

# **New genera and species of chalcid flies (Hym., Chalcidoidea) and a new species of Foenatopus Smith (Hym., Ichneumonoidea, Stephanidae) from Hoggar**

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**New genera and species of chalcid flies**  
(Hym., Chalcidoidea) **and a new species**  
**of Foenatopus SMITH** (Hym., Ichneumonoidea,  
Stephanidae) **from Hoggar**

by

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The Identification Centre of the International Commission of Biological Control (CILB) in Geneva, Switzerland, has submitted to me for determination material of chalcid flies and stephanids bred from woodboring beetles (Buprestidae, Bostrychidae, etc.) on *Acacia* in Southern Algeria, Sahara. All specimens proved to belong to new species and for some of them I had to create new genera. The descriptions are as follows.

Family **Cleonymidae**

Subfamily Chalcedectinae

**Chalcedectes niger** sp. n.

♀. Black with reflections of green anterior of thorax, fore femora and hind tibiae. Propodeum with callus green and a tuft of white hairs. Gaster has posterior part with a reflection of gold and green. All tarsi with first joints yellowish white, the rest of tarsal joints brownish white and claw-joints brown. Wing veins brown and somewhat milky. Antennae are broken from 3rd funicle joints.

Head (fig. 1 D) transverse. Eyes large, hairy. Malar space is the same as the breadth of an eye. Mandibles with 2 teeth. Ocelli in an equilateral triangle, lateral ocelli very close to the eyes (the space about 1/3 of the diameter of an ocellus). Free labrum. Thorax flat, prepectus large. Propodeum (fig. 1 B) with two furrows somewhat

converging backward and with large pits. Callus with a dense tuft of hairs. Gaster (fig. 1 C) as long as thorax + propodeum. Fore femora swollen, hind femora with 19 small teeth. Wings and antennae partly broken and lost.

