

18. *Telicota bambusae* Moore, var *formosana* Fruhst.

M<sup>r</sup> Fruhstorfer réunit à *Bambusae* toutes les formes intermédiaires entre *augias* et *bambusae*. La forme présente est si voisine de *pythias* Mab. qu'elle s'en distingue difficilement, du moins chez le mâle, à la base des ailes inférieures en dessous la tache fauve est à peine distincte. La femelle est plus distincte: elle est beaucoup plus noire; la bande transversale fauve des ailes inférieures s'amincit vers le bord abdominal et les deux dernières taches près du bord sont de moitié plus petites que les trois autres. Le point fauve de la base est tout à fait absent sur les deux faces.

Cette forme nous paraît une espèce séparée, très voisine d'*iopas* Mab. de Batjon, mais dont la description ne lui convient qu'imparfaitement.

19. *Padraona dara* Koll.

Plusieurs exemplaires de cette espèce variable.

20. *Padraona moesa* Moore.

Semblable aux individus de l'Inde.

21. *Padraona gola* Moore.

Diffère un peu du type mais semble se rapporter à cette espèce plutôt qu'à tout autre du même groupe.

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*Pterophoridae, Tortricidae, Eucosmidae, Gelechiidae,  
Oecophoridae, Cosmopterygidae, Hyponomeutidae,  
Heliodinidae, Sesiidae, Glyphipterygidae, Plutellidae,  
Tineidae, Adelidae (Lep.).*

Von E. Meyrick, Marlborough.

The following species from the island of Formosa were entrusted to me for study by Dr. Walther Horn, Director of the Deutsches Entomologisches Museum, and the types are deposited in that Museum. Practically nothing has been recorded hitherto of the groups here treated from Formosa, and the adjoining regions of China and Japan are also very little known. The number of species now accurately determined is 75, and of these 36 are described as new; three new genera are also characterised.

*Pterophoridae.*

*Trichoptilus congrualis* Walk. 1, Anping, in August. Cosmopolitan within the tropics.

*Hexadactylia trilobata* Fletch. 1, Taihorin, in December. Also from New Guinea.

*Deuterocopus triannulatus* Meyr. 3, Kankau (Koshun) in May. Also from New Guinea and Queensland.

*Xyryptilia tectonica* nov. spec. ✕

♂. 11—13 mm. Head and thorax dark brown. Palpi whitish-ochreous, anterior edge blackish. Abdomen ferruginous-brown, base pale yellow, ventral surface whitish-yellow. Forewings cleft to  $\frac{2}{5}$ , segments narrow, posteriorly somewhat dilated, termen of each segment sinuate, oblique; dark brown, rosy-tinged, strewn with ochreous-yellow strigulae becoming obsolescent on posterior third; an ochreous-orange blotch in disc at  $\frac{2}{5}$ , an inwardly oblique bar on first segment before its middle, and a dot on costa before apex: cilia pale ochreous, on costa dark fuscous except on pale markings, on termen with basal third dark fuscous, interrupted by a pale median patch on second segment, on lower margin of both segments and upper margin of second with dark fuscous apical patches, and a bar on dorsum beneath cleft. Hindwings dark fuscous; cilia bronzy-ochreous.

3, Kankau (Koshun), Taihorin, in May, August, and December. Allied to *marmarias*, from which the oblique orange bar on first segment of forewings immediately distinguishes it.

*Oxyptilus mycites* nov. spec. ✕

♂. 14 mm. Head and thorax dark fuscous. Palpi sickle-shaped, whitish, anterior edge blackish, second joint with dark fuscous subapical ring. Abdomen dark fuscous, base whitish. Forewings cleft to  $\frac{2}{3}$ , segments somewhat dilated posteriorly, termen nearly straight, oblique; dark fuscous first segment slightly rosy-tinged: a cloudy whitish dot towards dorsum at  $\frac{1}{4}$ ; an indistinct discal spot of whitish or pale ochreous suffusion in middle; brownish spots occupying basal third of both segments, connected by a grey-whitish spot on base of cleft; an obscure fine fuscous-whitish line crossing both segments at  $\frac{2}{3}$  of their length: cilia dark fuscous, within basal half of cleft whitish, on termen, with outer portion whitish, on dorsum whitish with black scaleteeth in middle and beneath cleft, and black apical patch. Hindwings with third segment very short; dark fuscous; cilia purplish-grey, at apex of third segment with small black scale-projection.

1, Taihorin, in December. Perhaps nearest *cinctipedalis*.

*Platyptilia citropleura* Meyr. 1, Suisharyo, in October. Also from India and Ceylon.

*Alucita candidalis* Walk. 1, Tainan, in November. Throughout tropics of Africa, Asia, and Australia.

*Alucita lacteipennis* Walk. 1, Kosempo, in January. The identification is not certain, as the three apical joints of the posterior tarsi are broken, but probably correct; it is an Australasian form.

*Marasmarcha liophanes* Meyr. 1, Kosempo, in July. Widely distributed in tropical regions of Asia and Africa.

