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NEW TORTRICOIDEA (LEPIDOPTERA) FROM SOUTHEAST ASIA IN THE BRITISH MUSEUM (NATURAL HISTORY)

by

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Rijksmuseum van Natuurlijke Historie, Leiden With 8 plates and 9 text-figures

The following stray descriptions and records refer to species from New Guinea, Kei Island, Sumatra and Java. The material is chiefly in the collection of the British Museum (Natural History), London (BM) and also in the Leiden Museum (LM). Four genera and 11 species are discribed on the following pages.

My thanks are due to Mr. Ch. Hoorn, of this museum, for his able printing of the photographs.

TORTRICIDAE: Tortricinae: Archipini

Adoxophyes croesus spec. nov (pl. 1 figs. 1-4)

& 19-21 mm. Head light ochreous mixed with fulvous, face fulvous. Palpus light ochreous-fulvous. Antenna light ochreous. Thorax light ochreous, mixed with fulvous, a large subapical raised crest deep ferruginous. Abdomen light orange-ochreous, anal tuft very large, whitish-ochreous inside.

Fore wing rather broad, truncate, costal fold extremely broad, beyond base reaching almost to middle of wing breadth, thence gradually narrowed to beyond middle of costa, costa curved anteriorly, slightly and somewhat irregularly concave beyond base, gently sinuate posteriorly, apex obtusely rectangular, termen gently concave above, rounded and prominent below, vertical, almost outwards-oblique. Pale ochreous, strewn with concolorous but brightly glossy and slightly curled scales. Markings ferruginous, with narrow, deep ferruginous edges. Basal patch reaching almost to middle, edge prominent below middle, with two acute teeth, lower of these in fold, between prominence and costal fold with a rectangular excision, two spots of ground colour on base of dorsum; space between basal patch and central fascia reduced to a series of four blotches of ground colour, costal and subcostal quadrate, supraplical crescentic, concave anteriorly (dorsal semioval, largest; central

fascia coufluent with costal patch, irregularly-H-shaped, legs rather oblique, median bar broad, submedian, anterior leg from middle of costa, irregularly prominent, with two slender processes below costa anteriorly, a single process posteriorly; upper half of posterior leg (actually, costal patch) from 3/4 to lower end of cell, somewhat curved inward and with one anterior and two posterior long horizontal processes; lower legs short and thick, space between them semioval, suffused with fulvous, partly glossy; three fulvous dots on costa beyond middle just before apex and on 2/3 of termen, respectively. Cilia light ochreous, apical half ferruginous.

Hind wing rather bright yellow-orange, veins and dorsum deeper orange, centre of disc slightly paler. Cilia glossy pale ochreous.

26-27 mm. Head, palpus and thorax somewhat lighter ochreous mixed with fulvous, thorax without dark subapical tuft.

Fore wing longer and slightly narrower than in male, costa rather abruptly prominent in middle. Colouring similar to that in male, but markings rather dissolved by roundish or oval spots of ground colour, so forming an intricate pattern of coarse marbling; basal patch with several spots of lighter colour and ferruginous oblique strigulae; central fascia from before middle of costa, dilated at origin, with four roundish excisions anteriorly, rather straight posteriorly, transverse bar narrow, posterior leg of the H strongly undulate, not reaching tornus, trifid on costa, with a down-curved subhorizontal branch from above middle, limited below by vein 4; all markings well-defined, darkly edged, with interconnecting fine ferruginous marbling; end of terminal veins dark-lined. Cilia light ochreous, from tips rather invaded by ferruginous.

Hind wing as in male, deeper orangeish, with a tawny tinge. Cilia light orange-ochreous, glossy.

Male genitalia. Of the *A. fasciculana* group and very similar to that species, but uncus more clavate, top broader; tuba analis distinct and long, sclerotized perceptibly. Socius very long. Labis with dense and long spines. Pulvinus submedian, costal patch of valva being broad. Valva large, oval, slightly pending. Aedeagus rather straight, moderately thickened along lower half, orifice with a fine ventral cusp. Cornuti, about five slender moderate straight spines.

Female genitalia. Of the usual, rather constant shape. Sterigma, a transverse slightly bent band, narrowed laterally, ostium small, in its middle. Ductus bursae simple, rather narrow and long. Ductus seminalis also narrow and long, branching off just below colliculum which is small, cylindrical, sclerotized. Receptaculum seminis large, reniform. Corpus bursae moderate, ovoid, turned upside-down, signum rather large, a strongly curved smooth

horn of usual shape, but ventral part of orifice strongly extended into an arrowhead-shaped dentate plate.

S.W. Celebes, Lindoe Paloe, 3700 ft, April, 1937, 1 &, holotype, genit. slide 9011, 1 &, allotype, genit. slide 9012, paratypes 5 &, 1 &; Koelawi Paloe, 3100 ft, March, 1937 (J. P. A. Kalis) (Rothschild Bequest, BM.).

Astrosa leucosema Diakonoff, 1951 (pl. 2 fig. 5)

Astrosa leucosema Diakonoff, 1951: 136, figs. 1, 4 (3, Java).

\$\text{\$\text{\$\text{\$\geq}\$}}\$ 12 mm, metallotype.\text{\$\text{\$\geq}\$}\$) Head cream-coloured, vertex orangeish. Antenna pale grey. Thorax orange-brown, with a strong golden gloss, with a large concave, spreading posterior crest and a creamy-white median band. Abdomen dark brown, venter glossy whitish.

Fore wing broadly suboval, little dilated, broadest in middle, costa curved, slightly prominent at 1/4 and 1/2, apex also slightly prominent, subobtuse, termen sinuate above, prominent and moderately rounded on vein 4, rounded below. Light ochreous, semipellucent, finely transversely striated with dark brown raised lines (tips of scales), except costa as far as cell and vein 7 and two large patches on base and in middle of dorsum below fold which are opaque, rich orange-brown, below costa suffused with dark grey; anterior half of costa with suffused black transverse strigulae; a pale yellow costal patch at 1/3 of costa, continued by a brilliant mercury-coloured oblique patch, posterior 2/5 of costa with four pale yellow triangular contiguous spots, posterior just subapical; apex blackish; a series of faint suffused orangeish dots along upper part of termen; several brightly silvery-mercury irregular spots, strewn all over wing, especially along margin and in about four transverse series, also along vein 2; a dark brown terminal line. Cilia (imperfect) pale yellow, barred with dark grey opposite ends of veins, cilia around tornus orange-fuscous, a series of raised dark fuscous tufts along dorsum.

