

STUDIES ON SOME INDIAN APHELINID PARASITES
(HYMENOPTERA: CHALCIDOIDEA)¹

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(With twenty-one text-figures)

An account is given of five Indian species of the family Aphelinidae belonging to the genera *Physcus* Howard, *Coccophagus* Westwood and *Aneristus* Howard. *Physcus gunturensis* sp. n. has been described in detail. Material has been deposited in the Zoological Museum, Aligarh Muslim University, Aligarh.

Physcus gunturensis sp. nov. (figs. 1-9)

FEMALE:

Head (fig. 1):— Yellowish brown, wider than long in facial view (0.34:0.26 mm.); frontovertex slightly more than one and a half times wider than long; ocelli arranged in obtuse triangle, basal ocellus separated by its diameter from eye rim and about twice its diameter from occipital margin; malar space slightly longer than eyes width (0.1:0.09 mm.); malar sutures distinct; mandibles with apical acute tooth and a lower broad truncation; maxillary and labial palpi 2 and 1-segmented respectively.

Antennae (fig. 2):— Orange yellow except radicle, basal three-fourths of scape and first funicle segment are dark brown; scape three and a half times longer than wide; pedicel slightly shorter than first funicle segment; funicle segments third and fourth slightly more than one and a half times longer than wide; club slightly more than three times longer than wide.

¹ Accepted May 1977.

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Thorax:— Dark brown; pronotum with anterior margin deeply concave in middle (fig. 3); scutum profusely setose; axilla and parapside each with single seta; scutellum longitudinally reticulate bearing three pairs of setae (fig. 4).

Fore wings:— Hyaline, two and a half times longer than wide; costal cell broad; submarginal vein with 11 setae and 18 bullae; stigmal vein one-fourth the length of marginal vein; postmarginal vein slightly developed (fig. 5).

Hind wings:— Hyaline, four and a half times longer than wide; marginal fringe one-half of wing width.

Legs.— Orange yellow; middle tibial spur as long as basitarsus (fig. 6).

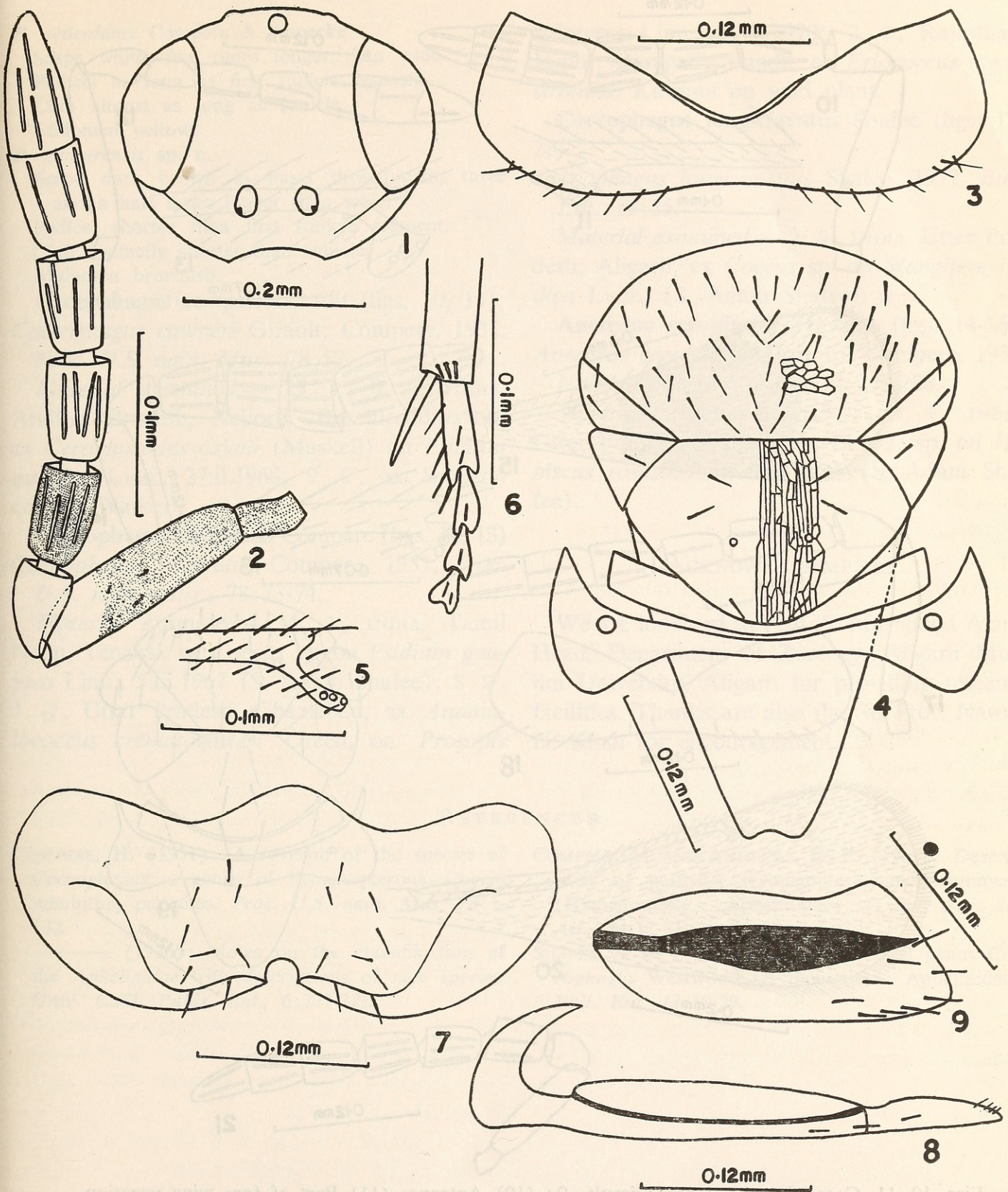
Abdomen:— Brownish, longer than thorax; subgenital plate of uniform width, central notch of posterior margin followed by laterally directed ridges (fig. 7); ovipositor concealed, second valvifer of uniform width with a mid longitudinal ridge; third valvulae movably articulated with second valvifers (fig. 8).

