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Some Chalcidoidea (Hym.) collected in the Philippine, Bismarck and Solomon Islands.

1. Leucospididae, Perilampidae and Ormyridae.

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This is the first part of a report on the collection of Chalcid flies collected in the Philippines and the Bismarck and Solomon Islands on the Danish Noona Dan Expedition of 1961—62 (see Petersen 1966).

I am indebted to the Zoological Museum, Copenhagen, Denmark and to Dr. Børge Petersen for making this interesting collection available to me for study.

LEUCOSPIDIDAE.

This family comprises large species. All of them are parasitic in nests of bees. From Indo-Malayan and Australian regions 53 species are described. Weld (1922) has made a revision, but especially the species of the genus *Leucospis* F. from the Australian region is badly in need of a revision.

The material consists of only two species:

Leucospis bakeri Crawf.

Crawford, 1914, Philip. J. Sci. 9, p. 457.

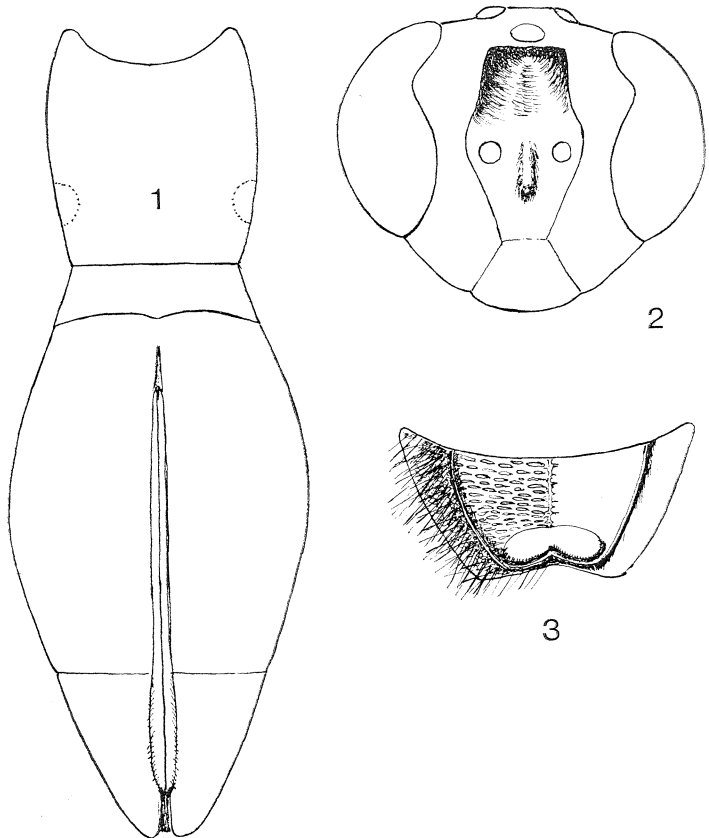
Philippines. — PALAWAN: Brooke's Point, Uring Uring, 1 ♀, 15 Aug. 1961. — TAWI TAWI: Tarawakan, 1 ♀, 2 and 13 Nov. 1961.

Leucospis buchi sp. n.

♀. Black, with a rounded spot ventrally of scapus, two very narrow bands on pronotum, two oval and confluent spots posteriorly on propodeum, one rounded spot laterally on each side of 1st segment of gaster yellow. Fore legs with a short stripe on femora,

distally and a stripe along anterior margin of tibiae yellowish white. Mid legs with a spot apically on femora and a stripe along anterior margin of tibiae (the stripe distally wider) yellow, tarsi with 1st — 2nd tarsal joints yellowish white and the remaining joints brown. Hind legs with a stripe ventrally and basally and another stripe dorsally and distally (apically) on femora yellow, tibiae with a yellow stripe along anterior margin beginning at the middle and reaching the apex, tarsi with the 1st tarsal joint dorsally yellow. Wings with blue iridescence.

Head (fig. 2) with fine puncturation on face and with pruinose pubescence. Vertex with umbellicate punctures and a sharp margin between vertex and occiput. Pronotum with confluent punctures and two transverse carinae. Mesonotum and scutellum with large,



Figs. 1—3. *Leucospis buchi* sp. n., (1) gaster (female), (2) head in frontal view, (3) propodeum.