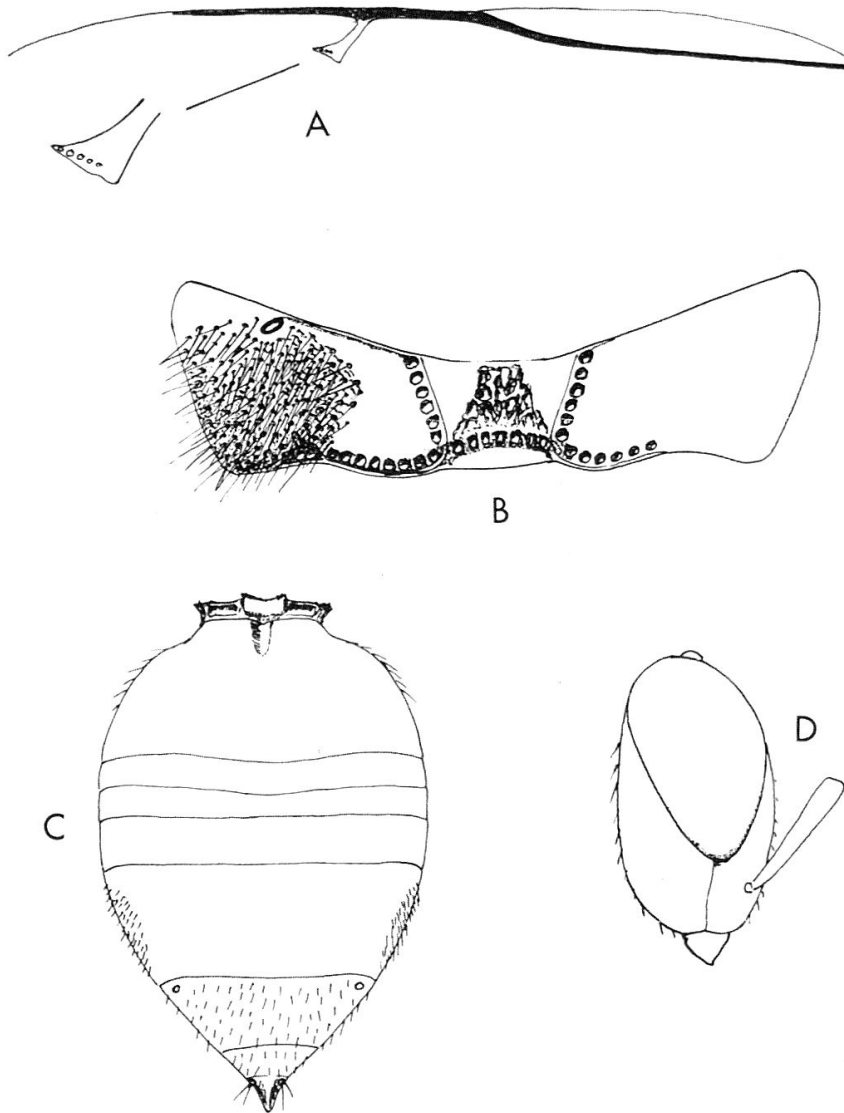


Fig. 1. *Chalcedectes niger* sp. n. — A. Part of fore wing with veins (♂). — B. Propodeum. — C. Gaster. — D. Head in lateral view.

♂. Similar to the female but has the propodeum with blue tint. Fore wing (fig. 1 A).

Length: ♀. 5,0 mm., ♂. 2,8–3,0 mm.

Holotype: in the collection of the Muséum d'Histoire naturelle de Genève. O. Zerhamra, leg. J. MATEU, from *Acacia raddiana*.

Paratype: 2 ♂♂ in the collection MATEU and in coll. mea, 4.V.1964. Emboch-Oued Trik, Dj. Ougarta, Sahara occ. 22–26.IV.1961, leg.

J. MATEU. "Eclos au Labo de bois *Acacia raddiana* parasité par des xylophages *Anthaxia* ESCHSCH., *Acmaeodera* ESCHSCH, etc."

*Chalcedectes niger* sp. n. is similar to *Ch. sinaiticus* (MASI) differs by having more rounded gaster with longer 2nd and 3rd segments. The colour is different and the spiracles are very near to the anterior margin of propodeum.

Two species of the genus *Chalcedectes* WALK. are now known from the Old World.

*Chalcedectes sinaiticus* (MASI) Boll. Soc. ent. Ital. 68, pp. 68-71, 1936 (*Neochalcedectes sinaiticus* MASI).

Host: Beetle larvae boring in *Acacia raddiana* (BOUČEK 1959).

*Chalcedectes niger* sp. n. see description above.

Host: *Buprestidae* (the genera *Anthaxia* ESCHSCH., *Acmaeodera* ESCHSCH.) boring in *Acacia raddiana*.

### **Chalcedectoides** gen. n.

Head semi-globular (fig. 2 C). Antennae, ♀. 11 171 + spicula and ♂. 11 182 + spicula, inserted on a level with anterior margin of eyes. Labrum free. Pronotum long neck-shaped. Propodeum long. Hind femora large, swollen with teeth as in *Chalcedectes* WALK., hind tibia with one spur. Prepectus very large. Fore wing with long marginal vein (nearly 3 times as long as stigmal vein). Postmarginal vein longer than stigmal vein.

Type: *C. saharensis* sp. n.

### **Chalcedectoides saharensis** sp. n.

♀. Yellowish red with a median stripe on pronotum. Dorsal part of mesonotum except scapulae, scutellum, metanotum and a median stripe of propodeum mixed green, blue and bronze colour, metallic. Funicle joints brown and clava + spicula black with tint of blue. Posterior of gaster darker spots, apex black. Fore wing with two confluent maculae, one at the base of marginal vein and another one at the base of postmarginal vein.

Head (fig. 2 C) hemispherical. Antennal furrow wide and punctated. The part between antennal furrow and inner margin of eyes elevated and with weak transverse carinae. Eyes bare, elongate. Malar space as long as the breadth of an eye. Mandibles with 2 obtuse teeth. Labrum free. Antenna with formula 11 172 + spicula. Rhinariae few and in one line of funicle joints 2-6. Thorax flat (fig. 2 A), the reticulation finer of scutellum than that of mesoscutum. Propodeum with a median part, reticulated as that of scutellum, the rest of scutellum with very fine and weak reticulation. Gaster spatel shaped. Hind femora see fig. 2 A. Fore wing (fig. 2 B) with marginal vein longer than postmarginal vein, the latter  $2\frac{1}{2}$  times as long as stigmal vein.