Female length: 0.97 mm.

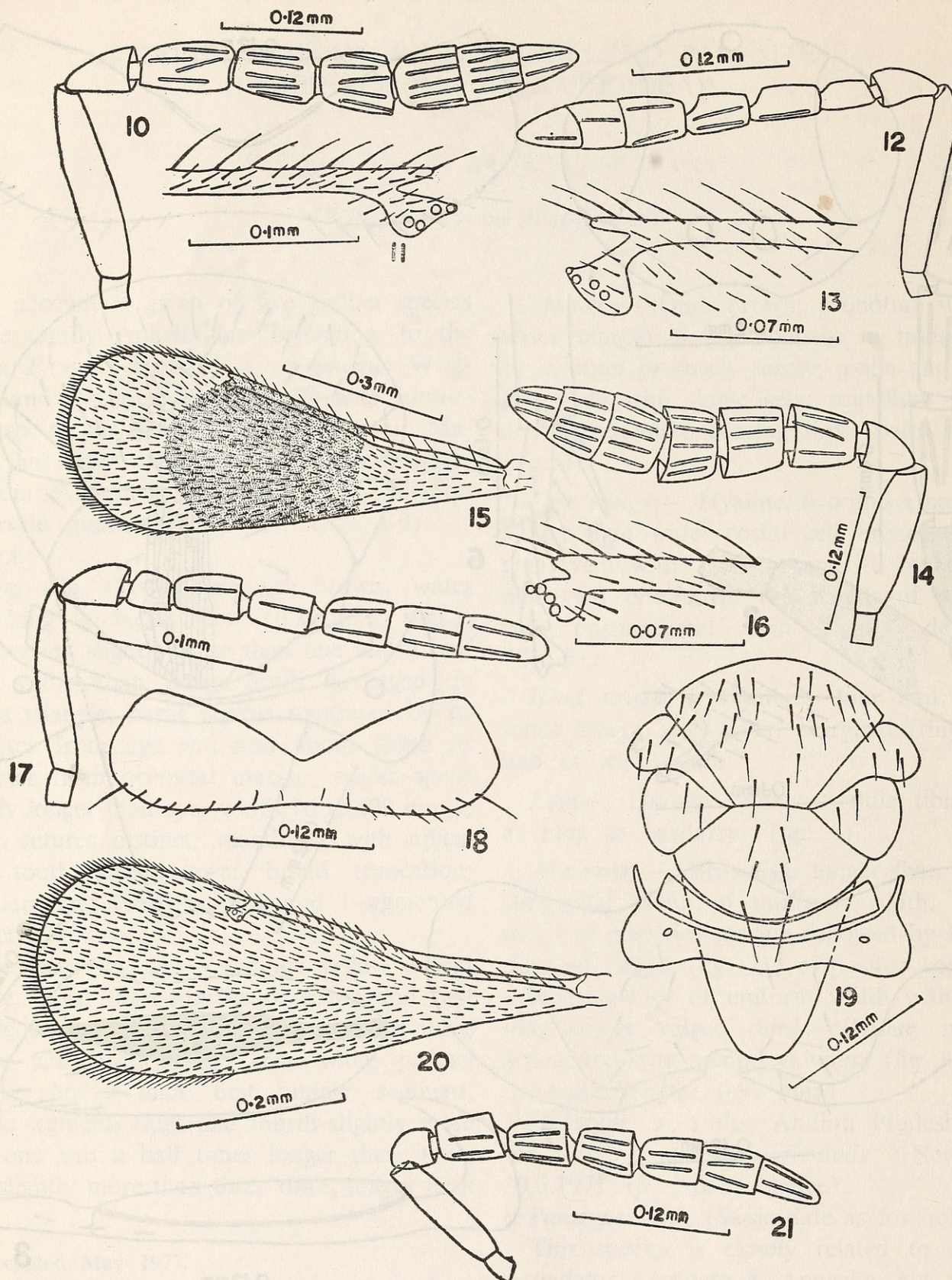
Holotype ♀, INDIA, Andhra Pradesh, Guntur, ex *Aonidielle orientalis* (Newstead), 10.ii.1971 (S. Adam Shafee).