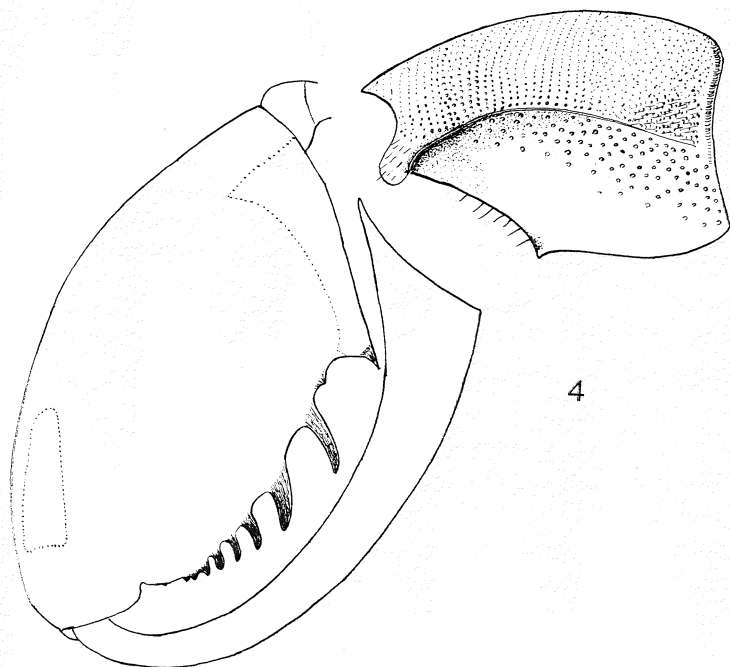
rounded pits (with a hair in each pit), interspace between the pits shagreened. Propodeum (fig. 3) with 3 longitudinal carinae, posteriorly in the middle with two smooth, oblong lumps, spiracles oval near anterior margin. Sulcus spiracularis wide and deep. The whole propodeum fine rugose and with scattered, fine hairs. Gaster (fig. 1) with fine punctures (scattered), the interspaces between the punctures shagreened. Ovipositor nearly reaching anterior margin of 3rd segment. The first segment of gaster with a smooth median stripe. Hind femur (fig. 4) very finely punctured and armed with 6 larger teeth and 4 smaller teeth. Hind coxa with a small tooth.

♂. Similar to female but some of the yellow spots have faded away.

Length: ♀, 12 mm, ♂, 12—13 mm.

H o l o t y p e, ♀: Bismarck Islands, NEW BRITAIN: Komgi, 1000 m, 14 May 1962. In the Zoological Museum, Copenhagen.

P a r a t y p e s: Bismarck Islands, NEW BRITAIN: Yalom, 1000 m, 1 ♂, 13 May, 2 ♂, 21 May 1962. — NEW IRELAND: Lemkamin, 900 m, 2 ♂, 11 and 21 April 1962.



Figs. 4. *Leucospis buchi* sp. n., hind coxa, femur and tibia.

L. buchi sp. n. is similar to *L. funerea* Schlett. and *L. amau-roptera* Schlett., but *L. buchi* sp. n. has another colour and hind femur is armed in a different way.

PERILAMPIDAE.

Stout, sometimes large species. Many species are described and are badly in need of revision, particularly genera and species from the Australian region.

In the collection of Chalcid flies of the Noona Dan Expedition there are only a few specimens of this family.

Monacon Waterst.

From the Indo-Malayan region 4 species are known belonging to this genus.