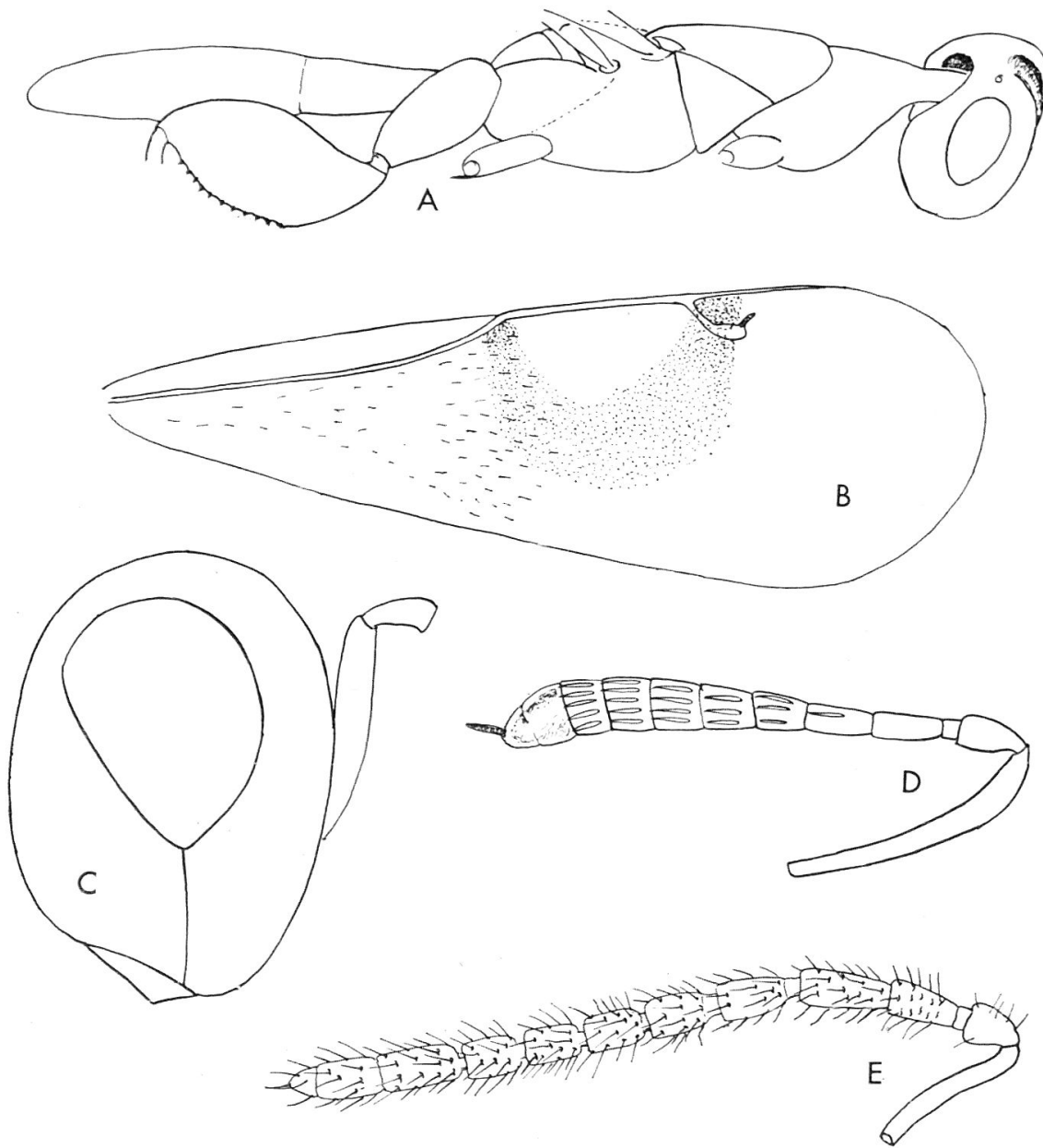


Fig. 2. *Chalcedectoides saharensis* gen. n. and sp. n. — A. Male in lateral view. B. — Fore wing (♀). — C. Head in lateral view. — D. Antenna (♀). — E. Antenna (♂).

♂. In some respects similar to the female but the colour is green with antennae dark brown, legs and tegulae dark yellowish brown with the base of tibiae and base of 1st tarsi joints (of all legs) yellowish white. Gaster dark brown, with the base paler and apex with blue, metallic. Hind coxae blue. Wing veins pale yellowish brown. Antenna has 8 funicle joints (formula 11 182 + spicula) instead of 7 in female. Length: ♀. 4,0 mm., ♂. 2,5–3,0 mm.

