.; ♀, 39–41 mm. Face green. Palpus elongate (in ♂ almost, in ♀ more than, twice as long as diameter of eye; third joint in ♂ as long as, in ♀ longer than, second joint), green, beneath white. Vertex green, only very narrowly white in front. Hindtibia in ♂ not dilated. Abdomen without dorsal ornamentation.

Forewing shaped, coloured, and marked as in the typical group, the white lines straight; **fringe**, except at extreme base, **dark grey**.—*Hindwing* with the angle at R¹ moderate or rather slight; postmedian line slight; fringe as on forewing.

Ceylon: Pundaloya, December (type ♂), July and undated (2 ♀♀), in coll. Tring Museum; a ♂ without date and a ♀ April, in coll. British Museum, ex coll. E. E. Green.

Easily distinguished by the dark fringes and the ♂ structure; both the other green-faced Indian species in which the ♂ hindtibia is undilated (*aucta* Prout and *falsaria* Prout) have shorter palpus and yellow fringes. The ♂ type has unfortunately lost the fringes, but is chosen for the structural characters.

9. *Prasinocyma fragilis solida* subsp. nov.

Deeper green than *f. fragilis* Warr., the white lines fainter, the white spots distally to the discocellulars almost or altogether obsolete.

Rossel Island: Mount Rossel, 2,100 ft., November–December 1915 (W. F. Eichhorn). Type in coll. Tring Museum.

10. *Metallochlora exorista* spec. nov.

♂, 32 mm. Closely similar to *meeki* Warr. and its subspecies *tenuilinea* Warr., differing as follows:

Antennal teeth shorter.—*Forewing* with costal margin more markedly arched posteriorly, distal margin slightly more oblique; costal margin more broadly and brightly red, at extreme edge heavily mixed with black; a distinct, though minute, black cell-dot present; minute black dashes on SC² and sometimes on R¹ distally to the median silvery streak and proximally to the subterminal; terminal dots somewhat enlarged towards apex.—*Hindwing* more produced in middle of distal margin, the submarginal silvery line in consequence more acutely bent.—Underside without the apical blotch of hindwing or distal grey band.

Upper Aroa River, British New Guinea, March 1903 (A. S. Meek). Type in coll. Tring Museum.

11. *Metallochlora militaris satisfacta* subsp. nov.

Forewing with the yellow costal edge somewhat widened, rather strongly dark-dotted. Both wings with the red cell-dot larger, almost as in *sanguinipuncta* Warr., the submarginal dots enlarged into dashes, placed rather farther from the termen, the yellow border consequently somewhat widened. Hindwing, as well as forewing, beneath with a fuscous apical dot.

Goodenough Island, 2,500–4,000 ft, April and May 1913 (A. S. Meek). 4 ♀♀

in coll. Tring Museum, including type. Also a slightly worn ♀ from Milne Bay, British New Guinea, December 1898.

M. sanguinipuncta Warr., from the Key Islands, is very likely also a subspecies of *militaris*, with the submarginal dots placed as in *m. satisfacta*, but red and not enlarged, the space between them and the termen remaining green; but it further differs in showing pairs of vague wavy lines in place of the vague blotches. Only Warren's two originals (his type ♀ and a small worn ♀ unaccountably registered, Nov. Zool. v. 422, as *militaris*) are yet known to me.

12. *Episothalma sequestrata* spec. nov.

♂ ♀, 38–42 mm. Very similar to *obscurata* Warr. ♀ with third joint of palpus considerably shorter than second (in *obscurata* longer than second), the abdomen more robust, with crests vestigial.

Forewing in both sexes with termen less strongly sinuous, more feebly crenulate; lighter grey-green (perhaps sage-green when freshly bred); markings of upperside similar, but with the antemedian line more deeply bent outward in cell, reaching the discocellulars, both lines less strongly marked with white on their reverse sides, distal dark shading weaker, confined to posterior half of wing.—*Hindwing* with termen less crenulate than in *obscurata*; subterminal dark shading narrower, sometimes interrupted.—*Forewing* beneath with the dark distal cloud restricted, at termen reaching from tornus scarcely to M^3 , in a width of less than 2 mm., between M^2 and M^1 still narrower, subterminal, anteriorly obsolete. *Hindwing* beneath with the subterminal dark band much narrowed, especially in posterior part, touching termen at apex and tornus only, between radial fold and M^2 weak or almost interrupted.