Hind wing 3/4, semipellucent bronze-fuscous with a yellowish-golden gloss and slightly darker veins. Cilia pale fuscous.

Female genitalia. Lobus analis with a subquadrate upper half and a slender lower half. Sterigma formed by a transversely oval plate with a median split, flanked by a subhorizontal aciculate ridge and a subsclerotized eighth sternite with a pair of similar ridges and a wider split. Ductus bursae and bursa copulatrix simple, moderate.

"Key Inseln" (S. Kuhn) (Coll. Staudinger), 1 ♀, metallotype¹), genit. slide 9020 (BM). Undoubtedly conspecific with the male holotype.

¹⁾ The term metallotype (Munro, 1957, in Diptera; adopted by Vári, 1961), denoting the first specimen of the opposite sex to holotype, but cited at a later date, has preference over my recently proposed term "apallotype" (Diakonoff, 1973).

This rather surprising discovery shows that the species must be widely distributed and also has a considerable vertical range; the holotype is from Java, collected at 1400 m altitude.

Capua morosa spec. nov. (fig. 1)

3 12 mm. Head white. Antenna rather thickened, serrulate, ciliations under 1, white, grey-ringed, scape grey. Palpus rather long, porrected, pointed, median segment rather broad, little dilated; grey-fuscous, terminal segment light tawny. Thorax creamy-white, tegulae dark grey-fuscous. Abdomen dark fuscous.



Fig. 1. Capua morosa sp. n., 3, holotype, genitalia (A. C. M. van Dijk delin.).

Fore wing with a costal fold to beyond middle, oblong, moderately dilated, costa gently curved anteriorly, straight posteriorly, apex obtusely pointed, termen gently sinuate above, rounded below, oblique. Dark grey-fuscous with a bronze gloss. An oblique, creamy-white spot in disc from beyond base, extending from above fold to costal fold, thence below this to its 3/4, and crossing costal fold from before its middle to beyond 3/4, on costal edge finely infuscated. Cilia glossy dark grey-fuscous (imperfect).

Hind wing light fuscous-grey with a purplish gloss, cilia concolorous? (imperfect).

Male genitalia. Similar to those of *C. chloraspis*, but differing thus. Considerably less sclerotized. Uncus long, clavate, more slender. Gnathos robust, much longer. Valva simple, oblong-semioval, without a pulvinus. Sacculus

distinct, under 1/2, the characteristic spike at its end slender, shorter than in *chloraspis*, with a triangular base. Aedeagus very similar to that in *chloraspis*.

West Java, Mts. Gede-Panggrango, Tjibodas, 1400 m, V.1949, at light (A. M. Neervoort), 1 &, holotype, genit. slide 8964 (LM). A slender, obscure species. The only specimen is somewhat rubbed, making the edge of the white mark less traceable; the male genitalia, however, are very distinct.

Pandurista euptycha spec. nov. (pl. 2 figs. 8-9)

& 14 mm. Head light fulvous, face pale. Palpus rather short and slender, light fulvous; median segment little dilated, terminal segment pointed. Thorax fulvous, without a crest. Abdomen light reddish-fuscous.

Fore wing subrectangular, oblong, gradually dilated, broadest before termen, costa with a strong, rounded fold from base to before angle, with a broad, flat edge; costa along fold gently curved, apex moderately pointed, termen sinuate above, rounded and prominent below, slightly outwards-oblique. Light fulvous, with a pale lilac tinge posteriorly. Costal fold rather suffused, fuscous-brown, except flat edge. Markings strongly reduced: traces of some five oblique parallel and equidistant transverse lines, narrow and ferruginous, strongly interrupted and reduced to dark oblique rows of small marks; posterior series well-defined, being a straight line from end of costal fold to vein 6, parallel to termen, and an irregular, erect-oval group of small fragments of the same line, almost reaching tornus; costal patch represented by an oblong, ill-defined fulvous-brown suffusion on end of costal fold, somewhat extended anteriorly parallel to edge of that fold. Cilia (imperfect) fulvous with a whitish basal line.

Hind wing 1, semioval, termen sinuate and little oblique. Light fulvouspink, semipellucent at extreme base, deeper pinkish towards apex. Cilia pale fulvous, with a whitish basal line.

Male genitalia. Tegumen high and rather narrow. Uncus long, hooked, top clavate. Socius rather small, partly parietal, partly pending. Gnathos long, rather strong, hook sclerotized, only little curved. Transtilla strong, lateral parts rod-like, middle cordiform. Valva slender, with a broad base; sacculus sclerotized to middle, anterior half broad, ending in a rising long spike, denticulate on top, posterior half of sacculus very narrow. Aedeagus rather short, curved only at base, hardly at apex, apex abruptly narrowed and slightly curved down.

British New Guinea, Hydrographer Mts., 2500 ft, Jan., 1918 (Eichhorn Bros.), 1 3, holotype, genit. slide 9018 (BM).

Rather similar to the type-species of which only females are known. This may be the sex parther, but the different, reduced markings and the light hind wing (dark grey in *P. stictocrossa* Meyrick) speak against this.

Closely allied with *P. encarsiotoma* Diakonoff, from the Snow Range, but differing by shorter, diversely marked fore wing and by the genitalia: these have a less hooked uncus, a distinctly pointed gnathos and the process of the left sacculus (harpe) with a minute knob at its base which in *encarsiotoma* forms a distinct truncate process.

Left sacculus in *P. encarsiotoma* has a double harpe, as is said above; a peculiarity to which not sufficient attention has been paid by me at the time.

Epitymbiini

The present group, erected by Common in 1958 (as a subfamily, Epitymbiinae) occurs chiefly in Australia and New Guinea, with stragglers in other parts of the Indo-Australian Region. Certain species from New Guinea have been assigned by me originally to the "subfamily" Cnephasiinae, now generally regarded a tribe, Cnephasiini (Diakonoff, 1953), but the features of this Holarctic group do not agree with those of the species in question satisfactorily. Therefore I am adopting Common's subfamily in the sense of a tribe, Epitymbiini, being satisfied that it is a natural, though not particularly spectular group of Tortricidae, with an Australian and Papuan distribution.