Holotype : in the collection of the Muséum d'Histoire naturelle de Genève. Kheneg et Tlaia, Beni-Abbes, Dj. Ougarta, 15.II.1961, leg. J. MATEU.

Paratypes : 1 ♀ and 6 ♂♂ in the collection MATEU and in coll. mea. 1 ♀. From the same locality as holotype. 31.I.1961, leg. J. MATEU. Ex *Acacia raddiana* with *Buprestidae*. 1 ♂. Chab't el Karkox, 15 km N. Igli. 2.II.1961, leg. J. MATEU. Ex *Acacia raddiana* with *Buprestidae*. 5 ♂. From the same locality as holotype. 15.II.1961, leg. J. MATEU. "Du bois mort *Acacia raddiana* parasité par *Anthaxia*, *Acmaeodera*, etc. (*Buprestidae*)."

*Chalcedectoides* gen. n. stands between *Chalcedectes* WALK. and *Cleonymus* LATR. but I have placed it in *Chalcedectinae*.

### Subfamily Cleonyminae

#### Tribus Cleonymini

#### **Pseudocleonymus** gen. n.

Head transverse. Antennae, 11 162, inserted on a level with anterior margin of eyes. Eyes large, hairy. Clypeus weakly sinuated, labrum free. Mandibles with 2 teeth. Pronotum wide with a long collum. Notaulices only indicated anterior. Scutellum rounded, convex. Propodeum long with a median carina. Gaster elongate. Fore and hind femora swollen, the latter with two teeth distally and on ventral side. Prepectus very large. Fore wing with marginal vein 3 times as long as stigmal vein, the latter as long as postmarginal vein.

Type : *P. spinifer* sp. n.

#### **Pseudocleonymus spinifer** sp. n.

♀. Dark blue with tint of purple on head and thorax, occiput and anterior part of pronotum golden green. Face with a mixture of golden green and purple. Antenna yellowish brown, scapus apically, pedicellus, last funicle joint and clava with tint of blue, metallic. Mandibles and legs (except coxae) reddish brown with pale yellowish brown tarsi. Propodeum blue with a purple spot of each side of the median carina. Gaster dark blue with tint of purple of basal segments. Wing veins pale yellowish brown. Fore wing a little infuscate.

Head (fig. 3 B and 3 C) transverse. Antennae (fig. 3 A) inserted below a level with anterior margin of eyes. Malar space shorter than the breadth of an eye. Cheek narrow. No antennal furrow. Pronotum (fig. 3 C) with long, rectangular collum. Notaulices incomplete only indicated anterior of mesonotum. Scutellum semicircular, convex. Propodeum long, concave in the middle and with a median carina. Spiracles oval, sulcus spiracularis distinct. Callus with few hairs. Prepectus large,

reticulated. Head and thorax reticulated finer on head and scutellum. Gaster long-oval and with fine reticulation. Hind coxae with a lateral band of white hairs, hind femora (fig. 3 D) with two teeth ventrally and near the knee. Hind tibiae with 2 spurs. Fore wing see fig. 3 E.

