

RECORDS AND DESCRIPTIONS OF MICROLEPIDOPTERA (4)

by

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In the present paper are given additional records and descriptions of Malayan Tortricidae which family has been revised more elaborately in previous parts of this series. Furthermore a few data on Amphitheridae are added, this interesting family being very little known from the region in question; and a revision of Adelidae with a key to the Malayan species of *Nemophora* is presented. The material studied originates chiefly from Java but includes also a few species of the latter family from Sumatra, Borneo and Celebes.

Altogether one genus, eighteen species and one subspecies are described as new, and three species of WALKER redescribed. Three species of Adelidae recorded from this region previously are not represented in our collection; they are included in the above mentioned key.

The types will be deposited at the Rijksmuseum voor Natuurlijke Historie of Leiden, Netherlands.

We are greatly indebted to Mr J. D. BRADLEY, Department of Lepidoptera, British Museum (Natural History), London, for his never failing and most generous help with elaborate information on WALKER's types in the National Collection; and to Dr C. O. VAN REGTEREN ALTENA, of the Rijksmuseum voor Natuurlijke Historie, Leiden for the same kindness with regard to the material in that Museum.

TORTRICIDAE

Epagoge mellosa spec. nov. (figs 2-3).

♀ 10 mm. Head ochreous-yellow, side-tufts spreading, mixed with brown. Antenna fuscous. Palpus rather short, strongly triangularly dilated and somewhat expanded with roughly projecting scales above and beneath, terminal segment almost concealed; ochreous, slightly mixed and entirely suffused towards apex with fuscous-brown. Thorax deep brown. Abdomen fuscous-brown, venter pale ochreous. Legs pale ochreous, more or less infuscated, tarsi dark fuscous, whitish-ringed. Fore wing elongate, moder-

ately broad, broadest in middle, costa considerably curved along basal third, almost straight posteriorly, apex obtusely pointed, termen straight, oblique. Light bronze-brown, with purplish gloss in certain lights, slightly glossy, basal area more fuscous-brown. Markings glossy pale ochreous suffused (except along margins) with deep yellowish-ochreous, well-defined. A broad transverse band at about $\frac{1}{4}$, gradually slightly dilated downward, costal portion moderately curved proximad, dorsal vertical, anterior edge gently concave, tolerably vertical, posterior convex above; this band includes a small brown costal dot and a few brownish scales along middle; an oblique transverse fascia from $\frac{3}{5}$ of costa to tornus (in left wing not reaching tornus), rather abruptly but moderately narrowed in middle, upper portion subquadrate, including a small brown costal dot, lower portion transverse-ovate; transverse fasciae of dull deep brown, first one about median, upper portion narrow, edging second yellow band anteriorly, above middle of disc abruptly dilated, thence edging lower portion of first band posteriorly, connected by indistinct brown irroration along dorsum with narrow dull dark brown edge of lower half of second yellow band; second, broader dull deep brown fascia edging latter band posteriorly, with an equally broad branch from above middle to costa before apex; a minute dark brown subapical line; a few pale ochreous scales on costa posteriorly and an ochreous dot in extreme apex. Cilia pale ochreous, a purplish-brown antemedian band, traversed by pale ochreous bar opposite apex, tornal cilia fuscous-bronze. Hind wing with veins 6 and 7 long-stalked, 3 and 4 connate; fuscous-coppery, glossy. Cilia paler.

Ovipositor lobe (fig. 2) elongate. Limen, a submembraneous, minutely punctulate band. Ostium not modified. Ductus bursae long, narrow. Signum (fig. 3) a minute horn (Slide No. 1220 D, type).

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, iv.1949 (A. M. NEERVOORT). One specimen. Quite distinct, elegant species, not related with any Malayan *Epagoge*.

***Cacoecia alloica* DIAKONOFF, 1948.**

Cacoecia alloica DIAKONOFF, 1948, Treubia 19: 509-510.

Distribution: West Java, Sukabumi, 600-1200 m.

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, x.1949 (A. M. NEERVOORT). One male.

***Syndemis axigera talina* DIAKONOFF, 1941.**

Syndemis axigera talina DIAKONOFF, 1941, Treubia 18: 421.

Distribution: East Java, Tengger Mts, 1300 m.

West Java, Mts Gedé-Pangrango, Tjipanas, 1100 m, 10.x.1948 (author). Bogor (= Buitenzorg), 250 m, 6.xii.1948 (A. C. V. VAN BEMMEL). Three females, exactly similar to the original material from East Java.

***Syndemis mjae* DIAKONOFF, 1948.**

Syndemis mjae DIAKONOFF, 1948, *Treubia* 19: 510-511, fig. 8.

Distribution: West Java, Mt Pangrango, Tjisarua Zuid Est., 1000 m.

West Java, Pengalengan Plateau, Wanasari, 1400 m, 20.xi.1949 (L. J. TOXOPEUS). One male.

***Astrosa* gen. nov. (figs 1, 4).**

Head with appressed scales, side tufts roughly spreading, a small flattened tuft above face. Ocellus large, posterior. Proboscis weak. Antenna $\frac{2}{3}$, in male dentate, dentations with fascicles of cilia (over 1). Palpus moderately long, porrect, median segment slightly sinuate, abruptly



Fig. 1. *Astrosa leucosema* n.g.n.sp., ♂, head and wing neuration.

strongly dilated beyond middle, with rough scales above and beneath, terminal segment moderate, roughish above and beneath, subtruncate, slightly drooping. Thorax with long rather narrow tegulae and moderate lateral crests converging at apex. Fore wing without costal fold, with minute tufts of raised scales, very broad, short, costa prominent in middle, termen

concave above, rounded beneath. 2 from well beyond $\frac{2}{3}$, 3 from angle, approximated towards base to 4, 5 slightly approximated at base, 6 remote, parallel, 7 to termen, 8 and 9 out of 7 (9 connate with 7 in right wing), 11 from slightly beyond middle, 12 strong, sinuate, turned upwards posteriorly, cell 12 wide. Hind wing without cubital pecten rather under 1, elongate-subtrapezoid, 2 from slightly beyond middle, 3 and 4 connate from angle, 5 approximated at base, 6 and 7 distant, straight, gently diverging.

Male genitalia of *Drachmobola*-type.

Genotype *Astrosa leucosema* spec. nov., ♂.

A distinct genus, nearest to *Drachmobola* MEYR. and possibly a development of it but considerably differing by male antennae and even more so by separate veins 6 and 7 in hind wing. Through both these features (and also through connate veins 3 and 4 of hind wings and longer palpi) this genus can readily be distinguished also from the structurally allied *Pandurista* MEYR. and *Peteliacma* MEYR.

Astrosa leucosema spec. nov. (figs 1, 4).

λευκός = white, σῆμα = mark

♂ 14 mm. Head white, side tufts suffused with pale brown. Antenna pale brown, whitish-ringed, becoming darker brown towards apex, scape white. Palpus white. Thorax light fuscous-brownish, mixed with pale olive-yellow, apex of crest brown. Abdomen whitish, dorsum suffused with dark grey, anal tuft blackish-grey. Legs whitish, tarsi tinged olive, suffused above with grey, pale ringed, posterior tibia also suffused with grey above. Fore wing subovate, broad and short, without costal fold. Costa strongly arched at base, considerably rounded-prominent along median third, apex obtuse-pointed, termen concave from below apex to above vein 4, thence rounded and slightly prominent, vertical. Light greyish-olive, along posterior third of costa becoming suffusedly olive-whitish, irregularly suffused and clouded with reddish-ferruginous, which colour forms minute regular transverse strigulation and is condensed as to form a paler ill-defined patch on costal half of wing from base to well before middle and a darker patch on terminal fourth from below apex to tornus, becoming deep reddish-ferruginous along terminal edge, and a series of ill-defined irregular cloudy spots in disc, above and on dorsum; largest and more defined patch on $\frac{1}{4}$ of dorsum, erect-triangular, strongly inwardly oblique, with base on dorsum; a moderate erect-trapezoid yellowish-white patch with base occupying second fifth of costa, top pointing towards

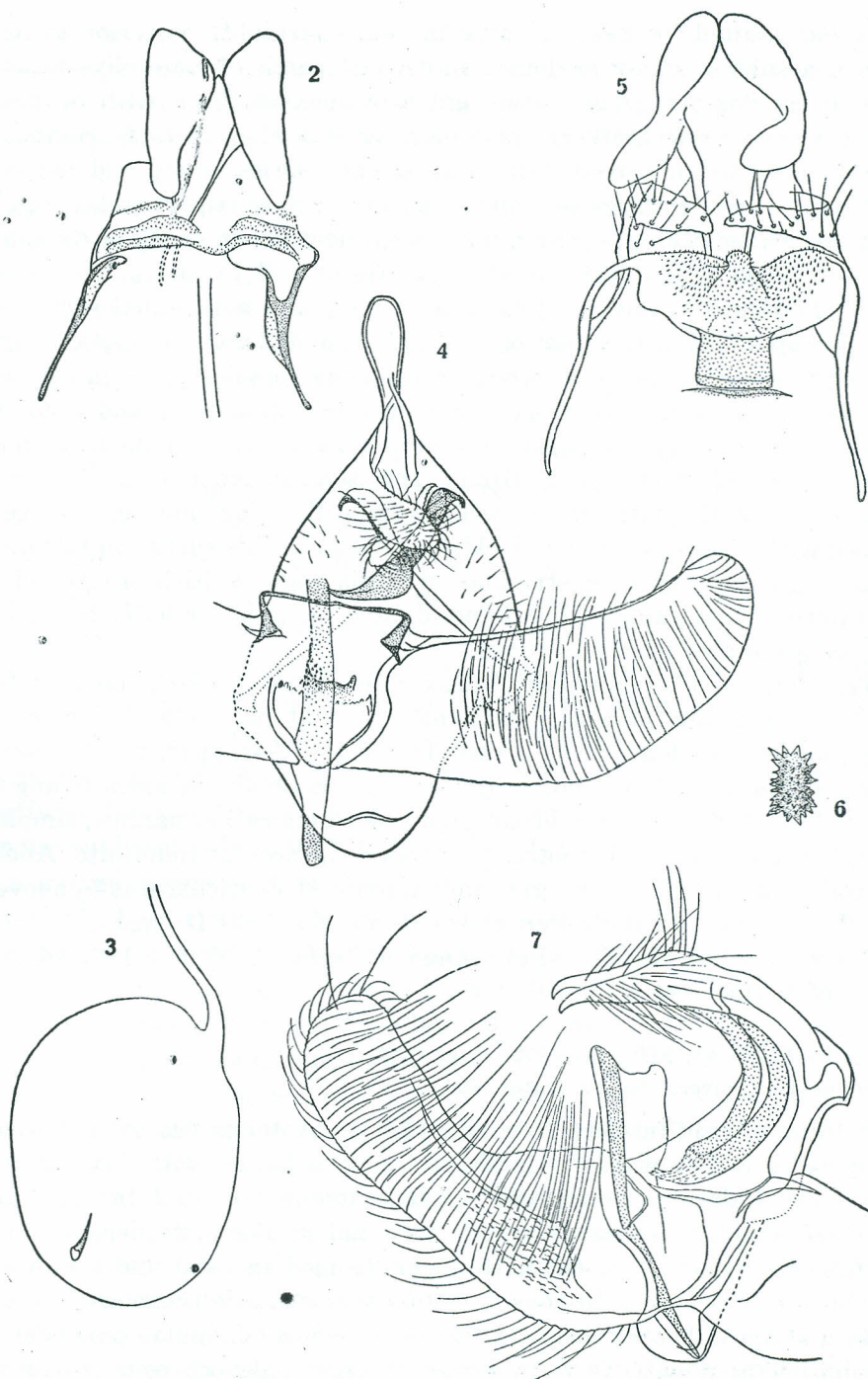
Genitalia of *Tortricidae*

Fig. 2: *Epagoge mellosa* n. sp., ♀, ovipositor and ostium. Fig. 3: bursa copulatrix.
 Fig. 4: *Astrosa leucosema* n.g.n.sp., ♂. Fig. 5: *Spatalistis hylarochroma* n. sp., ♀,
 ovipositor and ostium. Fig. 6: signum. Fig. 7: *Taeniarchis argyroiota* n. sp., ♂.

tornus but limited by vein 12, anterior edge straight, posterior gently concave, a subtriangular moderate ill-defined patch of pale olive-yellow suffusion on dorsum beyond base; extreme apex suffused with orange; brilliant-metallic violet-silvery spots more or less edged with ferruginous scattered over wing, two largest in an oblique series below and beyond costal patch, another large one on costa beyond base, an irregular longitudinal series between preceding, a semiconfluent group on $\frac{1}{4}$ of dorsum, an inwardly oblique row from upper angle of cell to above middle of dorsum, two smaller ones: before and in apex and a terminal series of about five spots below terminations of veins 7, 6, 4, 2 and 1b, respectively; a row of sparse roughish dark brown scales along dorsal edge. Cilia yellowish-white with a broad reddish-ferruginous antemedian band, and a suffused fulvous patch opposite apex and vein 4, respectively, cilia in tornus entirely suffused with black. Hind wing semipellucet towards base, whitish-grey, with prismatic reflections in cell, below and beyond cell suffused with bronze becoming blackish posteriorly, this suffusion forming minute regular transverse strigulation. Cilia pale whitish-bronze with dark bronze-fuscous antemedian band, dilated along lower half of termen as to occupy entire breadth of cilia.

Tegumen broad, triangular. Uncus rather long, hooked, top clavate. Socii large, pending, elongate-ovate, narrowed at base. Gnathos strong, hooked, moderately long, arms broad. Transtilla —-shaped, median part slender, straight, with a small projection in middle above, sides triangularly dilated below. Vinculum broad, rounded. Valva rather narrow, simple, broadest in middle, cucullus narrowed, rounded, sacculus indefinite. Anellus broad. Aedoeagus straight, gradually narrowed, denticulate at $\frac{2}{3}$ above. Cornuti, a patch of minute dentations (Slide No. 1201 D, type).

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, x.1949 (A. M. NEERVOORT). One specimen.

Taeniarchis argyroiota spec. nov. (fig. 7).

ἄργυρος = silver, *iota* = letter iota

♂ 16 mm. Head fuscous, face dark fuscous. Antenna fuscous suffused with dark fuscous towards base above, scape suffused with fuscous towards base. Palpus with median segment strongly dilated throughout, almost rectangular in lateral aspect, terminal segment slender, obtuse; dark fuscous, median segment with a slender median band and a spot at apex above pale ochreous-fuscous, terminal segment pale ochreous-fuscous at base and apex. Thorax deep coffee-brown, edges of tegulae pale ochreous, tips suffused with fulvous, posterior crest pale ochreous, fulvous-

tipped. Abdomen pale fuscous suffused with grey above. Legs pale ochreous speckled with dark fuscous, anterior and median leg dark fuscous above, apices of segments pale ochreous. Fore wing whitish-ochreous, glossy; an elongate triangular ill-defined patch of fine dark fuscous strigulation becoming suffused with brown towards costa, occupying costa from well beyond base to $\frac{2}{3}$; this patch is connected in middle of disc with top of similar more elongate patch on posterior $\frac{2}{3}$ of dorsum, dark greyish-fuscous; both patches transversely strigulated with numerous outwardly oblique slightly curved series of unequal blackish-fuscous tufts of raised scales; besides these, blackish-fuscous markings arranged as follows: an irregular strigula from costa beyond base running beyond base of wing and above dorsum, irregularly triangularly dilated below fold; two oblique transverse blotches on about $\frac{1}{6}$ of costa, posterior one twice as large; a still larger more suffused and outwardly oblique blotch on $\frac{2}{5}$ of costa, all three blotches hardly reaching below upper edge of cell, on costal edge alternating with small blackish-fuscous dots; a series of some six small streaks along costa from middle to apex, alternating with small dots, ultimate one apical; an inwardly oblique snow-white glossy short transverse streak on end of cell, conspicuous, edged with blackish except at its extremities, slightly dilated downward, gently inwardly curved; two large loose round raised tufts below cell before middle and at $\frac{2}{3}$ of wing length, tawny, mixed with blackish below and posteriorly, almost connected by a suffused fulvous strigula along lower edge of cell; about posterior fourth of wing suffused with dull creamy, slightly irrorated with lilac, traversed by a curved series of five creamy moderate tufts on veins 7-3, edged posteriorly by fuscous suffusion; a subterminal blackish-brown streak from below costa before apex to tornus, enclosing a small round glossy leaden spot opposite upper third of termen dilated as to form a ring filled with glossy leaden; terminal edge beyond this streak from below apex to tornus filled with glossy leaden, this colour forming an attenuated streak, clavate above, interrupted at $\frac{1}{3}$, very narrow below. Cilia (imperfect) brownish with pale ochreous base. Hind wing glossy pale ochreous-fuscous, apex slightly clouded with grey, a pencil of dark fuscous hairscales from base of vein 1b on upper side. Cilia pale ochreous with a grey subbasal shade which becomes dark fuscous around apex, beyond this cilia mixed with fuscous opposite apex, suffused with greyish along lower half of termen and dorsum.

