

A new Dryinid parasite of leafhoppers in Java

by

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During investigations on some leafhoppers of groundnuts in the vicinity of Bogor, West Java, occasionally adult specimens of *Empoasca sundaiica* Bergman (*Ent. Ber.* 16 : 64, april 1956) were found bearing an external sac on the abdomen. It is well known that such sacs contain the larval instars of parasites of the family Dryinidae. Very little is known of the Dryinids of Indonesia, except for some specimens collected by F. MUIR in East and Central Java during the search for parasites for the biological control of leafhopper pests in Hawaii (MUIR, 1916); these specimens were described by PERKINS (1912). ROEPKE (1916) described a single new species, *Phanerodryinus javanus*, but was not sure on which host it lived. In order to identify the Dryinids which attack the groundnut leafhoppers and to study their development, they were reared in the laboratory. Notes on the bionomics and behaviour of these wasps will be published elsewhere.

Aphelopus maculiceps spec. nov.

MALE. — Head, including mouth parts, pale straw-yellow; front and vertex reddish brown, paler along inner orbits, above with a dark blotch which encloses the ocelli and usually reaches to the hind margin of the vertex; antennae straw-yellow, very slightly infuscated beyond segment 4 or 5. Thorax black; prothorax brownish below and at sides, pronotum with a whitish spot in each lateral angle, in front of tegula; tegulae cream-yellow. Legs, including the coxae, very pale yellow, almost ivory white, fifth tarsal segment brownish; hind femora slightly darker. Wings hyaline, veins and stigma very faintly yellowish. Abdomen black.

Surface of body (except abdomen) with numerous short and erect, pale hairs.

Eyes hairy; head, in dorsal view, almost twice as broad as long (34 : 18); vertex between eyes more than half the width of the head (20 : 34), posteriorly separated from occiput by a narrow rim. Antennae as in fig. 1, (a) and (b), segment 1 (scape) distinctly longer than broad (6 : 4), second segment hardly shorter than the first, but distinctly thinner ($5\frac{1}{2}$: 3); 3—7 almost equally long, 8 and 9 very slightly shorter, 10 nearly four times as long as broad; clypeus and front without median carina; ocellar triangle blunt, with posterior side half as long again as the other two sides; POL : OOL = 2 : 1; posterior ocelli removed from occiput by nearly $1\frac{1}{2}$ times their diameter. Mesonotum convex; parapsidal furrows distinct, strongly convergent, extending halfway across, where they end separated by more than half the width of the mesonotum; postscutellum anteriorly with crenulate transverse furrow; propodeum about as long as high, the dorsal surface coarsely reticulately rugose, posterior surface alutaceous, separated from dorsal surface by irregular carina, from each lateral surface by two parallel and anastomosing carinae. Abdomen usually strongly compressed; ninth sternite with a rather short proximal stalk, sides curved and convergent, with 9—12 bristles; genitalia see fig. 2, f—h.

Sculpture: head slightly shiny, the surface covered with a network of microscopically fine carinulae, the areas enclosed by these carinulae shiny; thorax