Key to the Indo-Malayan species of *Monacon*:

1. Marginal vein 3 times longer than stigmal vein. The basal part of fore wing nearly bare 2.
- Marginal vein twice as long as stigmal vein. The basal part of fore wing with scattered, short bristles 3.
2. The stout process on the face slender, acuminate, and little de-curved distally. Larger species 3 mm. *M. productum* Waterst., 1922
- The stout process on the face shorter and truncate and a little concave apically. Clypeal sulci at the upper end on each side with a small prominence (in *M. productum* Waterst. wanting). Smaller species 2,6 mm. *M. abruptum* Waterst., 1922
3. Face sparsely punctured. The process on the face compressed from the sides and acuminate *M. spinifrons* (Cam.), 1909
- Face finely reticulated. The process on the face truncate and with a concavity at apex *M. ferrierei* Baltz., 1962

Monacon ferrierei Baltz.

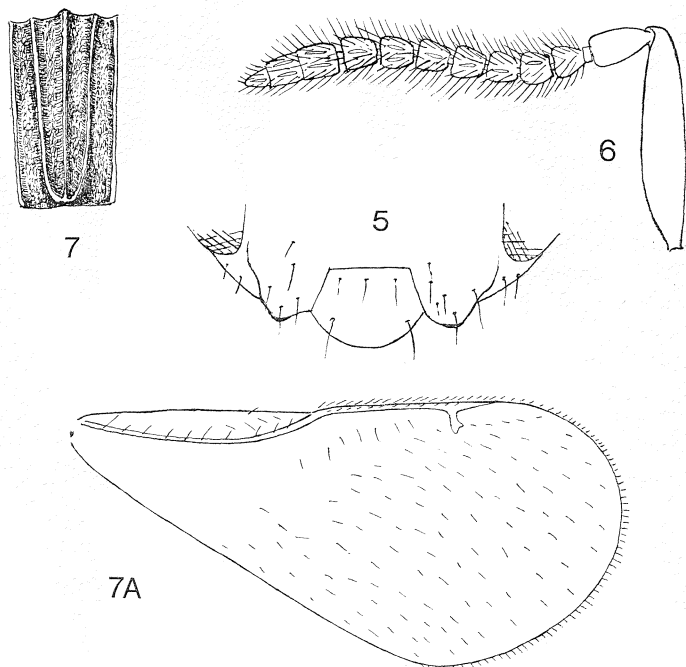
Balthazar, 1961, Philippine Journ. Sci. 90, p. 221.

Philippines. — PALAWAN: Pinigisan, 600 m, 1 ♀, 11 Sept. 1961.

Chrysolampus niger sp. n.

♀. Black with mandibles, ocelli, legs except coxae brown, femora darker brown.

Head, thorax and gaster smooth, occiput is semicircularly striated and petiole has a squamous puncturation. Clypeus (fig. 5) with anterior margin rounded. Antenna (fig. 6) with scape nearly reaching median ocellus, funicle joints as long as wide. Collare anteriorly with sharp edge-like margin which is raised laterally in



Figs. 5—7A. *Chrysolampus niger* sp. n., (5) clypeus, (6) antenna, (7) dorsal view of petiole, (7A) wing.

two laminate dents. Scutellum with a nipple-shaped posterior apex. Prepectus small. Propodeum with a median carina, rugose sulcus spiracularis and a shallow, wide pit near the anterior margin on each side of the median margin. Petiole a little more than twice as long as broad with 5 longitudinal carinae (fig. 7), interspaces of the carinae with squamous puncturation. Fore wing see fig. 7 A.

Length: ♀, 2,0 mm.

♂. Unknown.

H o l o t y p e, ♀: Philippines, PALAWAN: Mantalingajan, Pinigisan, 600 m, 22 Sept. 1961. In the Zoological Museum, Copenhagen.

C. niger sp. n. is the first representative of the genus *Chrysolampus* Spin. from the Indo-Malayan region. It is similar to *C. dentatus* (Bouč.) described from Bohemia, Europe, but differs chiefly as follows: (1) funicle joints square-shaped, (2) face completely smooth and (3) petiole about twice as long as broad and the interspaces of the carinae with squamous puncturation.