Milne Bay, British New Guinea, November–December 1898 (A. S. Meek). Type ♂, December, in coll. Tring Museum. Also 1 ♀ from Goodenough Island, December 1896.

Mr. Meek took *E. obscurata* at the same place in December 1898 (1 ♀) and January–February 1899 (3 ♂♂, 1 ♀); on account of the great difference in the ♀ palpus there can be no question as to their specific distinctness.

13. *Hemithea subflavida copiosa* subsp. nov.

♀. Wings rather broader than in *s. reducta* Warr. (Dutch New Guinea), approaching the shape of the preceding species. Underside with the dark borders rather broader than in *s. reducta* and in addition with the postmedian line (or shade) present, on the forewing partly fuscous, on the hindwing olivaceous.

Bougainville, Solomon Islands, April 1904 (A. S. Meek), 2 ♀♀ in coll. Tring Museum.

The known forms of *H. subflavida* now furnish regular transitions in shape, through *Episothalma sequestrata* to *E. obscurata*, and suggest that the genus *Episothalma* will have to be merged in *Hemithea*. In any case the three species named, together with *E. subaurata* Warr., form a very natural group.

14. *Hemithea insularia duplicata* subsp. nov.

Darker and greyer green than *i. insularia* Guen. (*Spec. Gén. Léop.* ix. 385; Oberth. *Et. Léop.* xii. t. 390. f. 3297), the blotches beneath highly developed,

showing through as slight green shadows on the upperside; an additional narrow dark patch more or less developed on the hindwing beneath, between the tornus and M^2 .

Fergusson Island, October—December 1894 (A. S. Meek), type ♂ and 2 ♀♀; Milne Bay, British New Guinea, December 1898—February 1899 (A. S. Meek), ♂, 2 ♀♀; Kumusi River, N.E. British New Guinea, low elevation, August 1907 (A. S. Meek), 2 ♀♀. All in coll. Tring Museum.

The abdominal crests look better developed than in *i. insularia*, of which, however, little first-rate material is accessible to me.

15. *Hemithea wuka isabella* subsp. nov.

♀. *Forewing* slightly broader still than in *w. wuka* Pagenst.; postmedian line rather more excurved; some greyish shading in distal area, indicating faintly the position of the blotch beneath; terminal dots and fringe yellower.—*Hindwing* with similar distinctions, the outward projection of the postmedian line still more pronounced.—*Forewing* beneath with subterminal blotch or half-band from tornus almost to R^3 and very faint shadow-band anteriorly. *Hindwing* beneath with the usual apical blotch long and strong, a tornal blotch nearly as on forewing.

Isabel Island, Solomons, June 4—July 9, 1901 (A. S. Meek), type in coll. Tring Museum.

Possibly a separate species.

16. *Diplodesma planata* spec. nov.

♂, 22–23 mm.; ♀, 24–27 mm. Head dull green, between the antennae narrowly white. Palpus in ♀ with third joint longer than in the *ussuriaria* group. Thorax above green. Abdomen paler.

Forewing with termen nearly straight, a little more oblique than in most of the species; venation in ♂ as in typical *Diplodesma*, in ♀ with SC^2 not or scarcely touching C, yet approaching much more closely than in the *ussuriaria* group; dull green; costal edge very narrowly ochreous, with fine blackish dots; lines white, very fine; antemedian indistinct or obsolescent, slightly excurved in cell and incurved about M; postmedian at nearly two-thirds, very gently curved anteriorly, then almost straight or with an exceedingly slight inward curve in its posterior half; cell-dot not or scarcely discernible; no terminal line; fringe unmarked.—*Hindwing* shaped about as in *subexpressa* Walk. and *contracta* Warr., the abdominal margin being considerably elongate, the tail at R^3 well developed; antemedian line wanting, postmedian slightly or scarcely sinuous, very feebly bent at R^3 .

Underside whitish green, unmarked, the hindwing slightly whiter than the forewing.

N.W. India: Simla, type ♂ (labelled by Warren *celataria* ab. *plana*, but not published); Subathu, June—August 1889, both sexes; Kulu district, a pair. All in coll. Tring Museum.

