

FIRST RECORD OF *CLAUSENIA* ISHII (HYMENOPTERA: ENCYRTIDAE) FROM INDIA WITH DESCRIPTIONS OF TWO NEW SPECIES¹

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AND

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(With a text-figure)

Clausenia Ishii is reported for the first time from India. Two new species (*C. longipennis* sp. nov. and *C. indica* sp. nov.) are described and illustrated. Key to species of *Clausenia* is also provided. Types deposited in Zoological Museum, Aligarh Muslim University, Aligarh, India.

Genus *Clausenia* Ishii

Type-species: *Clausenia purpurea* Ishii, 1923 (by original designation and monotypy).

The genus *Clausenia* was first proposed by Ishii (1923) with *C. purpurea* Ishii as type-species. The generic characters of this genus have been given in detail by Kerrich (1967). Some additional generic characters are suggested which are as follows: Female genitalia, first valvifer (fig. 1 G) semicircular, second valvifers (fig. 1 F) very narrow at apical one-third; subgenital plate (fig. 1 E) with anterior margin concave, anterolateral apodemes long.

The genus *Clausenia* Ishii is reported for the first time from India. Two species are described here as new. Kerrich's (1967) key to species of *Clausenia* Ishii has been revised in order to accommodate *C. indica* sp. nov. and *C. longipennis* sp. nov.

REVISED KEY TO SPECIES OF *Clausenia* ISHII, BASED ON FEMALES

1. Abdomen not much shorter than thorax; subgenital plate (=hypopygium) boat-shaped, pointed at apex.....2
- Abdomen much shorter than thorax; subgenital plate (=hypopygium) semitruncated and notched

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- in the middle, scarcely boat-shaped; antennal club with second suture not strongly curved or oblique; frontovertex shining, with reticulate microsculpture very fine and punctation sparse: Africa *C. confusor* Kerrich
2. Antennae having funicle segments 5 and 6 only a little longer than broad.....3
- Antennae having 6th funicle segment about one and a half times as long as broad and 5th still longer5
3. Mesoscutum less densely punctate; marginal vein of fore wing almost twice length of stigmal vein; head not dominantly dark green.....4
- Mesoscutum more densely punctate; marginal vein of fore wing only moderately longer than stigmal vein; head usually dominantly dark green: Asia, U.S.A..... *C. purpurea* Ishii
4. Postmarginal vein distinctly longer than marginal vein; legs with coxae and trochanters except at apex, and femora except at base and apex, pale blackish brown with weak, mostly purplish, metallic reflections; mesoscutum with setigerous puncts separated by about twice their own diameters: West Africa..... *C. corrugata* Kerrich
- Postmarginal vein distinctly shorter than marginal vein (fig. 1 K); legs orange yellow; mesoscutum with setigerous puncts separated by more than four times their own diameters: India....
..... *C. indica* sp. nov.
5. Fore wings with marginal vein less than twice the length of stigmal vein; eyes moderately setose6
- Fore wings with marginal vein almost twice as long as stigmal vein; eyes weakly setose.....7
6. Fore wings broad, about twice as long as wide.