Tegumen strongly curved ventrad. Uncus bifid, points acute. Socii absent. Gnathos strong, long, curved, point narrowed, denticulate. Tran-

stillata, a narrow rod. Valva elongate, narrowed in middle, a tumescence in disc covered with long bristles; cucullus rounded, speculus hardly indicated, narrow. Aedoeagus broad, weak, with a longitudinal sclerotized bar. Cornuti absent (Slide No. 1196 D, type).

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, 8.xii.1940 (author). One male specimen. Little related with other species known; very distinct by cloudy dark fuscous markings and silvery discal transverse strigula.

Male genitalia show a close relation with the genus *Protypantes* MEYR.

Argyrotoxa erythrites (MEYRICK 1928).

Argyrotoxa erythrites MEYRICK 1928, Exot. Microl. 3: 461.

Argyrotoxa erythrites, DIAKONOFF, Treubia 18: 431-432.

Distribution. Type locality Mt Gedé, West Java; also from East Java, Tengger Mts, 1300 m.

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, ix-x.1948, ix.1949 (A. M. NEERVOORT). Three females. This species appears to vary as to colouring and markings, almost to the same extent as the European *Peronea hastiana*. One of the present specimens is modestly coloured brownish-fulvous, paler anteriorly, darker posteriorly, these areas being separated by a straight suffused slender fuscous-grey streak from $\frac{1}{4}$ of dorsum to costa before apex; a few dark fuscous minute scale tufts are scattered over the wing and there is a trace of a slender suffused pale golden-ochreous subcostal streak from before base to $\frac{1}{3}$, but in the right wing only. The other specimens have irregular pale yellow markings on tornal half of wing suffusedly edged with deep orange.

Tjibodas may be the type locality of this species which is indicated in the original description as "Preanger" (Preanger Regency).

Planostocha cumulata MEYRICK, 1907.

Planostocha cumulata MEYRICK, 1907, J. Bomb. Nat. Hist. Soc. 17: 977. Lepid. Catal. 10: 51, 1912. Gener. Ins. 149: 50, pl. 3, f. 45, 1913. DIAKONOFF, Zool. Meded. Mus. Leiden 21: 220, f. 13R-S, 16H, 1939. Treubia 18: 431, 1941.

Distribution: India; Ceylon; East Java, Tengger Mts, 800-1300 m.

West Java, Radjamandala, 350-500 m, 1941 (J. OLT Hof). Mt Pangrango, Tjisarua Zuid Est., 1000 m, 15-16.xi.1941 (M. A. LIEFTINCK). Bogor (= Buitenzorg), 250 m, ii-iii, vii-ix.1948-1950 (E. J. BEELTJE, G. J. IMBERT, F. C. DRESCHER, author). 4 ♂, 4 ♀

***Spatalistis hilarochroma* spec. nov. (figs 5-6).**

ἡλαρός = gay, *χρῶμα* = colour

♀ 16.5-18 mm (type 17 mm). Head bright yellow slightly mixed with orange, side tufts with an orange lateral spot. Antenna yellow ringed with orange, apical half light fuscous-grey, scape orange with yellow apical ring. Palpus moderately long, median tuft roughly expanded, top obliquely truncate as to form a tuft at apex below projecting apicad, terminal segment small, obtuse-pointed, not longer than that tuft; bright yellow spotted with orange, lower edge of median segment suffused with dark lilac-grey, terminal segment orange. Thorax orange spotted with bright yellow. Abdomen ochreous-whitish, suffused on dorsum with fuscous-grey. Legs glossy ochreous-whitish, tarsi ringed with dark fuscous and brown. Fore wing elongate, little dilated, costa curved at base, straight in middle, hardly curved posteriorly, apex pointed, moderately projecting, termen sinuate, little oblique. Bright yellow, retinate and marked with deep orange which colour extends over wing leaving numerous irregular spots and dots of ground colour of unequal size; an inwardly oblique elongate transverse irregular spot of ground colour well before centre of disc extending over median third of wing breadth, sometimes a long rising projection from middle of its anterior edge (in one paratype interrupted) and a short one at its apex, a dentation on middle of posterior edge pointing towards tornus; costa with a row of some ten small black dots, from beyond base to before apex; dark leaden-metallic slightly tumescent dots: two in oblique series below costa well beyond base, lower one minute, three arranged in a triangle below $\frac{2}{5}$ of costa; an irregular spot of ground colour dotted with orange on middle of costa, a small yellow spot centred with orange at $\frac{5}{6}$ of costa; an inwardly oblique light (in type) or rather dark lilac-grey moderate irregular transverse band from below $\frac{3}{4}$ of costa to middle of dorsum, anteriorly rectangularly incised just above fold, upper third extended posteriorly to before termen, with a more or less extended suffused streak along fold to tornus, deeply incised below this; upper extended part of band contains two small orange raised scale-tufts centred with black, a series of some 3-4 raised black scales along its anterior edge which is also edged below fold by a vertical leaden-metallic streak; some four irregular interrupted transverse rather broad strigulae, orange with metallic gloss on grey-lilac band, becoming leaden-metallic where they traverse orange colour, tending to form rows of rounded dots; these strigulae originate somewhat above anterior edge of grey band and terminate on dorsum and in tornus, becoming less

outwardly oblique posteriorly, ultimate one subterminal; a row of small leaden dots below posterior $\frac{2}{5}$ of costa, ultimate one apical; a streak of brownish-lilac suffusion along dorsum from base to band, a small marginal scale-tuft of ground colour on dorsum beyond base. Cilia with an interrupted orange submedian band, bright yellow before, sordid yellowish beyond this, costal cilia mixed with orange, tornal suffused with lilac. Hind wing dark bronze-fuscous with faint rosy reflections, a wedge between veins 4-6 from cell to margin pale orange, costal half of wing as far as $\frac{2}{3}$ with an attenuated whitish streak, a small marginal pale rosy streak in apex. Cilia pale fuscous with whitish base, orange-whitish opposite orange wedge.

Ovipositor lobe elongate, rather slender. Limen represented by a broad transverse band with finely punctulate wall in middle of which opens the ostium being a moderate cylindrical tube. Ductus bursae rather short. Signum stellate (Slide No. 1211 D, type).

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, 3.xi.1948, vi.1949, ix.1949 (type). (A. M. NEERVOORT). Three specimens. An elegant distinct species, nearest to *S. hormota* MEYR. from India.

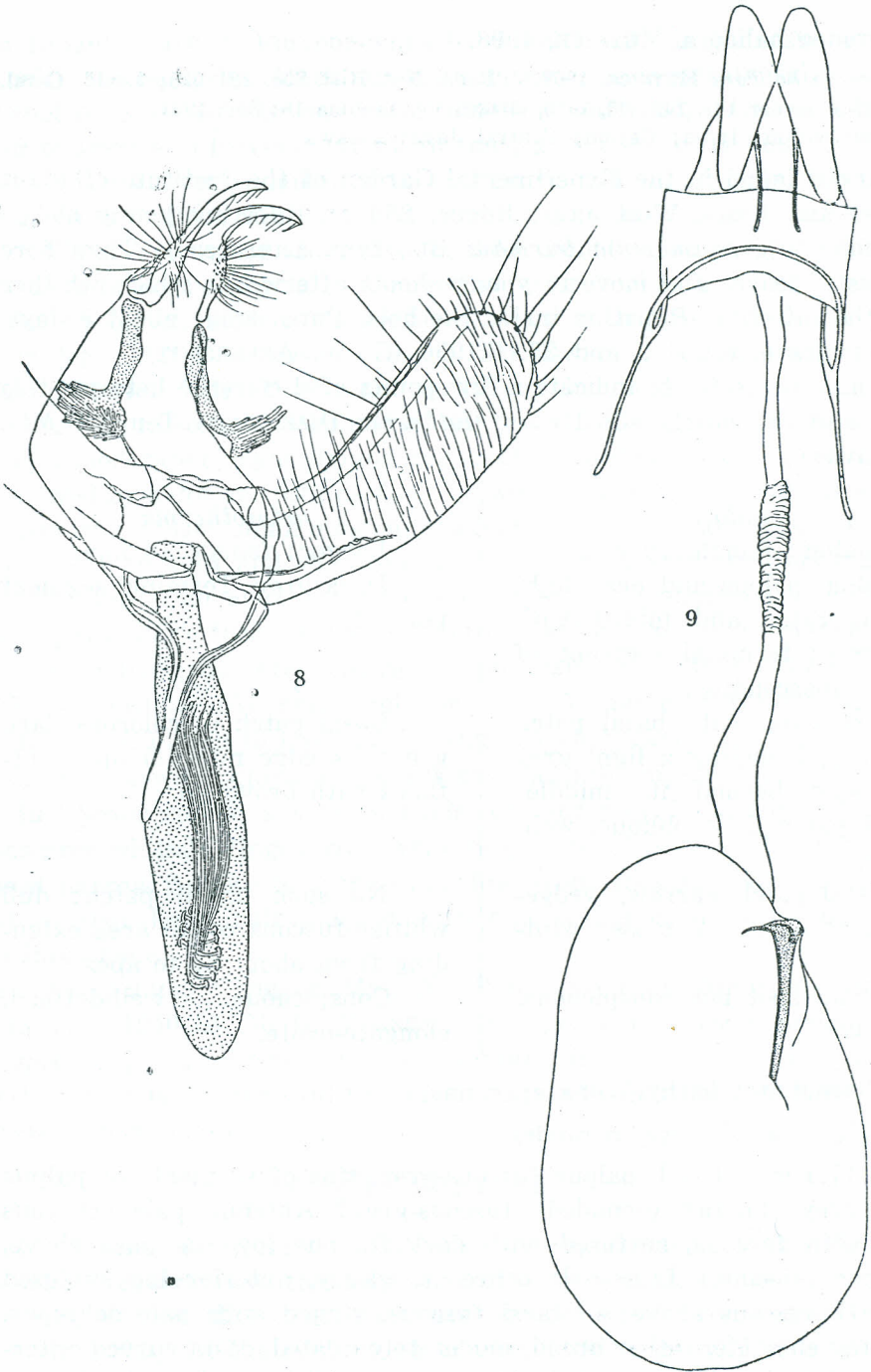
***Phricanthes nivera* DIAKONOFF, 1941 (figs 8-9).**

Phricanthes nivera DIAKONOFF, 1941, Treubia 18: 391-392, pl. 16, f. 7.

West Java, Bogor (= Buitenzorg), 250 m, 17.vii.1948 (F. C. DRESCHER). Gobang, 20 km of Bogor, 125 m, 17.vii.1948 (G. F. MEES). Two males, rather smaller than typical specimens from Central Java (12-12.5 mm) and with hind wings slightly paler, otherwise agreeing in all details.

Male genitalia with strong tegumen. Uncus bifid, points slender, curved, pointed, bristly beneath, a thickened bristly pad at each side below these. Socii absent. Gnathos paired, each arm pending, clavate, top densely covered with blunt spikes. Transtilla moderate with sinuate upper edge. Saccus present, rather long, slender. Valva rather narrow, simple, gently dilated, cucullus rounded, sacculus small. Anellus triangular. Aedoeagus huge, subcylindrical, narrowed apically. Cornuti a sheaf of long spines strongly curved towards base, base dilated like head of a nail (Slide No. 1198 D, holotype).

Ovipositor lobe elongate. Limen a simple curved rod. Ostium indefinite. Ductus bursae slender, colliculum (?) a tube with strongly transversely plicate wall. Bursa copulatrix ovoid. Signum large, dagger-shaped (*Cacoecia*-like). Slide No. 1199 D, allotype.



Genitalia of *Phricanthes nivigera* DIAK.
Fig. 8: male. Fig. 9: female.

Peronea halidora MEYRICK, 1908.

Peronea halidora MEYRICK, 1908, J. Bomb. Nat. Hist. Soc. 18: 625; Lepid. Catal. 10: 70, 1912. Gener. Ins. 149: 66, 1913. DIAKONOFF, Treubia 18: 390, 1941.

Distribution: India; Ceylon; Central Java: Telawa.

Larvae found in the Experimental Garden of the Institute of Plant Diseases and Pests, West Java, Bogor, 250 m, infesting young shoots of cinnamon (*Cinnamomum burmani* BL., fam. Lauraceae). They bore in stalks of leaves and move in young shoots afterwards which wither above the infection. Pupation inside the hole. Pupal stage about 8 days. Two females emerged 8 and 23.vii.1950 (G. W. ANKERSMIT).

It may be useful to indicate a few points of difference between this species and the closely allied *P. orthiotherma* DIAK. from Tengger Mts, East Java:

halidora

Smaller: female 10 mm.

Labial palpus and head light grey irrorated and mixed with dark grey; terminal segment of palpus subascending.

Fore wing with basal patch dark grey, including a light grey costal spot beyond its middle; edge of patch little oblique, well-defined.

Costal patch narrow, wedge-shaped, at about $\frac{1}{3}$, glossy whitish.

Tornal spot not conspicuous, triangular.

orthiotherma

Larger: female 14 mm.

Dark grey. Terminal segment porrect.

Basal patch unicolorous dark grey; its edge more oblique, suffused with brownish.

No such costal patch; dull whitish-fuscous costal area extending from about $\frac{1}{3}$ to apex.

Conspicuous, well-defined, elongate-ovate.

Schoenotenes bathyglypha spec. nov.

$\beta\alpha\theta\acute{\upsilon}\varsigma$ = deep, $\gamma\lambda\upsilon\varphi\acute{\eta}$ = carving

♂ 17.5 mm. Head, palpus fuscous-grey, tips of segments of palpus whitish-grey. Thorax (denuded) fuscous-grey? Antenna pale ochreous ringed with fuscous, suffused with dark fuscous towards base above. (Abdomen missing.) Legs pale ochreous, glossy, anterior leg suffused with dark fuscous above, all tarsi fuscous, ringed with pale ochreous. Fore wing elongate, rather broad, moderately dilated, costa curved anteriorly, straight in middle, apex obtuse, termen straight, moderately oblique,

tornus broadly curved. Fuscous-whitish, clouded with grey, costa suffused with fuscous-grey. Markings dark fuscous. A moderate subtriangular spot on costa just beyond base, somewhat suffused, its lower edge tending to form a transverse streak to fold; a rectangularly bent fascia forming a large invert triangle with legs on $\frac{1}{4}$ and $\frac{4}{5}$ of costa, top on $\frac{2}{3}$ of dorsum, with anterior leg darker, well-defined, rather narrow, slightly dilated downward from costa to fold, including a strongly raised tuft of dark fuscous scales in fold, mixed anteriorly with fuscous-whitish, posterior leg paler, moderately suffused, more than twice as broad as anterior leg, dilated downward as to fill lower $\frac{2}{3}$ of triangle but leaving posterior half of cell not suffused; including a round dark fuscous tuft of raised scales on end of cell mixed anteriorly with fuscous-whitish; a moderate elongate-triangular patch on middle of costa preceded and followed by a dot on costa halfway between it and legs of large triangle; a row of suffused small dots on terminations of veins along posterior fifth of costa, in apex and along termen to tornus; a faint fuscous marginal suffusion from apex to tornus on the extreme margin condensed into a narrow dark fuscous line connecting terminal dots; an elongate-ovate subterminal paler greyish-fuscous spot rising from tornus to above vein 6, crowned by two small dots on veins 7 and 8; terminal veins strongly raised, giving to the wing corrugated appearance. Cilia fuscous-whitish touched with ochreous towards base, an interrupted dark fuscous shade just below middle, tips beyond this suffused grey. Hind wing glossy fuscous-grey-whitish, tinged somewhat deeper fuscous towards apex, a suffused narrow fuscous-grey marginal line from apex to vein 1c. Cilia sordid whitish, basal half touched with pale ochreous, a faint greyish submedian shade.

East Java, Tengger Mts, Mt Pandjang near Nongkodjadjar, 1400 m, 28.iv.1940 (A. M. R. WEGNER). One specimen, without abdomen. The species is so distinct that we venture to describe it as new, nevertheless. It is of doubtful relationship and stands remote from other Javanese species known.