17. *Diplodesma planata dorsinigrata* subsp. nov.

Differs from the name-typical form, as described above, in having the costal edge of the forewing more strongly dotted with black, the discal mark of

both wings more noticeably darkened, and especially in having a conspicuous black patch on the third and fourth abdominal tergites.

Khasis. 3 ♂♂, in coll. Tring Museum.

18. *Diplodesma mystica* spec. nov.

♀, 27 mm. Face deep red, narrowly white below. Palpus twice as long as diameter of eye, third joint as long as second; red above, white beneath. Vertex white. Thorax and abdomen pale greenish above, whitish beneath. Hindtibia without median spurs.

Forewing with termen gently curved; SC^1 from near end of cell, SC^2 arising after SC^1 , R^1 stalked, M^1 connate; pale olive-yellow (probably faded); costal edge white; a fine, not very conspicuous white line from three-fifths hind-margin, nearly parallel with termen about to R^2 or R^3 , then curving slightly away from it, but becoming obsolescent; no terminal line; fringe whitish. — *Hindwing* with abdominal margin fairly long, termen full, very feebly bent at R^3 and inappreciably at R^1 ; C approximated to SC for a short distance near base, M^1 stalked; as forewing, the line about central, complete, very gently curved.

Underside whitish, unmarked.

South Celebes, August–September 1891 (W. Doherty). Type in coll. Tring Museum.

Will not fit into any known genus, but in the absence of the ♂ I place it in *Diplodesma*, Sect. IV. (*Gen. Ins.* fasc. 129, p. 185), into which—assuming that the ♂ frenulum is present—it would fall by my Key (*loc. cit.* p. 13). SC^1 of forewing, C of hindwing, and the shape are, however, against this location.

19. *Hemistola malachitaria* spec. nov.

♂, 27 mm. Face blackish on upper half; whitish ochreous on lower. Palpus slender, not reaching beyond frons; whitish ochreous, with some blackish irroration on outer side. Vertex narrowly whitish; occiput green. Antennal shaft whitish ochreous; pectinations slender, not long, rather widely separated, becoming very short towards the 20th joint. Thorax and abdomen green. Hindtibia not dilated.

Forewing with DC not very deeply curved, SC^1 from near base of stalk of SC^2 – SC^5 , anastomosing moderately with C, R^1 barely stalked; light green, almost as in *chrysoprasaria* Esp., only a shade more bluish; antemedian line scarcely indicated; postmedian whitish, quite indistinct, especially anteriorly, apparently not crenulate, perhaps slightly more oblique than in *chrysoprasaria*; no terminal line. — *Hindwing* with termen rounded; postmedian line curved almost as strongly as in *dispartita* Walk.

Underside scarcely paler; unmarked.

Kukli, N.W. India, August 1891. Type in coll. Tring Museum.

In spite of the colour and the shorter antennal pectinations, this is probably nearer to *dispartita* than to *chrysoprasaria*, and I expect the ♀ will prove to have non-pectinate antenna.

20. *Hemistola antigone* spec. nov.

♂, 34 mm.; ♀, 36 mm. Face deep red. Palpus in ♂ not reaching beyond frons, in ♀ with third joint a little longer, reaching beyond frons; deep red, beneath paler. Vertex pale green. Antenna in ♂ with short pectinations to about the 27th joint, the last few mere teeth, the longest of the inner series scarcely longer than, of the outer series scarcely three times as long as, the diameter of the shaft; in ♀ not pectinate. Thorax above green (abdomen in both examples discoloured; apparently with some red markings dorsally). Hindtibia in ♂ dilated, with hair-pencil.

Forewing with apex rather sharp, termen almost straight in the ♂, rather more bent in the middle in the ♀; SC¹ free, R¹ stalked or separate; bluish green, a little duller than in *rubrimargo* Warr.; costal edge very narrowly ochreous, with dark dots; first line slightly indicated, apparently about as in *rubrimargo*; cell-dot sharp, red mixed with black, with a slight pale circumscription; postmedian line indistinct except near hindmargin—where it forms a deep lunule inward—and as white dots on the veins, apparently formed nearly as in *rubrimargo*, but more distally placed; neither line accompanied by any red dot; terminal line red, mixed with black, slightly interrupted at the veins; fringe proximally white between the veins, with longer or shorter reddish marks opposite the veins; distally apparently reddish grey (somewhat damaged).—*Hindwing* narrower than in *rubrimargo* Warr. and *fuscimargo* Prout (Nov. Zool. xxiii. 16), abdominal margin long; tail at R³ rather strong; C anastomosing slightly with SC near base, M¹ almost connate with R³; as forewing, without antemedian line.