Perilampus Latr.Key to the Indo-Malayan species of *Perilampus*:

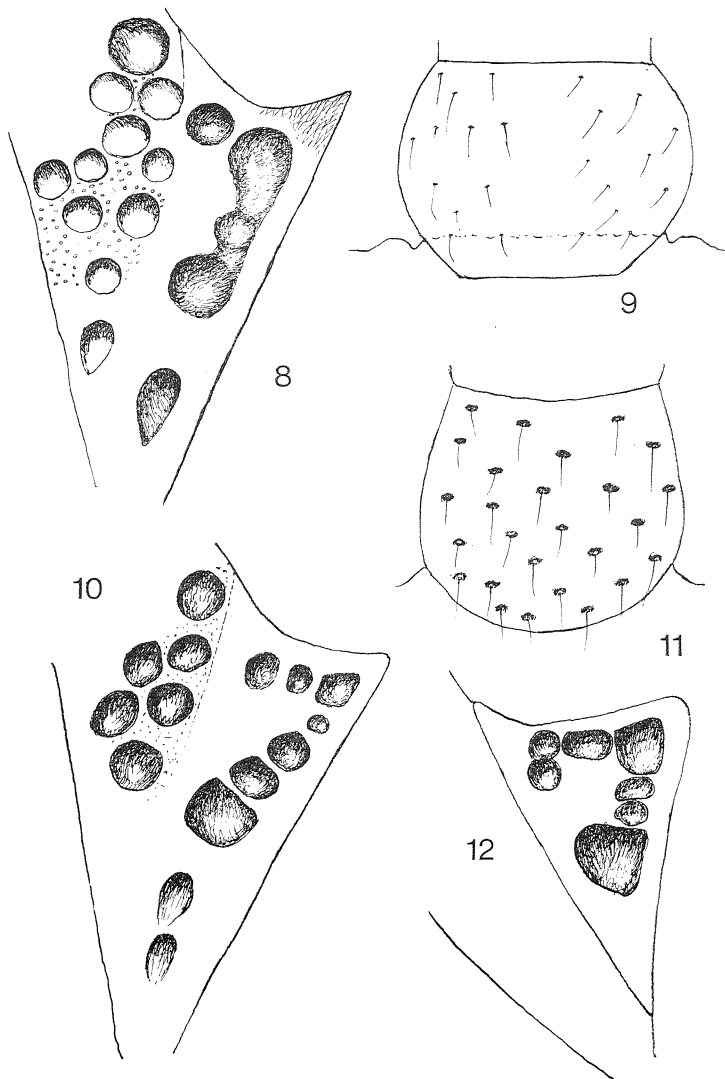
1. Prepectus confluent anteriorly (figs. 8, 10) 2.
- Prepectus well separated anteriorly (figs. 12, 17, 19, 21, 23, 25) 3.
2. No carina at inner orbits, trace of it behind mid ocellus. Head smooth, with striation only on occiput and behind cheek. Body quite black, without metallic shine. Antennae brown above, reddish below from the 5th or 6th joint; they may also be more or less reddish above or almost quite black; the scape and pedicel always black. Wings hyaline. Legs black, with some bluish or greenish shine in the middle of hind femora and tibiae; front tibiae yellow, except at base, middle and hind tibiae yellowish only at extreme tip; tarsi yellow. The male has the middle and hind tibiae brownish-black externally and broadly yellow at tip and internally. Length: ♀ 1,7—3 mm., ♂ 1,5—2 mm. Parasite of *Microgaster indicus* Wilkn., *Apanteles machaeralis* Wilkn. and a braconid parasite of *Nephantis serinopa* Meyr., larva of *Laprosoma diemenalis* Guen., *Apanteles* sp. parasite of *Tirathaba* spp. India, Malayan Peninsula and Java *P. microgaster* Ferr., 1930
- No trace of a carina behind mid ocellus. Marginal vein nearly 3 times as long as stigmal vein, the latter shorter than postmarginal vein. Clypeus and prepectus (figs. 8, 9). Black, thorax with tint of bronze, funicle joints (antennae broken, see description below) and mandibles reddish brown. Distal part of all tibiae and tarsi pale yellowish brown. Wing veins pale yellowish brown. Length: 3,5 mm. Philippines (Balabac) *P. peterseni* sp. n.
3. A carina running at inner orbits and behind mid ocellus 5.
- No carina running at inner orbits and behind mid ocellus (sometimes trace of it behind mid ocellus) 4.
4. Head without white hairs, but with scattered, shallow punctures on face. Malar space smooth. Base of gaster opaque, covered with small punctures. Clypeus and prepectus (figs. 11, 12). Head and thorax dark metallic green, gaster blue-black, tarsi pale. Length: 3,75 mm. Singapore, Straits Settlement
. *P. orientalis* Rohw., 1923
- Head with white hairs, face entirely smooth. Malar space striated. Base of gaster smooth. Black, funicle joints and the tarsi rufo-testaceous. Length: 3 mm. Borneo *P. megalaspis* Cam., 1912
5. Base of gaster opaque, covered with small punctures 6.
- Base of gaster smooth and shining 7.
6. Clypeus (fig. 22) at anterior margin rounded with shallow, scattered punctures all over. The vertex with the same punctures. Prepectus (fig. 21). Head and thorax obscurely greenish, the mid lobe of mesoscutum almost black, the abdomen black. Legs green and the tarsi testaceous. Length: 3,5 mm. Philippines (Luzon) *P. punctiventris* Crawf., 1914