AMPHITHERIDAE

This interesting family is but scantily represented in the Malay Archipelago, contrary to the Papuan region, where the species of the genus *Amphithera* MEYR., at least, are numerous; it even seems that New Guinea may be the country of origin of this family. Descriptions of a series of new species from Central New Guinea will be published

elsewhere. The genus *Agriothera* MEYR. is recorded in this paper for the first time from the Malay Archipelago.

***Agriothera cristata* spec.nov. (fig. 10).**

♂ 11 mm. Head with a rough ochreous-fuscous tuft on vertex, a large tuft of snow-white broad scales between antennae curved downward and projecting over frons and face. Proboscis absent. Antenna $1\frac{1}{2}$; pale



Fig. 10: Male genitalia of *Agriothera cristata* sp. n.

fuscous-bronze, indistinctly ringed with darker fuscous. Palpus white, median segment fuscous except towards base below. Eyes rather small, normal. Thorax light fuscous with strong olive-bronze gloss. Abdomen glossy, rather light fuscous, venter and valvae fuscous-white. Legs whitish, anterior tibia spindle-shaped, thickened with smooth scales, fuscous; median tibia with two transverse oblique light fuscous streaks above; median and posterior tarsus marked with dark fuscous: first and second segments each with a small longitudinal streak towards apex above, third and fourth segments with broad basal rings. Fore wing ovate-lanceolate, costa curved towards extremities, straight in middle, apex subfalcate, termen deeply sinuate above, curved, very

oblique beneath. Pale purplish-violet, densely irrorated and suffused with bronze-fuscous, apical third becoming olive-fuscous, dorsum below fold deeper brownish-fuscous; a triangular dentiform spot on $\frac{1}{4}$ of dorsum, anterior edge strongly concave, curved acute top reaching to fold: whitish

faintly tinged yellowish, more so along anterior edge; an elongate-triangular pale yellow spot on dorsum extending from beyond $\frac{3}{5}$ to termen, reaching $\frac{2}{5}$ across wing, anterior edge well-defined, irregularly serrulate, posterior suffused; an inwardly oblique deep brown small sub-triangular spot before termen below apex, with one angle almost touching margin of wing; beneath this a white dot on middle of termen; an outwardly oblique almost horizontal small white streak on costa before apex anteriorly continued over cilia. Cilia fuscous-bronze with a suffused whitish spot opposite middle of termen. Hind wing brownish-fuscous, becoming dark fuscous towards apex, greyish towards base, basal $\frac{2}{3}$ of costa whitish-grey. Cilia light bronze-fuscous, a darker brownish subbasal shade.

Male genitalia of the *Amphithera*-type. Uncus with emarginate top. Anus long. Gnathos with extremely long sinuate arms and a rounded, broad point. Saccus long, slender. Valva rather narrow, sacculus hardly indicated (appearing folded in mount). Aedoeagus extremely long, slender, slightly dilated towards base (Slide No. 1194 D, type).

East Java, Pasuruan, 5 m, 7.iii.1941 (author). One specimen. Absence of proboscis and presence of a large tuft curved over face are unusual features, but nevertheless do not permit generic separation.

***Amphithera smaragdopa* MEYRICK, 1921.**

Amphithera smaragdopa MEYRICK, 1921, Zoöl. Meded. Mus. Leiden 6: 192.

Distribution: West Java.

West Java, Bogor (= Buitenzorg), 250 m, 7.iii.1948 (M. A. LIEFTINCK). One female. In damaged condition, with dorsal green stripe ill-defined, but apparently belonging to this species.

Allotype, ♂, 15 mm. Deeper golden-bronze clouded with brownish-lilac. Dorsal streak paler golden, ill-defined. Hind wing broader, acutely pointed, apex slightly produced; deep purple-brown, cilia concolorous. Mts Gedé-Pangrango, Tjibodas, 1500 m, viii.1924, No. 228 (H. H. KARNY). One specimen in bad condition, with abdomen missing.

We are indebted to Dr C. O. VAN REGTEREN ALTENA for the kindness of comparing our female specimen with the type in the Leiden Museum.

ADELIDAE

This family of magnificently coloured insects is represented in our collection, at least as far as the Malay Archipelago is concerned, and with the exclusion of the Papuan region, by a single genus only, viz. *Nemophora* HOFMANNSEGG. The genus has a wide vertical distribution but the

species seem to be very local; they prefer forested regions where they fly in bright sunshine. Through almost entire disappearance of lowland forests in Java *Nemophora* species bound to low altitude may be endangered with extinction. Perhaps *N. decisella* WALK. is an example of this. But for one exception, *N. rhodochrysa* n. sp., which was rather numerous at its collecting place, all the species seem to be far from common. The number of new species is considerable. Future collecting will without doubt bring to light numerous new forms from all over the Archipelago.

Descriptions of two new species from New Guinea and a key to Papuan species will appear in the Bulletin of the American Museum of Natural History. Interesting new forms collected by the Swiss-Indonesian Expedition in Sumba in 1949 will be dealt with separately.

Nemophora HOFMANNSEGG, 1798.

Nemophora HOFMANNSEGG, 1798 (nec HÜBNER 1826), in Illiger, Verz. Käfer Preussens: 499. LEACH, in Brewster, Edinb. Encyclop. 9: 133, No. 452, 1815 (name adopted; syn.: *Nemotois* HÜBN.). DURRANT, Brit. Ornith. Un. & Woll. Exp., Lepid.: 161-162, 1915 (syn.: *Nematophora* AGASSIZ, *Nemotois* HÜBN., *Nemotois* Oxf.-Cambr.). WALSINGHAM, Biol. Centr.-Amer., Ins. 4: 402, 1915. FLETCHER, Mem. Agric. Ind., Ent. 11: 146, 1929 (syn. *Elasmion* HÜBN., *Eutyphia* HÜBN., *Epityphia* HÜBN., *Nemotois* HÜBN., *Ucetia* WALK.). PIERCE, Genit. Brit. Tineidae: 109, pl. 66, 1935 (gen. ♂).

Elasmion HÜBNER, 1806, Tentamen: 2 (non descr.). FLETCHER, Mem. Agric. Ind., Ent. 11: 74, 1929 (syn. of *Nemophora* HOFM.).

Eutyphia HÜBNER, 1826, Verz. bek. Schm.: 416. FLETCHER, Mem. Agr. Ind., Ent. 11: 93, 1929 (syn. of *Nemophora* HOFM.).

Epityphia HÜBNER, 1826, Verz. bek. Schm.: 416. FLETCHER, Mem. Agr. Ind., Ent. 11: 83, 1929 (syn. of *Nemophora* HOFM.).

Nemotois HÜBNER, 1826, Verz. bek. Schm.: 416 - 417. ZELLER, Linn. Ent. 8: 46 - 47, 1853 (part.; redescr., key to known species). FREY, Tin. & Pteroph. Schweiz 43, 1856 (redescr., syn. *Capillaria*, part., *Adela*, part.). STANTON, Ins. Brit. Tin.: 51 - 52, pl. 2, f. 6, 1859 (part.; redescr.). Nat. Hist. Tin. 13: 192 - 199, 1873 (redescr., part.; liter. review of spp.). STAUDINGER & WOCKE, Catal. Pal. Lep.: 272, 1871 (part.; Pal. spp.). SNELLEN, Vlind. Nederl., Microl.: 496 - 497, 1882 (part.; redescr., Netherl. spp.). STAUDINGER & REBEL, Catal. Pal. Lep. 2: 243 - 244, 1901 (part., Pal. spp.). MEYRICK, Lepid. Catal. 6: 5, 1912 (list spp.); Gener. Ins. 133: 2, 4 - 8, plate, 1912 (redescr., list spp.); Rev. Handb.: 841 - 842, 1928 (redescr., key Brit. spp.). TURNER, Proc. Linn. Soc. N. S. Wales 38: 225, 1913 (key Austral. sp.). FLETCHER, Mem. Agric. Ind., Ent. 11: 146, 1929 (syn. of *Nemophora* HOFM.). HERING, In Tierwelt Mittleur., Schm.: 21, 1932 (redescr., key Centr. Eur. spp.).

Nemotois, Oxford-Cambridge Acc.-List Brit. Lep.: 81, 1858. WALSINGHAM, Lep. Het. Mus. Oxon. 2: 583, 1900 (emend.).

Nematophora AGASSIZ, 1864, Nom. Zool. Lep.: 46, Ind. Univ.: 247 (emend. *Nemophora* HOFM.).

Ucetia WALKER, 1866, List Lep. Het. Brit. Mus. 35: 1820.

Adela auctorum, partim (nec LATREILLE, 1802).

The above list of references does not pretend to be complete; several classical works of older authors could not be consulted and have not always been cited in full.

The male genitalia of the British species of *Nemophora* have been figured and described by PIERCE (loc. cit.). Unfortunately his descriptions are extremely brief and his figures so simplistic that they obviously misled the author himself as to correct identification of various parts. PIERCE did not liberate the aedoeagus from the anellus and mistook the folded harpoon-shaped cornutus for a part of the latter, of which he says: "Anellus with anchor". When speaking of "anellus" he means either transtilla (e.g. in *N. fasciella* FABR.) or the bases of the sacculi (in *N. minimella* ZELL. and *cupriacella* HÜBN.).

Still his figures are of interest, being as far as I know the only illustrations of the genitalia of this genus ever published. They are of very much the same type as those of our Malayan species, except for the shorter saccus in some of the British species.

Concerning the female genitalia of the British species, PIERCE remarks: "All the females are so similar that it was unnecessary to figure them". With the material at hand it is not as simple as that.

Prof. JANSE in his excellent revision of Adelidae of South Africa (*Moths of South Africa*, vol. 4, part 2, Dec. 1945) gives elaborate figures of genitalia of the genera *Adela* and *Ceromitia* (*Nemophora* does not occur in S. Africa). They show a great similarity with those of our *Nemophora* species and possess the same peculiar harpoon-like aedoeagus and awl-like ovipositor.

The male genitalia of *Nemophora* are uniform and render but slight differences in shape and relative size of various parts. These differences, though quite useful for the discrimination of species, are puzzling when one tries to find relations between larger groups of species. As a matter of fact, we have been unable to detect any clear correlation between the shape of the male genitalia and the superficial characters of various species, as e.g. the clothing of the face and the head and the markings of the fore wings. This is the more puzzling because, superficially, the species described below often differ very widely. In other words, when one tries to arrange the species in a taxonomic sequence according to superficial characters that at first sight appear to be rather clear, comparison of their male genitalia proves that such a sequence can hardly be natural. On the other hand, arranged according to the general aspect

of the male genitalia, superficially quite different species appear to stand quite close together.

Still, after mature deliberation, we resolved to use the genitalic characters as the guide for the arrangement of our species, not being able to neglect the interspecific correlations, of which they bear proof. Hence, less importance is ascribed to differences in outward appearance of the species, such as hairiness or smoothness of face and head, the metallic colour of same, or to the differences in colouring and markings generally. An elaborate study of many more species also from other regions is required to prove whether our method is right. At the present time we are inclined to regard such characters as clothing of head, peculiarities in neuration and (superficially!) convergent plan of markings to be purely specific and of but very limited use for the study of relations between the species.

Once the genitalic characters chosen as decisive for our arrangement, we have not been able to indicate any subgeneric division of our material except for one species, *N. divina*, sp. n. While all other species have remote veins 2 and 3 in fore wing, these veins are connate in *divina*, together with quite distinct facies: slender lanceolate fore wings, and also stalked veins 7, 8 and 9. These differences force us to place this species in a separate group, apparently more recent in character than that of the remaining species. Its genitalia, however, are not very elucidating; their general aspect is somewhat different indeed, but not to that extent as one would expect when comparing this insect with other species.

Recording of these facts would appear premature in view of the rather limited material studied. Still we wish to bring these points forward in the hope that they may prove useful for future students of this group.

When studying the male genitalia of *Nemophora*, it is important to reproduce them at sufficiently large magnification and to figure the aedoeagus separately. Removing of this part is possible when putting the genitalia with dorsal side up and pushing the brittle aedoeagus gently outside the anellus in caudal direction. This is not always easy as the spines at the apex of the aedoeagus may catch within the anellus and the harpoon may break off. In cases where this happened, we preferred to leave this part within the anellus, fearing desintegration of the unique mounts with further dissecting.

The tegumen is short, rounded-triangular, finely pubescent at the top. An articulate uncus and gnathos are absent. The socii are pending flattened ovate pads slightly concave and verrucose on the inner surface, but not bristly. A small robust transtilla is present, mostly produced in

middle of its dorsal edge into a short point. The vinculum is very large and produced in a huge, long and broad saccus, together with this forming a large, funnel-shaped body open on dorsal side and projecting as far as its middle beyond the 7th ventrite. The shape of the saccus and of the upper rim of the vinculum is variable. The valvae are cardinate, small, variably shaped, with dilated base which is sometimes tightly connected with the vinculum medianly; therefore it is not possible to bend the valvae downwards without dissecting them and I preferred to figure the genitalia *in toto*, this being the most practical way of studying them. Sclerotized parts which are located behind the valvae show through the latter sufficiently to be indicated in the figures. The saccus is often distinctly separated. (The relative length of the valva as compared with that of tegumen is indicated by numbers, e.g. valva 1, over 1, etc.). The aedoeagus has a most peculiar shape and forms a slender long tube which sometimes is crowned by spines varying in shape and in number: from one to four. The vesica shows a finely punctured, spiraled, denticulate or spinose wall and often bears patches of fine needles, the cornuti. It is apparently one of the cornuti which acquires an enormous size and is shaped as an arrow-head. This "harpoon" is folded as a pen-knife and evidently unfolds in action. Presumably it can be retracted after copulation as it was almost always present in our mounts.

It would be interesting to study in detail the anatomy of this most peculiar kind of aedoeagus, which could easily be done with fresh material of some common European species.

The female abdomen tapers to a sharp point which is rather sclerotized and often darkly pigmented. The eighth ventrite is an erect-triangular pointed plate, ostium is not modified and limen undeveloped. From the pointed top of the abdomen projects the sclerotized, very long, awl-like ovipositor; proximally it terminates in two long strong rods, being the postapophyses; the anapophyses are of similar length and shape; they are connected by a weak median plate produced in a long sharp point below and supported by an unpaired slender longitudinal rod. The shape of this median plate is slightly variable, but not sufficiently so to provide differences for taxonomical use. Exactly fitting in the conical eighth segment is the shorter and less sclerotized ninth segment; the anapophyses are attached to the ninth ventrite along their apical part.

When the ovipositor is pulled out of the eighth segment, the ninth segment and both pairs of apophyses follow and may be extracted in one piece; besides, the upper part of the ductus bursae is pulled out together with the skeleton of the ovipositor. It is sinuous and contains two

strongly sclerotized bodies. The upper one must be the colliculum as it is sometimes shaped like a short semi-cylinder (open at one side), but in other cases may have quite an unusual shape: stellate, or forming a group of blades united at the base; in every case, however, it is recognizable by the presence of a very thin and long filament on each side, apparently following the ductus bursae downwards. The lower body which is sometimes absent is variably shaped: like an oval or elongate plate, and apparently represents the cestum. If slight differences in the above mentioned parts, as described under each species concerned, are specifically constant, they may prove to be of taxonomic value.

Key to the Indonesian species of *Nemophora*

1. A distinct complete transverse yellow or orange median, submedian or postmedian (not basal) band or streak is present . . . 2
 - No such band, sometimes a transverse yellow streak or mark from costa by far not reaching dorsum, if almost reaching this then this streak very narrow, inwardly oblique, edged with black 10
- 2 (1). Transverse band with posterior edge either forming a large subcostal lobe or connected by a broad bar with a second subapical orange transverse band 3
 - Transverse band with posterior edge straight 4
- 3 (2). Transverse band sparsely edged with black scales; its posterior edge with a large subcostal lobe *plutodotis* sp. nov.
 - Transverse band edged on both sides with blue-metallic streaks; its posterior edge connected by a broad bar with a second transverse fascia *laticlavata* MEYR.
- 4 (2). Basal area unicolorous yellow, including a dark costal streak. . 5
 - Basal area not unicolorous yellow 7
- 5 (4). Transverse fascia light yellow, of the same 'colour as basal area 6
 - Transverse fascia deep orange-ochreous, much darker than light yellow basal area *heteroxantha* sp. nov.
- 6 (5). Transverse fascia dilated towards costa, posterior third of wing evenly purple-brown; abdomen brownish-grey
 - *bifasciella bifasciella* WALK.
 - Transverse fascia not dilated towards costa, posterior third of wing dull yellow irrorated with purplish-brown; abdomen yellow *bifasciella irrorata* subsp. nov.

