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## Notes on hypopi of the family *Acaridae* from Central Africa

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We describe here two new genera and four new species of hypopi in the family Acaridae found in Central Africa.

The holotypes of these new species are deposited in the Musée Royal de l'Afrique Centrale, Tervuren, Belgium.

Genus **DYNASTOPUS** gen. nov.

*Definition:* This genus is known only after the hypopus. With the characters of the Rhizoglyphinae. Anterior border of body membranous and short covering the base of legs and the palposoma. In the midline this border is pointed forming a short rounded cone bearing the *vi* setae. This genus differs from the other genera known in this subfamily mainly by the structure of the posterior coxae III and IV which are fused and form one large punctate area without epimera but bearing the *ga* and the *cx III* setae. The setae *cx I*, *cx III* and *gp* are conoids. Palposoma more or less trapezoidal and relatively short, it is entirely covered by the tegmen and its base is articulated with a small chitinous plate. Suctorial plate with lateral conoids slightly in front of posterior suckers. Sternum as long as the epimera II and arriving close to the furrow separating posterior coxal field from the anterior fields. Legs with all segments relatively short. Tarsi I-II with 8 setae, among them 4 are foliate, 1 saucerlike, 2 are simple

and thin and 1 is a spine. Tarsi III with 5 foliate and 2 simple setae; tarsi IV with 5 foliate and 3 simple setae. Tibiae I-II with posterior seta forming a strong spine.

*Type species: Dynastopus camerikae* sp. n.

*Hosts: On dynastid beetles (Scarabaeidae).*

1. *Dynastopus camerikae* spec. nov.

This species is named for R.Sr. A.M. Camerik, O.S.U. who collected the mite which is studied here.

*Hypopus* (fig. 1-5): Length 345  $\mu$ , width 234  $\mu$ . *Dorsum*: Sejugal furrow very anterior. Hysteronotum with a few number of small

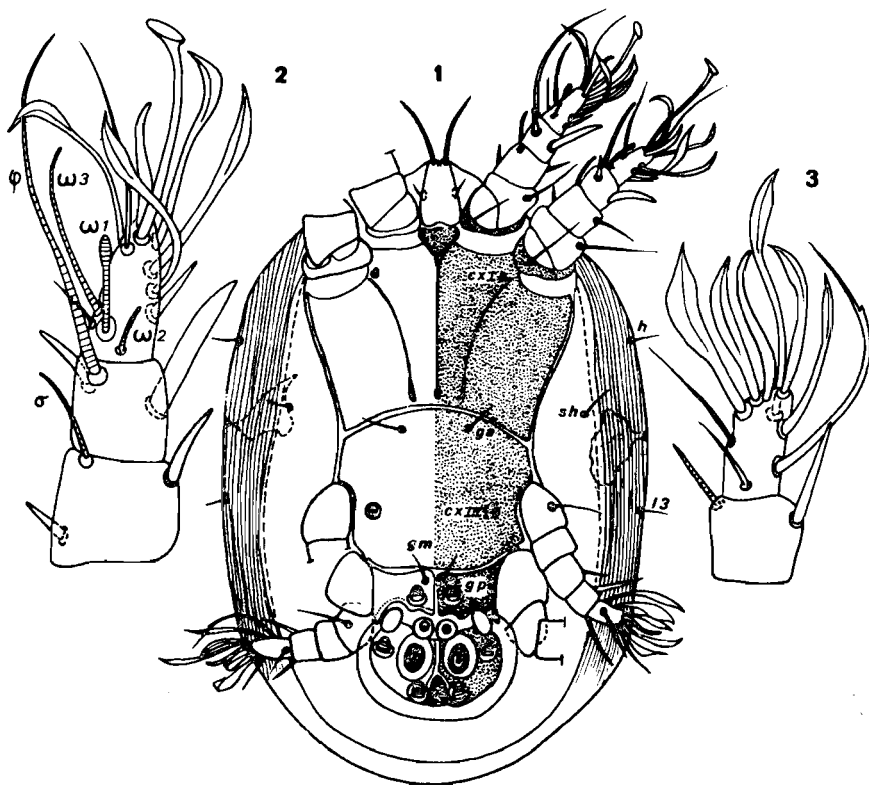


Fig. 1-3. — *Dynastopus camerikae* sp. n. Holotype hypopus, venter (fig. 1); tarsus, tibia and genu I in dorsal view (fig. 2); tarsus and tibia IV in lateral view (fig. 3).