Drachmobola lobigera spec. nov. (pl. 3 figs. 10-11)

& 11 mm. Head pale fuscous, face cream-coloured. Antenna moderately thickened and flattened dorso-ventrally, short-ciliate, pale ochreous-fuscous, above dark fuscous, pale-ringed. Palpus spindle-shaped, pointed, porrect; pale ochreous, terminal segment whitish. Thorax smooth, light tawny. Abdomen pale fuscous.

Fore wing triagular, moderatly broad, gradually dilated, broadest on dorsum, cilia with a costal fold to 1/2, straight, apex pointed, termen sinuate below apex, rounded below, rather long, vertical. Glossy pale grey, partly closely dusted with dark fuscous. Costal fold suffused with greyish-fuscous; basal patch indicated by sparce, dark fuscous-brown dusting, denser below fold, not reaching costal fold; central fascia together with costal patch forming a large, slightly inwards-oblique, dark brownish-fuscous triangle, with base on costa from 1/3 to over 3/4, acute top on middle of dorsum; this triangle cut by a very outwards-oblique band of ground colour from beyond anterior angle of triangle, to upper 1/3 of posterior side, thus

separating a subtriangular costal patch; less than terminal fourth of wing with numerous dark fuscous interneural strigulae, vertical, mostly cut by veins and forming a fasciate patch resting on tornus, not reaching costa, slightly curved, formed of three rows of strigulae; a pair of almost continuous similar strigulae from costa before apex to middle of termen. Cilia pale ochreous, irregularly barred with dark fuscous, especially along upper half of termen.

Hind wing 4/5, oblong-semioval, termen rounded, dorsum with a large erect-oval prominent lobe; fuscous with a pinkish gloss, dorsal lobe glossy pale grey. Cilia strongly elongate around tornus, spreading over the lobe; paler grey-fuscous.

Male genitalia. Tegumen slender and high. Uncus long, clavate. Socius rather short, clavate, pending. Gnathos long, arms slender, hook about 1/3. Transtilla, a single band. Valva narrow, dilated at base. Sacculus moderate, in middle circularly excised, end of excision exaggerated by strong harpes, anterior long, slender, pointed, posterior obtuse, slightly hooked; right and left sacculi slightly asymmetrical. Aedeagus rather short and broad, sinuate, cornuti, three long spines.

British New Guinea, Hydrographer Mts., 2500 ft, March, 1918 (Eichhorn Bros.), 1 &, holotype, genit. slide 9019 (BM). An interesting novel form with additional features of external structure. However, these structures may be characteristic also for the, so far unknown, male of the type species.

Polydrachma virescens spec. nov. (pl. 2 figs. 6-7)

& 15 mm. Head and thorax light olive-tawny, lower part of face snow-white Palpus pale ochreous-tawny. Abdomen light tawny-ochreous.

Fore wing broad and rather short, suboval, costa gradually curved throughout, with dense, bushy light brown cilia from beyond base to 2/3, apex pointed, termen deeply emarginate, strongly prominent below, distinctly exceeding apex, obliquely curved to tornus. Rather pale olive-green, markings deeper fuscous-olive. Basal patch indicated by a transverse blotch in middle beyond base and by a pair of larger blotches slightly beyond 1/5, upper subtriangular, just above fold, lower fasciate, inwards-oblique, slightly shifted posterad; central fascia represented by two parallel, rather narrow and somewhat irregular transverse fasciae, first from well before middle, second from 3/4 of costa, to just beyond middle and to end of dorsum, respectively; an incomplete, more irregular fascia halfway between preceding and termen, interrupted at upper third, lower part rather zigzagged, to termen well above tornus; a double marginal line from apex to 3/4 of termen,

becoming single below. Cilia (imperfect) glossy pale olive, basal half fuscous-olive.

Hind wing broad, oval, under 1, costa at base with a long fringe of raised (? scent) scales, base of wing on underside densely clothed with brown small scales; light brown with a faint pinkish tinge, over posterior half suffused with greyish-olive becoming darker posteriorly. Cilia concolerous, glossy, lighter.

Male genitalia. Tegumen slender, subclavate. Uncus long, hooked, top rounded. Transtilla, a simple band. Gnathos long, hooked, arms very slender. Socius moderate, pending. Valva oblong, moderately narrow, dilated at base. Left sacculus, with a little curved, obtuse apical process; right sacculus, with a twice as strong clavate thickening. Aedeagus inverted-clavate, not curved; cornuti, two very large inequal spikes.

British New Guinea, Hydrographer Mts., 2500 ft, March, 1918 (Eichhorn Bros.) (Rothschild Bequest, BM 1939-1), 1 &, holotype, genit. slide 9017; 1 &, paratype (BM).

Olethreutinae, Laspeyresiini

Grapholitha (Grapholitha) caudicula spec. nov. (pl. 3 figs. 12-13)

3 7 mm. Head black, face and a logitudinal stripe over forehead and vertex white. Palpus subascending, slightly curved, dilated with roughish scales above and beneath, terminal segment moderate, pointed, porrected and exposed. Antenna thickened, black. Thorax black with a greyish median spot anteriorly, posterior half dusted with pale grey (tips of scales). Abdomen black, only valvae snow-white.

Fore wing broad, suboval, dilated, costa slightly curved throughout, apex rounded, termen rounded, slightly notched below apex, little oblique. Ground colour pale grey. Basal patch over 1/3, edge indicated by a gradually curved fuscous-brownish fascia with a faint bronze gloss, narrow as far as fold, four times as broad below fold; base of patch dark fuscous, remainder light grey, mixed with darker and anteriorly, with dark fuscous; along costa with five dark strigulae, space beyond patch light silvery-grey, marbled with darker dull grey, on costa with four pairs of silvery-white strigulae; anterior two of these greyish, hardly parted; central fascia at 2/3, vertical, dark fuscous, strongly serrate on both sides, somewhat narrower along lower half, top dilated below costa, with a slender oblique streak to middle of costa; posterior half of costa dark fuscous, with six silvery-white transverse marks, anterior four pairs hardly parted, appearing single, posterior two marks single, more distant, ultimate subapical; a golden-bronze faint sheen surrounding ventral fascia; a thick, faint, leaden-silvery subapical streak, at

end dilated into a pale spot just before last costal strigula; ocelloid spot large, evenly leaden-grey, erected-oval, crowned by large roundish pale grey-ochreous spot above middle of wing beyond cell, obscured by dull grey dotting and dark-lined veins; terminal area grey, irregularly spotted with whitish-grey; veins beyond cell throughout more or less lined with dark grey. Cilia (damaged) black, with a white basal line and tips.