- 7 (4). Basal area brightly metallic-blue 8
 — Basal area not metallic blue 9
- 8 (7). Basal area with two longitudinal yellow streaks. *liongi* sp. nov.
 — Basal area with a black subcostal streak . . . *lieftincki* sp. nov.
- 9 (7). Basal area yellow, streaked along veins with black; two transverse yellow fasciae *divina* sp. nov.
 — Basal area dark fuscous densely scattered with fine leaden-metallic scales *decisella* WALK.
- 10 (1). Basal half bright yellow, including tumescent silvery spots . . 11
 — Not thus; sometimes about basal fourth pale yellow but without metallic spots 12
- 11 (10). Basal area with a coppery-bronze costal streak, base of wing coppery-bronze; silvery spots edged with black; no median silvery transverse streak; head bronze . . . *pecuniosa* MEYR.
 — Basal area without a metallic costal streak; base of costa and of wing brightly violet-metallic; silvery spots not black-edged; a median silvery transverse streak present . . *aurisparsella* WALK.
- 12 (10). Deep purple, brassy or golden without any yellow or white costal markings beyond middle 13
 — Not thus; if deep purple, then postmedian costal yellow marking present 16
- 13 (12). Less than basal fourth pale yellow with black posterior edge *chalcobasa* sp. nov.
 — No pale yellow basal patch 14
- 14 (13). Deep shining purple; basal patch black, well-defined, traversed by three greenish-silvery metallic longitudinal streaks; a well-defined direct black transverse fascia beyond middle not reaching dorsum *chalcodactyla* sp. nov.
 — Deep shining brassy-golden or dull purple irrorated with golden; basal patch indicated by blackish suffusion, with one or two metallic streaks; if transverse blackish fascia from costa present, then it is suffused and inwardly oblique 15
- 15 (14). Deep shining brassy-golden; head (male) hairy, dull black; a suffused blackish transverse band from $\frac{3}{5}$ of costa to middle of disc; larger species (13 - 15 mm) . . . *rhodochrysa* sp. nov.
 — Rather dull purplish, scattered with bright coppery scales; head (male) metallic coppery; a cloudy blackish streak along anterior half of costa, irrorated with coppery. . . *micrometalla* sp. nov.
- 16 (12). Dull fuscous-olive, irrorated with olive-whitish; a slender whitish transverse fascia beyond middle reaching to middle of disc,

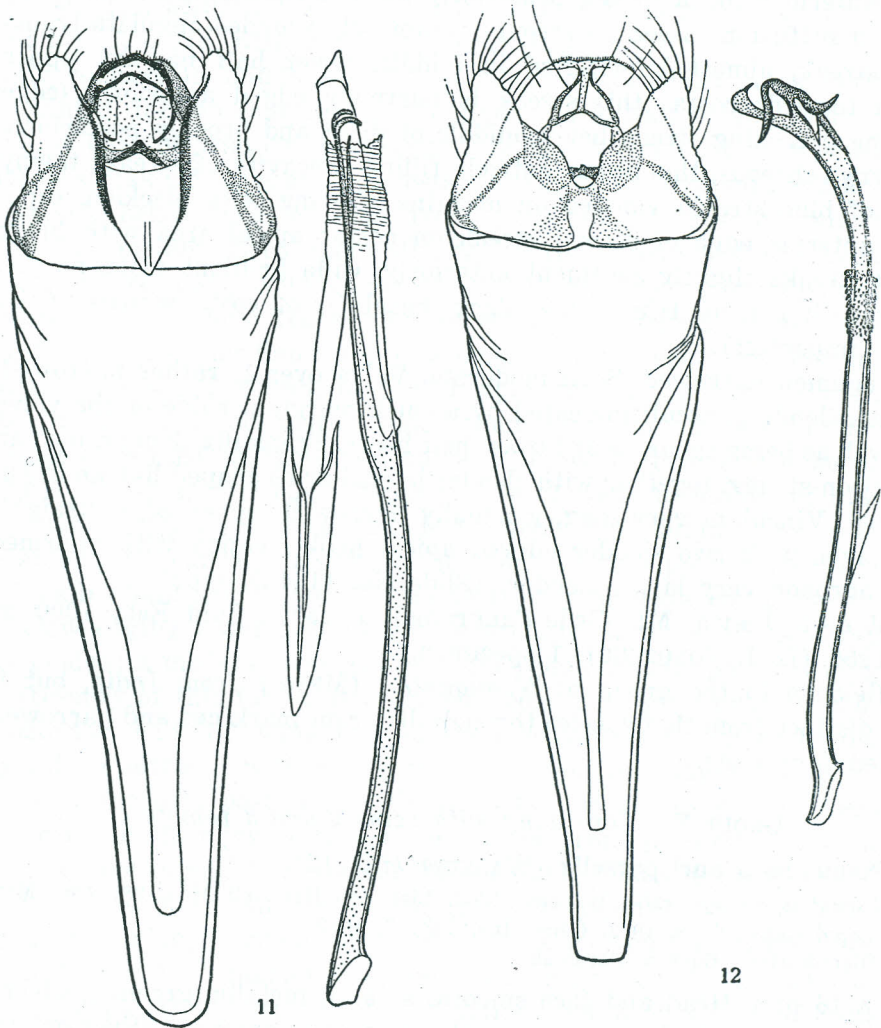
- edged on both sides with ground colour, then with thick leaden-metallic streaks reaching to dorsum. . . . *hemidesma* sp. nov.
- Deep shining purple, golden or dull purplish-black with yellow markings 17
- 17 (16). No yellow basal patch 18
- A yellow basal patch present 19
- 18 (17). A narrow transverse submedian fascia; two outwardly oblique clavate marks posteriorly, upper from costa . . . *tristrigella* WALK.
- No transverse fascia, one oblique clavate mark from $\frac{2}{3}$ of costa *kalshoveni* sp. nov.
- 19 (17). Costal mark at two-fifths, without black edge; hind wing brownish-grey *xanthobasella* SNELL.
- Costal mark slightly beyond middle, black-edged; hind wing purplish *chrysodonta* sp. nov.

GROUP 1. *Fore wing with veins 2 and 3 connate*

Nemophora divina spec. nov. (fig. 11).

♂ 12 mm. Head rough, deep orange-ochreous, face smooth metallic pale purple. Eyes normal, not enlarged. Antenna 3, white, becoming leaden-coloured in middle, basal third of flagellum blackish-purple, scape shining purple. Palpus rather short, rough towards apex, jet-black. Thorax dark grey with bright golden shine, tegula purple-golden; pectus metallic pale coppery becoming brassy anteriorly. Abdomen black, venter glossy pale leaden. Legs, anterior tibia hardly thickened, posterior tibia with a few fine hairs above and beneath towards base; pale coppery, deep purple above, except posterior tibia which is pale leaden with apical third pale brassy; all tarsi with white apical rings. Fore wing with veins 8 and 9 stalked, stalk short, out of vein 7 near its base; ovate-lanceolate, pointed, rather narrow, little dilated, broadest at $\frac{2}{3}$; costa slightly rounded-prominent beyond base, straight in middle, moderately curved posteriorly. apex pointed, termen gently curved, very oblique, moderately long. Light yellow-ochreous, in middle third of disc suffused with fuscous-ochreous especially along edges of blue markings; basal third and apical fourth with rather thick irregular jet-black lines along all veins; basal area also with a short pale lilac-blue small longitudinal streak below $\frac{1}{4}$ of costa and pale violet-purple markings mixed with pale blue and arranged as follows; a narrow transverse outwardly oblique striga before $\frac{1}{6}$ of wing from below costa to above dorsum; an elongate-ovate pale violet-

purple spot in middle of disc before $\frac{1}{4}$ and a narrow bluish strigula below and slightly before this along vein 1b, a small spot on upper half of extreme base of wing reaching to base of costa and enclosing a small black costal spot; black markings confluent towards base as to form two



Male genitalia of *Nemophora* HOFM.
 Fig. 11: *N. divina* sp. n. Fig. 12: *N. aurisparsella* (WALK.).

spots below costa beyond base, and two longitudinal marks on base of dorsum; not black-streaked median area of wing well-defined, with anterior edge gently inwardly oblique, concave, at $\frac{1}{4}$, posterior edge more

inwardly oblique, straight above, concave below, from beyond $\frac{3}{4}$ of costa to tornus; median area traversed by the following pale lilac blue markings partially slightly mixed pale purple: a median rather narrow hardly inwardly oblique fascia, gently outwards curved (outwards-convex); it is edged anteriorly by a broad, posteriorly by a narrow streak of tawny-ochreous suffusion; a second strongly anteriorly rounded-angulate transverse streak, almost interrupted in middle, lower half narrow, upper dilated towards costa; this streak is narrowly edged anteriorly (edge touching preceding streak below middle of disc) and broadly posteriorly by tawny-ochreous, this colour entirely filling concavity of streak; tawny edges of blue streaks clouded on margins of wing with blackish, especially anterior edge of second streak on costa; apical area with black neural streaks slightly confluent anteriorly. Cilia brilliant violet-purple, mixed with golden. Hind wing black, basal $\frac{3}{5}$ of costa whitish. Cilia black (imperfect).

Tegumen narrowed. Socii moderate. Valva over 1, rather narrowed, cucullus slender, sacculi indicated by a thick marginal ridge of the valva only, valvae being separate as far as their bases. Transtilla slender, median projection strong, together with slender lateral arms shaped like an angulate rod. Vinculum very long, gradually narrowed, upper edge straight. Aedoeagus with two slender curved apical hooks, vesica with unarmed wall, harpoon very large, slender. (Slide No. 1184 D, type).

West Java, Mts Gedé-Pangrango, Tjisarua Zuid Est., 1000 m, 21.v.1950 (L. J. TOXOPEUS). 1 specimen.

Belongs to the group of *N. augantha* (MEYR.) from India, but is quite distinct from that species through different markings and narrower, pointed fore wing.

GROUP 2. *Fore wing with veins 2 and 3 remote*

***Nemophora aurisparsella* (WALKER) (fig. 12).**

Nemotois aurisparsella WALKER, 1863, List Lep. Het. Brit. Mus. 28: 506. MEYRICK, Lepid. Catal. 6: 8, 1912. Gener. Ins. 133: 7, 1912.

Distribution: Borneo, Sarawak.

♂ 16 mm. Head and face smooth, shining metallic greenish-silvery, a small rough tuft of orange hairs above bases of antennae. Eyes enlarged, approximated on vertex. Antenna about 3, purple, scape flattened laterally, brilliantly shining violet. Palpus short, long-haired, light ochreous. Thorax and pectus brilliant metallic pale golden-green, tegula violet, tip light blue. Abdomen light yellow, posterior half infuscated above, with bronze gloss, venter of segments 2-7 brilliant greenish-golden mixed with

violet, anal tuft dull fuscous, smooth. Legs violet-purple, inside greenish-golden, anterior tibia dilated towards apex by smoothly appressed scales, posterior tibia with very long hairs above, shorter hairs beneath. Fore wing with cell deeply longitudinally plicate in middle, veins 4, 5 and 6 seemingly stalked, actually 5 and 6 stalked only, 2 from before angle, 7 separate; broad, ovate, with costa oblique at base, gently prominent at $\frac{1}{6}$, hardly concave in middle, curved along posterior third, apex very bluntly pointed, termen rounded, very oblique. Basal half bright yellow; upper $\frac{2}{3}$ of base of wing with a rounded glossy violet spot, continued as a narrow streak along basal $\frac{1}{6}$ of costal edge; a short brilliant metallic-golden streak below base of fold from just beyond base of wing; tumid, brilliant metallic discal spots, silvery, faintly tinged violet, arranged as follows: an irregularly rounded one above fold well beyond basal patch; three more in an oblique transverse series: upper largest, ovate, just below costa beyond $\frac{1}{4}$, median transverse-ovate, narrow, below and beyond preceding, lower small, round, in fold, beyond median; one more spot, elongate-ovate, transverse, more oblique than preceding, between upper and median of preceding spots and halfway between them and edge of yellow area; latter area is edged from middle of costa to middle of disc by a narrow, gently undulating dull deep purple line, slightly inwardly oblique and gently curved outwards; this line is edged posteriorly by a rather thick brilliant silvery-metallic fascia from well below costa, clavate above, below edging lower half of yellow area, on lower half becoming brightly golden; a moderate invert-trapezoid yellow costal spot crowning upper extremity of this fascia, its posterior edge strongly inwardly oblique; posterior half of wing beyond these markings brightly shining coppery-golden suffused with brassy-purple except an elongate-ovate ill-defined area towards posterior fifth of costa and in apex; dull deep purple irroration forming a transverse fascia from posterior edge of yellow costal spot to middle of termen, triangularly dilated towards extremities, interrupted in middle by bright brassy-purple colour. Cilia coppery-golden, along termen suffused with brassy-purple. Hind wing with vein 2 from $\frac{3}{5}$; anterior half semipellucant, pale golden, posterior half violet-purple, thinly scaled, edge ill-defined below; basal $\frac{2}{3}$ of costa with an abruptly attenuated whitish-yellow streak occupying $\frac{1}{4}$ of wing breadth. Cilia dull yellowish-fuscous with darker basal third, along their middle mixed with sparse fine shining golden scales, along golden area pale yellowish.

Tegumen broad, rounded, top flattened. Socii small. Valva under 1, very broad at base, cucullus small, obtusely pointed, sacculus $\frac{2}{3}$, simple.

Transtilla with a minute median point. Vinculum long, considerably narrowed. Aedoeagus armed with a curved hook and three long crochets on a common stalk; vesica denticulate; harpoon moderate (Slide No. 1175 D, type).

West Java, Djampang Tengah, Bodjonglopang, 650 m, 1.i.1941 (M. A. LIEFTINCK). 2 ♂.

This species is closely related with *N. pecuniosa* (MEYR.) from Sumatra but differs in the following points: head silvery instead of bronze; thorax golden with violet tegulae instead of coppery-bronze; fore wing with base of costa and of wing violet and blue instead of bronze, no coppery-bronze costal streak; differently arranged discal markings, not edged with blackish; the presence of a median transverse silvery streak; and last not least: stalked veins 5 and 6 in fore wings.

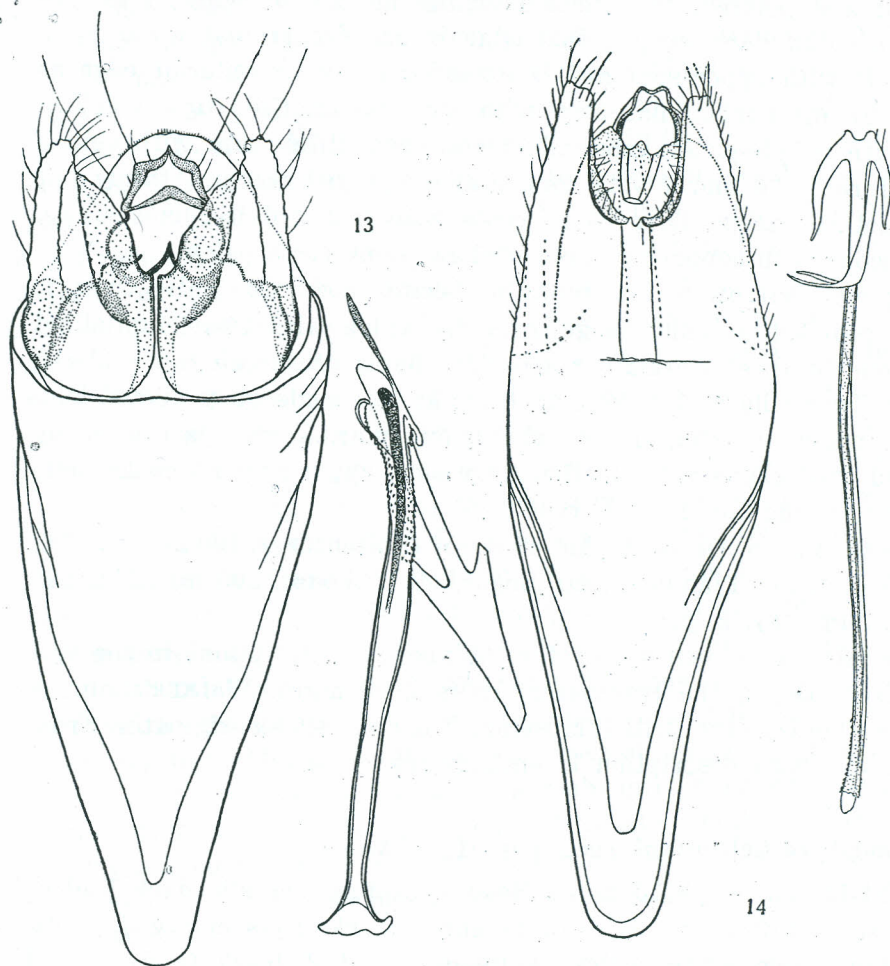
***Nemophora tristrigella* (WALKER, 1866) (fig. 13).**

Nemotois tristrigella WALKER, 1866, Catal. Lep. Het. Brit. Mus., 35: 1815. MEYRICK, Lepid. Catal. 6: 8, 1912; Gener. Ins. 133: 7, 1912.