- Clypeus strongly sinuated with shallow, scattered punctures only near anterior margin. The vertex smooth. Clypeus and prepectus (figs. 23, 24). Bright green, tarsi ferruginous, wing veins brown. Length: 4 mm. Singapore, Straits Settlements *P. singaporensis* Rohw., 1923
7. Clypeus strongly emarginate. Scutellum with apex not truncate but nipple-shaped 8.
7. Clypeus straight or a little rounded. Scutellum with apex emarginate or truncate 9.
8. 2nd tergite of gaster (propodeum not counted) with fine squamous puncturation. Black with tint of metallic blue and bronze on thorax. Antennae broken only scape and pedicel are left, both are black with tint of blue. Mandibles, knees, apical part of all tibiae reddish brown, tarsi yellowish brown. Femora and basal part of tibiae with tint of blue. Wing veins very pale yellowish brown. Length: 3,0 mm. Philippines (Balabac) *P. dalawanensis* sp.n.
- 2nd tergite of gaster smooth. Black, thorax with tint of green and coppery mixed with purple on scutum. Funicle joints reddish yellow. Wing veins ashy black. Length: 3,5—5,8 mm. Formosa *P. obsoletus* Masi, 1926
9. Head smooth, only striated on occiput and behind cheek. Clypeus and prepectus (figs. 19, 20). Black, with bluish reflections, the legs blue with tarsi whitish. Length: 4 mm. Sumatra and Philippines (Luzon) *P. nesiotetes* Crawford, 1911
- Head with very shallow pits on face except surroundings of antennal furrows. Check (except a narrow band near eye) and occiput striated. Prepectus (fig. 25). Green, tarsi whitish testaceous. Length: 5 mm. Philippines (Luzon) *P. luzonensis* Crawford, 1914

P. hedychroides Walk., Notes on Chalcid., 4, p. 67, 1871, I have not seen, but according to the description the species seems to be similar to *P. punctiventris* Crawford and *P. singaporensis* Rohw. I give the short description in extenso: "Golden green. Head deeply excavated in front; vertex black about the ocelli. Antennae piceous, filiform, short, stout, compact. Thorax very largely punctured; scutum black; scutellum large; sutures of the parapsides well defined, remote from each other. Petiole short. Abdomen gibbous, very finely punctured, much shorter than the thorax. Knees tawny. Tarsi yellow. Wings pellucid; veins blackish; luna less than half the length of the humerus; radius more than half the length of the luna; cubitus very short; stigma small. Length of the body $1\frac{3}{4}$ line. Ceylon." (humerus = submarginal vein, ulna = marginal vein, radius = postmarginal vein and cubitus = stigmal vein).