pits located mostly laterally and rare or absent in the median region or in the opisthonotum. Setae *vi* shortly barbed,  $30\ \mu$  long. The *ve* are very small. The *sci* are  $66\ \mu$ , the *sc e*  $50\ \mu$ . They also carry very short barbs. Other dorsal setae thin and short. *Venter*: posterior coxal III field (coxae III and IV fused)  $87\ \mu$  long in midline and  $105\ \mu$  wide (maximum width) (ratio length : width = 1 : 1,2). Lateral borders of body flat and finely striate longitudinally. Palposoma  $33\ \mu$  long and  $21\ \mu$  wide (maximum). Tarsi I-IV  $28\ \mu$  -  $29\ \mu$  -  $21\ \mu$  and  $24\ \mu$  long respectively, all ending in a long slightly curved claw.

#### *Host and locality*

On a beetle (Coleoptera) of the subfamily Dynastinae, from Monrovia airport, Liberia, 17.XII.1974 (specimen no. 8) (Holotype, MRAC 149.455, and 4 paratypes, all hypopi).

#### 2. *Dynastopus augosomae* spec. nov.

This species differs from *D. camerikae* by the presence of long barbed setae on the dorsal surface.

*Hypopus* (fig. 6-7): Holotype  $350\ \mu$  long and  $260\ \mu$  wide. There is a great variability in the size of the body. The smallest specimen measures  $245\ \mu \times 185\ \mu$ , the largest  $370\ \mu \times 290\ \mu$ . Between these extreme measurements we find all the intermediates in body size. *Dorsum*: propodosomal and hysteronotal setae much longer than in *D. camerikae*. The *sci* are  $120\ \mu$  long. *Venter* as in *D. camerikae* but the posterior coxal shield is shorter and wider, and measures  $76\ \mu$  long (in midline) and  $125\ \mu$  wide (ratio length : width = 1 : 1,6). Palposoma  $33\ \mu$  long and  $24\ \mu$  wide. Tarsi I-IV  $27\ \mu$  -  $27\ \mu$  -  $25\ \mu$  and  $27\ \mu$  long. Leg chaetotaxy: as in *D. camerikae* but the saucer-like setae of tarsi I-II are longer.

#### *Host and locality*

- 1) On *Augosoma (Archon) centaurus* ( $\delta$ ) (Col. Dynastinae), at University Lovanium II Kinshasa (Coll. P. Elsen) 1968. All the hypopi were attached under the elytrae of the beetle (Holotype MRAC no. 149.457 and 20 hypopi paratypes).
- 2) One hypopus unseparable from *D. augosomae* has been found on old bread (no. 9) in Lima, Peru (24.II.1973) (Coll. I. Caceres).

3) One paratype hypopus from the litter of a domestic goose in Butare, Rwanda, 23.III.1968 (Coll. A. Fain).