*Stenoptilia platanodes* nov. spec. ✕

♂. 18 mm. Head fuscous, with slender whitish bars on face and behind antennae. without frontal cono. Palpi rather short, fuscous, tip whitish. Thorax greyish-ochreous slightly sprinkled with blackish. Abdomen greyish-ochreous, with dorsal series of black dots. Forewings cleft to  $\frac{2}{3}$ , segments rather broad, first pointed, second with termen straight, rather strongly oblique: greyish-ochreous mixed with whitish, with some scattered black scales in disc and irrorated with black towards margins; a black dot in disc at  $\frac{1}{3}$ ; an oblique suffused blackish transverse mark before base of cleft; an elongate spot of blackish suffusion on costa beyond base of cleft; second segment suffused with dark fuscous towards termen: cilia dark grey, on costa with a suffused ochreous-white spot on middle of first segment, and tips ochreous-white towards apex, on position of lower angle (obsolete) of first segment with a slender whitish bar. Hindwings dark grey; cilia grey.

1, Suisharyo, in December. Structurally related rather to the Australian species.

#### *Tortricidae.*

*Catamacta provocata* Meyr. 3, Suisharyo, in February. Also from India.

*Capua affiniana* Walk. 1, Suisharyo, in February. Also from India and Ceylon.

*Adoxophyes privatana* Walk. 2, Kankau (Koshun), Kosempo, in May and October. Ranges from India to New Guinea.

*Homona menciana*. Walk. 1, Kosempo, in October. Occurs throughout Southern Asia and Malayan islands.

*Cerace stipatana* Walk. 1, "Shis A 56", May-June. From Himalaya to China.

*Cacoecia serpentiana* Walk. 2, Kosempo, in October. Also from India, Ceylon, and Borneo.

*Cacoecia paterata* nov. spec. †

♂ 19 mm, ♀ 22 mm. Head, palpi, and thorax lilac-brownish, palpi moderately long, tip whitish. Abdomen dark grey. Forewings

in ♂ moderate, narrowed anteriorly, costa hardly arched, with strong fold from base to beyond middle, apex obtuse, termen vertical, somewhat sinuate below apex, bowed beneath, in ♀ oblong, costa anteriorly strongly arched, posteriorly sinuate, apex somewhat more prominent than in ♂, termen more strongly sinuate; light ochreous-brownish, with faint lilac reflections, dorsal half in ♂ suffused with rosy-fuscous; markings dark reddish-fuscous; basal patch in ♂ obsolete, in ♀ indicated by subbasal dots on costa and in middle, and an irregular incomplete stria marking outer edge; central fascia indicated by a dot on costa before middle, and in ♂ by an irregular blotch above middle; costal patch well-marked, small, semioval; a dot on costa beyond this; a line of strigulae from beneath this to tornus: cilia whitish-ochreous, from apex to near tornus suffused with dark brown. Hindwings in ♂ dark fuscous, in ♀ lighter; cilia light grey, with darker subbasal shade.

2, Suisharyo, Kosempo, in October and January.

*Harmologa miserana* Walk. 1, Suisharyo, in December. Occurs from India to Australia.

*Peronea enitescens* Meyr. 1, Suisharyo, in February. Also from Assam.

#### *Eucosmidae.*

*Eucosma plebeiana* Zell. 3, Anping, in May. Cosmopolitan in warm countries.

*Bactra leucogama* Meyr. 2, Anping, in May. Also from Ceylon.

*Argyroploce trichosoma* nov. spec. †

♂♀. 20—23 mm. Head brownish, more or less suffused with dark fuscous. Palpi rather short, subascending, brownish or rather dark fuscous. Thorax brownish more or less mixed with grey. Abdomen grey, in ♂ clothed with long hairs dorsally. Posterior tibiae in ♂ clothed with dense long whitish-grey hairscales above and beneath. Forewings subtriangular, costa gently arched, apex obtuse, termen nearly straight, hardly oblique; light brownish irrorated with blackish, along costa forming oblique strigulae; dorsal area suffused with blackish-grey, crossed in middle by a patch of four very oblique pale strigae reaching nearly half across wing, above which is a patch of brown suffusion extending in disc from  $\frac{1}{4}$  to  $\frac{3}{4}$ ; two pale striae running from  $\frac{2}{3}$  of costa to termen above tornus, cutting off an apical patch suffused with dark fuscous: cilia dark fuscous irrorated with ochreous-whitish, on tornus suffused with whitish-

ochreous. Hindwings in ♂ somewhat reduced, dark fuscous; cilia pale grey sprinkled with whitish, with dark grey subbasal shade.

♂, Kosempo, Taihorinsho, in January and April. Allied to *illepida* and *semiculta*.

*Argyroploce aprobola* Meyr. 1, Suisharyo, in October. Throughout Indo-Malayan region to South Pacific islands.

*Argyroploce eucrossa* nov. spec. †

♂. 19 mm. Head and thorax pale brownish mixed with fuscous. Palpi moderate, porrected, ochreous-whitish spotted with fuscous suffusion. Abdomen dark fuscous, with lateral postmedian dark fuscous tufts, apex pale greyish-ochreous. Posterior tibiae and tarsi with dense brush of long greyish-ochreous hairs above throughout. Forewings suboblong, costa gently arched, apex obtuse, termen almost straight, nearly vertical; reddish-fuscous mixed with dark grey, marked posteriorly with pairs of ochreous-whitish longitudinal lines enclosing veins except 5; costa throughout dark fuscous marked with pairs of oblique whitish strigulae; a whitish longitudinal subcostal line on posterior half, indistinctly edged above with leaden-metallic; some undefined dark fuscous suffusion along dorsum throughout: cilia ochreous-whitish irregularly barred with dark fuscous; Hindwings dark fuscous; a fringe of long cilia along vein 3; a dorsal fold enclosing an expansible pencil of long fuscous hairs; cilia grey-whitish, with dark fuscous basal shade. Hindwings beneath with 1b clothed with spreading ochreous-whitish hairs except towards base.