***Perilampus peterseni* sp. n.**

♀. Black, with tint of bronze on thorax. Antennae broken, only scape, pedicel and 4 funicle joints are left, funicle joints are reddish brown ventrally, dorsally darker. Mandibles reddish



Figs. 8—9. *Perilampus peterseni* sp. n., (8) prepectus, (9) clypeus. — Fig. 10. *Perilampus microgastris* Ferr., prepectus. — Figs. 11—12. *Perilampus orientalis* Rohw., (11) prepectus, (12) clypeus. (Figs. 10—12 sketched from the types).

brown. Legs with distal part (mid- and hind tibiae extreme part) of tibiae and tarsi yellowish brown, femora with tint of blue, metallic. All wing veins very pale yellowish brown.

Head smooth, striated on occiput and behind cheek. Clypeus (fig. 9) nearly straight. Antennae broken, only scape, pedicel and 4 funicle joints are left, 1st — 2nd funicle joints longer than wide. Prepectus (fig. 8) confluent anteriorly. Pronotum, mesonotum and scutellum uniformly and strongly punctated (rugose). Scapulae with a smooth area along notauli. Scutellum at apex truncate. Wings somewhat milky coloured. Marginal vein nearly 3 times as long as stigmal vein, the latter shorter than postmarginal vein.

Length: 3,5 mm.

♂. Unknown.

H o l o t y p e, ♀: Philippines, BALABAC: Dalawan Bay, 10 Oct. 1961. In the Zoological Museum, Copenhagen.

P. peterseni sp. n. is very similar to *P. microgastris* Ferr. but differs chiefly as follows: (1) funicle with the first and the second joint longer than wide, (2) marginal vein longer and stigmal vein shorter than postmarginal vein, (3) pedicel as long as wide at apex, (4) thorax with bronze tint.

***Perilampus dalawanensis* sp. n.**

♀. Black with tint of mixed blue and bronze on thorax. Scape, pedicel, femora and basal part of tibiae with tint of blue. Mandibles, knees, apical part of tibiae reddish brown, tarsi yellowish brown. Wing veins very pale yellowish brown.

Head smooth, occiput and area behind eye striated, face except antennal furrows with scattered hairs. Clypeus (fig. 18) strongly emarginate. Pronotum, mesonotum and scutellum uniformly rugosely punctated. Scapulae along notauli smooth and somewhat finely striated. Axillae with very fine reticulation. Scutellum with apex rounded (nipple-shaped) not truncate. Prepectus (fig. 17) large. Spurs of hind tibia not equal. Gaster with 2nd tergite finely squamously punctated.

Length: 3,0 mm.

♂. Unknown.

H o l o t y p e, ♀: Philippines, BALABAC: Dalawan Bay, 7 Oct. 1961. In the Zoological Museum, Copenhagen.

P. dalawanensis sp. n. is similar to *P. obsoletus* Masi, but its 2nd tergite of gaster is finely squamously punctated. The colour

is also different and the puncturation of head and thorax is not the same.

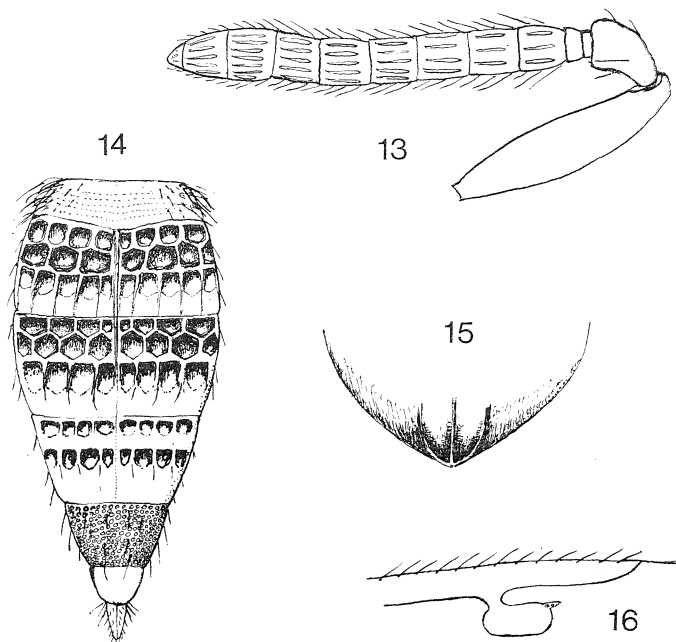
ORMYRIDAE

A small family; all species probably parasitic in the galls of Cynipids. In the material collected by the Noona Dan Expedition a single specimen belongs to a new species.