Hind wing reddish-brown, towards and in cell whitish; termen with a slight prominent lobe opposite (approximated) veins 3 and 4. Cilia along termen glossy whitish with a broad subbasal fuscous band and a pale basal line, around terminal lobe strongly elongate, evenly black, in this way exaggerating this lobe to such an extent as to form a dark rounded tail.

Male genitalia. Tegumen slender, high. Uncus moderate, conical, forming continuation of tegumen outline. Valva rather robust, sacculus 1/2, excision to half of breadth of disc; edge of sacculus submarginal, slender, not sclerotized; an edge parallel to this at middle of disc; costa almost straight, hardly prominent in middle. Cucullus semioval, edge densely bristled. Aedeagus long and very slender, attenuated, bent before middle. Cornuti not traceable.

North Borneo, Sarawak, Mt. Dulit, 4000 ft, 26.X.1932, light traps, Oxford University Expedition (B. M. Hobby & A. W. Moore), BM 1933-254, 1 3, holotype, genit. slide 9021 (BM).

Eucosmini

Parepisimia gen. nov.

Head with dense roughly appressed scales, very dense on forehead, face smooth. Ocellus posterior. Proboscis short. Antenna thickened in male, simple. Palpus moderate, subascending, basal and median segments dilated at apex with roughly projecting scales, terminal segment smooth short obtuse exposed. Thorax smooth. Abdomen normal. Posterior tibia normal.

Fore wing truncate-suboval, moderately dilated, costa moderately curved at extremities, apex and termen rounded. Vein 2 from well before angle of cell, 3 from angle, 4 much closer to 3 at base, 5 and 6 rather straight, 7 to termen just below apex, at base almost connate with 8, 8 and 9 stalked, from angle of cell, 11 from beyond middle, veins in cell not perceptible.

Hind wing slightly under 1, semioval, with a cubital pecten. Vein 2 from 3/5, 3 and 4 connate from angle, 5 closely approximated at base, 6 and 7 rather closely approximated towards base.

Male genitalia. Tegumen moderate, oval. Uncus very short, conical, excised ventrally, bristled along excision. Socius large, pending, broadly oval,

long-bristled. Valva long and slender, slightly bent, costa with a triangular subbasal prominence, cucullus long, slender, rather curved at base, except at top, densely bristled. Aedeagus short, cylindrical, slightly sclerotized.

Female genitalia unknown.

Type-species, Parepisimia chrysoplea spec. nov.

Two earlier described species, belonging here are *Parepisimia relapsa* (Meyrick) comb. nov., from Ceylon and *P. catherota* (Meyrick) comb. nov., from Andaman Is., both assigned by that author to *Statherotis* Meyrick. However, that genus belongs to the Olethreutini, while the present genus belongs to the Eucosmini, as already pointed out by me earlier for the two last mentioned species (1973).

The genus may be separated from *Statherotis* easily by the genitalia, but also by the peculiar origin of vein 2 in the fore wing and the absence of intracellular veins and by the rather distant veins 6 and 7 in the hind wing. The three species are very uniform and represent a closely related natural group.

Parepisimia chrysoplea spec. nov. (fig. 2, pl. 5 fig. 16)

& 11 mm. Head and scape of antenna cream-coloured, flagelum dark brown. Palpus golden-ochreous, median segment slightly streaked with brown outwardly, its tip mixed with whitish, palpus white inside. Thorax dark fuscous. Abdomen pale golden-ochreous.

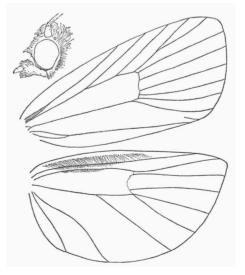


Fig. 2. Parepisimia chrysoplea g. et sp. n., 3, sketch of head and wing neuration.

Fore wing broadly suboval, truncate, moderately dilated, costa curved at base, straight in middle, gently curved posteriorly, apex obtuse, termen gently convex. Light ochreous-golden with a faint silky gloss, along dark markings narrowly paler and more glossy. Basal patch bronze-fuscous, to beyond 1/4, edge tolerably straight, gently inwards-oblique, finely and irregularly serrulate; central fascia broad, (about 1/5), hardly oblique above, straight to middle, there projecting posteriorly, emarginate anteriorly, thence straight again but somewhat narrower, lower fourth abruptly prominent posteriorly; bronze-fuscous, slightly paler than basal patch, minutely edged with dark fuscous; costa with two minute brown strigulae between patch and fascia and with two bronze dots beyond it; a larger, oblong apical dot, a series of small bronze dots on ends of veins; a faint pale brownish subapical spot in disc, finely strigulated with vertical darker brownish small lines, those along anterior edge of patch continued downwards, also posterior edge somewhat darker; a faint irregular connection with apex. Cilia dull fuscous, posterior half strongly mixed with deep fuscous-bronze.

Hind wing pale greyish-ochreous, costa from beyond base to middle with a flat oblong area of dense modified androconial concolorous scales. Cilia concolorous, with a minute darkish subbasal and a pale basal line.

Male genitalia, as described with the genus above.

Rossel Island, Mt. Rossel, 2100 ft, Dec., 1915 (W. F. Eichhorn), 1 & holotype, genit. slide 7962 (BM).

Very similar to *P. relapsa* (Meyrick) comb. nov., but deeper ochreousgolden and differently marked, also with the costal androconial patch in the hind wing, absent in *relapsa*; *P. catharota* (Meyrick) comb. nov. does have a longer hair pencil at that place. Both these species have a different tegumen, apparently without uncus.

Eucosmogastra gen. nov.

Head with appressed scales. Ocellus posterior. Proboscis developed. Antenna in male thickened, minutely ciliated. Palpus moderate, slender, with closely appressed scales, median segment straight, roughish below, slightly dilated towards apex, terminal segment very short, subobtuse, pending. Thorax without crest? (rubbed). Posterior tibia in male normally short-scaled, without pencil. Abdomen with complicated coremata (see below).