1, Kosempo, in July. Allied to *paragramma*.

*Argyroploce cyanura* Meyr. 1, Suisharyo, in October. Also from Assam and Malacca.

*Argyroploce assidua* nov. spec. †

♂♀. 14—15 mm. Head, thorax, and abdomen dark fuscous. Palpi grey. Forewings moderate, posteriorly dilated, costa gently arched, apex obtuse, termen straight, little oblique; dark fuscous, nearly covered by suffused thick blue-leaden-metallic transverse lines; central fascia broad, rather oblique, dark fuscous, posterior edge invaded by two strong blue-leaden-metallic projections; two pairs of whitish costal strigulae before this and five beyond it, groundcolour beneath last three suffused with ferruginous-brown, antepenultimate pair sending a blue-leaden-metallic line to termen above middle, beneath which is a narrow dark fuscous fascia not reaching costa; apex dark fuscous; cilia blue-leaden-grey (imperfect). Hindwings dark fuscous; cilia grey, with darker subbasal shade.

2, Suisharyo, in October. Perhaps nearest to *velutina*.

*Gelechiadae.*

*Stegasta variana* Meyr. 1, Kankau (Koshun), in April. Widely spread in the Indian and Australian regions.

*Tisis mesozosta* nov. spec. †

♀. 18—19 mm. Head and thorax dark fuscous. Palpi dark fuscous, second joint with pale ochreous lateral line. Antennae dark fuscous (apical portion broken). Abdomen dark fuscous. Posterior tibiae yellowish with dark bluish-fuscous subapical band, tarsi whitish, basal joint dark bluish-fuscous. Forewings elongate, narrow, costa gently arched, slightly sinuate in middle, apex obtuse, termen very obliquely rounded; 7 absent, 8 and 9 stalked; deep purple; a bluish-leadен-metallic streak along basal third of costa, margined beneath by a deep orange streak terminated by a bluish-leadен-metallic spot; a slender orange median transverse fascia, rather dilated on costa, becoming oblique towards dorsum and terminating at  $\frac{3}{4}$  of dorsum; cilia dark purple-fuscous. Hindwings rather dark purplish-bronzy-fuscous: 4 absent; cilia rather dark fuscous.

2, Suisharyo, in October.

*Frisilia indigens* nov. spec. †

♀. 15—17 mm. Head and thorax fuscous. Palpi light greyish-ochreous, anterior edge of terminal joint dark fuscous. Antennae whitish obscurely ringed with fuscous, basal third and apical sixth rather dark fuscous. Abdomen grey. Forewings elongate, rather narrow, posteriorly somewhat dilated, costa slightly arched, apex obtuse, termen rounded, rather oblique; 2 and 3 stalked, 4 and 5 stalked, 8 and 9 out of 7; fuscous; second discal stigma cloudy, dark fuscous; cilia fuscous (imperfect). Hindwings grey: cilia pale grey.

2, Suisharyo, in October and December.

*Homaloxestis cholopis* Meyr. 2, Kankau (Koshun), in May. Widely distributed in Indian and African regions.

*Lecithocera bisignatella* Walk. 1, Taihoku, in April. Occurs also in Borneo.

*Lecithocera albisignis* nov. spec. †

♂. 15 mm. Head, thorax, and abdomen dark fuscous. Palpi ochreous, anterior edge dark fuscous on terminal joint and apex of second, terminal joint longer than second. Antennae whitish-ochreous, infuscated towards base. Posterior tibiae fuscous, tarsi whitish-ochreous with apex of joints fuscous. Forewings elongate, narrow, somewhat dilated posteriorly, costa slightly arched, apex obtuse, ter-

men straight, rather oblique; 3 and 4 out of 2, 8 and 9 out of 7, 7 to apex; dark fuscous, with faint purplish tinge; an ochreous-white transverse spot on middle of costa, reaching half across wing; cilia dark fuscous. Hindwings and cilia dark fuscous.

1, Kosempo, in October. Allied to *bisignatella*, but smaller, and immediately distinguished by termen of forewings not being sinuate.

*Lecithocera thiodora* nov. spec. †

♂. 12 mm. Head and thorax light ochreous-fuscous, face white. Palpi ochreous-whitish, second joint above with large expanded tuft of very fine hairs. Antennae yellowish-white. Abdomen whitish-ochreous. Forewings elongate, costa towards base moderately arched, then almost straight, apex round-pointed, termen somewhat sinuate, rather oblique; 2 and 3 stalked, 8 and 9 out of 7; rather light fuscous, base ochreous-tinged; costa narrowly whitish-ochreous from  $\frac{1}{4}$  to apex; discal stigmata dark fuscous, second forming a transverse mark; several small dark fuscous dots on termen; cilia whitish-ochreous mixed with fuscous (imperfect). Hindwings yellow-whitish, dorsal third suffused with pale yellowish and clothed towards disc with modified hairscales; cilia yellow-whitish.

1, Banshoryo District, Sokutsu, in May.

*Onebala* sp. 1, Suisharyo, in October; too much injured for description.