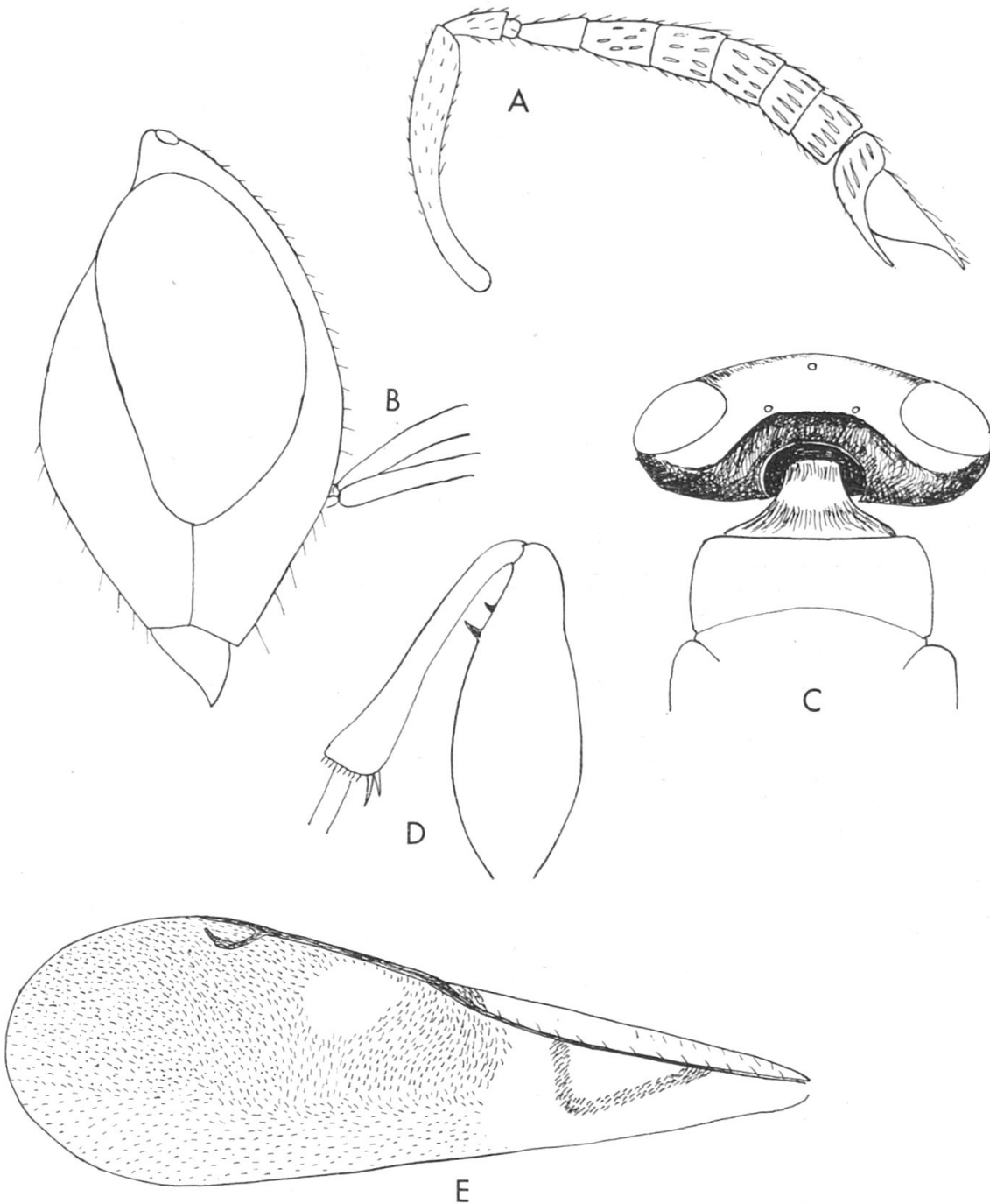


Fig. 3. *Pseucocleonymus spinifer* gen. n. and sp. n. — A. Antenna (♀). — B. Head in lateral view. — C. Head and pronotum in dorsal view. — D. Hind femur and tibia. — E. Fore wing.

♂. Unknown.

Length : 3,5 mm.

Holotype : in the collection of the Muséum d'Histoire naturelle de Genève. Oued Trik, Dj. Ougarta. 9.IV.1961, leg. J. MATEU. Parasite of *Anthaxia angustipennis* KLUG. (Buprestidae), boring in *Acacia raddiana*.

Paratype : 1 ♀ in the collection MATEU. From the same locality as holotype. 20.IV.1961, leg. J. MATEU. Bred from *Anthaxia* sp.

*Pseudocleonymus* gen. n. is related to *Cleonymus* LATR. but differs by having 6-jointed funicle, much shorter postmarginal vein and with hind femora armed with teeth.

### Tribus Ooderini

#### **Oodera hoggarensis** sp. n.

♀. Head blue, metallic with reflections of green, the face green, purple and gold-coloured. Antennae black with scapus and pedicellus reddish brown. Mouth-part dark brown with palpi black. Thorax blueish black with reflections of green on pronotum and mesoscutum (anterior and lateral). Scutellum with mixture of green, purple and gold. Propodeum blueish black with green on callus. Gaster blueish black with tint of green laterally of tergites. Pleurae blueish black with tint of violet, blue and green. Legs reddish brown except coxae, fore femora dorsally dark blue with reflections of green. Wing veins yellowish brown.