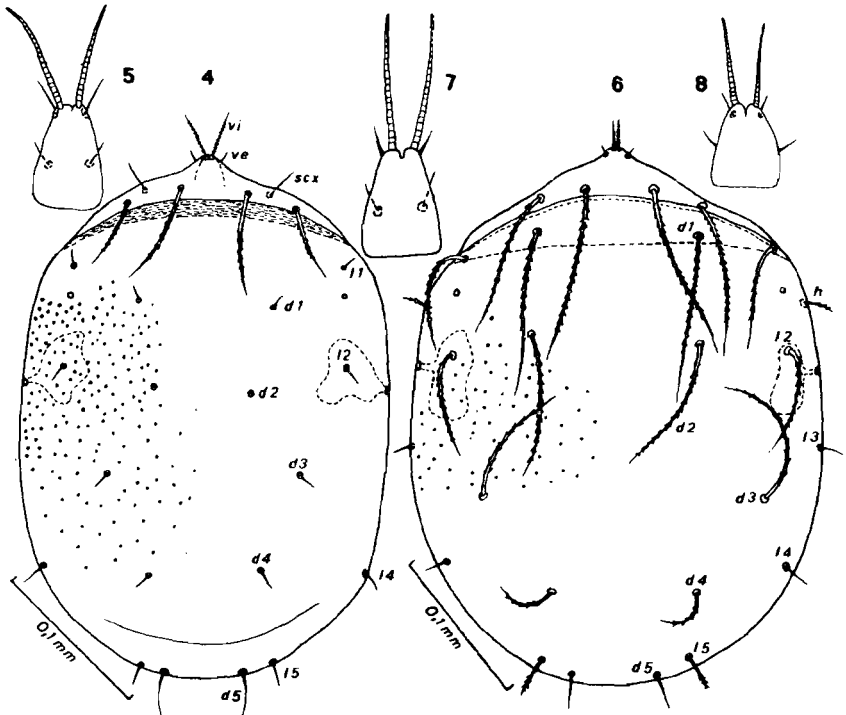


Fig. 4-8. — *Dynastopus camerikae* sp. n. Holotype hypopus, dorsum (fig. 4); palposoma (fig. 5).  
*Dynastopus augosomae* sp. n. Holotype hypopus, dorsum (fig. 6); palposoma (fig. 7).  
*Dynastopus tshuapensis* sp. n. Holotype hypopus, palposoma (fig. 8).

### 3. *Dynastopus tshuapensis* spec. nov.

This species has the same type of dorsal chaetotaxy as *D. camerikae*. It differs from it by the shape of the body more narrow, the shape of the palposoma relatively shorter, the shape of the posterior coxal shield which is approximately as long as wide, the greater length of the saucer-like setae of tarsi I and II.

*Hypopus* (fig. 8): Length 285  $\mu$ , width 186  $\mu$  wide. *Dorsum*: setae *sc i* and *sc e* with short barbs, 45  $\mu$  and 40  $\mu$  long respectively. Other dorsal setae very short. *Dorsal pits* as in *D. camerikae*. *Venter*: coxal

shield III-IV  $75 \mu$  long and  $87 \mu$  wide (ratio length-width = 1: 1,16). Conoids of coxa I much smaller than conoids of coxae III. Palposoma  $27 \mu$  long and  $21 \mu$  wide near the base. Legs: tarsi I-IV  $25 \mu$ ,  $24 \mu$ ,  $18 \mu$  and  $21 \mu$  long respectively.

#### *Host and locality*

On *Oryctes* sp. (Col. Scarabaeidae), from Etata, on the river Tshuapa, Province de l'Equateur, Zaïre, 22.VII.1971 (Coll. A. Fain) (Holotype hypopus, MRAC no. 149.454).

#### Genus **OMENTOPUS** gen. nov.

*Definition*: This genus is known only from the hypopial stage. It resembles *Dynastopus* by the aspect of the coxal field III + IV, however it is distinguished from this genus by the following characters: anterior part of body flat, forming a chitinous rounded membranous tegmen extending anteriorly far beyond the palposoma and covering the basal half of the anterior legs and the base of the *vi* setae. The anterior legs and the palposoma are longer and thinner than in *Dynastopus*. Epimera and coxae, as in *Dynastopus*, except that there are very short and poorly distinct epimera IV. Palposoma articulated basally as in *Dynastopus*. The spines of legs I-II are thinner and longer than in this genus.

This new genus is distinguished from *Garsaultia* Oudemans (1916) by the vestigial aspect of epimera IV; the much greater development of the suctorial plate with a different situation of the lateral conoids on the same line as the posterior suckers, and the larger size of these conoids.