*Brachmia insuavis* nov. spec. †

♂♀. 13—15 mm. Head and thorax brownish-ochreous tinged with fuscous. Palpi pale greyish-ochreous, second joint sprinkled with fuscous. Antennae in ♂ somewhat stout, serrulate, ciliations minute. Abdomen greyish-ochreous. Forewings elongate, rather narrow, costa gently arched, apex obtuse, termen straight, rather oblique; 2 and 3 stalked, 7 and 8 stalked, 7 to apex; pale brownish-ochreous more or less suffused or irrorated with fuscous; stigmata rather large, dark fuscous, plical slightly before first discal; a row of indistinct dark fuscous submarginal dots round posterior part of costa and termen; cilia pale ochreous. Hindwings grey; cilia pale greyish-ochreous, with greyish subbasal shade.

3, Kankau (Koshun), in April and May. Extremely like *insulsa*, but both forewings and hindwings darker-coloured, stigmata larger, antennal ciliations of ♂ shorter (in *insulsa*  $\frac{1}{2}$ ).

*Dichomeris ianthes* Meyr. 1, Anping, in September. Widely distributed in Indian and African regions.

*Oecophoridae.*

*Eutorna insidiosa* Meyr. 1, Suisharyo, in October. Also from Assam.

*Periacma delegata* nov. spec. †

♂. 10—12 mm. Head and palpi ochreous-yellow. Thorax deep ochreous-yellow, posterior extremity dark fuscous. Abdomen grey, anal tuft whitish-ochreous. Forewings elongate, costa gently arched, apex obtuse, termen obliquely rounded; deep ochreous-yellow, with a few scattered dark fuscous scales; markings dark purplish-fuscous; an oblique streak from base of dorsum, reaching half across wing; plical and first discal stigmata rather large, plical beyond first discal; a hardly curved transverse streak from  $\frac{2}{3}$  of costa to dorsum before tornus; a narrow terminal fascia from apex to below middle: cilia pale ochreous-yellowish, on basal half with more or less indicated traces of grey spots. Hindwings and cilia grey.

♂, Kankau, in April. Nearest *orthiodes*.

*Cryptolechia mitis* nov. spec. †

♀. 16 mm. Head, palpi, and thorax ochreous-yellow, second joint of palpi smooth, terminal joint shorter than second. Abdomen grey. Forewings elongate, costa gently arched, apex rounded, termen obliquely rounded; 7 to apex; ochreous-yellow, with some scattered fuscous and dark fuscous scales; a small fuscous mark on dorsum at  $\frac{1}{3}$ ; stigmata rather large, dark fuscous, plical obliquely beyond first discal: cilia light ochreous-yellow. Hindwings fuscous; cilia pale ochreous-yellowish.

1, Kosempo, in October.

*Cryptolechia metacentra* nov. spec. †

♂. 18 mm. Head fuscous, face ochreous-whitish. Palpi slender, whitish, terminal joint as long as second, its base dark fuscous. Antennae simple. Thorax light brownish-ochreous, anteriorly infuscated. Abdomen dark grey, apex whitish-ochreous. Forewings elongate, rather narrow, costa gently arched, apex obtuse, termen obliquely rounded; 7 to apex; pale brownish-ochreous, veins obscurely whitish-ochreous; stigmata rather large, blackish, plical elongate, very obliquely beyond first discal; a blackish dot midway between second discal and apex; a series of dark fuscous dots or elongate marks round posterior half of costa and termen: cilia whitish-ochreous. Hindwings dark grey; cilia grey, darker towards base.

1, Kosempo, in October.



*Cryptolechia fenerata* nov. spec. †

♀. 15 mm. Head whitish-ochreous. Palpi ochreous-whitish, second joint smooth, with fuscous subapical ring, terminal joint shorter than second. Thorax dark fuscous. Abdomen grey. Forewings elongate, rather narrow, costa gently arched, apex obtuse, termen nearly straight, oblique; 7 to apex; dark fuscous; stigmata cloudy, blackish, plical obliquely beyond first discal; a moderately broad oblique whitish-ochreous fascia from middle of costa to dorsum before tornus, touching all three stigmata, obscurely interrupted in middle with fuscous and dark fuscous irroration; a triangular whitish-ochreous spot on costa at  $\frac{4}{5}$ ; cilia fuscous. Hindwings light grey; cilia pale greyish-ochreous.

1, Suisharyo, in October.

*Cryptolechia coriata* nov. spec. †

♂. 20 mm. Head fuscous, sidetufts light ochreous. Palpi pale ochreous tinged with fuscous, second joint smooth, terminal joint nearly as long as second, mostly suffused with fuscous. Antennae serrate, rather shortly and unevenly ciliated. Thorax dark fuscous. Abdomen rather dark fuscous, anal tuft pale ochreous. Forewings elongate, rather narrow, anteriorly, somewhat dilated posteriorly, costa slightly arched, apex obtuse, termen sinuate, oblique; 7 to termen; rather dark fuscous; costal edge suffused with whitish-ochreous from before middle to  $\frac{4}{5}$ ; second discal stigma suffused, dark fuscous, followed by a patch of scattered ochreous-whitish scales extending to costa at  $\frac{4}{5}$ ; cilia fuscous, with dark fuscous subbasal line, tips ochreous-whitish. Hindwings rather dark fuscous; cilia ochreous-whitish, with dark fuscous subbasal shade.

1, Suisharyo, in February.

*Cosmopterygidae.*

*Pyroderces coriacella* Snell. 1, Anping, in May.