Paratypes 4 ♀, (Same date as for holotype).

This species is closely related to *Physcus reticulatus* Compere & Annecke, but the two can be differentiated as follows:



Figs. 1-9. *Physcus gunturensis* sp. nov. ♀: (1) Head; (2) Antenna; (3) Pronotum; (4) Thorax; (5) Part of fore wing venation; (6) Part of middle leg; (7) Subgenital plate; (8) Second valvifer; (9) Outer plate of genitalia.



Figs. 10, 11. *Coccophagus cowperi* Girault, ♀; (10) Antenna; (11) Part of fore wing venation.
 Figs. 12, 13. *Coccophagus bivittatus* Compete, ♀; (12) Antenna; (13) Part of fore wing venation.
 Figs. 14-16. *Aneristus ceroplastae* Howard, ♀; (14) Antenna; (15) Fore wing;
 (16) Part of fore wing venation.
 Figs. 17-21. *Coccophagus longiclavatus* Shafee, ♂, ♀; (17) Antenna, ♀; (18) Pronotum, ♀; (19) Thorax, ♀; (20) Fore wing, ♀; (21) Antenna, ♂.

NEW DESCRIPTIONS

P. reticulatus Compere & Annecke

Scape white, five times longer than wide.

Pedicel as long as first funicle segment.

Club almost as long as funicle.

Abdomen yellow.

P. gunturensis sp. n.

Scape dark brown in basal three-fourth, three and a half times longer than wide.

Pedicel shorter than first funicle segment.

Club distinctly shorter than funicle.

Abdomen brownish.

Coccophagus cowperi Girault (figs. 10, 11)

Coccophagus cowperi Girault; Compere, 1931, *Proc. U.S. natn. Mus.*, 78:57.

Material examined.— 25 ♀, 8 ♂, INDIA, Andhra Pradesh, Nellore, Bucchireddipalam, ex *Ceroplastodes cajani* (Maskell) on *Psidium guajava* Linn., 27.ii.1968; 9 ♀, ex *Saissetia coffeae* Walker.

Coccophagus bivittatus Compere (figs. 12, 13)

Coccophagus bivittatus Compere, 1931, *Proc. U.S. natn. Mus.*, 78:73-74.

Material examined.— 4 ♀, INDIA, Tamil Nadu, Tenaksi, ex *Coccus* sp. on *Psidium guajava* Linn., 5.iii.1967 (S. Adam Shafee); 8 ♀, 1 ♂, Uttar Pradesh, Ghaziabad, ex *Anomalococcus crematogasteri* Green, on *Prosopis*

spicegera Linn., 5.vii.1970; 2 ♀, Rajasthan, Jaipur, Ramgadh Bundh, ex *Eriococcus lagerstromiae* Kuwana on wild plant.

Coccophagus longiclavatus Shafee (figs. 17-21)

Coccophagus longiclavatus Shafee, 1972, *Bull. Ent.* 13:25.

Material examined.— 2 ♀, INDIA, Uttar Pradesh, Aligarh, ex *Coccus* sp. on *Mangifera indica* Linn., (S. Adam Shafee).

Aneristus ceroplastae Howard (figs. 14-16)

Aneristus ceroplastae Howard; Compere, 1936, *Univ. Calif. Publs. Ent.* 6:287-288.

Material examined.— 15 ♀, 5 ♂, INDIA, Uttar Pradesh, Aligarh, ex *Coccus* sp. on *Hibiscus rosasinensis*, 8.ix.1969, (S. Adam Shafee).

ACKNOWLEDGEMENTS

We are indebted to Prof. S. Mashhood Alam, Head, Department of Zoology, Aligarh Muslim University, Aligarh for providing research facilities. Thanks are also due to Prof. Nawab H. Khan for encouragement.

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Ahmed, S. Irfan. and Shafee, Shaikh Adam. 1978. "Studies on Some Indian Aphelinid Parasites (Hymenoptera: Chalcidoidea)." *The journal of the Bombay Natural History Society* 75, 164–167.

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