Ormyrus philippinensis sp. n.

♀. Green with tint of golden on head and thorax, gaster with a tint of golden mixed with purple. Scape and pedicel yellowish brown, funicle joints and clava brown. Mandibles dark yellowish brown. Fore and mid legs except coxae yellowish brown, darker in the middle of femora and tibiae. Hind legs with coxae violet-blue, femora green, tibiae dark brown in the middle, trochanters, knees, tip of tibiae and tarsi yellowish brown. Wing veins yellowish brown.

Head transverse, broader than thorax. Large bulging, oval eyes.



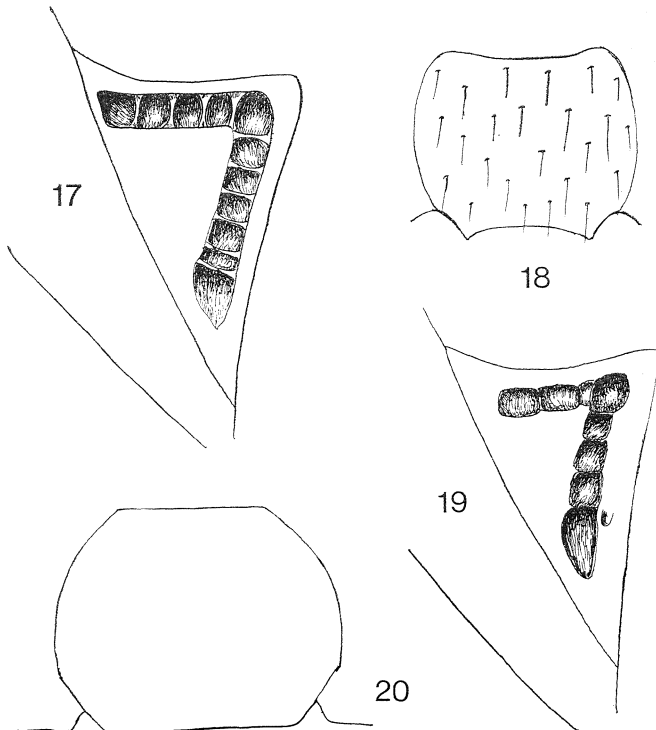
Figs. 13—16. *Ormyrus philippinensis* sp. n., (13) antenna, (14) gaster in dorsal view, (15) apex of scutellum, (16) stigmal and post-marginal vein.

Antennae (fig. 13) inserted just above a level through the anterior margin of eyes. Scape nearly reaching mid ocellus. Malar space as long as $\frac{3}{4}$ of the breadth of an eye. Face striato-reticulate, vertex and occiput striated. Thorax transversely striated, more or less reticulated. Scutellum with apex obtusely acuminate and with a short longitudinal carina (fig. 15), posterior part nearly smooth. Prepectus small. Gaster (fig. 14) with first tergite provided with squamous reticulation. Hind tibia with two spurs, the longest twice as long as the shorter one. Fore wing (fig. 16) with very long marginal vein, 5 times as long as postmarginal vein, the latter twice as long as stigmal vein, stigma large.

Length: 2,1 mm.

♂. Unknown.