Underside whitish green, the discal dots slightly indicated; costal edge of forewing light ochreous, more feebly dotted than above; terminal line and fringe nearly as above.

Khasis, May 1896. ♂ type and a ♀ in coll. Tring Museum.

The pale-ringed discal dots, somewhat recalling *Cyclothea disjuncta* Walk., distinguish this from all other species of *Hemistola*.

21. *Iodis rhabdota* spec. nov.

♂ ♀, 33–35 mm. On an average larger than *iridescens* Warr. Palpus in ♂ with third joint a little shorter, antenna in ♂ pectinate to about one-half its length (in *iridescens* to about two-thirds), the branches not quite so long.—*Forewing* slightly broader, the termen less oblique; SC¹ connate (in one example just from cell), free, R¹ stalked; the white ground-colour rather less opalescent than in *iridescens*, more tinged with green; costal margin less dark; bands broader, the postmedian less oblique anteriorly, rather more dentate.—*Hindwing* with corresponding distinctions.

Khasis, February–March 1894. Type in coll. Tring Museum. Also a ♂ from Sikkim (Knyvett).

Intermediate in colour towards *coeruleata* Warr., which is still greener, has nearly the shape of the present species, but the antennal structure of *iridescens*, and is distinguished from both by the postmedian line of the forewing, which is rather deeply sinuate inward between the radials and moderately between M² and SM².

22. *Iodis colpostrophia* spec. nov.

♂, 33 mm. Very similar to *coeruleata* Warr., possibly a local race of it. *Forewing* with apex less pointed, termen distinctly curved (in *coeruleata* straight); SC^1 almost connate with SC^{2-5} , not anastomosing with C, R^1 connate, M^1 just separate; apparently rather deeper, and at the same time yellower, green than in *coeruleata* (but probably a little discoloured in relaxing); bands broader and still more ill-defined, except the second band distally, where it is edged by a rather sharply white postmedian line, which is even more deeply dentate than in *coeruleata*; similar dark-green shading about DC, suggesting a long-oval, pale-centred cell-mark (sometimes indicated in *coeruleata*).—*Hindwing* rather broad, with the tail rather short; the green antemedian band rather well developed except at *costa*, partly merged with a green line just outside DC^3 , so as to enclose a roundish pale cell-mark.

South Java, 1,500 m., 1891 (H. Fruhstorfer). Type in coll. Tring Museum.

A ♀ from Rukit Putus, Selangore, 3,000 ft., May 1896 (Curtis), is rather larger; palpus at least twice as long as diameter of eye, with long third joint; R^1 shortly stalked. I know no authentic ♀ of *coeruleata*, but in a worn specimen from Digboi, Assam, which I have provisionally determined as such, the palpus is not more than one-and-three-quarter times the diameter of eye.

23. *Iodis xynia* spec. nov.

♂, 25–28 mm.; ♀, 32 mm. Face pale green. Palpus in ♂ fully half as long again as diameter of eye, with third joint shortish; in ♀ fully two-and-a-half times diameter of eye, with third joint fully as long as second; mixed with ferruginous above, white beneath. Antenna in ♂ pectinate to one-half, with longish branches. Vertex narrowly white; occiput green. Thorax green above, white beneath. Abdomen above green basally, otherwise whitish; beneath white. Hindtibia in ♂ with strong ensheathed hair-pencil; tarsus slightly over one-half as long as tibia.

Wings shaped as in *argutaria* Walk. or *iridescent* Warr.—*Forewing* with SC^1 connate or occasionally stalked (in one Dharmasala ♂ just separate), anastomosing rather strongly with C and with SC^2 ; opalescent white, the reflections in most lights pearl-blue; irroration fine, light olive-greenish; costal edge ochreous; the greenish shades which accompany the lines and cell-mark, as well as that at distal margin, diffuse and ill-defined; lines white; antemedian ill-defined at *costa*, less so posteriorly, placed at less than one-fourth the wing-length anteriorly, lunulate outward between the veins (but not deeply), reaching hindmargin at about one-third; postmedian more distinct, 2 or 3 mm. from termen, lunulate-dentate, not strongly incurved between the radials and posteriorly, as near termen at SM^2 as at M^2 ; termen with minute and inconspicuous white dots at veins.—*Hindwing* with first line weak or obsolescent; otherwise similar.