*Stigmatophora wrantha* nov. spec. †

♂. 11 mm. Head and thorax dark fuscous. Palpi white lined with black. Abdomen dark fuscous, anal tuft ochreous-whitish. Forewings lanceolate, acute; blackish-fuscous; two fine oblique transverse white lines at about  $\frac{1}{3}$  and  $\frac{2}{3}$ ; on dorsal margin before and beyond second are dots or small spots of groundcolour surrounded with white; a fine inwardly oblique white line towards apex, and a fine white line along upper part of termen: cilia ochreous-whitish, on tornus with an orange-yellow patch on basal half. Hindwings grey; cilia pale grey. — 1, Suisharyo, in October,

*Stigmatophora leptarga* nov. spec.

♂. 7 mm. Head and thorax dark bronzy-fuscous. Palpi white lined with dark fuscous. Abdomen dark fuscous, anal tuft yellowish. Forewings lanceolate; dark bronzy-fuscous; markings shining silvery-white; a fine very oblique streak from base of costa, reaching half across wing; a fine rather oblique transverse line at  $\frac{1}{3}$ ; a slightly oblique mark from costa beyond middle, reaching half across wing, and a dot on dorsum opposite its extremity; opposite marginal dots at  $\frac{4}{5}$ , and another at apex: cilia grey, on basal half mixed with dark fuscous. Hindwings dark fuscous; cilia grey.

2, Kankau, in April.

*Stigmatophora promacha* Meyr. 3, Kankau, in April. Also from India and Australia.

*Xestocasis* nov. gen. Head smooth, rounded; ocelli absent; tongue developed. Antennae  $\frac{4}{5}$ , in ♂ minutely ciliated, basal joint very elongate, slender, without pecten. Labial palpi very long, smooth, slender, recurved, terminal joint longer than second, acute. Maxillary palpi very short, filiform, appressed to tongue. Posterior tibiae smooth, with long dense tufts of bristly scales above on origin of spurs, spurs roughscaled above, tarsi with scales somewhat rough throughout. Forewings with 1b furcate, 2 from near angle, 7 and 8 stalked, 7 to costa, 11 from middle. Hindwings  $\frac{3}{4}$ , narrow-lanceolate, cilia 3; 2-5 separate, parallel, 6 and 7 stalked.

*Xestocasis iostrota* Meyr., Trans. Ent. Soc. Lond. 1910, 454 (*Limnoecia*). 1, Taihorin, in May. Also from India and Borneo.

*Zaratha prosarista* Meyr. (?). 1, Taihorin, in December; very worn and therefore doubtful, but apparently identical. Also from Assam.

*Hyponomeutidae.**Ceratophyesetis epitrocha* nov. spec. †

♂♀. 22-24 mm. Head whitish, face and orbits blackish. Palpi moderately long, blackish, tip white. Thorax whitish, with four black spots on anterior margin, and two on posterior. Abdomen light ochreous-yellow, with black subdorsal dots at base of last three or four segments except anal. Forewings elongate, rather narrow, costa gently arched, apex obtuse, termen slightly rounded, rather oblique; pale glossy grey; about fourteen small black spots or dots, tending to be elongate, viz. one rather large just beneath costa at base, a subdorsal dot below this, a spot on fold towards base, one more or less marked above and beyond this, one rather large towards costa

at  $\frac{1}{3}$ , one on fold beneath this, one beneath middle of costa, one in middle of disc, one on fold slightly beyond this, one sometimes larger on end of cell with another obliquely before and beneath it and sometimes confluent with it, one beneath costa about  $\frac{3}{4}$ , one towards tornus beneath this, and one towards apex; a series of ten black dots round posterior fourth of costa and termen: cilia pale grey. Hindwings light grey, becoming darker posteriorly; cilia whitish-grey.

2, Kankau (Koshun) and Kosempo, in May and October. The only other described species of the genus is Australian.

*Ethmia octanoma* nov. spec. †

♀. 19 mm. Head light grey, mixed with blackish towards middle of crown. Palpi short, whitish mixed with dark grey, anterior edge dark grey. Thorax light grey, with two suffused blackish dots behind collar, one on apex of patagia, and a transverse postmedian mark. Abdomen pale grey. Forewings elongate, rather narrow, costa gently arched, apex obtuse, termen slightly rounded, rather oblique; glossy light grey; eight black dots, viz. one elongate beneath base of costa, one on fold towards base, one beneath costa beyond  $\frac{1}{3}$ , three somewhat large representing stigmata, plical obliquely before first discal, one towards costa posteriorly, and one towards termen beneath apex; a few dark scales indicating another beneath and beyond second discal stigma; some indistinct small blackish dots round posterior part of costa and termen: cilia pale grey, tinged with whitish at apex. Hindwings light grey; cilia whitish-grey.

1, Kosempo, in October.

*Heliodinidae.*

*Stathmopoda vertebrata* nov. spec. †

♀. 10 mm. Face and forehead ochreous-whitish, back of fillet pale ochreous, crown blackish. Palpi ochreous-whitish, extreme tip of second joint dark fuscous. Thorax dark fuscous (injured). Posterior tibiae whitish-ochreous banded with dark fuscous, bristle-whorls long, yellowish, two basal joints of tarsi thickened with rough scales, blackish, rest white. Forewings very narrow, widest near base, thence attenuated to acute apex; dark fuscous; two moderately broad ochreous-whitish transverse fasciae, first towards base, abruptly constricted on costa, second beyond middle; apical area whitish-fuscous: cilia dark fuscous. Hindwings and cilia dark grey.

1, Kosempo, in December.

*Stathmopoda theoris* Meyr. 1, Kankau (Koshun), in April. A common Indian species.

