JAVANESE CHALCID-FLIES.

By A. A. GIRAULT (Cairns, Queensland; Australia).

The following were received for naming, mostly from Dr. W. ROEPKE.

Description based on females unless otherwise stated.

Coccophagus tristis (ZEHNTNER).

Three females reared from pupae of Aleyrodes bergi at Gordonvale, Queensland, on cane, Dec. 9, 1918. In my table runs to nigriventris, but cephalic 1/s scutum. Except lateral margin, axillae, propodeum, mesometapleurae also black, funicle 1 longest, equal pedicel, a bit longer than wide, others subquadrate. Stripe on forewing very faint or absent. Fringe 1/4 width of wing. KRUEGER's colored figure makes the parapsides all blackish. The dorsal thorax lateral of scutellum is blackish. Characterized by the black axillae contrasting with the yellow scutum, scutellum and parapsides. New to the Australian fauna.

Epaenasomyia new genus.

Runs to Paraenasomyia but ovipositor not extruded, body nonmetallic, scape moderately dilated, marginal a bit longer than wide, a bit exceeding postmarginal or subequal, stigmal a half longer than marginal. Head rounded, from cephalic aspect the frons wide. Femora 1 compressed, also 3, hind tibial spurs double. Scrobes converging, short. Mandibular teeth acute, subequal. Costal cel rather wide, densely ciliate. Resembles *Encyrtus*. Axillae united. Thorax depressed. Ovipositor free. Maxillary palpi with 3 much the longest and apical.

Epaenasomyia pallidiceps new species. Genotype.

Orange, head lemon, coxae pale yellow, wings hyaline, whole body, legs and antennae, eyes, with a short fuzzy pubescence, lateral ocelli their own diameter from the eye. Funicle and club dusky, latter short, half the funicle but wider, funicles all somewhat wider than long, first three shortest, 6 longest, shorter than the short pedicel. Cilia proximad of hairless line over twice coarser, extending nearly to base. Fore and hind wings densely, finely ciliate. Eyes rounded-triangular. Wings ample. Somewhat variable, abdomen often with a darker stripe across near base. Scutum sometimes lemon, the middle widely or down meson. Tegulae lemon.

From a large number of females reared from larvae of *Xylocopa caerulea*, Buitenzorg, Java, August 1918, W. ROEPKE.

Epaenasomyia xylocopae new species.

Habitus of an ordinary species of *Anagyropsis* and the same but head shorter, mandibles tridentate; the marginal a bit longer.

Aeneous, wings clear, middle legs save coxae, fore legs save coxae and femora at base, hind knees, tips hind tibiae, tarsi and scape save above at apex, reddish brown. Like the genotype but thorax more convex, frons moderate, the pubescence not so dense and from larger punctures, lateral ocellus nearly against the eye; funicles all somewhat shorter, 6 largest, twice wider than long; eyes larger, distinctly longer than the cheeks; a weak carina between the antennae.

Male the same, but flagellum filiform, brown save the globular pedicel, scape metallic, thick, clavate, funicles thick, 1 largest, somewhat longer than wide, club solid, ovate, distinctly longer than wide, exceeding funicle 1. Reared from the same in July, 1918, W. ROEPKE.

Mesopirene new genus.

Like *Euryischomyia* but hind tibial spurs stout, double, postmarginal and stigmal equal, the flagellum filiform, club 1 seeming more of the funicle than of the club, the latter not wider nor well defined; hind tibiae above clothed only with dense short hairs; the seeming backward projection of the submarginal is not present but that vein is first straight, distad changing caudodistad for a short distance then more distad, then cephalo-distad to join marginal. This angulation bears the only large bristles on the wing (except 5–6 from submarginal, those of marginal much smaller) one at end of the first turn-off.

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another at apex of the second, 3 at base of marginal, latter somewhat shorter, stigmal curved, nearly half of marginal. Antennae a bit above eyes ends; head somewhat wider than long, convex. Postscutellum absent, propodeum concaved, transverse with at least a distinct median carina. Abdomen depressed, 2 one third of surface, with a median sulcus at base. Parapsidal furrows sharp lines.

Mesopirene fasiativentris new species, genotype.

Black, head, flagellum dusky orange; pedicel, scape, legs save coxae and a conspicuous rather narrow stripe across abdomen 2 (basal half except extreme base mesad widely) lemon; also mesal sides of first coxae. Funicles a bit longer than wide, pedicel longer. Dense discal cilia of fore wing ending obliquely near end of marginal except along venation where it reaches the large bristles, costal cell with one long line. Vertex with bristles, frons wide. Coarsely scaly, scutellum with scattered, few slender bristles, scutum with rather dense, shorter setae. Mandible 2 truncate, with lateral apex acute. Fore wings infuscated at the three bristles only.

The males are smaller, seem similarly marked but the antennae not seen. Java.

Eurytoma phytophaga new species.