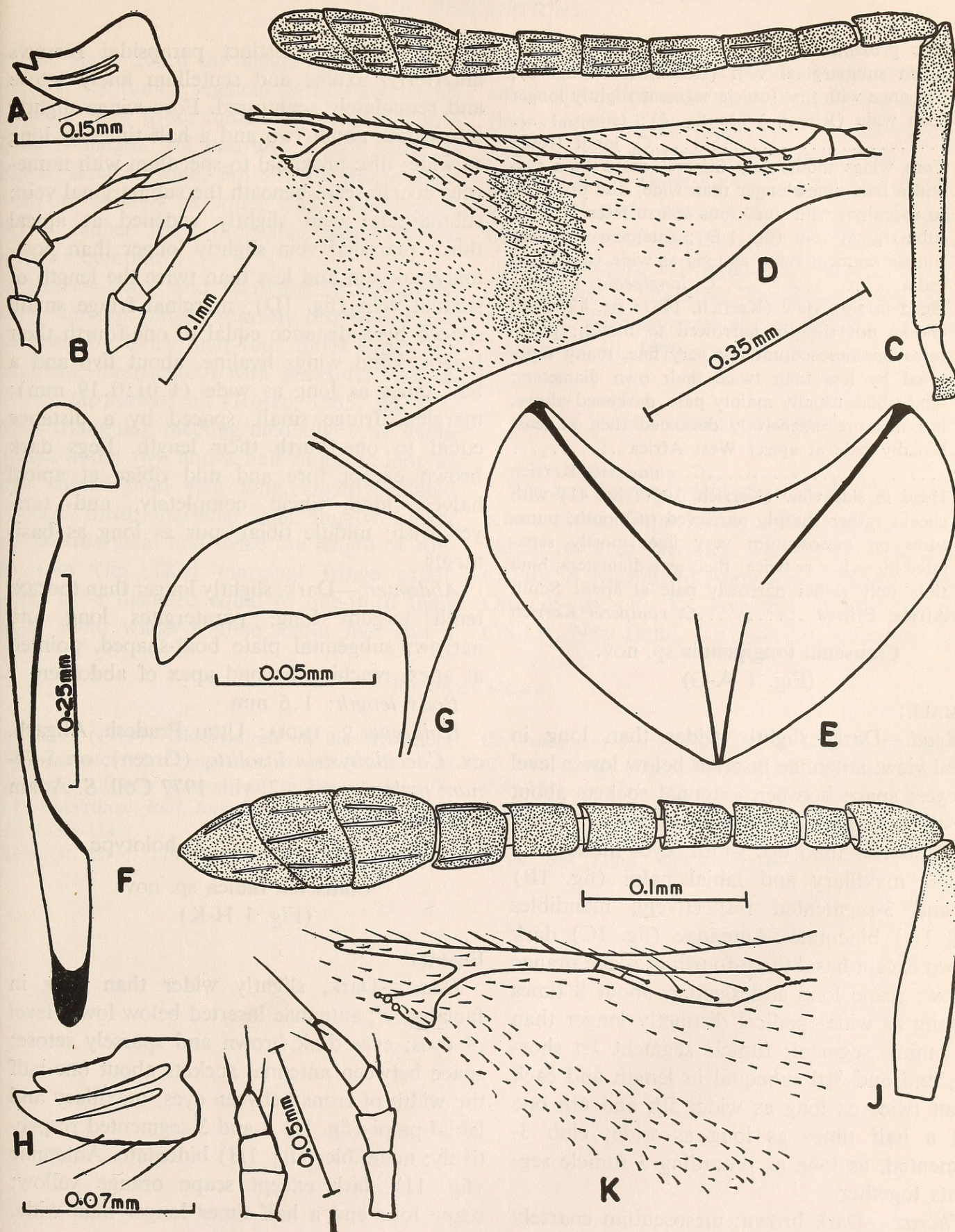


Fig. 1. A-G. *Clausenia longipennis* sp. nov., ♀: A. Mandible; B. Maxillary and labial palpi; C. Antenna; D. Part of fore wing; E. Subgenital plate; F. Second valvifer; G. First valvifer. H-K. *Clausenia indica* sp. nov., ♀: H. Mandible; I. Maxillary and labial palpi; J. Antenna; K. Part of fore wing venation.

disc proximal to speculum with thin setae beneath submarginal vein (Rosen, 1965: fig. 6); antennae with first funicle segment slightly longer than wide (Rosen, 1965: fig. 4): Israel.....

.....*C. josefi* Rosen

- Fore wings moderately narrow, more than two and a half times longer than wide, disc proximal to speculum with numerous coarse setae beneath submarginal vein (fig. 1 D); antennae with first funicle segment twice as long as wide (fig. 1 C): India.....*C. longipennis* sp. nov.

7. Head in side view (Kerrich, 1967: fig. 42) with cheeks not sharply narrowed to mouth; punctures on mesoscutum not very fine, many separated by less than twice their own diameters; hind tibiae usually mainly pale, darkened above, but if more extensively darkened then at least broadly pale at apex: West Africa.....