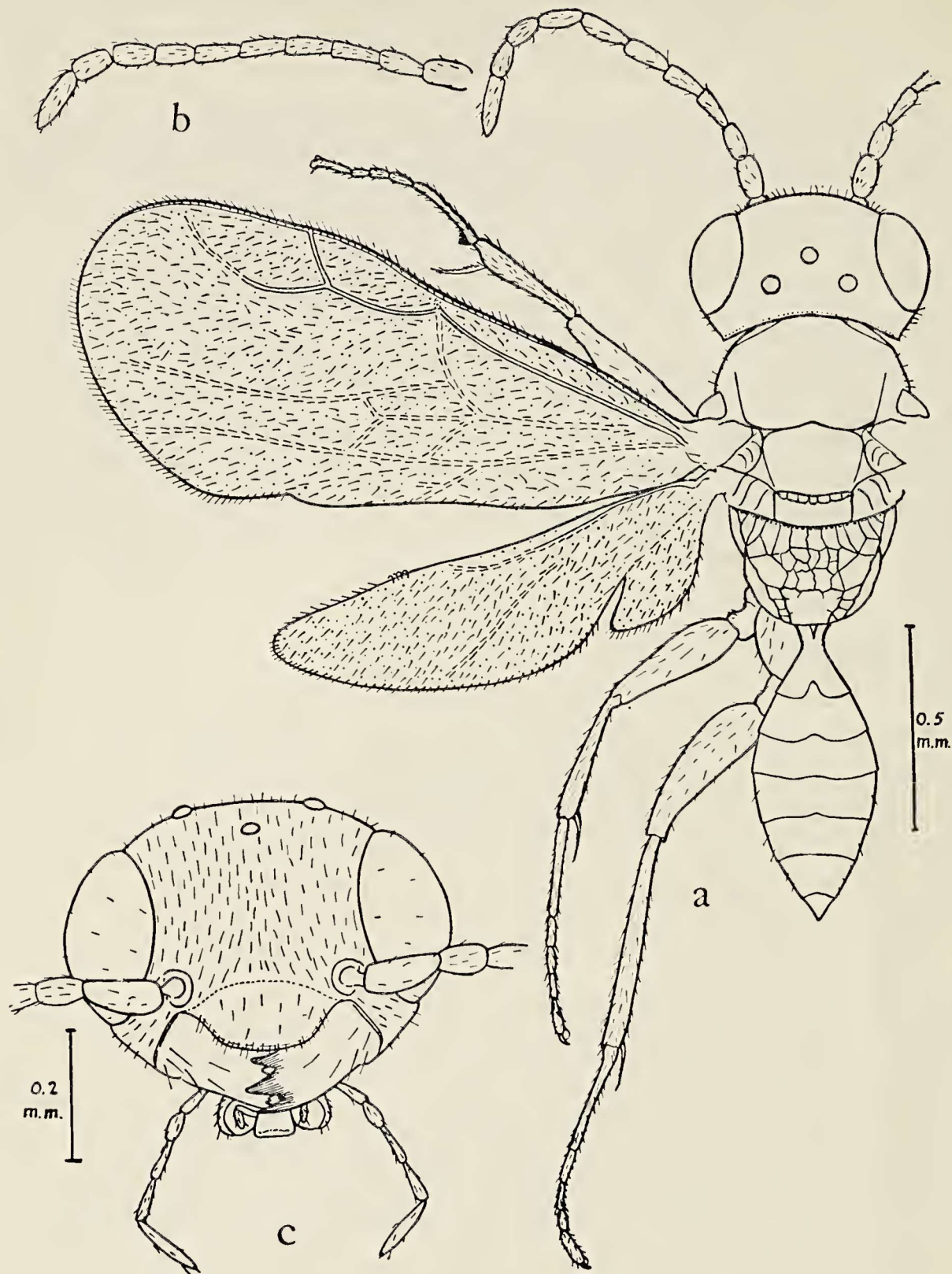


Fig. 1. *Aphelopus maculiceps* spec. nov. (a) male, general view; (b) female, antenna; (c) female, head, frontal.

with similar reticulate sculpture, but the areas on disk of mesoscutum and scutellum slightly larger and these parts therefore more shiny; abdomen polished.

FEMALE. — Very similar to the male in colour, structure and sculpture. The main difference is found in the antennae, which are slightly thickened towards segment 8 and rather dark brown beyond segment 4 (in the male the antennae are cylindrical and only slightly darkened in their distal half). Sting very short and usually retracted.

Length 1.6—1.8 mm.