Distribution: Java.

♂ 17-18 mm. Head and face smooth brilliant metallic silvery-greenish. Antenna almost 3, silvery-white, base suffused with violet-purple, scape violet-purple, anteriorly metallic silvery-greenish. Eyes enlarged, little approximated on vertex. Palpus short, slender, rough at base, smooth-scaled posteriorly; ochreous-whitish. Thorax brilliant metallic silvery-greenish-golden. Abdomen light ochreous-fuscous. Legs smooth, anterior tibia dilated by smooth scales towards apex, posterior tibia with very long fine hairs above, shorter hairs beneath; deep purple-fuscous, tarsal segments with pale golden basal rings, anterior femur metallic-silvery, posterior femur pale golden-brassy; posterior tibia silvery-greenish with apical half brassy-violet, covered with long fine dull greyish-fuscous hairs above and beneath. Fore wing with vein 2 from well before angle, 7 and 8 stalked, 6 approximated; elongate-subovate, strongly dilated to beyond middle, thence narrowed again, costa gently curved anteriorly, more so posteriorly, prominent at $\frac{3}{5}$, somewhat impressed along vein 12; apex obtuse, termen moderately curved, very oblique, long. Basal $\frac{2}{5}$ of wing brilliant silvery-golden with pale greenish or coppery shine; a short narrow dull black streak along basal half of vein 11 from beyond base; an inwardly oblique narrow undulate transverse fascia from before middle of costa to middle of dorsum, upper fourth outwardly curved and more oblique, remaining part with undulations becoming weaker downward (in another specimen fascia entirely straight); this fascia is pale yellow and

edged on both sides with dull deep purple lines; posterior being well-defined, anterior narrower, suffused and becoming obliterate below fold, below costa branching off a narrow angulate line which encloses a subtriangular brassy-violet costal spot, sometimes this branch absent; beyond these lines transverse fascia is edged on both sides by ill-defined purple-violet



Male genitalia of *Nemophora* HOFM.

Fig. 13: *N. tristrigella* WALK. Fig. 14: *N. kalshoveni* sp. n.

suffusion, posterior edge broader; wing beyond fascia pale golden mixed with greenish-silvery scales and irregularly clouded with violet-purple, especially around markings; latter pale yellow, irregularly edged with dull deep purple: a strongly sinuate narrow streak from just before $\frac{2}{5}$ of costa running towards termen below apex but not reaching margin.

inwardly convex along upper half, lower half dilated as to form an elongate-ovate spot, placed obliquely before apex of wing; this spot is of slightly variable shape, with terminal extremity pointed; another similar spot, slightly smaller, tolerably parallel to former, slightly less oblique, before middle of termen, anterior extremity rounded, posterior narrowed and pointed, sometimes reaching margin of wing; both are edged with dull dark purple, this edge is broader around lower spot, connects it with upper spot and is extended along its anterior edge as to form an erect-triangular spot with apex basad. Cilia brassy-golden mixed with purple-violet, especially along base. Hind wing with vein 2 from before $\frac{3}{5}$, 6 and 7 very long-stalked; greyish-fuscous, thinly but evenly clothed except along $\frac{3}{4}$ of costa with rather dull purple scales. Cilia fuscous with coppery or golden gloss, along costa paler.

Tegumen narrowed, top rounded. Socius moderate. Valva over 1, cucullus rounded, sacculus large, over $\frac{6}{7}$, valva with two longitudinal ridges, one of these separating sacculus; bases of sacculi not soldered together. Transtilla with a long acute point and moderately dilated long arms. Vinculum broad, rather short, irregular, saccus part abruptly narrowed. Aedoeagus with denticulate vesica, apparently no hooks, harpoon large (Slide No. 1176 D, type).

West Java, Depok, 50 km of Bogor (Buitenzorg), 100 m, 7.iii.1941 (L. J. TOXOPEUS); Tjampea, near Bogor, Mt Tjibodas, 200 m, 22.ix.1929 (M. A. LIEFTINCK). 2 ♂.

The latter specimen served for the above redescription; in the specimen from Depok the transverse fascia is straight. WALKER's unique type specimen is in the British Museum. It is recorded as originating from "Java". WALKER's description is entirely inadequate.

Nemophora kalshoveni spec. nov. (fig. 14).

♂ 11-15 mm (type 15 mm). Head with face metallic dark leaden-grey, a small tuft above bases of antennae black. Eyes enlarged, contiguous, occupying entire vertex. Antenna almost 2, black finely ringed with white, along posterior half entirely glossy leaden-grey, scape black. Palpus rather short, roughly scaled, black. Proboscis immensely thickened with roughly projecting black hair-scales. Thorax smooth, black, with coppery gloss in certain lights, tegula purplish-coppery, pecten metallic dark leaden-grey. Abdomen black narrowly ringed along anterior edges of segments with pale grey, anal tuft pale grey. Legs black with brassy

gloss, tarsi ringed with silvery-white, posterior femur pale brownish, posterior tibia brassy below, with a silvery oblique lateral streak before median spurs, above black clothed with long grey projecting hairs, towards base of tibia appressed. Fore wing with all veins separate, lanceolate-ovate, moderately broad, dilated, costa straight along basal $\frac{2}{3}$ with a gentle prominence beyond base, curved posteriorly, apex rounded, termen rounded, long, oblique. Dull black with purplish tinge, irrorated with elongate dull pale yellow scales except an elongate black spot on costa beyond base; a small brilliant metallic silvery-coppery longitudinal mark just below base of costa with purplish gloss in certain lights; a triangular transverse band from just below $\frac{2}{3}$ of costa to tornus, moderately broad above, strongly dilated downward and extended along dorsum anteriorly; upper half well-defined, brilliant metallic-coppery, lower half less defined, purple irrorated with glossy indigo-blue and sparsely with coppery and black scales; followed by a light yellow dull mark from costa, outwardly oblique, strongly clavate below, reaching less than half across wing, edged with black, followed by a moderate dilated coppery metallic streak along about fifth sixth of costa; apical area beyond band denser irrorated with pale yellow; a moderate pale yellow streak along posterior sixth of costa slightly extending through apex along termen, terminal extremity narrowed, costal edge suffused with grey. Cilia dark grey with strong coppery gloss, along termen and more so in tornus with brilliant coppery basal half. Hind wing with veins 3 and 4 remote; thinly scaled, fuscous-grey, with strong purple gloss becoming brassy along marginal fourth. Cilia dark grey with faint coppery gloss, base shining coppery.

Uncus with emarginate top. Valva truncate. Transtilla with upper edge projecting in middle, indentate on both sides of this, projection with rounded top. Saccus moderately long, rather abruptly narrowed. Aedoeagus with a large harpoon, top apparently truncate, points of harpoon slender, slightly curved (a small bent rod attached to aedoeagus and removed together with this in mount may be a part of juxta). Slide No. 1204 D, type.

West Java, Mts Gedé-Pangrango, forest above Tjisarua, 1600 m, 15.viii.1950, type (Dr L. G. E. KALSHOVEN). Two males. East Java, Tengger Mts, Nongkodjadar, 1300 m, 10.iii.1941, paratypes, (A. M. R. WEGNER). Two males, in poor condition, smaller, but apparently conspecific.

Of uncertain affinity, perhaps correlated with *tristrigella* WALK. Dedicated to the collector.

Nemophora chalcobasa spec. nov. (fig. 15).

χαλκός = coppery, *βάσις* = base

♂ 11 mm. Head, rough, dark fuscous, face broad, smooth, metallic pale iridescent blue. Eyes very large, almost contiguous above. Antenna $2\frac{1}{2}$; glossy white, base becoming pale bronze, scape pale yellow. Palpus moderate, clothed with very long, roughly projecting scales; fuscous. Thorax denuded (presumably purple), tegula pale purple, pectus pale metallic-coppery. Abdomen bronze-fuscous, two anal segments black. Legs smooth, anterior tibia dilated towards base, posterior tibia with very long fine hairs above, shorter beneath; anterior bronze-fuscous, tarsus white; other legs: femora whitish-prismatic, tibiae violet-purple, dull blackish above, tarsi black with suffused broad white basal rings. Fore wing with vein 2 from $\frac{5}{6}$, 4 and 5 cornate, 7 and 8 stalked; moderately broad, elongate-subovate, costa gently curved throughout, more so before apex, apex obtusely pointed, termen curved, extremely oblique, very long. Fuscous, densely covered with shining golden, brassy and purple scales, latter predominating; basal fifth of wing light glossy yellow, margin well-defined, moderately inwardly oblique, from $\frac{1}{4}$ of costa to $\frac{2}{3}$ of dorsum, slightly convex, hardly undulate above, edged throughout with a suffused narrow dull blackish streak, which is somewhat dilated between vein 11 and middle of cell; base of wing with a small light purplish-fuscous spot extended along costa as to form an ill-defined narrow attenuated marginal line not reaching edge of basal area. Cilia brassy-purple, slightly mixed with prismatic. Hind wing with vein 2 from $\frac{3}{5}$; semipelluculent pale greyish-fuscous, apical half as far as vein 3 denser infuscated and with a faint coppery gloss, a shade along upper half of termen darker and tinged bronze. Cilia fuscous with faint coppery gloss.

Tegumen slender, obtusely pointed. Socius large. Valva under 1, rather weak, sacculus $\frac{3}{4}$, with thickened margin, ending in a small unpaired projection at the point where bases of sacculi are soldered. Transtilla dilated, semicircular at the sides, with a pointed knob in middle. Vinculum broad, upper edge ill-defined, saccus suboval. Aedoeagus with a single curved apical hook, vesica plicate, unarmed, harpoon small, rounded (damaged ?) (Slide No. 1177 D, type).

East Java, Tengger Mts, Mt Pandjangan near Nongkodjadjar, 1300 m, 10.iii.1940 (A. M. R. WEGNER). 1 specimen. •

Easily recognizable through pale yellow, dark-edged basal fifth of wing and absence of any other markings. Perhaps correlated with *N. asterodoxa* MEYR. from India, but the relation may be superficial.

***Nemophora chalcodactyla* spec. nov. (fig. 16).**

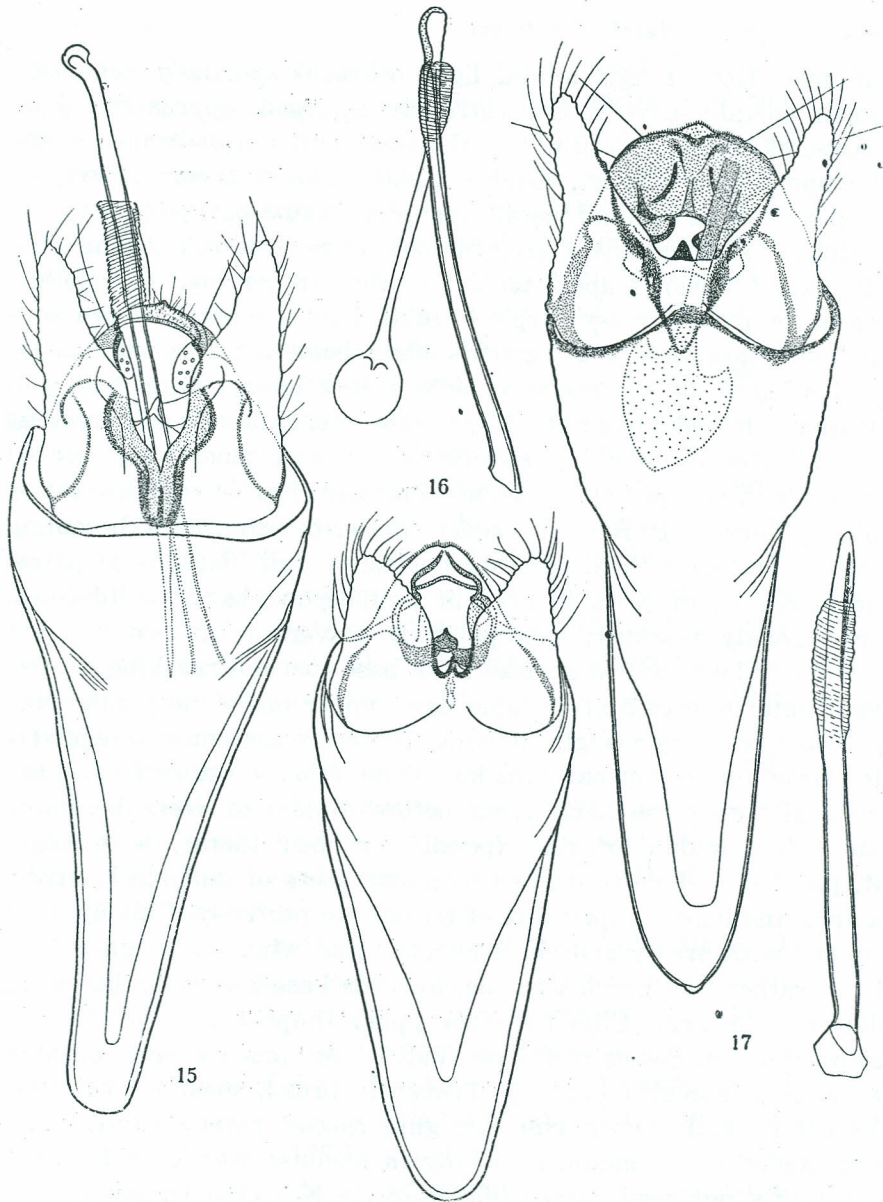
χαλκός = copper, *δάκτυλος* = finger

♂ 12 mm. Head rough, sordid light ochreous (partially denuded), face smooth, metallic-silvery. Eyes strongly enlarged, approximated on vertex. Antenna almost 3, white, less than basal $\frac{1}{5}$ purple-bronze, scape metallic coppery. Palpus short, roughish; pale ochreous becoming greyish towards apex. Thorax brilliant metallic coppery, tegula pale purple, pectus metallic silvery. Abdomen dark grey-fuscous. Legs smooth, anterior tibia rather thickened towards apex, posterior tibia rather sparsely clothed with thin hairs above. brassy-purple (median legs missing), femora coppery, tarsi with basal halves of segments white, posterior tibia with sparse fine blackish hairs above. Fore wing with vein 2 from before $\frac{3}{4}$, 7 and 8 closely approximated along basal third; subovate, rather broad, broadest beyond middle; costa tolerably straight anteriorly, moderately curved along posterior third, apex obtuse-pointed, termen slightly rounded, extremely oblique, very long. Brilliant violet-purple, towards apex becoming brassy, along posterior third of costa golden. A dull black basal patch, with edge from $\frac{1}{4}$ of costa to dorsum well beyond base, well-defined, gradually strongly rounded; this patch is traversed by two brilliant metallic coppery longitudinal streaks from base just not reaching posterior margin, interconnected at extreme base: upper one slightly subcostal, at base almost reaching margin of wing, posterior extremity irregularly truncate, lower one somewhat broader, along fold; a rather broad dull black vertical transverse band from before middle of costa becoming obliterate below middle of disc (possibly rubbed there), with edges straight, parallel, well-defined; two irregular spots of dull black irroration: in apex and before upper part of termen, respectively. Cilia brilliant golden mixed with brassy and violet-purple. Hind wing with vein 2 from beyond $\frac{2}{3}$; rather dull greyish-purple, towards base and costa becoming semipellucant pale grey. Cilia fuscous-coppery (imperfect).

Tegumen ovate. Socius moderate. Valva long, much over 1, cucullus slender, pointed, sacculus over $\frac{1}{2}$. Transtilla broad, median projection long. Vinculum with upper rim straight; saccus rather short, much narrowed. Aedoeagus (remained sticking in anellus) with long harpoon, apex apparently unarmed, vesica plicate (Slide No. 1183 D, type).

South Moluccas, Ambon, x.1949 (M. A. LIEFTINCK). 1 specimen.