*Eretmocera impactella* Walk. 2, Anping and Kankau, in April and May. Also common in Indian region.

*Sesiadae.*

*Trochilium* (?) sp. 1, much damaged, and unfit for description, Suisharyo, in October.

*Glyphipterygidae.*

*Epicroesa metallifera* Meyr. 2, Kankau (Koshun), in April and May. Also from Australia.

*Tortyra beryllitis* Meyr. 1, Suisharyo, in October. Also from the Nicobar Islands.

*Tortyra divitiosa* Walk. 6, Alikang, Kosempo, Kankau, in April and October. Ranges from India to New Guinea.

*Imma lathidora* nov. spec. †

♂. 22 mm. Head, thorax, and abdomen dark fuscous. Palpi fuscous, terminal joint  $\frac{1}{3}$  of second. Forewings elongate-triangular, costa gently arched, apex obtuse, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; dark fuscous, with slight purplish tinge: cilia rather light fuscous, becoming dark fuscous towards tornus. Hindwings dark fuscous; cilia dark fuscous, on apical third of termen with a pale whitish-ochreous patch except at base, suffusedly extended at tips to below middle.

1, Suisharyo, in October. Allied to *marileutis*.

*Imma fungosa* nov. spec. ×

♀. 18 mm. Head, palpi, thorax, and abdomen dark fuscous; palpi internally whitish-ochreous, terminal joint  $\frac{1}{4}$  of second. Forewings elongate, posteriorly dilated, costa slightly arched, apex obtuse, termen rounded, little oblique; 7 and 8 stalked, 8 to costa; fuscous, strewn with pale greyish-ochreous and dark fuscous scales, especially along veins; an irregular pale greyish-ochreous spot on costa before middle; a suffused dark fuscous spot in disc beyond middle: cilia fuscous, base darker. Hindwings fuscous; cilia pale fuscous, with darker subbasal line.

1, Suisharyo, in February. Very like *psoricopa*, but termen of forewings somewhat more oblique, forewings not transversely strigulated; immediately separable by costal termination of vein 8 (in *psoricopa* terminal).

*Imma arcifraga* nov. spec. †

♂♀. 18—20 mm. Head, thorax, and abdomen dark fuscous, ventral surface white. Palpi short, pointed, white, externally tinged with fuscous. Forewings triangular, costa gently arched, apex obtuse, termen rounded, little oblique; 7 and 8 separate, 8 to costa; blackish-fuscous; a narrow slightly curved white fascia from middle of costa to before tornus, interrupted in middle and not quite reaching dorsum: cilia dark fuscous, with a white patch extending over apical third of termen except at base. Hindwings dark fuscous; cilia as in forewings.

11, Suisharyo, in October, February, and April. Notwithstanding diversity of marking, this species is more allied to the following than to any other known to me, and is of very early type.

*Imma palaeodes* nov. spec. †

♂♀. 17—20 mm. Head, thorax, and abdomen dark fuscous. Palpi short, pointed, pale fuscous. Forewings triangular, costa gently arched, apex obtuse, termen rounded, little oblique; 7 and 8 separate, 8 to costa; blackish-fuscous; a slightly curved fascia of scanty white irroration from  $\frac{1}{3}$  of costa to middle of dorsum; a white dorsal dot beyond middle, sometimes little marked; a broader fascia of denser white irroration from a slight white mark on costal edge beyond middle very obliquely outwards, above middle obtusely angulated and continued to dorsum before tornus, space between this lower portion and termen also more or less irrorated with white: cilia rather dark fuscous with basal third darker, on apical third of termen with a white patch on median third reaching tips at apex. Hindwings dark fuscous; cilia as in forewings, but the white patch extending over  $\frac{2}{3}$  of termen.

5, Suisharyo and Kankau, in July and October. This is the most primitive species of the genus as yet discovered, and is therefore very interesting; the short palpi, broad forewings, and structure of 7 and 8 are all ancestral characters shared by the preceding species, but this species has also the typical markings of a *Simaethis*, from which genus *Imma* is a derivative.

*Simaethis amethystodes* nov. spec. †

♀. 14 mm. Head dark fuscous mixed with fulvous-orange. Palpi whitish, second and terminal joints each with two dark fuscous rings. Abdomen fulvous-orange mixed with dark fuscous. Posterior tarsi blackish, apex of two basal joints and whole of third white. Forewings somewhat elongate-triangular, costa gently arched,

apex obtuse, termen slightly bowed, rather oblique; dark fuscous; sometimes an orange-fulvous spot on costa at  $\frac{1}{4}$ ; a straight violet-blue streak from a white dot on costa at  $\frac{1}{3}$  to dorsum at  $\frac{2}{5}$ , sometimes edged with fulvous suffusion posteriorly on lower half; an irregular sinuate orange-fulvous streak from costa just beyond this to dorsum beyond middle; a violet-blue transverse mark on end of cell; a violet-blue streak from a white dot on costa at  $\frac{2}{3}$  to dorsum at  $\frac{4}{5}$ , rather curved beneath costa, then straight, followed by a dark fuscous line and then by a narrow orange-fulvous fascia dilated into a triangular blotch on costa; an orange-fulvous blotch along upper half of termen, and sometimes a smaller one on termen above tornus: cilia pale ochreous, with a black basal line, and dark fuscous apical, median, and tornal patches. Hindwings dark fuscous; a short fulvous-orange longitudinal streak in disc above middle, and a median streak from near base to  $\frac{3}{4}$ , their extremities connected by a transverse streak continued more or less completely to dorsum above tornus; an irregular fulvous-orange fascia along lower  $\frac{3}{4}$  of termen; cilia whitish-ochreous, with blackish basal line and sometimes fuscous median shade.