Head (fig. 4 A and 4 B) as wide as thorax. Eyes large, oval. Face strongly hexagonale reticulated, behind genal sutur, cheek, vertex and occiput finely striated. Malar space a little longer than the breadth of an eye. From the middle of eyes to a level with mid ocellus inner orbits are raised to ridge-shaped protuberances with cross-carinae. Ocelli in an equilateral triangle sitting on a protuberance. Antennae inserted near the base of clypeus. Scapus reaches nearly to mid ocellus about the rest of antenna see fig. 4 C. Pronotum with semicircular fine striation. Mesonotum with vague semicircular striation, axillae fine punctured and scutellum with longitudinal striation. Pleurae with fine striation. Propodeum with 3 longitudinal carinae in the middle, callus punctured with dense, white hairs. Gaster as long as thorax + propodeum with a short stylet. Fore femora large and armed with bristles as in other species of *Oodera*. Fore wing with marginal vein a little longer than postmarginal vein, the latter 4 times longer than stigmal vein.

♂. Unknown.

Length : 5 mm.



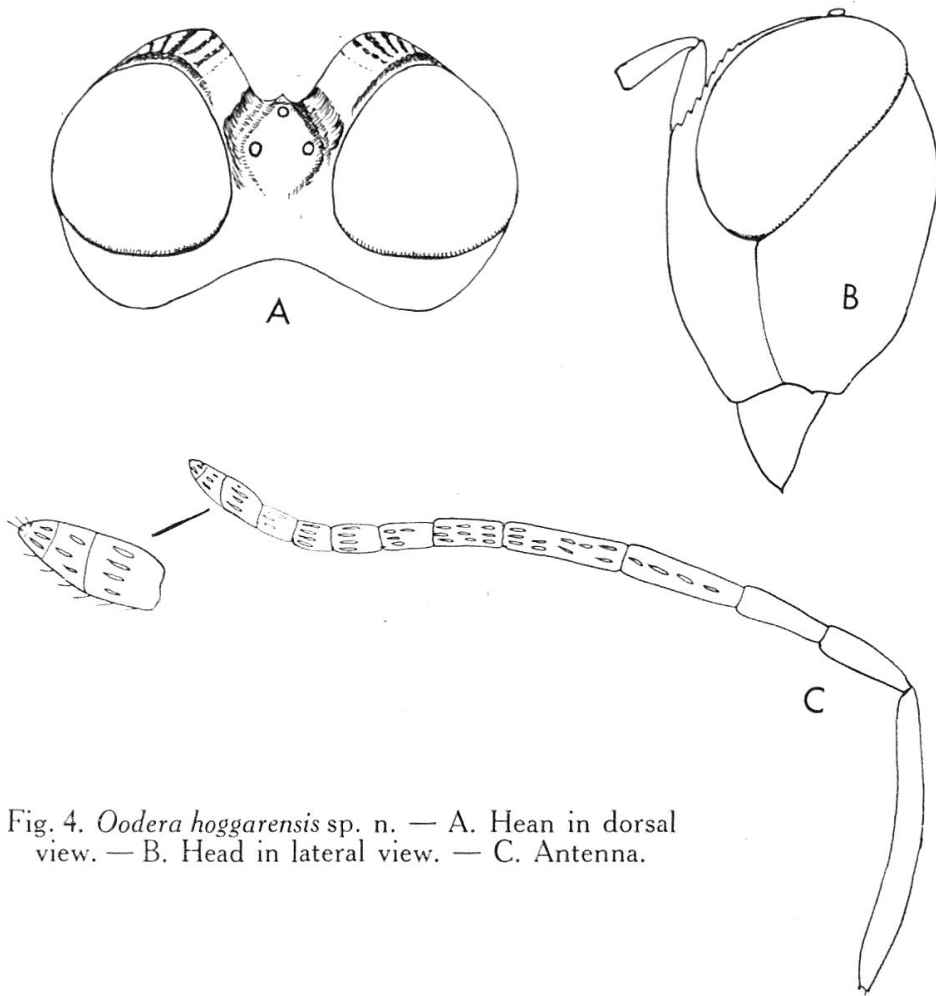


Fig. 4. *Oodera hoggarensis* sp. n. — A. Head in dorsal view. — B. Head in lateral view. — C. Antenna.