Allied to the preceding species, characteristic through strongly rounded and oblique edge of basal patch.



Male genitalia of *Nemophora* HOFM.
 Fig. 15: *N. chalcobasa* sp. n. Fig. 16: *N. chalcodactyla* sp. n. Fig. 17: *N. rhodochrysa* sp. n.

Nemophora plutodotis spec. nov. (fig. 18).

πλουτοδότης = richness-bringing

♂ 17 mm. Head roughish, sordid ochreous, face smooth, shining metallic silvery-coppery. Eyes enlarged, almost contiguous. Antenna under 3, white, basal fourth with sharp black rings, segments 2-3 of flagellum entirely covered above with short appressed black hair-scales, basal segment white, scape blackish. Palpus rather short, light ochreous covered with long rough fuscous hairs. Proboscis much thickened with fuscous scales along basal fourth. Thorax dull black densely mixed with yellow, medianly also with sparse silvery-metallic scales, apex entirely silvery-metallic, tegula yellow centred with black, pectus metallic silvery-prismatic. Abdomen fuscous-grey suffused with black towards apex. Legs smooth, ochreous-white, femora with silvery-bronze gloss, anterior and median tibiae with posterior half dull black above, apices entirely black; apical half of anterior tibia thickened with appressed scales; posterior tibia glossy whitish, apical fourth suffused with black; clothed above and beneath with very long fine whitish hairs becoming shorter towards apex; all tarsi whitish with suffused black apical rings. Fore wing with vein 2 from beyond $\frac{2}{3}$, 7 and 8 stalked, 6 and 9 curved and approximated to stalk; sub-ovate, broadest in middle, costa tolerably straight anteriorly, moderately curved along posterior fourth, apex gradually moderately pointed, termen rounded, very oblique, very long. Rather pale purplish-golden towards posterior fourth of costa becoming pale golden, along markings tinged pale rosy-violet; markings dull yellow, below costa sprinkled with sparse jet-black scales, edged with similar scales except towards dorsum, towards costa these scales forming thicker continuous jet-black lines; a basal patch occupying less than $\frac{1}{4}$ of wing, edge vertical and slightly rounded along upper $\frac{1}{4}$, thence hardly concave, inwardly oblique: from before $\frac{1}{3}$ of costa to dorsum at $\frac{1}{5}$ of wing length; this patch includes a small pale violet round spot on extreme base and two longitudinal parallel almost horizontal brilliant pale greenish-silvery streaks, both originating from beyond base of wing, upper one rather slender, almost touching costal edge anteriorly, edged anteriorly and posteriorly with sparse jet-black scales, and reaching $\frac{3}{4}$ across basal patch; lower one broader and shorter, narrow-ovate, not black-edged, running along fold; a suffused narrow black streak along basal $\frac{1}{6}$ of costa, partially edging upper metallic streak; an inwardly oblique transverse band from middle of costa to dorsum beyond $\frac{1}{3}$ of wing length, gradually narrowed from costa to fold, lower fourth about four times

as narrow as band on costa; anterior edge gradually rounded from costa to fold, concave below fold; posterior edge with a long rather broad oblique posterior projection from below costa with rounded top almost reaching middle of disc well beyond cell, below this projection edge gently convex, below cell tolerably straight. Cilia shining pale golden mixed with pale purple. Hind wing with vein 2 from beyond middle of cell; semipellucen- cent greyish-purple with faint prismatic reflections, beyond cell from vein 8 to 1b faintly glossy coppery, extreme margin along this area turning purplish again. Cilia pale greyish-coppery, glossy.

Tegumen bluntly pointed. Socius moderate, elongate. Valva over 1, pointed, triangular, sacculus separated by a curved strong ridge. Trans- tilla broad, deeply incised in middle below, median projection small. Vinculum very broad, swollen, saccus narrowed, moderately long. Aedoe- agus (broken) with vesica spinose, two apical spikes: one slender, directed forward, another thick, directed backward, denticulate at top; harpoon large (Slide No. 1179 D, type).

South Celebes, Mt Lompobatang, southeastern slope, Borong Rappoa, 850 m, 19-24.viii.1949 (author). 1 specimen. Flying at daytime in a shady place in one of the last patches of forest left in this almost entirely devastated area.

Apparently nearest to *N. laticlavata* (MEYR.) from the same region (Bonthain), but differing in much extended and quite differently shaped yellow markings and the presence of a metallic basal spot in that species.

***Nemophora rhodochrysa* spec. nov. (fig. 17).**

$\rho\delta\delta\omicron\varsigma$ = rose-red, $\chi\rho\nu\sigma\varsigma$ = gold

♂ 13-15 mm (type 15 mm). Head dull black, roughly long-hairy, face shining metallic-coppery. Eyes enlarged, approximated. Antenna 3, white, basal fifth or fourth bronze, scape dull black, roughish. Palpus moderate, with roughly projecting, long hairs; black. Thorax deep blackish-purple, rather dull, tegula metallic golden-brassy, venter brilliant metallic-coppery. Abdomen dark fuscous-bronze. Legs moderately thickened with appressed bristly scales, projecting at apex of anterior and median tibia as to form a small pencil; purple, femora metallic-coppery, tarsi pale bronze, ringed with whitish. Fore wing with vein 2 from well before angle, 7 and 8 approximated along basal half, 9 approximated; elongate-ovate, little dilated, prominent beyond base, moderately curved along posterior fourth, apex obtuse-pointed, termen curved, extremely oblique, very long. Shining coppery-golden or reddish-golden, with brassy or purple-violet

gloss in certain lights. A cloudy ill-defined elongate-ovate patch of dull purplish-black suffusion along anterior third of costa, not reaching middle of wing, attenuated posteriorly and an inwardly oblique broad transverse band of similar suffusion from $\frac{3}{5}$ of costa hardly reaching cell; a rather thick brilliant metallic coppery slightly clavate streak just below basal $\frac{1}{5}$ of fold from somewhat beyond base and a similar shorter and somewhat narrower streak along base of fold, also from slightly beyond base of wing. Cilia bronze with golden or purplish gloss in certain lights. Hind wing with vein 2 from $\frac{3}{5}$; thinly scaled, greyish-bronze, with faint purplish tinge becoming semipellucet towards base and costa. Cilia fuscous-bronze.

Genitalia darkly pigmented. Tegumen blunt, rounded, globose, top with a small projection. Socius moderate. Valva small, bases soldered, cucullus obtusely pointed, slender, sacculus $\frac{2}{3}$, adorned with sinuate submarginal ridges. Transtilla strong, dilated at the sides, median projection large, triangular. Vinculum long, upper rim soldered with valvae, abruptly narrowed above middle so as to form an elongate-ovate saccus. Aedoeagus (broken) short, apparently one straight apical spine, vesica plicate, harpoon rather small, broadly cordiform (Slide No. 1178 D, type).

E a s t J a v a, Tengger Mts, Munggal Pass, 2450 m, vi.1941 (author).
6 ♂. Flying around in sunshine and alighting on flowers of *Eupatorium*.

Easily recognizable through unicolorous fore wing devoid of markings except for basal streaks.

Nemophora micrometalla spec. nov.

μικρός = small, μέταλλον = metal

♂ 9 mm. Head and face smooth, metallic pale golden, face tinged greenish. Antenna over 2, pale grey, scape light purple. (Palpi missing.) Thorax pale golden mixed with brilliant deep golden, pectus pale golden. (Abdomen missing). Legs smooth; fuscous with golden gloss, tarsi whitish, fuscous-ringed (posterior leg missing). Fore wing with vein 2 from well before angle, 7 and 8 connate; subovate, moderately broad, broadest at $\frac{2}{3}$, costa tolerably straight anteriorly, gently curved along posterior $\frac{1}{3}$, apex obtuse-pointed, termen curved, very oblique, long, dorsum curved. Fuscous-purple. A large, ill-defined patch of dull black suffusion extending along costa from just beyond base to well beyond middle, reaching to above dorsum, posterior edge convex, inwardly oblique, lower and anterior edges indefinite (possibly rubbed); a small short pale brilliant golden streak below base of costa from beyond base of wing; wing scattered

throughout with brilliant pale coppery and deep golden scales, more continuous along dorsum. Cilia shining deep golden and coppery. Hind wing bronze-grey, veins darker. Cilia pale leaden-grey, shining.

E a s t J a v a, Tengger Mts, Nongkodjadar, 1200 m, 7.ii.1940 (A. M. R. WEGNER). 1 specimen.

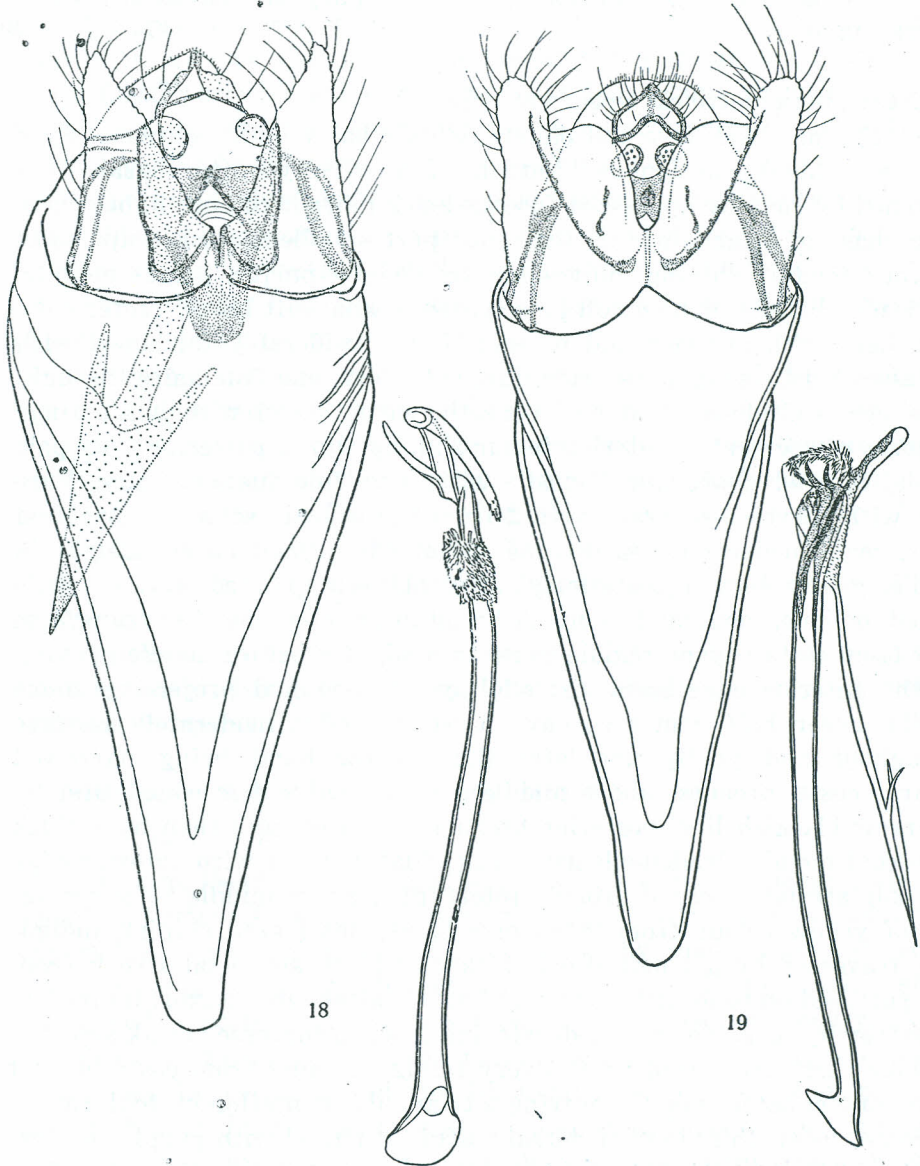
Unfortunately the unique specimen is slightly damaged and lacks the abdomen. It is very distinct, nevertheless, through small size and colouring and we venture to describe it, however reluctantly. It is correlated with *N. rhodochrysa*, spec. nov., and *N. chalcobasa*, spec. nov.

***Nemophora chrysdonta* spec. nov. (figs 23, 26, 31).**

$\chi\rho\upsilon\sigma\acute{o}\varsigma$ = gold, $\delta\delta\omicron\upsilon\varsigma$ = tooth

♀ 12 mm. Head with appressed ochreous-fuscous scales mixed with blackish, face smooth, metallic rosy-silvery. Antenna over 2; pinkish-white ringed with blackish, posterior $\frac{2}{3}$ silvery-white, blackish above, scape pinkish-white mixed with ochreous-fuscous hairs. Palpus short, roughish; pale ochreous, ciliate below with ochreous mixed with blackish. Thorax and pectus shining brassy-purple. Abdomen blackish, venter pale ochreous. Legs smooth, posterior tibia with sparse fine subappressed hairs above; golden, anterior and median femur and tibia suffused with purple above, posterior tibia purplish along apical half, with whitish hairs above. Fore wing with vein 2 from beyond $\frac{5}{6}$, 7 and 8 approximated towards base; subovate, broad, broadest at middle, costa slightly curved-prominent beyond base, straight in middle, curved along posterior fourth, apex obtusely pointed, termen moderately curved, extremely oblique, very long. Brilliant reddish-brassy, bases of scales golden, giving rise to fine golden irroration, costa broadly suffused with purple-violet. Markings bright yellow partially edged with dull black. A yellow basal patch occupying more than $\frac{1}{5}$ of wing, on costa extending to $\frac{1}{3}$, on dorsum to less than $\frac{1}{5}$ of wing length, edge from costa to below middle of wing very inwardly oblique, serrulate and broadly edged with irregular black retination, thence edge vertical, straight, not black-edged; indication of a narrow pale greenish metallic streak below basal sixth of costa, base of costal edge suffused with black; a moderate outwardly oblique (right wing) or almost vertical (left wing) yellow dentoid spot on costa beyond middle, moderately pointed below or slightly constricted below costa, on each side (except below) edged with a transverse-ovate dull black dot, posterior largest. Cilia brilliant reddish-brassy-golden. Hind wing with vein 2 from $\frac{3}{5}$; evenly fuscous-purple, rather dull. Cilia coppery-fuscous, base shining coppery.

Eighth segment with tergite produced into a long point, ventrite short. Apex of ninth segment forming a short tube, denticulate ventrally. Colliculum a short semicylinder with strong lateral rods ending in slender filaments. Cestum absent (Slide No. 1182 D, type).



Male genitalia of *Nemophora* HOFM.
 Fig. 18: *N. plutodotis* sp. n. Fig. 19: *N. lieftincki* sp. n.

West Java, Mts Gedé-Pangrango, Tjibodas, 1400 m, x.1949 (A. M. NEERVOORT). 1 specimen.

Possibly allied to *N. xanthobasella* SNELL., from South Celebes, but differing through black-edged markings, position of costal spot: beyond middle instead of at $\frac{2}{5}$, as in that species, and purplish instead of brownish-grey hind wing.

***Nemophora lieftincki* spec. nov. (fig. 19).**

♂ 17 mm. Head, face and palpus roughly hairy, light ochreous. Eyes enlarged, almost contiguous. Antenna $2\frac{1}{2}$, silvery-white, basal fifth thickened by roughly appressed fuscous-black hairs becoming light ochreous at base of flagellum, this thickened part spindle-shaped, scape light ochreous. Thorax shining indigo-blue, tegula blue-purple, pectus metallic pale leaden-blue. Abdomen dull pale ochreous, anal tuft black, venter dark grey. Legs with anterior and median tibia considerably thickened with appressed bristly scales, posterior tibia with very long fine hairs throughout above, and along basal half beneath, purple, tarsi with white rings at apices of segments, posterior femur shining white, posterior tibia pale purple, covered above and beneath with long fine fuscous hairs. Fore wing with all veins separate, vein 2 from $\frac{6}{7}$; broadly subovate, broadest at $\frac{3}{4}$, costa moderately curved and prominent beyond base, straight in middle, gently curved posteriorly, apex obtusely pointed, termen little curved, oblique, moderately long. A broad deep yellow median transverse band from costa beyond middle to dorsum slightly before middle of wing length; anterior edge undulate: slightly rounded and projecting above middle, lower half gently concave; posterior edge moderately concave throughout and gently undulate; thus yellow band being narrowed towards costa, broadest above middle; on both sides it is edged first by a narrow blackish line, posterior broader, suffused, and then by a thick tumescent metallic leaden-silvery streak; first of these with anterior edge tolerably straight, second broadly interrupted above middle by a projection of yellow colour from transverse band; basal area shining indigo-blue, traversed by a longitudinal thick dull black subcostal streak from base suffused on base with purple and gently attenuated basad; its posterior extremity merging in a moderate dull black transverse streak separating blue basal area from first silvery fascia, running from costa beyond $\frac{1}{3}$ to dorsum before middle, bearing a triangular dentation on fold, rather narrowed below this; base of dorsal margin suffused with purple; posterior third of wing shining purple-golden; posterior projection of yellow band traversing second silvery streak above middle and narrowly extending

along latter upwards and downwards but not reaching wing margins; somewhat above interruption of silvery streak yellow colour becomes suffused with brownish and forms a longitudinal streak gradually curved downward and abruptly extending into a large subtrapezoid subterminal paler yellow spot, not reaching apex, with apical extremity moderately pointed, upper posterior edge oblique; in this way yellow colour almost separates a circular spot of ground colour just opposite interruption of silvery fascia; two irregular spots of black irroration: on lower edge of circular spot of ground colour and before anterior lower angle of pre-terminal patch; black scales sparsely marking edges of yellow markings which also are sprinkled with pale blue shining scales above middle of wing. Cilia coppery-golden with paler base. Hind wing with vein 2 from $\frac{3}{5}$; pale grey evenly suffused with fuscous except along basal $\frac{3}{4}$ of costa and along posterior half with rather dull purple. Cilia fuscous-bronze or coppery, becoming paler along dorsum.