Underside opalescent white; forewing with costal half tinged with greenish, costal edge bright ochreous.

North India. Type, Khasis, March 1894, in coll. Tring Museum.

Represented in most collections, but hitherto apparently mixed with *argutaria* Walk., which is very different in the less long ♀ palpus, darker green colour, deeply sinuous and posteriorly thickened postmedian line and various other points.

24. *Berta poppaea* spec. nov.

♂ ♀, 23 mm. Shape and structure about as in *acte* Swinh. (hindlegs lost in the only ♂). Head and body olivaceous; vertex only very narrowly and inconspicuously white in front. Base of antenna white.

Forewing with costa arched, termen slightly curved; SC¹ anastomosing strongly with C, well free from SC²; dull olivaceous, costal edge narrowly ochreous; antemedian line white, indistinct, indicated chiefly by two slender outward curves (in cell and between M and SM²); two white dots on discocellulars, that on DC² the larger, somewhat elongate; a slender, zigzag white postmedian line, broken up into dots and small lunules, its position and general course about as in *Iodis annulifera* Warr., the lunule between M² and SM² rather thick; termen with white dots at ends of veins, the anterior ones small, the posterior elongate.—*Hindwing* similar, with the cell-dots almost or altogether obsolete.

Mount Wuchi, Hainan, May 1903. ♂ (type) and 2 ♀♀ in coll. Tring Museum.

No other Oriental *Berta* shows so little white marking. Structurally, this species, *acte*, and *annulifera* suggest transitions between this genus and *Iodis*.

25. *Berta subrectistriga* spec. nov.

♂, 25 mm. Structure about as in *acte* Swinh., third joint of palpus slightly longer in proportion. Face olivaceous. Palpus olivaceous above, white beneath. Vertex narrowly and rather irregularly white; occiput olivaceous. Thorax and abdomen above olivaceous, with large white spots, which decrease in size posteriorly; beneath mostly white. Legs olivaceous, on inner side white.

Forewing shaped nearly as in *acte* or with costal and distal margins still straighter; olivaceous; white markings proximally to the postmedian nearly as in *chrysolineata* Walk., the compound cell-mark broader, especially in its posterior half, less 8-shaped, in that its outer and inner sides do not touch in the middle; a white postmedian band, straightish on its outer edge (slightly more oblique than termen), throwing out broad and deep, fairly uniform, inter-neural teeth proximally; subterminal white line thin between SC² and R¹ and between R² and R³, otherwise rather thick, continuous except for exceedingly fine interruptions at and midway between the veins; termen and fringe about as in *chrysolineata*.—*Hindwing* with the excision between R¹ and R³ almost as deep as in *chrysolineata*; white markings broad, especially a postdiscal band, which is only cut by slender olivaceous veins; postmedian line zigzag, continuous, fairly thick but nowhere thickened into round spots; subterminal, termen, and fringe nearly as on forewing.

Underside white, tinged with olivaceous in places.

Mount Dulangar, Mindoro, Philippines, 4,500–5,500 ft., November 1895—January 1896 (J. Whitehead). Type in coll. Tring Museum.

26. *Berta zygophyxia* Prout.

Berta chrysolineata zygophyxia Prout, *Gen. Ins.* fasc. 129. p. 234 (1912).

I think this must be a separate species, as it sometimes occurs together with *chrysolineata* Walk. I now know it from Penang, Perak, Singapore, Bali, British New Guinea, the Admiralty and the Solomon Islands, and it will certainly be detected in some intervening localities. By an oversight I neglected to state that the type is from Bali.

27. *Berta copiosa* spec. nov.

♂, 23 mm. Face pale olivaceous. Palpus with third joint shortish; olivaceous, beneath white. Vertex white. Occiput mixed with olivaceous. Antenna bipectinate to about the middle. Thorax and abdomen above olivaceous, with indistinct whitish spots; beneath more mixed with white. Hindtarsus less than half as long as tibia.