Fore wing oblong-subtruncate, costa gently curved throughout, more curved at extremities, apex rounded, termen hardly convex, vertical above, rounded beneath. Vein 2 from 3/5, 3 from angle, 3-5 rather remote and equidistant, 7 separate, to termen, curved downwards at apex, 8 from upper angle, 7-9 equidistant, 10 from middle of distance 9-11, 11 from before

middle, chorda from well before base of 10 to base of 7, median branch to midway between 4 and 5.

Hind wing without a cubital pecten, instead a spread bunch of hairs under base of lower edge of cell; broadly semioval, over 1, dorsum with a narrow downward roll, containing scales which project in a small tuft caudally. Vein 2 from 3/5, 3 and 4 closely approximated from angle, 5 remote, slightly approximated at base, 6 and 7 separate, slightly approximated towards base.

Male genitalia. Tegumen + vinculum spheroidal. Uncus, a small transverse fold, hairy above, spined beneath under the top of tegumen. Socius pending, rigid, densely covered with recurved, flattened, obtuse spines. Gnathos, a sinuate transverse band with dense flat and pointed spines at the sides. Valva narrow, top of sacculus with a prominent hairy tumescense. Aedeagus very short, with numerous cornuti (scars only).

Abdomen with the 6th ventrite bearing a quadrate median pocket-like fold, with a corema at each side; this fold flanked rostrally by two transverse-oval, corrugated sclerites with irregularly rolled and scalloped edges, bearing several diversely shaped pencil-like laterad-directed coremata: inner, of bristly gradually curved long hairs, outer, of flat broad scales and median, a sheaf of sinuate bristles.

Type-species, *Eucosmogastra anthochroa* spec. nov. (New Guinea). The gender of the generic name is feminine.

A peculiar form strongly resembling an olethreutine (*Costosa* Diakonoff), but actually belonging to the Eucosmini.

Eucosmogastra anthochroa spec. nov. (fig. 3, pl. 4 figs. 14-15)

& 15 mm. Head and thorax fulvous-orange, vertex suffused with red. Palpus paler orange-fulvous. Abdomen fuscous, towards base gradually becoming greyish above and below, tip blackish.

Fore wing oblong-subtruncate, costa curved, more so at extremities, apex rounded, termen hardly convex above, vertical, rounded beneath. Fulvous-ferruginous, anterior third of costa, base and dorsum throughout, obscured with minute, dense transverse, deep purplish-black strigulae and dusting, strigulation more distinct on costa; a whitish, dark-dusted, oblique, transverse patch from costa before middle, to middle of wing, apparently wedge-shaped, on costa followed by a rather broad, fasciate suffusion, running obliquely towards middle of termen but not reaching it; this suffusion deep ferruginous-red, on costa suffused with black, on lower half of wing turning into a light orange suffusion, filling out tornus; this fascia preceded and followed by rather bright violet, posteriorly also edged with violet-whitish;

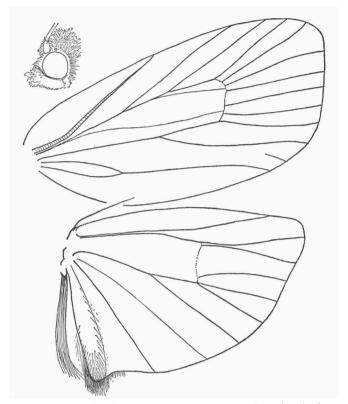


Fig. 3. Eucosmogastra anthochroa g. et sp. n., 3, sketch of head and wing neuration.

posterior part of costa and apex with a ferruginous streak, its edge well-defined and scalloped. Cilia (damaged) purple.

Hind wing ferruginous-brown, becoming paler towards base; pale yellow markings: an elongate spot in posterior third of cell, a similar, longer spot above and beyond this, inwards-oblique; scales within dorsal roll modified, white. Cilia (damaged) dark purple-fuscous.

Male genitalia and coremata as described with the genus.

New Guinea, Milne Bay (A. S. Meek) (Walsingham Coll., BM), I &, holotype, genit. slide 7702 (BM). An elegantly coloured species; the specimen is rubbed, but sufficiently recognisable.

Olethreutini

Kennelia Rebel, 1901

Anomalopteryx Kennel, 1900: 157, pl. 5 figs. 33-35 (type species, A. xylinana Kennel, 1900, Amur) nom. praeocc.: nec Anomalopteryx Reichenbach [1853], Aves; nec Anomalopteryx Stein, 1874, Trichoptera. — Fernald, 1908: 47, 63. — Fletcher, 1929: 15 (syn. of Argyroploce).

Kennelia Rebel, 1991: 263 (nom. nov. pro Anomalopteryx Kennel, type species, Anomalopteryx xylinana Kennel). — Fernald, 1908: 47, 63. — Fletcher, 1929: 120 (syn. of Argyroploce).

Lipsotelus Kennel, 1910: 450, nec Walsingham, 1900 (type-species, Anomalopteryx xylinana Kennel).

Head with appressed scales, collar thick. Ocellus posterior. Proboscis moderate or vestigial (in type-species). Antenna simple or minutely ciliated, gently thickened in male, subserrulate. Palpus long and broad, $1/2 \times$ diameter eye projecting beyond face, porrected, gently sinuate, median segment with rounded apex, terminal segment exposed, pointed, rather short. Thorax smooth. Posterior tibia in male normal, without pencil.

Fore wing oblong-truncate, costa strongly sinuate, more or less prominent at 2/3 or 3/4, apex pointed, termen sinuate above, rounded-prominent beneath. Vein 2 from beyond 2/3, 3 from angle, 3-5 equidistant, 6 parallel, 7 free to termen, at base more or less closely approximated to 8, both from around angle, 9 from 1/2-2/3 distance 10-8, 10 from middle distance 11-9, 11 from middle of cell; chorda from before base of 10 to base of 7, median branch to below base of 5.

Hind wing slightly over 1, subtrapezoidal, obtusely pointed, termen sinuate. Vein 2 from 3/4-3/5, 3 and 4 connate from angle, 5 closely approximated, almost connate at base, 6 and 7 closely approximated towards base, basal part of these veins curved (concave above).