Tegumen somewhat truncate. Socii small, round-oval. Valva slightly over 1, cucullus rounded, sacculus distinct, edged by a hairy ridge, bases of sacculi indefinite. Transtilla with a small conical projection in middle. Vinculum with triangularly projecting upper edge. Aedoeagus with two sinuate apical spikes and a series of short teeth; cornuti a patch of fine needles, harpoon moderate (Slide No. 1181 D, type).

South west Java, Ujung Genteng Bay, sea-level, 1.vii.1939 (M. A. LIEFTINCK). 1 specimen.

Possibly allied to both *N. chrysocrossa* (MEYR.) and *N. smaragdaspis* (MEYR.), easily distinguished from both through presence of yellow markings in apical field.

***Nemophora hemidesma* spec. nov. (fig. 20).**

$\xi\mu$ = half, $\delta\sigma\mu\alpha$ = band

♂ 16 mm. Head and face rough-haired; black. Eyes enlarged, approximated on vertex. Antenna $2\frac{1}{2}$, silvery-white, basal fourth suffused with coppery-black, basal fifth slightly thickened by black appressed scales arranged along posterior side, scape coppery-black. Palpus rather short, long-haired; blackish with coppery gloss. Thorax fuscous-coppery, glossy, tegula fuscous with coppery shine, pectus metallic coppery. Abdomen dark bronze-grey. Legs smooth, anterior tibia thickened towards apex, posterior tibia with very long fine hairs above and beneath becoming somewhat shorter towards apex; deep purple, femora shining silvery, tarsi fuscous-coppery with narrow silvery bands on apices of segments, posterior tibia

silvery becoming coppery towards apex, clothed above and beneath with long, fine whitish-ochreous hairs becoming fuscous towards apex of tibia. Fore wing with vein 2 from well before angle, 7 and 8 short-stalked; elongate-ovate, moderately broad, broadest beyond middle; costa hardly curved anteriorly, little so along posterior fourth, broadly prominent at $\frac{1}{4}$, apex pointed; termen moderately rounded, very oblique, long. Dull

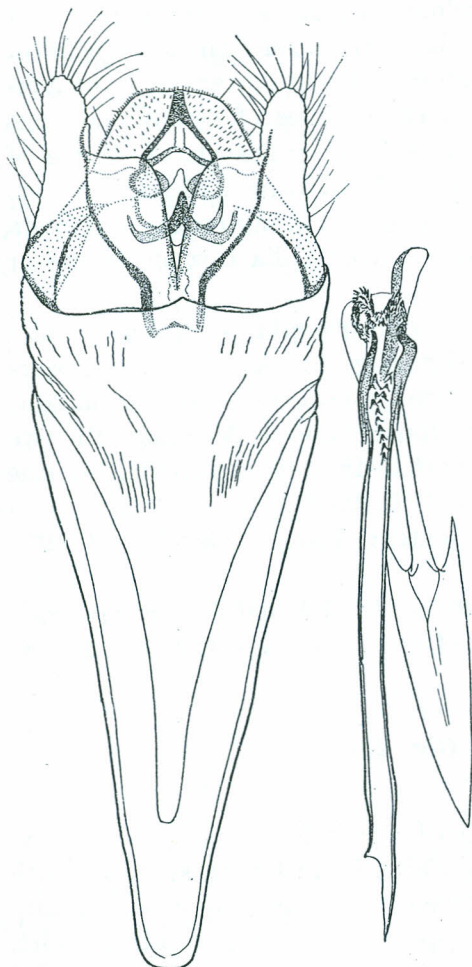


Fig. 20. Male genitalia of *Nemophora hemidesma* sp. n.

fuscous-olive, sparsely irrorated with pale olive-whitish scales throughout, strongly mixed with olive-white on apical fourth of wing; an ill-defined glossy coppery streak along basal $\frac{1}{4}$ of costa; an inwardly oblique rather narrow transverse white streak from beyond middle of costa, well-defined, hardly outwardly convex, lower extremity tolerably pointed and reaching below middle of disc, followed by a pair of faint whitish dots; this streak is edged on both sides by a rather thick line of ground colour not irrorated with white and then by a transverse silvery-lead metallic streak faintly shining coppery in certain lights, slightly thicker than white streak itself, traversing wing to dorsum; these metallic streaks are converging gently to above dorsum, thence as gently diverging, posterior streak being slightly more outwardly curved and inwardly oblique than anterior one; three irregular ill-defined spots of shining coppery irroration arranged in a vertical series at $\frac{3}{4}$ of wing, viz. at upper; lower angle

of cell and in tornus, respectively, each following larger than preceding, tornal extended as an ill-defined attenuated marginal band to middle of termen. Cilia dark olive-fuscous, basal half from apex to middle of termen

whitish-olive, base throughout mixed with shining coppery, especially along costa and in tornus, in certain lights cilia throughout with coppery gloss; cilia at $\frac{3}{4}$ of costa dull dark fuscous. Hind wing semipelluculent pale grey, with vein 2 from $\frac{3}{5}$, 6 and 7 short-stalked; below upper edge of cell and along the course of vein 8 evenly suffused: along anterior $\frac{2}{5}$ with pale fuscous-coppery, along posterior $\frac{3}{5}$ with purplish. Cilia coppery-fuscous tinged olive, basal third from apex to tornus silvery.

Tegumen somewhat truncate. Socii broad, rounded. Valva over 1, cucullus slender, rounded, sacculus large, well-separated, edged by a strong ridge; bases of sacculi forming a rectangular plate. Transtilla with a large point forming two curved arms at each side laterally. Vinculum elongate-triangular, upper edge with short blunt-triangular projection in middle. Aedoeagus with two unequal sinuate apical spines and a row of dentations; cornuti a double narrow patch of needles; harpoon very large (Slide No. 1180 D, type).

West Java, Mt Gedé-Pangrango, Kandang Badak, 2450 m, 10.v. 1947 (author). 1 specimen, flying in sunshine.

Belongs to the group of *N. cassiterites* (MEYR.), readily recognizable through fuscous-olive colour and incomplete white fascia in fore wing.

Nemophora decisella (WALKER, 1863).

Nemotois decisella WALKER 1863, List Lep. Het. Brit. Mus. 28: 505. MEYRICK, Lepid. Catal. 6: 8, 1912; Gener. Ins. 133: 7, 1912.

Distribution: Sumatra.

♂ 19 mm. Head roughly haired, face sordid ochreous. Eyes almost touching on crown. Antenna over 2; scape metallic pale rosy-violet; less than basal $\frac{1}{5}$ of flagellum moderately thickened by roughly appressed long indigo-blue hair-scales, pale violet at base; from beyond this thickening to before half of its length flagellum glossy white, posteriorly dull ochreous-tawny mixed with white. Palpus rather short, long-haired; sordid fuscous, tip black. Thorax metallic purple-silvery-greyish with prismatic, especially greenish reflections, pectus more metallic silvery coloured. Abdomen pale yellow (apical part missing). Legs, anterior and median tibia strongly thickened with rough bristly hairs, posterior tibia with fine long hairs above, becoming shorter towards base and apex, with moderately long hairs beneath, basal half of posterior tarsus with hairs above; deep bluish-purple, all tarsi and posterior leg throughout bronze-purple; anterior tibia strongly dilated posteriorly by roughly projecting scales, median tibia with roughly appressed scales, posterior tibia with

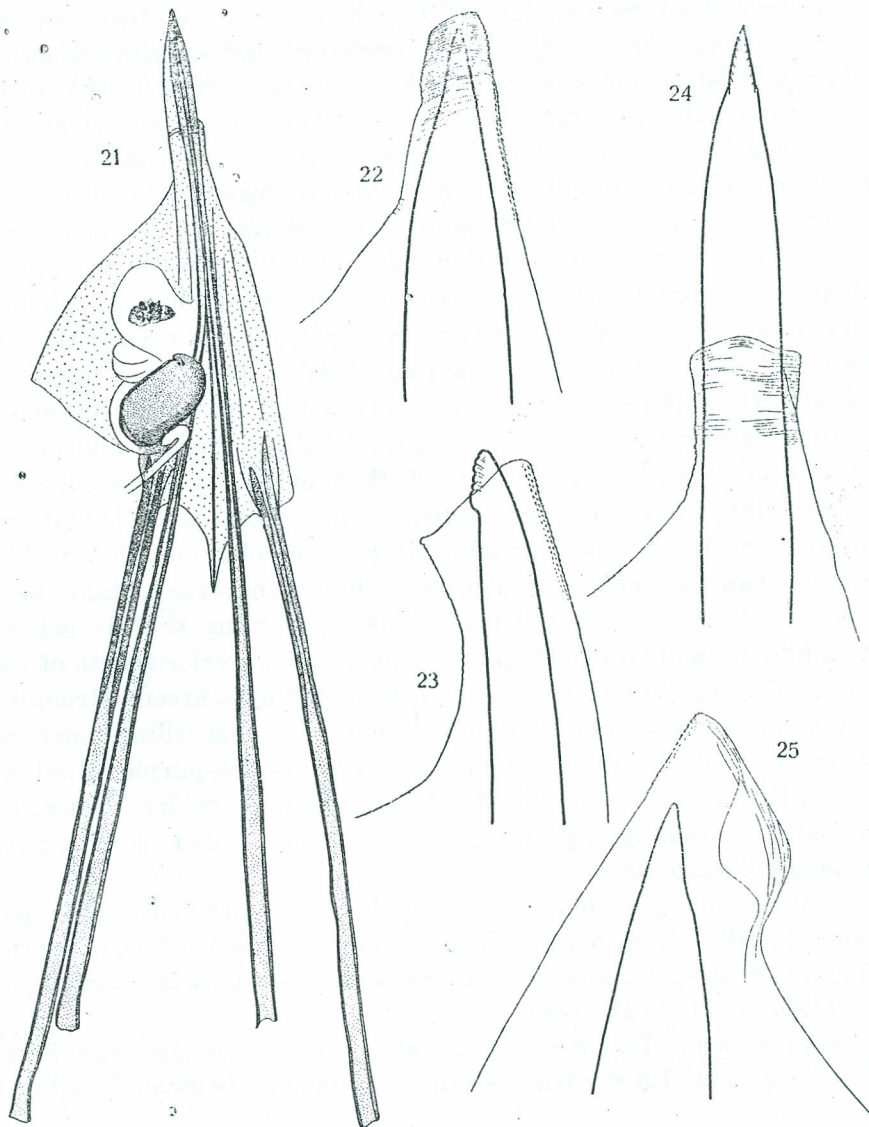
fine long ochreous-fuscous hairs. Fore wing with all veins separate; elongate-ovate, costa little curved anteriorly, straight in middle, more curved posteriorly, apex subobtuse, termen gently rounded, oblique, moderately long. Light purple; somewhat more than basal $\frac{1}{3}$ densely and evenly covered with metallic purple-silvery scales appearing greyish in certain lights, with pale violet reflections; costal edge of this area narrowly deep purple; an indication of a narrowed short subcostal blackish-purple streak from well beyond base; a rather broad light yellow slightly submedian transverse fascia from before middle of costa to beyond middle of dorsum, gently narrowed along its upper $\frac{1}{3}$, slightly sinuate (upper half inwardly, lower outwardly convex); edged on both sides by narrow somewhat irregular deep purple lines, moderately dilated towards costa, then by thick metallic greenish-silvery streaks little dilated towards costa, posterior interrupted above middle, extremities towards interruption rounded; anterior metallic streak preceded by a blackish-fuscous moderate streak edging basal area, gently dilated along its costal fourth, with anterior edge slightly suffused and irregular, posterior well-defined, gently convex; apical scattered with fine purple-silvery scales and also strongly and coarsely irrorated and mixed with pale yellow. Cilia (strongly damaged) purplish mixed with yellow, base yellowish. Hind wing thinly scaled; rather deep fuscous-purple, costal third to before apex with an attenuated pale fuscous streak; dorsum before vein 1b semipellucet. Cilia golden-bronze becoming dark fuscous towards apex, a deep bronze narrow sub-basal band.

West Java, Forest Reserve of Depok near Bogor (= Buitenzorg), 100 m, 2.iii.1941 (author). 1 ♂. Apparently this is the first record of the species since its description in 1863. If it frequents lowland forests of West Java it will be scarce in this island at present, as little of these forests is left. Also the above mentioned habitat, for that matter, a small reserve of lowland forest at Depok, disappeared after the war.

• **Nemophora liongi** spec. nov. (figs 21, 24, 29, 33).

♀ 12.5 mm. Head and face roughly scaled, orange-yellow, tip of tuft on vertex mixed with dark fuscous. Antenna over 1, basal half much thickened with subappressed ochreous-brown hair-scales mixed with dark fuscous, apical $\frac{1}{4}$ of this thickened part blackish with more projecting long scales; apical half of flagellum filiform, white ringed with fuscous; scape fuscous-yellow, hairy. Palpus very short, roughish, ochreous-fuscous. Thorax dull deep ochreous, tegula deeper tinged, pectus with anterior

half metallic silvery, posterior indigo-purple. Abdomen light bronze. Legs with anterior and median tibiae much thickened with appressed bristly scales, posterior tibia with long hairs along apical third above; deep indigo-purple, posterior femur shining silvery, posterior tibia paler



Female genitalia of *Nemophora* Hofm.

Fig. 21: Chitinous skeleton of ovipositor, 9th abdominal segment and ductus bursae of *N. liongi* sp. n. Top of ovipositor of: Fig. 22: *N. heteroxantha* sp. n. Fig. 23: *N. chrysodonta* sp. n. Fig. 24: *N. liongi* sp. n. Fig. 25: *N. bifasciella irrorata* subsp. n.

purple; all tarsi pale bronze, whitish-ringed. Fore wing with vein 2 from well before angle, 7 and 8 closely approximated in left, short-stalked in right wing; elongate-ovate, costa moderately curved anteriorly, less so towards apex, apex moderately pointed, termen moderately rounded, extremely oblique, long. A slightly inwardly oblique, moderate, submedian deep ochreous transverse fascia, darker than thorax, anterior edge tolerably straight, posterior very gently rounded-prominent below costa and on fold; this fascia is edged on each side with a narrow suffused dark fuscous line and then with a thick bluish-silvery metallic band, almost as broad as fascia itself; at $\frac{1}{3}$ of its length anterior metallic band is slightly constricted, posterior indented by fuscous-ochreous colour penetrating basad; anterior fascia is preceded by a slightly broader transverse band of dark coffee-brown colour, with anterior edge slightly irregularly dentate; basal area of wing before this fascia shining deep blue, in middle of disc and above dorsum slightly tinged light purple; this area is traversed by two dull deep ochreous longitudinal streaks from base, upper subcostal, slightly suffused with fuscous, meeting a small projection from dark brown transverse fascia, lower just subplical, shorter and broader, pointed and not reaching that fascia; both streaks with lower edge somewhat irregular; posterior part of wing beyond second metallic transverse band dark purplish-fuscous including large light blue metallic markings, paler blue than base of wing but deeper than transverse metallic bands; they form a large circular patch at about $\frac{3}{4}$ of wing slightly below its middle and a broad marginal band running along posterior fourth of costa, in apex and along termen to tornus; a thick tawny-ochreous strongly inwardly oblique streak edging circular patch above and filling indentation of second metallic transverse band. Cilia deep bluish-purple. Hind wing with vein 2 from before middle of cell; shining deep golden-bronze; marginal fourth, especially opposite middle of termen, suffused with purple. Cilia deep golden-bronze.