Forewing shaped as in *chrysolineata* Walk.; discocellulars characteristic; SC¹ from cell, anastomosing slightly with C, SC² arising after SC¹, free; dull olivaceous, with some slight whitish irroration; markings sharply white; two spots between the veins near base; antemedian line thickened and lunulate outward in cell, still more deeply lunulate outward in submedian area, but proximally filled in with white so as to form a spot; a small spot in cell just proximal to DC and some vaguer spots behind it; an elongate costal mark from just proximally of DC to the anastomosis of SC¹ with C; partly confluent with this costal mark is an irregularly quadrate patch between the radials slightly beyond the cell; elongate interneural marks just beyond this, between costal margin and R¹; postmedian line zigzag, thickened proximally into a double spot between the radials, interrupted at M¹, reappearing rather more proximally as three large interneural spots between M¹ and hindmargin, the first the largest; subterminal line broken into spots, wanting between R² and R³, small posteriorly; termen and fringe as in *chrysolineata*.—*Hindwing* similar, but with a conspicuous spot on middle of abdominal margin in alignment with the radial, postdiscal patch, which is less quadrate (more transversely elongate) than on forewing.

Underside white, with slight olivaceous cell-marks (irregularly ocellated in their anterior part) and wavy olivaceous transverse lines, the postmedian thickened into an irregular, narrow band, the subterminal also distinct.

Naga Hills, Assam, 1,500–3,000 ft., September–October 1889 (W. Doherty). Type in coll. Tring Museum.

28. *Comostola hypotyppha* spec. nov.

♀, 25 mm. Face red. Palpus about two-and-a-half times, third joint almost as long as, diameter of eye. Vertex white; occiput green. ♀ antenna somewhat serrate. Thorax above green, abdomen mixed with whitish.

Forewing with SC¹ from cell, free, R¹ barely stalked, DC not extremely sinuous; light glaucous green, nearly as in *maculata* Moore; costal edge narrowly whitish, unspotted; antemedian dots on M and SM²; the dull red cell-dot small, not pale-centred, the whitish ring around it very slender; postmedian yellowish white, consisting of moderate dots on R¹ and R² nearly 4 mm. from termen, a curved line (confluent elongate dots) from R³ to beyond M¹ slightly nearer to termen, a dot at M² slightly receding and a nearly vertical mark from fold to hindmargin nearly 4 mm. from tornus; some red scales sometimes noticeable at distal edge of these spots; terminal line white, accompanied proximally by some short and very slender dark reddish interneural dashes; fringe white, with a tinge of green.—*Hindwing* with termen bent at R³; cell-mark as on forewing; postmedian line chiefly marked by lunules on R¹ and R²–M¹ and a somewhat enlarged spot on middle of abdominal margin; terminal line and fringe as on forewing.

Underside whitish blue-green, unmarked ; costal edge of forewing ochreous, slightly shaded with rufous basally, a still slighter rufous suffusion over a wide area proximally except towards hindmargin.

N. India : Dalhousie, May 1891. Type in coll. Tring Museum.

A pair from Dharmasala (= *nympha* Butl., *Ill. Het.* vii. 22, ex. err. det.) show the ♂ antennal pectinations to be long, hindtibia not much thickened. Differs from *maculata* Moore in its small size, more bent termen of hindwing, reduced ocelli, better developed and less deeply bent postmedian line, and especially in having the discocellulars of the forewing of more normal *Comostola* form ; *albifimbria* Warr. and *maculata* Moore should, strictly speaking, be placed in *Comostolopsis*, making a transition towards *Comostola*.

29. *Comostola demeritaria* spec. nov.

♂ ♀, 18–21 mm. Face light reddish, becoming more ochreous below. Palpus in ♂ about one-and-a-half times diameter of eye, in ♀ about two-and-a-half times ; light ochreous, strongly mixed with red except beneath. Vertex and antennal shaft very pale sulphur-yellow ; ♂ pectinations four or five times diameter of shaft. Occiput green, separated from the yellow vertex by a slender red line. Thorax and abdomen green above, white beneath and at anal extremity. Hindtibia in ♂ dilated, but without terminal process.