2, Kosempo, in October.

*Lamprystica* nov. gen.

Head smooth; ocelli absent; tongue developed. Antennae  $\frac{4}{5}$ , in ♂ serrulate, minutely ciliated, basal joint moderate, without pecten. Labial palpi moderately long, curved, ascending, with appressed scales, terminal joint shorter than second, pointed. Maxillary palpi very short, filiform, appressed to tongue. Posterior tibiae loosely haired above. Forewings with 1b furcate, 2 from towards angle, 7 and 8 stalked, 7 to costa, 9 and 10 from end of cell, 11 from before middle. Hindwings under 1, ovate-lanceolate, cilia  $1\frac{1}{2}$ ; 2—4 remote, parallel, 5—7 somewhat approximated towards base.

Allied to *Pantosperma* and *Glyphipteryx*.

*Lamprystica purpurata* nov. spec. +

♂♀. 14—16 mm. Head and thorax bright purple-bronze. Antennae dark bronze. Palpi whitish-ochreous, terminal joint suffused with fuscous anteriorly. Abdomen dark fuscous. Forewings elongate, narrow, costa gently arched, apex obtuse, termen very obliquely rounded; bright deep purple, with coppery reflections, along fold broadly suffused with bronzy-golden: cilia bronzy-fuscous. Hindwings and cilia dark fuscous.

7, Taihorin, Hoozan, Kosempo, in May and July.

*Plutellidae.*

*Plutella maculipennis* Curt. 1. Kankau (Koshun), in May. Cosmopolitan.

*Tineidae.*

*Opogona leucodeta* nov. spec. ✓

♂. 8 mm. Head dark violet-fuscous, fillet, face, and antennae whitish. Palpi white, second joint dark fuscous above except at apex, terminal joint ochreous externally. Abdomen dark fuscous. Forewings lanceolate; glossy dark violet-fuscous; a narrow white fascia at  $\frac{2}{3}$ , rather dilated on costa; extreme tip whitish-ochreous: cilia dark fuscous, round apex whitish-ochreous. Hindwings and cilia dark fuscous.

1, Kankau (Koshun), in April. Allied to *chalinota*.

*Monopis monachella* Hüb. 1, Kosempo, in November. This specimen has 6 and 7 of forewings stalked, and a black spot on middle of anterior margin of thorax; neither character is usual, but 6 and 7 are occasionally short-stalked in Indian specimens, and a black thoracic dot in same position occurs in an example from the Nilgiris. The species is variable, and widely distributed in the Indo-Malayan and African regions.

*Tinea fictrix* nov. spec. ✓

♀. 15 mm. Head and palpi fuscous, bristles of second joint numerous. Antennae  $\frac{2}{3}$ , fuscous, darker towards base. Thorax rather dark fuscous mixed with lighter. Abdomen light fuscous. Forewings elongate, rather narrow, costa gently arched, apex obtuse, termen very obliquely rounded; all veins separate; fuscous irregularly sprinkled with pale greyish-ochreous: cilia fuscous mixed with pale greyish-ochreous, tips ochreous-whitish. Hindwings pale ochreous-grey, with brassy reflections; cilia pale greyish-ochreous.

1, Anping, in July. I have also a specimen in my collection from Pusa, Bengal. The antennae are unusually short for the genus, but otherwise the species is a true *Tinea* in every respect. The Bengal specimen exhibits an individual abnormality, vein 6 being furcate for half its length posteriorly in each forewing, all other veins being present and normal.

*Sapheneutis cineracea* nov. spec. †

♂. 17 mm. Head whitish-ochreous, face light grey. Thorax grey, becoming dark grey anteriorly. Abdomen grey. Forewings elongate, moderate, posteriorly slightly dilated, costa gently arched,

apex obtuse, termen obliquely rounded; 8 and 9 stalked; grey, very obscurely mixed and strigulated with dark fuscous, more distinctly spotted along costa posteriorly: cilia grey. Hindwings thinly scaled, grey; cilia light grey.

1, Suisharyo, in October.

*Melasina pinguis* nov. spec.

♂. 25—29 mm. Head fulvous-ochreous. Palpi light ochreous tinged with fuscous. Antennal pectinations 6. Thorax brownish-ochreous. Abdomen pale ochreous. Forewings elongate, costa gently arched, apex rounded, termen rounded, little oblique; brownish-ochreous: cilia light ochreous. Hindwings light grey; cilia whitish-ochreous.

2, Kankau (Koshun), in May.

*Coryptilum rutilellum* Walk. 4, Polisha, Kosempo, Taihorin, in April and October. Widely distributed in the Indo-Malayan region.

*Dacryphanes cyanastra* Meyr. 1, Polisha, in April. Also from Assam.

*Pachypsaltis* nov. gen.

Head with dense loosely appressed scales; ocelli absent; tongue absent. Antennae hardly over  $\frac{1}{2}$ , in ♂ somewhat stout, pubescent, basal joint short, without pecten. Labial palpi moderately long, curved, ascending, strongly thickened with dense appressed scales, second joint slightly rough towards apex beneath, terminal joint as long as second, laterally compressed, obtuse-pointed. Maxillary palpi obsolete. Posterior tibiae shortly rough-scaled above. Forewings with 1b furcate, 2 nearly from angle, 2—4 approximated at base, 7 to about apex, 8—10 rather approximated, 11 from before middle. Hindwings 1, elongate-ovate, cilia  $\frac{4}{5}$ , 2—7 remote, nearly parallel.