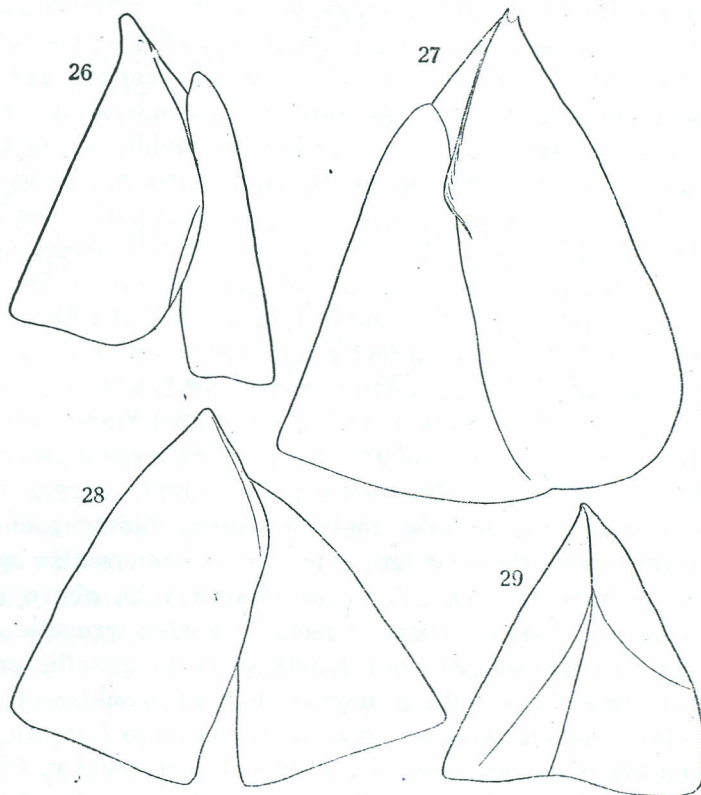
Eighth segment rather abruptly pointed, tergite with short point, ventrite almost as long, pointed. Tube of ninth segment without denticles. Colliculum stellate, filaments weak, very slender. Cestum semiellipsoid, large (Slide No. 1185 D, type).

Southeast Borneo, Kandangan distr., Ampah near Sampit, 0-20 m, iv-v.1948 (LIEM SWIE LIONG). 1 specimen. Dedicated to the collector.

Belongs to the group of *N. bifasciella* (WALK.) but is easily recognized by blue ground colour.

Nemophora heteroxantha* spec. nov. (figs 22, 28, 32).ἕτερός* = different, *ξανθός* = yellow

♀ 15-16 mm. Head and face roughly haired; sordid greyish-white, face whitish. Antenna well over 1, more than basal $\frac{3}{5}$ of flagellum considerably thickened by long closely appressed hair-scales, apical $\frac{2}{5}$ thin, filiform; thickened part purplish-black, its median third suffused with ochreous, filiform part white, thinly ringed with black, towards apex



Eighth abdominal segment of *Nemophora* HOFM., females.
 Fig. 26: *N. chrysodonta* sp. n. Fig. 27: *N. bifasciella irrorata*
 subsp. n. Fig. 28: *N. heteroxantha* sp. n. Fig. 29: *N. liongi*
 sp. n.

becoming blackish altogether; scape purplish-black densely suffused with pale ochreous. Palpus moderate, long-haired; greyish, apex touched with black. Thorax ochreous-yellow (or pale yellow), shoulder broadly suffused with blackish-brown; pectus metallic silvery with pale greenish tinge. Abdomen bronze, with purplish and golden gloss in certain lights. Legs deep purple, anterior and median with blue shine, posterior femur

metallic silvery with greenish tinge; all tarsi whitish-golden, purple above except whitish-golden rings around articulations of segments. Fore wing with all veins separate; subovate, dilated, broadest at $\frac{4}{5}$, base constricted; costa moderately curved at base, almost straight in middle, abruptly bent at $\frac{4}{5}$ and gently but distinctly concave beyond this, apex pointed, termen gently curved, oblique, moderately long. Basal $\frac{1}{3}$ pale yellow, traversed by a thick black subcostal streak sparsely mixed with purple-ferruginous or brassy scales, edged along costa and below by greenish-blue metallic streaks, lower one continued as a similar somewhat broader streak across wing which terminates pale yellow basal area; this metallic streak is somewhat outwardly convex and inwardly oblique, becoming less defined on dorsum; a moderately broad deep ochreous transverse fascia from rather beyond middle of costa to $\frac{3}{4}$ of dorsum, slightly inwardly oblique, gently curved (outwardly convex) and hardly dilated towards costa; this fascia is edged at both sides by a thick leaden-golden metallic streak, these streaks moderately diverging towards costa, rather constricted above middle of disc, hardly so in fold; they are edged on both sides by brownish-black lines, each of which is abruptly triangularly dilated on costa; anterior metallic transverse streak is preceded by a moderate ochreous-tawny transverse fascia, separated from blue metallic edge of basal patch by an ill-defined transverse blackish-brown suffusion which is confluent above with traversing subcostal black streak; posterior third of wing ochreous-fuscous; a darker transverse shade beyond second transverse metallic fascia, fading and becoming ochreous towards its anterior edge; a moderate semicircular spot of dull blackish-brown irroration on middle of closing vein, above and below adjacent to irregular larger spots of metallic golden irroration; extreme margin of termen and of posterior fourth of costa metallic golden, this colour edged throughout with a narrow line of blackish-brown scales which is scobinate along termen and is dilated so as to form an ill-defined spot between lower golden spot on end of cell with termen. Cilia bronze with brassy and golden reflections. Hind wing with veins 3 and 4 separate; purple, costal third fuscous-whitish as far as upper edge of cell and vein 7. Cilia golden-bronze with whitish base and a narrow, darker bronze subbasal line.

Eighth segment with top pointed but hardly tubular, ventrite short. Apex of ninth segment very finely denticulate. Collicium a small plate armed with some four longitudinal blades, lateral filaments sclerotized but very slender above, weak below. Cestum semiellipsoid, smaller than in *liongi* (Slide No. 1186 D, type).

East Java, Tengger Mts, Nongkodjadar, 1200-1300 m, 14.ii.1940 (type), 3-18.ii.1940. Kletak Pass, 2000 m, 19-29.v.1941 (A. M. R. WEGNER). 6 ♀. Closely allied to *N. bifasciella* (WALK.), but smaller; it can readily be distinguished by deep ochreous instead of pale yellow transverse fascia and by different arrangement of other markings.

***Nemophora bifasciella* (WALKER 1866).**

Ucetia bifasciella WALKER 1866, List Lep. Het. Brit. Mus. 35: 1821.

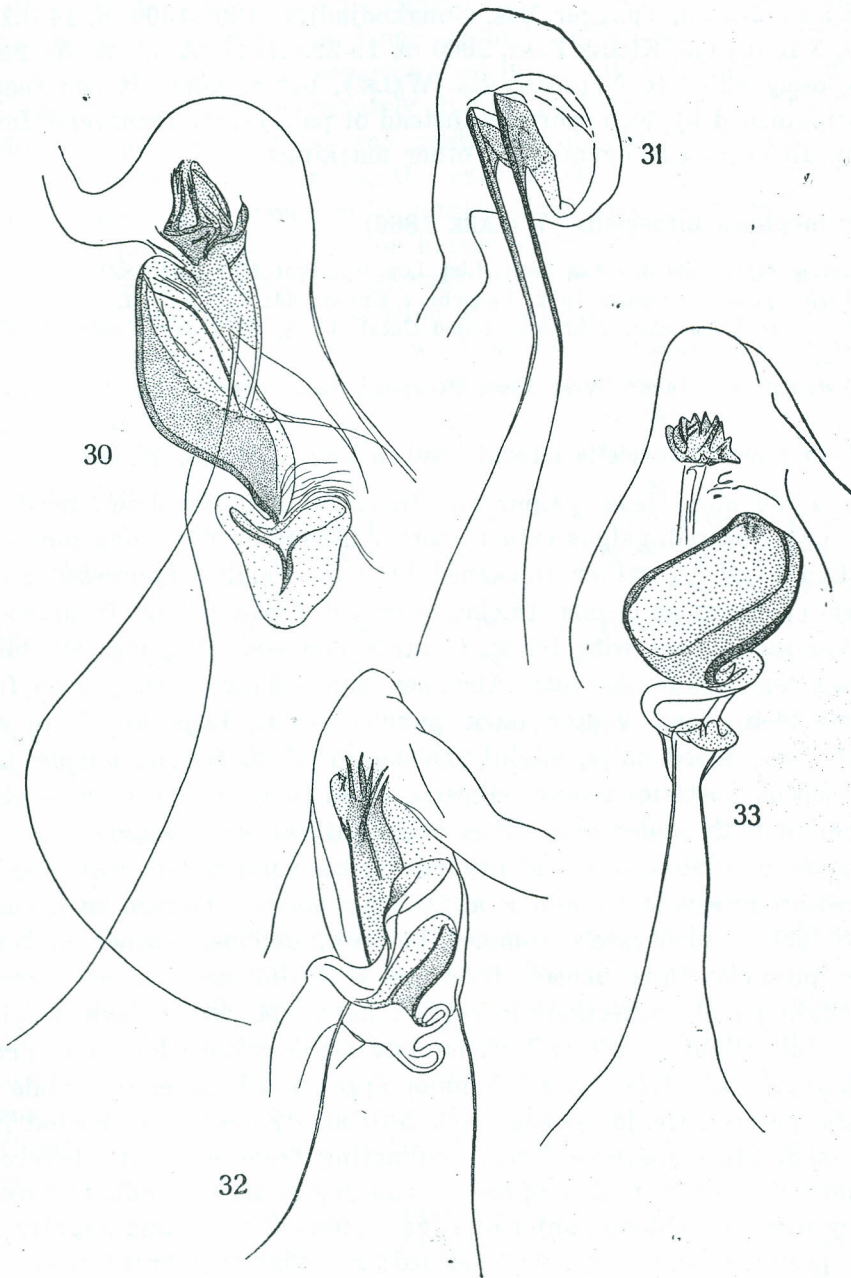
Adela sythoffi SNELLEN 1902, Tijdschr. v. Entom. 44: 77, pl. 5, f. 4 (♀).

Nemotois bifasciella, MEYRICK, Lepid. Catal. 6: 8, 1912 (syn. *sythoffi* SN.); Gener. Ins. 133: 7, 1912.

Distribution: "Java". West Java, Preanger, 1500 - 1800 metres.

***Nemophora bifasciella irrorata* subsp. nov. (figs 25, 27, 30).**

♀ 18-20 mm. Head, palpus and thorax dull pale yellow; head and face roughly haired, palpus rather short. Antenna over 1, along somewhat less than basal $\frac{3}{5}$ rather thickened by long roughly appressed hairs; filiform part greyish-bronze, thickened part dull pale yellow, from beyond base sparsely mixed with black, towards end becoming entirely black. Pectus glossy yellowish-white. Abdomen pale yellow dorsally with faint purple-golden gloss, venter dark purple-fuscous. Legs, all tibiae with smoothly appressed hairs, slightly thickened; dark fuscous-purple, tarsi light fuscous, posterior femur yellowish-white below, posterior tibia above pale yellow with golden gloss. Fore wing with all veins separate, 2 from $\frac{7}{8}$; elongate, dilated, broadest beyond $\frac{3}{4}$, base narrowed; costa slightly rounded-prominent at $\frac{1}{3}$, less so at $\frac{4}{5}$, apex pointed, termen long, hardly sinuate above, moderately rounded beneath, oblique. Rather dull pale yellow, posterior third densely irrorated with dull deep purplish-brown, with slight purple reflections in certain lights. Markings dark purplish-brown, dull, slight purple reflections only along costal edge. A moderate streak along costa from base to middle, appearing broader in middle due to costal prominence, lower edge well-defined, straight; a somewhat irregular moderate transverse fascia originating from preceding before its extremity (i.e. before middle of costa), running to about middle of dorsum, slightly inwardly oblique, anterior edge somewhat wavy and slightly suffused, posterior less wavy, well-defined; a moderately broad transverse fascia of pale yellow ground-colour slightly beyond middle of wing, anterior edge tolerably straight, posterior twice sinuate, being slightly rounded-prominent below costa and above dorsum, concave in middle; this fascia is



Female genitalia of *Nemophora* HOFM., colliculum and cestum.
 Fig. 30: *N. bifasciella irrorata* subsp. n. Fig. 31: *N. chrysodonta* sp. n.
 Fig. 32: *N. heteroxantha* sp. n. Fig. 33: *N. liongi* sp. n.

sharply edged at both sides by a dull dark purplish-fuscous line, anterior one somewhat thicker, and then by a broader pale yellow line mixed with pale golden-purple metallic scales, thus being separated from submedian dark fascia and apical area of wing respectively; sometimes a purplish-brown shade, indistinctly triangularly dilated above middle of disc and above dorsum following upon posterior of the golden-metallic lines. Cilia fuscous-golden mixed with purple and dull pale yellow. Hind wing with vein 2 from $\frac{3}{5}$, 3 and 4 separate; deep purple-bronze, becoming more purple-tinged towards costa and apex, more golden towards base. Cilia shining coppery-bronze.

Eighth segment with a short apical tube, ventrite short, broad. Apex of ninth segment tubular, hardly denticulate. Colliculum a series of plates on a common basal plate. Cestum large, bent, concave (Slide No. 1187 D, type).

E a s t J a v a, Tengger Mts, Kletak Pass, 2000 m, 6.v.1940, 19.v.1941 (type); 10.vi.1941 (A. M. R. WEGNER). 3 ♀. Differs from typical form chiefly in the following points: posterior third of wing only irrorated with purple-brown, not entirely of that colour; yellow transverse fascia is broader and not dilated towards costa; submedian dark fascia much more strongly developed; abdomen yellow instead of brownish-grey; pectus much paler, legs darker; antennae paler towards base.

INDEX

	Pag.		Pag.
<i>Adelidae</i>	147	<i>cumulata</i> MEYR.	140
<i>Agriothera</i>	146	<i>decisella</i> WALK.	153, 173
<i>alloica</i> DIAK.	134	<i>divina</i> , sp. n.	153, 154
<i>Amphithera</i>	146	<i>Epagoge</i>	133
<i>Amphitheridae</i>	145	<i>erythrites</i>	140
<i>argyroiota</i> , sp. n.	138	<i>halidora</i>	144
<i>Argyrotoza</i>	140	<i>hemidesma</i> , sp. n.	154, 171
<i>Astrosa</i> , g.n.	135	<i>heteroxantha</i> , sp. n.	152, 177
<i>aurisparsella</i> WALK.	153, 156	<i>hilarochroma</i> , sp. n.	141
<i>axigera talina</i> DIAK.	134	<i>kalshoveni</i>	154, 160
<i>bathyglypha</i> , sp. n.	144	<i>laticlavata</i> MEYR.	152
<i>bifasciella</i> WALK.	152, 179	<i>leucosema</i> , sp. n.	136
<i>bifasciella irrorata</i> , subsp. n.	152, 179	<i>lieftincki</i> , sp. n.	153, 170
<i>Cacoecia</i>	134	<i>liongi</i> , sp. n.	153, 174
<i>chalcobasa</i> , sp. n.	153, 162	<i>mellosa</i> , sp. n.	133
<i>chalcodaetyla</i> , sp. n.	153, 163	<i>miae</i> DIAK.	135
<i>chrysodonta</i> , sp. n.	154, 168	<i>micrometalla</i> , sp. n.	153, 167
<i>cristata</i> , sp. n.	146	<i>Nemophora</i>	148

	Pag.		Pag.
<i>nivigera</i> DIAK.	142	<i>Schoenotenes</i>	144
<i>orthiotherma</i>	144	<i>smaragdopa</i> MEYR.	147
<i>pecuniosa</i> MEYR.	153	<i>Spatalistis</i>	141
<i>Peronea</i>	144	<i>Syndemis</i>	134
<i>Phricanthes</i>	142	<i>Taeniarchis</i>	138
<i>Planostocha</i>	140	<i>Tortricidae</i>	133
<i>plutodotis</i> , sp. n.	152, 165	<i>tristrigella</i> WALK.	154, 158
<i>rhodochrysa</i> , sp. n.	153, 166	<i>xanthobasella</i> SNELL.	154