Holotype : in the collection of the Muséum d'Histoire naturelle de Genève. Timesdelssine, Hoggar, Sahara, 23.V.1962, leg. J. MATEU.

Paratypes : 2 ♀♀ in the collection MATEU and in coll. mea. 1 ♀ Oued Teredjine, Hoggar, 15.V.1965, leg. J. MATEU. 1 ♀ Oued Dzor, Dj. Ougarta. 28.V.1962, leg. J. MATEU.

*Oodera hoggarensis* sp. n. is similar to *Oodera formosa* (GIR.) but differs by having another sculpture of propodeum and colour is different.

In Africa 6 species have already been described but only 3 species are true *Oodera*. A key to the species of *Oodera* from Africa has been compiled below and includes the new species described above.

- 1 Scutellum convexe and pronotum short . . . . . *O. dakarensis* RISB. 1957
- Scutellum flat and pronotum long . . . . . 2
- 2 Gaster shorter than thorax + head . . . . . 3
- Gaster as long as thorax + head . . . . . *O. madegassa* BOUC. 1958
- 3 Clava as long as 6th + 7th funicle joints . . . . . *O. hoggarensis* sp. n.
- Clava as long as 7th funicle joints . . . . . *O. magnifica* RISB. 1951

Family **Stephanidae****Foenatopus hoggarensis** sp. n.

♀. Reddish brown, with yellowish white maculae of anterior part of cheek, 3rd-7th segments of gaster (petiole = 1st segment), propodeum near the base of petiole and mid tibiae near the base and basal joint of hind tarsi. The teeth of mandibles, palpi and terebra dark brown. Wing veins dark brown with anterior part of stigma yellowish white.