Forewing with DC little bent at origin of R^2 , SC^1 from cell or shortly stalked, R^1 stalked or occasionally connate ; light blue-green, almost as in *laesaria* Walk. or a shade bluer ; costal edge pale yellow, with the dark speckling generally slight, no dark spots at origin of lines ; lines represented by double spots, their approximated parts very pale yellow, their reverse parts red ; the antemedian spots placed on SM^2 at one-third and (smaller, sometimes obsolescent) on M ; the postmedian on all the veins from R^1 hindward, slightly excurved between R^2 and SM^2 , those on R^2 – M^1 confluent, that on SM^2 confluent with a spot at about two-thirds hindmargin, the rest small, sometimes obsolescent ; cell-spot moderate, roundish, rather duller than in *laesaria* ; terminal line rather strong, interrupted at veins, red proximally, dark and metallic distally, in places separated from fringe by an exceedingly slender white line ; fringe pale yellow, with an oblique dark mark at apex.—*Hindwing* rather long and narrow, termen bluntly bent at R^3 ; antemedian line wanting, cell-spot rather larger, oftenest diamond-shaped, some light metallic scales in its middle.

Underside whitish blue-green, costal edge of forewing and all fringes yellowish ; cell-spots feebly showing through.

Khasis, December to April. A series in coll. Tring Museum, the type dated March 1894. Also in other collections.

Not differentiated by Warren from *meritaria* Walk. ; wings rather less broad, discocellulars much less characteristic, cell-spots less large, vertex and antenna less white.

30. *Comostola cedilla* spec. nov.

♂, 22 mm. ; ♀, 25 mm. Face dull dark red, sometimes mixed with blackish ; very narrowly white below. Palpus ochreous and reddish above, whitish beneath ; second joint with some black irroration on outer side. Crown much mixed with red and with a little black. Base of antennal shaft somewhat mixed

with black ; pectinations in ♂, at their longest point, scarcely three times diameter of shaft. Thorax and abdomen as in the allies (*chlorargyra* group).

Forewing bright green, rather more yellowish than in the allies ; the white costal edge rather broad, strongly tinged (excepting the pure white basal subcostal streak) with red and—especially at costal extremity—with some metallic blackish irroration ; midcostal streak rather broad and reaching to the posterior end of DC³ ; distal border **of equal width throughout**, its white element continuing round the apex between SC⁵ and SC⁴ to about 3 mm. from termen, where it curves forward in a cedilla-shaped mark and is lost in the reddish suffusion ; oblique mark from tornus fairly broad but rather short, pure white, only at extreme tornus tinged with yellow.—*Hindwing* as in the allies.

Underside with the suffusions predominantly greenish, on the hindwing almost entirely so.

Upper Aroa River, British New Guinea, March 1903, type ♂, and February 1903, ♀ ; Kumusi River, N.E. British New Guinea, low elevation, August—September 1907. All in coll. Tring Museum, collected by A. S. Meek. Also from Penang and Perak in the same collection and from Singapore and Borneo in coll. Brit. Mus.

The ♂ antennal pectinations are much shorter than in any other of the group, unless it be the very distinct *iodioides* T. P. Luc. (= *eucraspeda* Turn., syn. nov.),* of which only the ♀ is known.

31. *Pyrrhorachis pyrrhogona* (Walk.).

I am now inclined to think that Warren was correct in separating his *cornuta* (Nov. Zool. iii. 292) as a distinct species. If not, it is a constant race with very wide distribution (New Guinea and its satellite islands and again on Borneo—not yet known to me from the intervening area). In any case the forms still left under *pyrrhogona* vary geographically. Walker described from South India and his form has the distal border of the forewing rather narrow, not swelling appreciably at the tornus. The Australian form, *marginata* T. P. Luc., seems only separable by its larger size.

P. p. augustata (Warr. MS.) **subsp. nov.** A single ♀ in coll. Tring Museum, from Lifu, Loyalty Islands, has the distal borders still narrower, thread-like.

Another unique specimen, *deliciosa* Warr., from the Natuna Islands, may be a subspecies with the border broadened and not traversed by blackish metallic scaling, but as the hindwing is rather less elongate, I have left it provisionally as a separate species.

P. p. turgescens subsp. nov., from the Khasis, is easily and constantly distinguishable from the name-type by having the marginal spot between tornus and M² of the forewing considerably enlarged, more than twice as broad as the rest of the series ; the apical and tornal borders of the hindwing also show a tendency to enlargement. Type in coll. Tring Museum.