Male genitalia. Tegumen rather high. Uncus short, rigid, clavate, top truncate. Socius rounded-triangular, rather large or moderate. Gnathos not perceptible, tuba analis broad and membraneous. Valva long and rather narrow, constricted in middle, sacculus little modified, with towards apex a patch of fine bristles in disc; cucullus obliquely-oval, densely bristled. Aedeagus short, slender and curved. Cornuti, a sheaf of long spines.

Female genitalia. Lobus analis long and slender. Sterigma, a simple tube becoming gently sclerotized towards ostium which is small, with curved edge; border of ostium and colliculum widened; colliculum more slender, less sclerotized, straight. Ductus bursae coiled twice at base. Corpus bursae flattened pear-shaped. No signa.

A peculiar genus with eucosmine affinities, but judging from the presence of an uncus and the connate veins 3 and 4 in the hind wing, an olethreutine. The fore wing in the type species is rather narrow, in *K. albifacies* it is much broader, more dilated, with a strongly sinuate costa, so being extremely similar to the species of the genus *Lipsotelus* Walsingham, the reason why the last mentioned species has been described in *Lipsotelus*.

In my recent revision of the tribe Olethreutini (1973) I excluded Kennelia, but am now satisfied that it should also belong here. The female geni-

talia are of eucosmine appearance, but lack a signum and therefore are not very instructive.

Kennelia xylinana (Kennel, 1900) (fig. 8, pl. 6 figs. 18-19)

Anomalopteryx xylinana Kennel, 1900: 157, 158, pl. 5 figs. 33-35 (Seifun; Amur: Sutschan).

Kennelia xylinana; Rebel, 1901: 263. Lipsotelus xylinana; Kennel, 1908: 450.

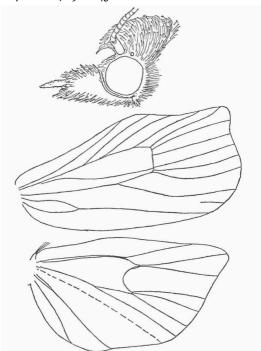


Fig. 8. Kennelia xylinana (Kennel), Q, sketch of head and wing neuration.

Distribution. Far East: Seifun, Amur region.

Far East, Vladivostok, Okeanskaya Biological Station, 27-28.vii.1963 (Falkovitch), 1 &, 1 &, genit. slides 7986, 7987, respectively (LM). [China], Ta-tsien-Zan (Chasseurs du P. Dejean), 1 &, genit. slide 6643.

An elegant species with narrow fore wing, with costa curved at base, gently concave before middle, stronger curved and prominent at 3/4, appearing concave again before apex, apex subrectangular, slightly prominent, termen vertical below apex, strongly rounded and prominent below this. The greyish-fuscous ground-colour is cut by numerous whitish and a few blackish longitudinal lines, producing the effect of wood surface with grain; costa suffused with ferruginous and with numerous white and dark transverse marks, dorsum below fold darker grey, less striped.

Hind wing pale fuscous-grey, veins narrowly dark, apical half as far as vein 5 and some suffusion along vein 1b, darker fuscous; dorsum in male normal, only dorsal cilia long and whitish.

Hind tibia normal, without pencil.

Male and female genitalia as described with the genus.

Kennelia albifacies (Walsingham, 1900) comb. nov.

Lipsotelus albifacies Walsingham, in Swinhoe, 1900: 570, no. 3679 (3, China, India). Argyroploce corthyntis Meyrick, 1909: 596 (32, Ceylon). — Clarke, 1955: 101. Syn. nov.

Olethreutes corthyntis; Clarke, 1958: 499, pl. 248 figs. 2-2a (lectotype, &, designated, wings, genit. figured).

Distribution. China; Ichang (holotype); India: Ootacamund.

India, Ootacamund, 7-8000 ft (Walsingham Coll.), 1 &, genit. slide 7898; this apparently is a paratype. Nilgiris (Hampson Coll.), 1 &, 1 &, genit. slide 7988 (BM).

Ceylon, Patipola, J.P., 5.06 (Meyrick Coll.), 1 \, without abdomen (BM). Hakgala, E.E.G., .4.07 (Meyrick Collection), 1 \, \frac{1}{2}\, \text{genit. slides} 6640BM, 6641BM. Patipola, A. .5.06 (Meyrick Collection), 1 \, \frac{2}{2}\, \text{genit. slide} 6643BM (BM).

The species resembles K. xylinana but has a strongly dilated fore wing, with costal curves exaggerated, stronger rounded and projecting at 2/3, deeply concave before apex, apex acute, termen more gradually sinuate than in Kennel's species. Fore wing greyish-white, variably infuscated, in pale specimens with dark interneural lines beyond cell, veins minutely darker grey; a small semioval dark grey spot on middle of costa, apex blackish.

Hind wing evenly pale grey with a bronze tinge, subpellucent, veins darker; apex more pointed than in xylinana.

Male genitalia. Extremely similar to those of the type-species, but with a shorter and more robust uncus and a markedly smaller socius; aedeagus also smaller.

Female genitalia. Similar to those of *K. xylinana* but sterigma more sclerotized, ostium tube shorter, almost cup-shaped. Colliculum broader and darker. Last coil of ductus bursae faintly sclerotized, with a dark wall.

Closely allied to K. xylinana Kennel.

Scoliographa gen. nov.

Head with dense appressed scales, an appressed crest on vertex. Antenna short-ciliated in male. Palpus subascending, median segment dilated by

appressed scales above and beneath, spindle-shaped, terminal segment moderate, subobtuse, exposed. Thorax with a raised posterior crest. Posterior tibia and abdomen normal.

Fore wing moderately broad, dilated, costa without fold, apex rounded, termen gently concave, little oblique. Vein 2 from 2/3, 3 sinuate, from angle, 3-5 equidistant, 6 and 7 straight and parallel, 7 to termen, 8 closely approximated at base, from angle, 9 close to 8, 11 from before middle, chorda not perceptible, median branch distinct, to below base of 5.

Hind wing almost 1, with a cubital pecten. Vein 2 from beyond 2/3, 3 and 4 short-stalked from angle, 5 closely approximated at base, 6 and 7 stalked.