Black, wings hyaline, scape, pedicel, tibiae, knees (widely in femora 1, latter reddish beneath), trochanters reddish brown; tibial tips and tarsi pale. Scape thick, narrowing toward apex, pedicel short, cup-shaped, funicle 1 three fourths the scape, two and a half times longer than wide, 2 a bit shorter, 6 onethird longer than wide; club 1 equal to funicle 5, longer than 2 which is constricted at apex. Marginal four times longer than wide, nearly thrice longer than postmarginal, latter somewhat exceeding stigmal. Umbilicately punctate, pubescence not conspicuous. Mesopleurum longitudinally striate except a large polished area comprising over the cephalic half of the larger portion caudad of the ridge. Propodeum with a bifasciate, deep median channel. Petiole twice longer than wide, with weak rugae only, polished, abdomen polished, 5 a lot longer than 4, one fifth surface (dorsad). Lateral margin of occiput very accute. Scrobes forming a quadrate polished area divided by a narrow carina, barely missing cephalic ocellus. Clypeus well-advanced, bilobed. Polished ridge from mouth to antennae. Head long triangulair. Eyes bulging, round-ovate, with very sparce minute hairs. Abdomen non-stylate.

Male the same, but petiole longer, pedicel black; at least 6 funicles, all

long, peduncle stout at apex and armed with stout colorless hairs, not whorled nor elongate.

From fruit of an orchid. Java. W. ROEPKE.

Taftia prodeniae ASHMEAD.

Mandibles accute, postmarginal at bit longer than stigmal, latter's curve almost elbowed. Arcuate carina over facial inflexion mesad straight widely, thence obliqued off. Dull brown, margins of abdomen and the apex of the solid club fuscous. Wings faintly yellow save widely from base. Head densely coriaceous, also thorax, scutellum finely long-striate. Thorax with a loose, whitish pubescence. Propodeum pale yellow. Funicle 1 longest, smallest, quadrate, much shorter than the pedicel, 6 over thrice wide than long. Maxillary 4 long, others short, equal. Labial 3 short. Club wider than long. Ovipositor not free, to all appearanes. Oblique hairless line of fore wing not ascertained. No head appendages.

Two females on ants; Salatiga, Java; "species 6", VAN DER GOOT.

Copidosomopsis javensis n. sp.

Differs from genotype in being flatter, thorax not convex, the head somewhat shorter (eyes about cephalic), mandible teeth equal size somewhat larger. Proximal third abdomen save lateral margins above, whitish. Legs white save tibiae dorsad out from base (on hind tibiae the marking reaching middle, longer than the white at base of it), hind coxae outwardly and hind femur dorsad narrowly. Antennae pallid dusky, club dark. Scape a bit compressed. Funicles quadrate, enlarging distad, club two thirds funicle. Scutellum finely long-striate. Same as description otherwise. Stigmal over twice marginal. Habitus of an *Ooencyrtus*.

From many females.

Philotypesis javae n. sp.

Like *silvensis*, but the thick median stripe on abdomen continuous from near base to near base of tube and nodular at four places, the nodes making a cross stripe of which 3, a bit distad of middle, is largest, 1 abbreviated somewhat laterad. Also the tube is as long as the rest of the body, the ovipositor a third longer than it. Antennae at eye ends, Nine females from fruits of a wild *Ficus* at Nobo near Oengaran, Central Java, November 1916, W. ROEPKE.

Chalcis javensis n. sp.

Of small size. Black and usually punctate, wings clear; antennae, trochanters, first tarsi somewhat, first tibiae faintly save at each end, hind tibiae save at each end, red. Tarsi, tegulae (save reddish base), apex rather widely of all tibiae, base of tibiae 1 and 2, apex of all femora (narrowly in hind), lemon. Base of hind tibiae black. Postmarginal over twice the stigmal which is subsessile. Greyish pubescence noticable at apex scutellum, cheeks, metapleurum, face below antennae, hind coxae, venter of abdomen. Scutellum with plate entire. Last four ventral segments of abdomen with thimble-punctures. Cephalic ocellus its own diameter from scrobes. Dorsal segments abdomen after 2 with conspicuous golden pubescence from punctures, sparser at apex of 2. Hind coxae and femur punctulate. Funicle 1 a bit longer than wider, others shorter, more so distad. Pedicel small, globular. Posterior division metapleurum cross-striate, bounded behind by a row of punctures which cuts off a narrow glabrous strip caudad; first division only a narrowfoveate stripe. Propodeum coarsely foveate. Leggs fuzzy.

Salatiga 1917.

Dinocarsis lineatipes n. sp.