It is desirable to add that the specimen from which the genitalia were diagnosed (*Gen. Ins.* fasc. 129, p. 239) was a Khasi example (subsp. *turgescens*) in my collection.

* Lucas's type is in coll. Tring Museum. It was unknown to me when I prepared Pt. 14 of the *Lepidopterorum Catalogus*, and I merely cited the name under *Agathia*, in which genus its author quite erroneously published it.

SUBFAM. STERRRHINAE.

32. *Rhodostrophia plesiochora* spec. nov.

♂, 27 mm. ; ♀, 30 mm. Similar to *meonaria* Guen. (Prout in Seitz, *Macrolep.* iv. t. 7 a), with which it has been mixed. Antennal pectinations shorter, scarcely over twice diameter of shaft. Wings shorter, particularly in the ♂.

Forewing rather more ochreous (in the most deeply coloured examples of *meonaria* tending rather to olivaceous), rather more glossy, a faint grey antemedian line indicated except at costa ; postmedian line relatively farther from termen, rather less oblique, generally less red, the narrow band beyond it shadowy ; subterminal grey line well expressed ; a narrow pink shade at termen (rarely indicated in *meonaria* except on the terminal line itself).—*Hindwing* generally rather more ochreous than in *meonaria* ; cell-dot present ; postmedian pink shade broader, but above never reaching nearly to costa, beneath rounded anteriorly (not, as in *meonaria*, angulated) ; subterminal line better developed.

West China : Pu-tsu-fong, 9,820 ft., June—July 1890, type ♂ and a ♀ ; Chow-pin-sa, 2 ♂♂, 1 ♀ ; all these in coll. Brit. Mus. Omei-shan, 1 ♂ in coll. Tring Museum. Teng-yueh-Ting, 1 ♀ in coll. Joicey. Vrianatong, Tibet, 1 ♀ in coll. L. B. Prout.

Erroneously referred to under *meonaria* in Seitz, *Macrolep.* iv. 40 ; the Kashmir examples, including the figure, are true *meonaria*.

33. *Rhodostrophia bisinuata* Warr.

Rhodostrophia bisinuata Warr., *Nov. Zool.* ii. 98 (1895) ; Prout in Seitz, *Macrolep.* iv. 43 (1913).

Rhodostrophia sinensis Prout in Seitz, *Macrolep.* iv. 43 (1913) (*R. vinacearia* subsp., ? sp.) (syn. nov.).

Warren founded this species on a single ♀ said to be from "Japan," but no doubt really from West China ; several other specimens in the Tring Museum belonging to the latter fauna (for instance, a *Somatina mendicaria* Leech and an *Anisephyra brunnearia* Leech, both presumably topotypical with some of Leech's originals) bear the same erroneous labels. When I was at work on the genus *Rhodostrophia* for Seitz, Warren's type was not accessible to me and I merely quoted the original description ; but on p. 44, in erecting a new species, *Tanaotrichia orientis*, I suggested the possibility that the last-named might prove to be a form of Warren's lost species. Subsequently (*Nov. Zool.* xxii. 324) I erroneously accepted this suggestion and wrote "*bisinuata* Warr. = *orientis* Prout," which must be corrected to "*orientis* Prout." The females of the two species are confusingly similar, but a careful study of Warren's type, together with the rest of the available material, has shown conclusively that *bisinuata* Warr. is the true *Rhodostrophia* and supplants my *sinensis*. I think it will prove a valid species rather than a race of *vinacearia* Moore. I now know it from Chang Yang, Szechuan, Teng-yueh-Ting (Yunnan, near the Burmese frontier), and Vrianatong (Tibet).

34. *Discoglypha aureifloris parvifloris* subsp. nov.

♂ ♀, 30–32 mm. Slightly paler and more rufous-tinged than *a. aureifloris* Warr. (*Nov. Zool.* iii. 111).

Hindwing with the mark behind the cell much smaller, only extending

Masi, L. 1917. "Chalcididae of the Seychelles islands. (With an appendix by J.J.Kieffer.)." *Novitates zoologicae : a journal of zoology in connection with the Tring Museum* 24, 121–330. <https://doi.org/10.5962/bhl.part.23147>.

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