Holotype male, allotype female, both in „Rijksmuseum van Natuurlijke Histo-

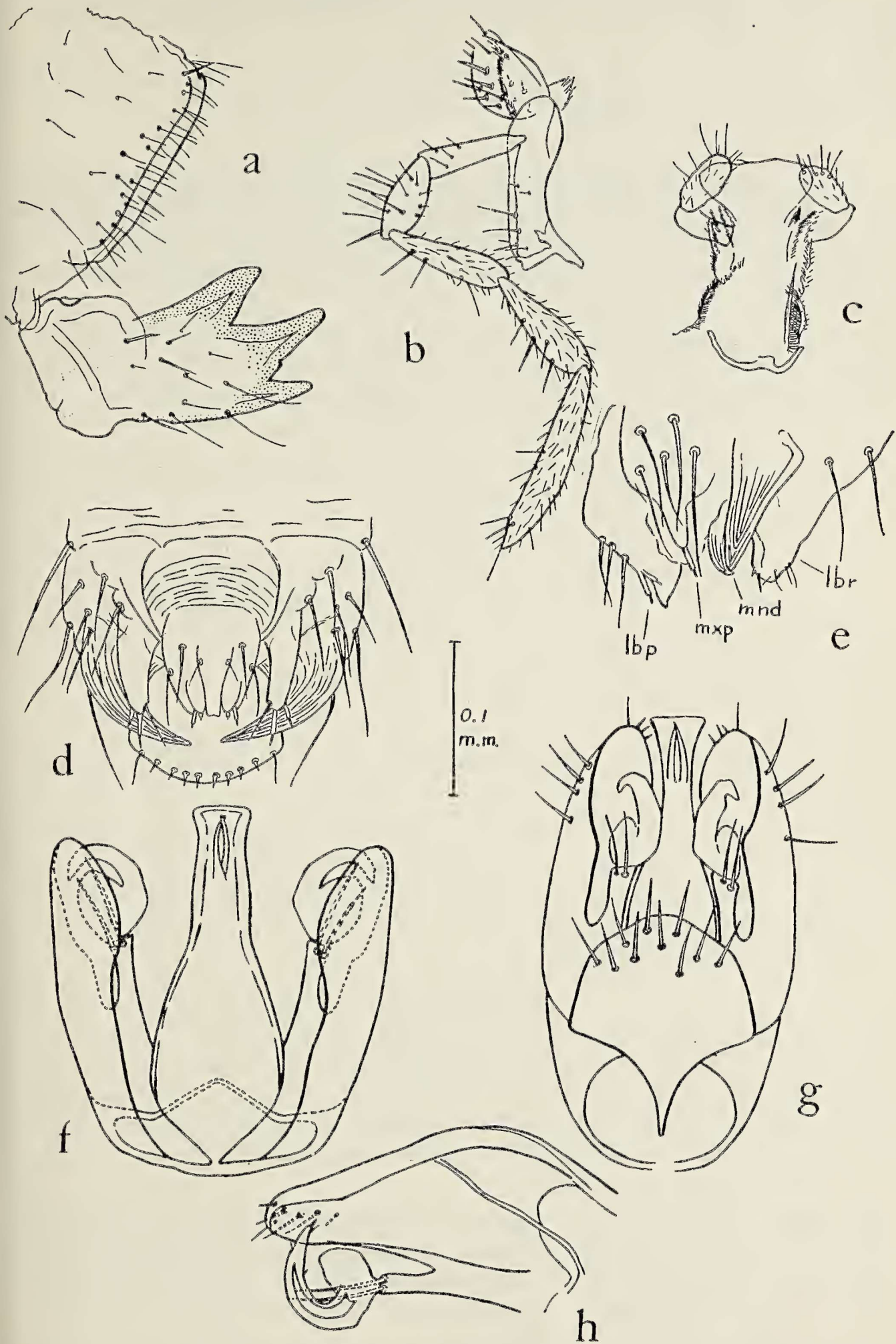


Fig. 2. *Apbelopus maculiceps* spec. nov. (a) labrum and mandible; (b) id. maxilla; (c) id. labium; (d) mature larva, mouth parts, ventral view; (e) id., lateral view; (f) male genitalia, dorsal view; (g) id., ventral view, including ninth sternite; (h) left paramere, inside. lbp., labial palpus; mxp., maxillary palpus; mnd., mandibles; lbr., labrum.

rie", Leiden; paratypes in coll. Division of Entomology, Faculty of Agriculture, Bogor; in Museum Zoologicum, Bogor; in U.S. National Museum and in British Museum.

Type locality: Bogor, West Java, March 1954, "ex imago *Empoasca sundaica* Bergman from *Arachis hypogaea*".

A second species of *Aphelopus* was reared also from adults of *Empoasca sundaica*. This species is entirely straw-yellow, except for the red ocelli and mandibulae and some of the apical segments of the antennae which are dark brown. The head is slightly darker than thorax and abdomen and relatively larger than in *A. maculiceps*.

Another *Aphelopus* species was reared from adults of *Erythroneura tripunctula* (Melich.). This species is completely black except for the ivory-white legs and the antennae, which are straw-yellow. The stigma is rather dark and the wasp is somewhat smaller than *A. maculiceps*, especially the head.

Since both species are rather rare, it was not possible to obtain sufficient numbers for adequate descriptions and drawings.

References

- MUIR, F., 1916, Notes on the sugar-cane hoppers and borers in the Malay States and Java. *Rep. exp. Sta. Hawaii Sug. Planters Ass., Bull.* 13: 58—64.
 PERKINS, R. C. L., 1912, Parasites of the family Dryinidae. *Rep. exp. Sta. Hawaii. Sug. Planters Ass., Bull.* 11.
 ROEPKE, W., 1916, Eine neue Dryinide aus Java (*Phanerodryinus javanus* nov. g., nov. sp.). *Tijdschr. Ent.* 59: 287—292.

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Vroege exemplaren van *Gymnoscelis pumilata* Hb. In de afgelopen wintermaanden gelukte het mij hier te Raalte een zestal exemplaren van *G. pumilata* Hb. te vangen. Ze werden allen binnenshuis buitgemaakt, gedeeltelijk in de huiskamer, gedeeltelijk in de keuken. De vangdata zijn de volgende: 10 oktober en 17 november 1955; 16 januari, 4, 15 en 22 februari 1956, telkens één exemplaar.

Bij het doornemen van de *Ent. Ber.*, deel 15, zag ik, dat op blz. 64 door de heer BENTINCK een exemplaar van 26 december wordt vermeld en op blz. 185 geeft de heer HERWARTH VON BITTENFELD een exemplaar van 12 februari op. Met deze vangsten zijn alle overwinterende maanden van *pumilata* bezet. De vangst van 10 oktober zal wel tot de partiële derde generatie behoren, temeer daar in de nazomer augustus warm en september normaal weer te zien gaf. De vangsten van 4, 15 en 22 februari 1956 zijn merkwaardig. Ze vullen midden in de hevigste koudegolf, welke we ooit gehad hebben.

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[De vlinders, die in januari en februari 1956 gevangen werden, moeten afkomstig geweest zijn van rupsen, die zich binnenshuis verpopt hebben. Daar de vlinder bij *pumilata* reeds vóór de winter kant en klaar in de pop zit, is het al heel gemakkelijk hem midden in de winter „er uit te stoken". — LPK.]

Te koop gevraagd: alle soorten insecten, doch alleen grote en middelgrote soorten (geen Lepidoptera), goed geprepareerd en voorzien van de thans geldige wetenschappelijke benamingen.

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