Like description of Australian *nigriflagellum* but face of pronotum, occiput save above, edges of cheeks, median line scutellum nearly to apex, metapleura, also black while the meson and cephalic margin propodeum narrowly, are pallid. Dorsal edge of all femora, dorso-lateral edge of tibia 1 save at base and widely at apex, same of tibia 2 save at each end, same of tibia 3 completely, black, also middle knee. Postmarginal barely longer than stigmal. Hairless line closed caudad, the discal cilia proximad of its dense to base. Mesal pronotum dark. Frons moderate. Dorsal thorax with close white pubescence. Marginal a bit longer than stigmal. Java.

Dinocarsis cooki n. sp.

Differs from the preceding in that all of dorsal thorax except sides narrowly of scutellum black, while funicle 6 and club are white, funicles 3-5

brown. Also marginal punctiform, stigmal long, postmarginal longer than marginal, shorter than stigmal, by about one half. — With the preceding.

Paracopidomopsis larvarum n. sp.

Green, wings hyaline, legs, club, scape golden, pedicel washed with green above, it and funicle more or less dusky. Characterized by the sculpture of scutellum, which is densely finely scaly-punctate four about basal three fourths or less, the rest abruptly polished. Funicles subquadrate, subequal pedicel, club twice longer. Marginal subquadrate, equal to postmarginal. Stigmal longer. Frons moderate. Mesopleurum scaly, scutum same, clothed with soft hairs but not so densely, so the scutellum. Hairless line with at least 6 lines of cilia proximad of it, a line along submarginal to base, costal cel with several lines. Funicle hispid. Hind tibiae clothed with dense very short hairs. Males only. From larva of a *Delias* sp., Salatiga, Java.

Tetrastichus palgravei n. sp.

Green, wings hyaline, scape, legs except coxae, hind femur 1 at basal two-thirds (the femora washed) golden. Funicle 1 equal to 2, nearly twice longer than wide, 3 a half longer than wide, longer than any club or the pedicel; club with distinct spicule. Mandibles with two ovate teeth and an inner truncation. Head scaly but with numerous, distinct, scattered thimble punctures all over; rest of sculpture usual, propodeum coarsely scaly, strongly tricarinate, carinae thickened at apex, the elliptical-oval spiracle with its long axis nearly longitudinal, adjacent to lateral carina. Stigma subelongate. Eyes naked, nearly round. Wings wide. Of usual build and habitus.

Male similar, funicle 4-, club 3-jointed, funicles onethird longer than wide, 1 shorter, flagellum clothed with somewhat longer hairs in whorls, one at base, one some distance before apex. Male scape a little compressed, the ventral blister elongate, half of surface, nearly its length from base, nearly half its length from apex. — Java.

Anastatus locustae n. sp.

In the table of Australian species runs to *Aristotelea* but at once characterized by the infuscation of the fore wing which consists of a wide stripe from bent of submarginal and a pyramidal half-stripe from whole of postmarginal and which is wider than the cross-stripe, the latter equal to the space between; also in color of the legs of which the tarsi, trochanters and somewhat over distal half of hind tibia in the dorsal aspect, except extreme base, soiled white, rest metallic. Scape slender, pedicel equal funicle 5, funicles 2—4 equal, longest, over thrice longer than 1 which is subquadrate, 5 and 6 longer than wide, 8 nearly square, antennae slender. Abdominal stripe obscure. Postmarginal elongate, twice the long stigmal. Ovipositor extruded shortly (one fifth surface), apex white. Middle tibial spur metallic. Raised triangle on cephalic scutum about one-third surface, a nearly complete median carina from it. Scutum with complete lateral ridges. Frons moderately narrow. Scutellum longitudinally lined. Body densely scaly, the short hairs from obscure punctures.

From locustid eggs in twigs of *Coffea robusta*, Ngredjo-Malang, Eastern Java.

A very similar form occurs at Singapore.

Anastatus magniscapus n. sp.

Runs to the Australian *maximus* with the type of which I compare it but valves of ovipositor concolorous at base and a bit shorter, the scape is foliaceously dilated, abdomen all metallic, the middle tibial spurs are black, at least at base; middle tibiae not pale at apex, hyaline band of fore wing very narrow, distad of middle like a line nearly stigmal somewhat longer and straighter (funicles 2—4 equal, twice longer than wide, longest, exceeding pedicel); frons moderate instead of moderately wide, the scutum as *locustae*, not with the raised area, longer than wide and reaching middle and it bears the median carina. Less stout than *maximus*. Funicle 1 or ring-joint quadrate in both.

A very similar species (A. Cooki n. sp.) occurs at Singapore but differs in that the basal fourth of hind tibiae above (at base all around) is ivory white. In both abdomen 6 is large, with scattered small thimble-punctures. The type is in the Raffles Museum at Singapore (C. F. BAKER). Types compared.

Neocatolaccus vandineï TUCKER.

Salatiga, Java, October 1916, on *Pachymerus*. A cosmopolitan species, common in grain infested with weewils. VAN DER GOOT.



Girault, Alexandre Arsène. 1919. "Javanese Chalcid-flies." *Treubia* 1, 53–59.

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