Male genitalia. Tegumen rather strong, rectangular, high. Uncus strong, hooked, from top almost to base on each side with a row of dense and strong spiny bristles. Socius small, pending. Tuba analis weak. Valva strongly constricted in middle, being deeply emarginate ventrally, sacculus rather rectangular; cucullus obliquely triangular, very strong, densely covered with long dark bristles, reaching halfway to emargination. Caulis long and strong. Aedeagus sclerotized, slender, long, curved.

Female genitalia. Seventh and eighth segments darkly sclerotized. Sterigma large, forming a broad curved transverse crevice, with down-turned ends and dark edges, upper edge of lamella antevaginalis so being convex, lamella postvaginalis indefinite in middle, with down-curving folds laterally. Colliculum large, cylindrical or spindle-shaped, lower end flattened. Corpus bursae densely punctulate. Signum one, an oval, hollow sack-like sclerite.

Type-species, Argyroploce hoplista Meyrick.

The species has been assigned to several genera, the last being Matsumura-eses Issiki. However, this cannot be correct, for the strong and laterally bristled uncus and the sclerotized female genitalia are strikingly different. Only the valva has some superficial similarity with that in Matsumuraeses (belonging to the Laspeyresiini) which must be incidental.

In spite of some points of similarity with the genus *Endothenia* Stephens (Olethreutini), e.g., the bristled uncus and the concave signum, I prefer to separate the present new genus, judging from the differences in neuration of the hind wing and the shape of the valva.

Scoliographa hoplista (Meyrick, 1927) comb. nov. (figs. 4-6)

Argyroploce hoplista Meyrick, 1927: 340 (39, Sumatra). — Clarke, 1955: 162. Endothenia hoplista; Meyrick, 1936: 24 (Formosa, foodplants).

Olethreutes hoplista; Clarke, 1958: 519, pl. 258, figs. 4-4a (lectotype designated, wings, genitalia & figured).

Matsumuraeses hoplista; Obraztsov, 1967: 34 (genitalia & described).

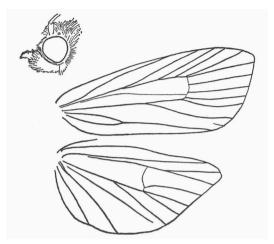


Fig. 4. Scoliographa hoplista (Meyrick) comb. n., &, sketch of head and wing neuration.

Distribution. Sumatra. India. Formosa.

Foodplant. Perilla frutescens (Labiatae), Barleria (Acanthaceae).

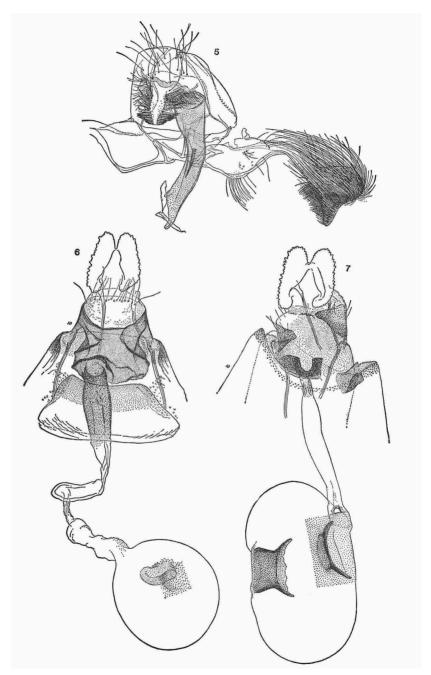
Sumatra, Sinabaëng, bred 7.25 (in Meyrick's hand, Meyrick Coll., BM), 1 9, genit. slide 8124 (BM). This is Meyrick's syntype.

Thysanocrepis celebensis spec. nov (fig. 7)

Q 18.5 mm. Head (damaged) pale ochreous, mixed with dark fuscous. Palpus light ochreous, a purplish lateral dot, fringe of lower edge purple; terminal segment pale ochreous. Thorax ochreous-fuscous, tegula light ochreous. Abdomen fuscous.

Fore wing oblong-truncate, costa curved at base, deeply concave in middle, convex again before apex, apex pointed, termen long, gently sinuate above, little oblique. Pale ochreous-grey, finely transversely striated with fuscous (tips of scales), indistinctly marbled with pale fuscous, veins irregularly streaked with fuscous. Costa with a median well defined semioval purplish spot; preceded by three purplish dots, alternating with dark points; median spot followed by three smaller semioval dots, also alternating with dark points; posterior two of these marks suffused and reaching apex as a continuous dark streak, extending over termen below apex and cut by a subapical yellow bar (other markings either absent or rubbed). Cilia (imperfect) pale yellowish-ochreous, basal half with a grey-fuscous band, tips partly mixed with fuscous.

Hind wing light bronze-fuscous, minutely striated with darker (extreme tips of scales). Cilia light ochreous mixed with grey-fuscous along apical half, except opposite apex.



Figs. 5-7. Genitalia of Olethreutini. 5. Scoliographa hoplista (Meyrick) comb. n., &, slide 4960; 6, the same, \(\beta \), slide 7532; 7. Thysanocrepis celebensis sp. n., \(\beta \), holotype (A. C. M. van Dijk delin.).

Female genitalia. Sterigma simple. Lamella antevaginalis densely aciculate, deeply emarginate in middle. Colliculum short, slightly plicate lengthwise. Ductus bursae simple. Signa two, large, inequal, denticulate, basal plate with two horn-like processes opposite one another.

West Celebes, Lindoe Paloe, 3700 ft. April, 1937 (J. P. A. Kalis), 1 \, holotype, genit. slide 8758 (BM).

An enigmatic species, superficially very similar to the type species and originally confounded with it, but with different genitalia, surprisingly rather resembling those of *Neopotamia tornocroca* Diakonoff, 1973; especially the signa are striking and large but not exactly of the same kind, being denticulate throughout and not with a rough but unarmed surface, as is usual in the subtribe Neopotamiae (tribe Olethreutini). Therefore I am assigning this insect tentatively to the present genus, pending the discovery of the male, because of congruent neuration and facies. In *Neopotamia the* neuration is distinct.

CHOREUTINAE

Ganabalia gen. nov.