.....*C. quineensis* Kerrich

- Head in side view (Kerrich, 1967: fig. 41) with cheeks rather sharply narrowed to mouth; punctures on mesoscutum very fine, mostly separated by well over twice their own diameters; hind tibia only rather narrowly pale at apex: South Africa, Eritrea*C. comperei* Kerrich

***Clausenia longipennis* sp. nov.**

(Fig. 1 A-G)

FEMALE:

Head.—Dark, slightly wider than long in facial view; antennae inserted below lower level of eyes; space between antennal sockets about one-third width of frons between eyes; malar space shorter than eye width; eyes moderately setose; maxillary and labial palpi (fig. 1B) 4- and 3-segmented respectively; mandibles (fig. 1A) bidentate. Antennae (fig. 1C) dark brown except basal three-fourth of scape orange yellow; scape long and slender, about 8 times as long as wide; pedicel distinctly longer than 1st funicle segment; funicle segment 1st shortest, 2nd and 3rd subequal in length and each about twice as long as wide, 5th and 6th one and a half times as long as wide; club 3-segmented, as long as preceding 3 funicle segments together.

Thorax.—Dark brown; mesoscutum coarsely

setose and with distinct parapsidal furrows anteriorly, axillae and scutellum finely setose and reticulately sculptured. Fore wings slightly infuscated, about two and a half times as long as wide; disc proximal to speculum with numerous coarse setae beneath the submarginal vein; submarginal vein slightly widened at apical third; marginal vein slightly longer than postmarginal vein and less than twice the length of stigmal vein (fig. 1D); marginal fringe small, spaced by a distance equal to one-fourth their length. Hind wings hyaline, about five and a half times as long as wide (1.01:0.19 mm); marginal fringe small, spaced by a distance equal to one-fourth their length. Legs dark brown except fore and mid tibiae at apical halves, hind tibiae completely, and tarsi yellowish; middle tibial spur as long as basitarsus.

Abdomen.—Dark, slightly longer than thorax; tenth tergum long; paratergites long and narrow; subgenital plate boat-shaped, pointed at apex, reaching beyond apex of abdomen.

Body length: 1.6 mm.

Holotype ♀. INDIA: Uttar Pradesh, Aligarh, ex. *Coccidohystrix insolitus* (Green), on *Solanum melongena* L., 2. viii. 1977 Coll. S. Adam Shafee.

Paratypes. ♀, same data as holotype.

***Clausenia indica* sp. nov.**

(Fig. 1 H-K)

FEMALE.

Head.—Dark, slightly wider than long in facial view; antennae inserted below lower level of eyes; eyes dark brown and sparsely setose; space between antennal sockets about one-half the width of frons between eyes; maxillary and labial palpi (fig. 1I) 4 and 3-segmented respectively; mandibles (fig. 1H) bidentate. Antennae (fig. 1J) dark except scape orange yellow; scape four and a half times longer than wide,

pedicel about twice the length of first funicle segment, first funicle segment shortest and slightly longer than wide; funicle segments 2-6 subequal in length, 2-4 one and a half times as long as long as wide, 5th slightly longer than wide, 6th as long as wide; club 3-segmented, slightly longer than preceding three funicle segments combined.

Thorax.—Dark and reticulately sculptured with setigerous puncts sparsely distributed and separated by more than four times their own diameters; mesoscutum with parasidal furrows as in *C. purpurea* Ishii (Rosen, 1965: fig. 16); axillae triangular, meeting medially. Fore wings hyaline, about two and a half times as long as wide; submarginal vein long, slightly dilated at apical third, marginal vein slightly longer than postmarginal and twice the length of stigmal vein (fig. 1K); marginal fringe small, spaced by a distance equal to one-third their length. Hind wings hyaline about five and a

half times longer than wide; marginal fringe small, spaced by a distance equal to one-fourth their length. Legs uniformly orange yellow; middle tibial spur as long as basitarsus.

Abdomen.—Dark brown, as long as thorax; subgenital plate boat-shaped, reaching slightly beyond apex of abdomen.

Body length: 1.2 mm.

Holotype ♀, INDIA: Tamil Nadu, Coimbatore, ex. *Rastrococcus* sp. on *Acacia moniliformis*, 27. iii. 1979. Coll. R. K. Avasthi.

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