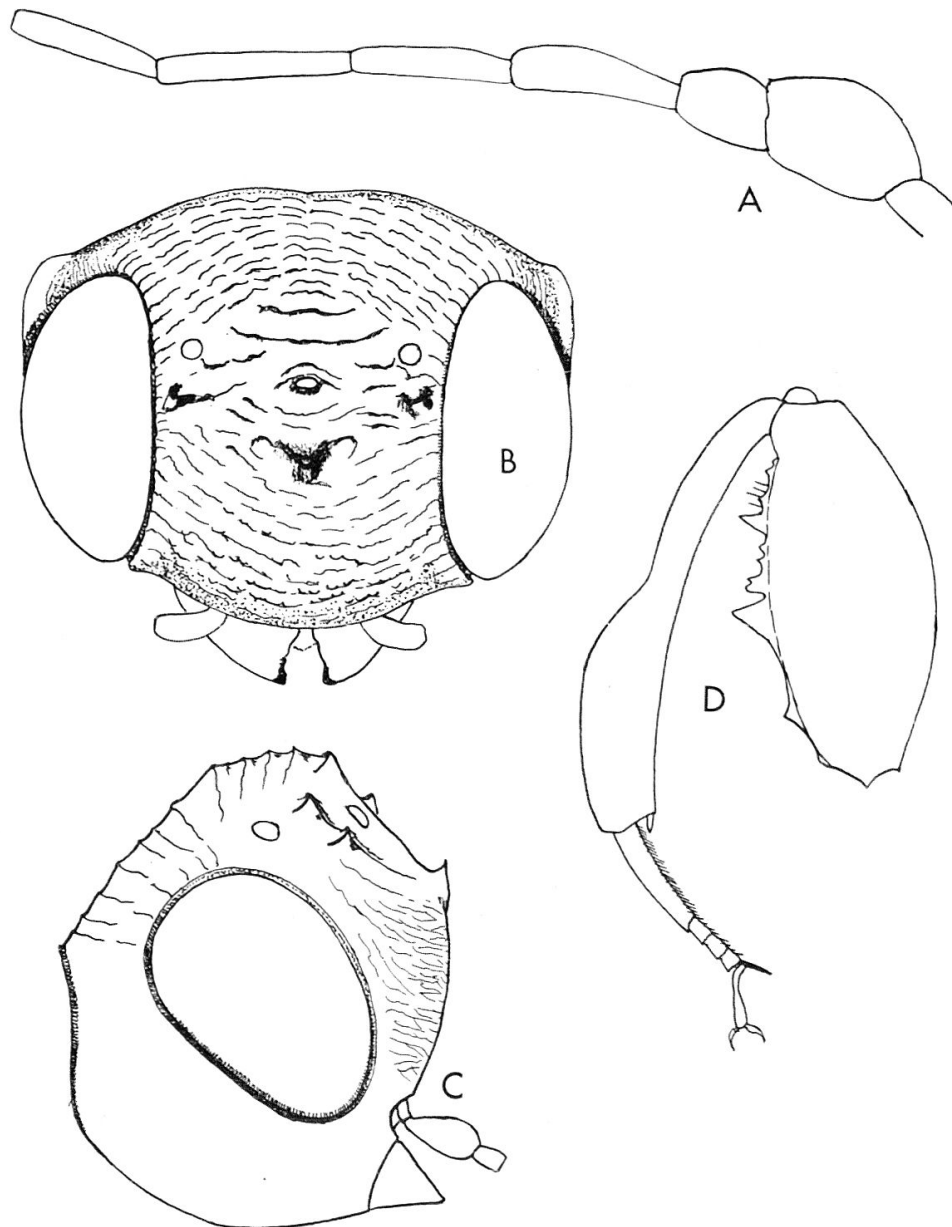


Fig. 5. *Foenatopus hoggarensis* sp. n. — A. Basal part of antenna. — B. Head in dorsal view. — C. Head in lateral view. — D. Hind femur and tibia.

Head (fig. 5 B and 5 C) with transverse arcuate striation. The cheek posterior with a convexity. Antennae (fig. 5 A) inserted near the base of mandibles. Pronotum with neck, mesoscutum with 3 furrows somewhat converging backward. Scutellum in the middle smooth. Thorax very fine reticulated. Propodeum rugose. Petiole shorter than the length of gaster and with transverse striation. Ovipositor as long as body except head. Hind femur (fig. 5 D) with 3 large teeth and 6 small teeth, tibia compressed to middle.

♂. Similar to the female.

Length: ♀. 7,0–8,5 mm., ♂. 6,5–10,0 mm.

The maculae (yellowish white see above) varied in size and number. Some specimens have a macula at apex of petiole and in some specimens the maculae of gaster are small.

Holotype: in the collection of the Muséum d'Histoire naturelle de Genève. Oued Teredjine, Hoggar, Sahara, 15.V.1965, leg. J. MATEU. "Eclos bois sec *Acacia flava*".

Paratypes: 3 ♀ and 7 ♂ in the same collection as holotype, in the collection MATEU and in coll. mea.

1 ♂ in the same locality as holotype, 19.V.1965, leg. J. MATEU. — 1 ♂ in the same locality as holotype, 16.V.1965, leg. J. MATEU. — From *Acacia raddiana* parasitic of *Anthaxia* sp. etc. — 2 ♀ and 3 ♂ Timesdelssine, Hoggar, 16.V., 23.V., 5.VI. and 9.VI.1962, leg. J. MATEU. From *Acacia raddiana* parasitic of *Buprestidae*: *Anthaxia* sp., *Acmaeodera* sp., etc. — 1 ♀ Arak, Sahara Central, 22.V.1965, leg. J. MATEU. Ex *Acacia flava*. — 1 ♂ Oued Dzor, Dj. Ougarta, Sahara occ., 9.VI.1962, leg. J. MATEU. "Eclos du bois sec *Acacia raddiana* parasité par des *Buprestidae*, *Bostrychidae*, *Lyctidae*, etc." — 1 ♂ Mare de Biliharo, Ennedi N. Tchad, 5.I.1959, leg. J. MATEU. "Eclos au labo de bois sec *Acacia raddiana* parasité par des xylophages."

*Foenatopus hoggarensis* sp. n. belongs to the same group as *Foenatopus natalicus* WESTW. but differs from all species of this group by having another colour, the length of the flagellar joints also differs and the punctuation is not the same.

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### Résumé

Dans cette note, l'Auteur décrit quatre espèces nouvelles de Chalcidiens et une espèce nouvelle de Stephanidae du Sud Algérien, Sahara : *Chalcedectes niger* n. sp., *Chalcedectoides saharensis* n. sp. appartenant au nouveau genre *Chalcedectoides*, *Pseudocleonymus spinifer* n. sp. appartenant au nouveau genre *Pseudocleonymus*, ainsi que *Oodera hoggarensis* n. sp. et *Foenatopus hoggarensis* n. sp.