*Type species*: *Omentopus avicolus* sp. n.

#### **Omentopus avicolus** spec. nov.

*Hypopus* (fig. 9-10): Length  $330 \mu$ , width  $233 \mu$ . *Dorsum*: Propodosoma and hysterosoma  $75 \mu$  and  $255 \mu$  long respectively. The *sci* and *sce* are  $33-38 \mu$  long; other dorsal setae thinner and shorter (maximum  $30 \mu$  long). *Venter*: membranous tegmen reaching the base of tibia I. The large posterior coxal field (coxae III + IV) is  $66 \mu$  long in the midline and has a maximum width of  $110 \mu$ . Palposoma  $31 \mu$

long,  $14\ \mu$  wide (maximum); it is articulated basally with a small chitinous plate. Tarsi I-IV  $39\ \mu$ ,  $33\ \mu$ ,  $22\ \mu$  and  $28\ \mu$  long respectively. Chaetotaxy of legs as in *Dynastopus* but the tibial spines are thinner than in that genus.

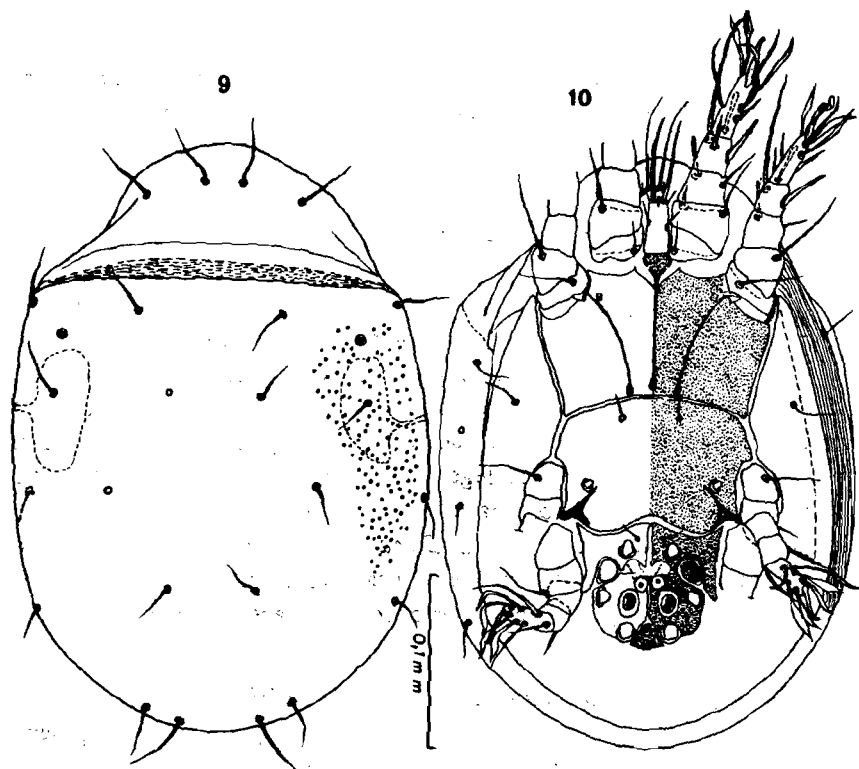


Fig. 9-10. — *Omentopus avicolus* sp. n. Holotype hypopus, dorsum (fig. 9) and venter (fig. 10).

#### *Host and locality*

- 1) A single hypopus (holotype) has been found on a bird *Quelea suelea*, from Waza, Cameroun, 25.VII.1971 (Coll. F. Puylaert), Holotype MRAC 146.739.
- 2) In the nest of *Spermestes cucullatus*, Butare, Rwanda, 3.IV.1970 (1 hypopus, paratype).
- 3) On *Ploceus cucullatus*, Waza, Cameroun, 29.VII.1971 (Coll. F. Puylaert) (1 hypopus, paratype).

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