I have also an undescribed species of this genus from Ceylon.

*Pachypsaltis insolens* nov. spec. †

♂. 18 mm. Head pale greyish-ochreous. Palpi whitish-ochreous, second joint fuscous except apex. Thorax whitish-ochreous sprinkled with grey. Abdomen whitish-ochreous. Forewings elongate, rather narrow, costa gently arched, apex rounded, termen obliquely rounded; whitish-ochreous, strewn with small scattered undefined dark fuscous strigulae; markings dark fuscous; moderately large spots on costa at base and before  $\frac{1}{3}$ , and smaller ones beyond middle and at  $\frac{2}{3}$ ; two small spots connected beneath by a third on costa at  $\frac{5}{6}$ ; an oval spot beneath and somewhat beyond second costal; a large round-



ish spot on end of cell: cilia whitish-ochreous. Hindwings pale grey; cilia pale greyish-ochreous.

1, Suisharyo, in December.

*Amydria seclusella* Walk. 3, Kosempo, in October. Widely distributed in Indo-Malayan region.

*Adelidae.*

*Nemotois rubrifascia* Christ. 1, Kosempo, in October. Also from Eastern Siberia.

*Nemotois limenites* nov. spec. ✓

♂. 14 mm. Head pale ochreous-yellowish, eyes large, moderately approximated. Palpi short, hairy, whitish. Antennae white, towards base shining dark purple-fuscous, smooth. Thorax dark purple-bronze. Abdomen dark purplish-fuscous. Forewings elongate, slightly dilated posteriorly, costa posteriorly gently arched, apex obtuse, termen very obliquely rounded; 7-9 closely approximated at base; deep bronzy-purple; a very narrow straight whitish median fascia, edged with dark purple-fuscous, widely interrupted in middle; posterior area of wing from near beyond this light violet irregularly strewn with pale ochreous-yellowish and a few dark purple-fuscous scales: cilia purple-golden. Hindwings rather dark purple-fuscous, lighter anteriorly; cilia bronzy-fuscous, with dark purple-fuscous basal shade.

1, Kankau (Koshun), in May. Allied to the Japanese *aurifera*.

*Nemotois fluorites* Meyr. 1, Polisha, in April. Also from Assam.

*Nemotois polychorda* nov. spec. ✓

♂. 25-26 mm. Head ochreous-yellow on crown, face purple-bronze, eyes moderate, widely remote. Antennae whitish, basal fourth dark purplish-fuscous, smooth. (Palpi broken.) Thorax dark purple-bronze. Abdomen dark fuscous. Forewings elongate, rather narrow towards base, posteriorly somewhat dilated, costa faintly sinuate in middle, posteriorly gently arched, apex obtuse, termen very obliquely rounded; 8 and 9 stalked; deep purple; three longitudinal ochreous-yellow streaks from base to middle, edged with dark fuscous and two lower each divided by a dark fuscous line, two upper connected at posterior extremities; a slender rather irregular ochreous-yellow transverse fascia at  $\frac{3}{5}$ , edged first with dark fuscous, then with shining prismatic-blue streaks, then with suffused brown fasciae; apical area beyond this crossed by eight ochreous-yellow longitudinal streaks edged with dark fuscous: cilia

purple-golden. Hindwings dark fuscous with slight purplish reflections, lighter and thinly scaled anteriorly; cilia dark purplish-fuscous, tips paler.

2, Kankau (Koshun), in April. Allied to *amurensis*.

### *Tabanidae* (Dipt.).

By Gertrude Ricardo, London.

The species recorded below were sent to me for identification from the German Entomological Museum. For references and explanation of the groups see my paper Records Indian Museum, IV, Nr. VI, p. 111 (1911), and for species from the same locality in the Budapest Museum. Ann. Mus. Nat. Hungarici, XI, p. 168 (1913).

#### Group II.

Forehead with two callosities separated from each other. Scutellum white or yellow haired. Abdomen with white or yellow haired bands. Tibiae white, fore tibiae curved and sometimes slightly incrassate.

The following two new species may be classed in this group though *Tabanus fulvicinctus* is not quite so typical as *Tabanus quinquecinctus* the scutellum not being so distinctly pale haired, and the pubescence on abdomen not so distinctly arranged in bands.

#### *Tabanus fulvicinctus* ♀ nov. spec.

Type (female) from Sokutsu, IX. 12; two other females from the same locality and one female from Hoozan, 1910.

A medium sized species distinguished by the shining yellowish subcallus. Antennae reddish yellow. Legs black, tibiae white and yellow. Abdomen buckthorn brown with short bright yellow pubescence. Scutellum covered with cinereous tomentum, in contrast with the thorax which is darker in colour. Length of type 12 mill., others from 9–11 mill.

Face drab, covered with whitish tomentum and with white pubescence. Beard white. Palpi light buff, with black hairs, and a few white hairs intermixed, stoutending in a short point. Antennae yellow ochre, the first two points paler with some grey tomentum and black hairs, the tooth on third point small. Forehead drab, with darker streaks, about six times as long as it is broad anteriorly above the subcallus, where it narrows slightly. Frontal callus blackish brown, almost square, not reaching the eyes, the second callus consists