Head with appressed scales, roughly spreading on vertex. Ocellus posterior. Proboscis vestigial. Antenna slightly thickened in male, shortly biciliate. Palpus rather long, projecting over diameter of eye beyond face, gently sinuate, median segment slender, along posterior half gradually dilated with scales, roughish above and beneath, especially at apex, terminal segment very short, pointed, hardly exposed. (Thorax denuded). Posterior tibia moderately thickened with appressed bristly scales inwardly, outwardly with a large, flat and smooth, oval dense brush of scales, dilating tibia more than twice its diameter, a spreading dense brush-like pencil of additional hair-scales from base on inner side, reaching middle of tibia; tarsus normal. Abdomen normal.

Fore wing broad, truncate, little dilated, costa gently curved, apex obtusely pointed, termen gently rounded. Vein 2 from beyond middle, 3 from angle, 4 close to 3 at base, 5 straight and distant, 7 to termen, 8 from apex of cell, 9 approximated, 11 from before middle of cell, chorda from before base of 10, to base of 7, median branch to below base of 5.

Hind wing slightly under 1, with a cubital pecten. Vein 2 from 2/3, 3 and 4 short-stalked, 5 closely approximated at base, 6 and 7 closely approximated towards base.

Male genitalia. Tegumen strong and high, a simple bow. Vinculum with a large and rather broad saccus. Tuba analis weak and somewhat irregular.

Valva short and robust, narrow, cucullus transversely extended, mushroom-shaped, bristled along edge, ventrally forming a marginal patch of dense, very short spines. Aedeagus sclerotized, curved, apical half flattened dorso-ventrally, caulis strong.

Type species, Ganabalia planipes spec. nov.

A novel form of considerable interest, combining basical features of the Olethreutinae, viz. the cubital pecten, with those of the Choreutidae, viz. the saccus. The simple robust tegumen and the short valvae resemble most certain species, so far assigned to the genus *Brenthia* Clemens. The single male available has a superficial resemblance to a species of *Gatesclarkeana* Diakonoff (Olethreutini)!

Ganabalia planipes spec. nov. (fig. 9, pl. 8 fig. 22)

3 15.5 mm. Head dark fuscous, tips of scales pale ochreous or whitish. Palpus dark fuscous, basal segment pale ochreous, median with two pale ochreous oblique suffused streaks. (Thorax denuded). Posterior leg outwardly throughout glossy light fuscous-grey; tibia inwardly black, mixed laterally with glossy light-grey, flat tuft at the inner side opalescent pale crimson, tuft from base dark fuscous, dorsally pale ochreous; posterior tarsus normal, light yellow. Abdomen dark fuscous-brown, venter fuscous-grey.

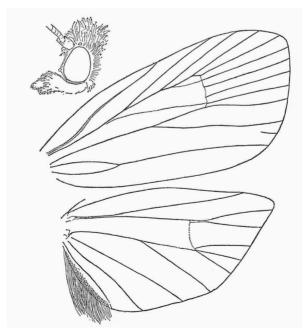


Fig. 9. Ganabalia planipes g. et sp. n., 3, sketch of head and wing neuration.

Fore wing truncate, rather broad, dilated, costa gently curved, more so at base, apex obtusely pointed, termen gently rounded. Pale ochreous, densely striated with brown (tips of scales). Basal patch well over 1/4, on costa represented by a deep fuscous oval spot, on lower 2/3 of base of wing obliterate (rubbed?), space beyond the spot rather obscured with ferruginous-brown, on costal edge with two pairs of small white marks; a broad deep ferruginous-brown transverse band, occupying over third fourth of costa, to end of dorsum, suffused and moderately concave anteriorly, well defined and edged with a dark brown line, preceded by a minute pale line posteriorly, forming a triangular acute prominence at 1/3, filled out except marginal dark and pale lines, with metallic leaden; apex beyond fascia narrow, straight, moderately attenuated downward, on costa with a bright pair of large white dots, wing beyond these rather suffused with ferruginousbrown, with an oblique darker brown fasciate spot, descending to middle of termen; above and below this spot a large patch of metallic leaden scales, roundish patches of similar metallic scales with a strong gloss, scattered all over wing; costal margin between white marks with a few small ochreous points; a deep ferruginous-bronze dot in apex and a similar terminal line, along lower half more or less broken into vertical marks on ends of veins. Cilia glossy deep bronze-brown.

Hind wing dark brown-bronze, towards base becoming suffused with dull blackish-grey, costa broadly snow-white and glossy. Cilia white, with a narrow light bronze basal band.

Male genitalia, as described with the genus above.

South Celebes, low country, 1896 (Doherty), 1 &, holotype, genit. slide 8027 (Walsingham Coll. BM 1910-427) (BM). The species is superficially somewhat resembling a *Gatesclarkeana*.

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Plate 1

Adoxophyes croesus sp. n., genitalia. Fig. 1, δ , holotype; fig. 2, the same, aedeagus; fig. 3, \mathfrak{P} , allotype; 4, the same, bursa copulatrix.

Plate 2

Genitalia of Tortricidae. Fig. 5, Astrosa leucosema sp. n., \mathcal{D} , holotype; fig. 6, Polydrachma virescens sp. n., \mathcal{D} , holotype; fig. 7, the same, aedeagus; fig. 8, Pandurista euptycha sp. n., holotype, \mathcal{D} ; fig. 9, the same, aedeagus.

Plate 3

Genitalia of Tortricidae. 10, *Drachmobola lobigera* sp. n., holotype, &; 11, the same, aedeagus; fig. 12, *Grapholitha* (G.) caudicula sp. n., holotype, &; fig. 13, the same, coremata.

Plate 4

Eucosmogastra anthochroa g. et sp. n., holotype, 3. Fig. 14, genitalia; fig. 15, coremata.

Plate 5

Genitalia of Tortricidae, males. Fig. 16, Parepisimia chrysoplea g. et sp. n., holotype; fig. 17, Kennelia albifacies (Walsingham) comb. n., slide 6640 BM.

Plate 6

Genitalia of *Kennelia xylinana* (Kennel) comb. n., female, slide 6643 BM. Fig. 18, sterigma; fig. 19, bursa copulatrix.

Plate 7

Genitalia of Kennelia albifacies (Walsingham) comb. n., female, slide 6641 BM, fig. 20, sterigma; fig. 21, bursa copulatrix.

Plate 8

Fig. 22, Ganabalia planipes, male genitalia, holotype.