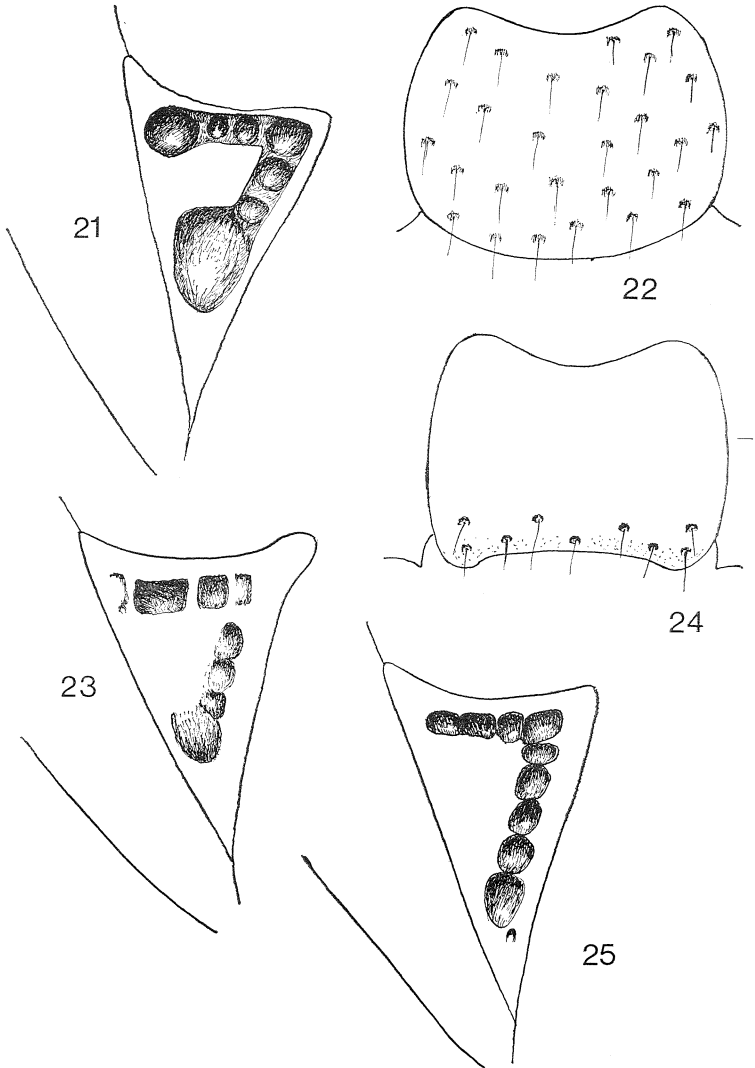
H o l o t y p e, ♀: Philippines, PALAWAN: Mantalingajan, Tagumbung, 1150 meter, 19 Sept. 1961. In the Zoological Museum,



Figs. 17—18. *Perilampus dalawanensis* sp. n., (17) prepectus, (18) clypeus. — Figs. 19—20. *Perilampus nesiotes* Crawf., (19) prepectus, (20) clypeus. (Figs. 19—20 sketched from the types).

Copenhagen.

O. philippinensis sp. n. is not particularly similar to our European species. It belongs to the group with a longitudinal carina on gaster.



Figs. 21—22. *Perilampus punctiventris* Crawf., (21) prepectus, (22) clypeus. — Figs. 23—24. *Perilampus singaporensis* Rohw., (23) prepectus, (24) clypeus. — Fig. 25. *Perilampus luzonensis* Crawf., prepectus. (Figs. 21—25 sketched from the types).

Walker (Notes on Chalcid., 4, p. 68, 1871) has described an *Ormyrus* species from Ceylon; his description is given in extenso: "Female. — Bluish green, partly purple or golden green, thinly beset with white hairs. Antennae black, subclavate, nearly as long as the head and the thorax together. Scutellum acuminate. Abdomen elongate-conical, largely punctured, longer than the head and the thorax together. Legs green; hind femora blue; tarsi whitish. Wings pellucid; veins pale brown; luna nearly as long as the humerus; radius less than one-fourth of the length of the ulna; cubitus extremely short. Length of the body $1\frac{1}{4}$ line. Ceylon." (humerus = submarginal vein, ulna = marginal vein, radius = postmarginal vein and cubitus = stigmal vein).

Summary.

In the present first part of a study of a collection of Chalcidoidea from the Philippines, Bismarck and Solomon Islands the following new species are described: *Leucospis buchi* sp. n. (Leucospidae), *Chrysolampus niger* sp. n., *Perilampus peterseni* sp. n., *P. dalawanensis* sp. n. (Perilampidae) and *Ormyrus philippinensis* sp. n. (Ormyridae). For the genera *Monacon* Waterst. and *Perilampus* Latr. keys are given covering the Indo-Malayan region.

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