A NEW GENUS AND SPECIES OF APOLONIIINAE
(ACARI: TROMBICULIDAE) FROM SOUTH AFRICA
WITH A KEY TO THE SPECIES IN THE SUBFAMILY (1)

BY

M. Lee GOFF (2)

(With 1 textfigure)

ABSTRACT

Afropolonia tgifi, n. gen. & n. sp., is described from specimens taken from a rat, Aethomys namaquensis, collected in South Africa.

Examination of chiggers collected in South Africa by members of the Namaqualand — Namibia Expedition of the King Leopold III Foundation for the Exploration and Protection of Nature has revealed a new monotypic genus of the subfamily Apoloniinae. The holotype is in the collection of the Institut Royal des Sciences Naturelles de Belgique, Brussels, and the paratype in the collection of the U.S. National Museum of Natural History (chigger collection currently housed at B.P. Bishop Museum, Honolulu, Hawaii). All measurements are given in micromètres. Terminology follows GOFF et al. (1982).

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(2) Department of Entomology, University of Hawaii at Manoa, 3050 Maile Way, Honolulu, Hawaii 96822, U. S. A.
Afropolonia GOFF, new genus

**Type species.** — *Afropolonia tgifi* GOFF, new species.

**Diagnosis.** — Apoloniinae with palpal tarsus 5BS; galeala B; cheliceral blade lacking denticles; palpal claw 3-pronged; spiracles and tracheae absent; scutum with anteromedian nasus; PL setae extrascutal; paired AM setae; genuala I, microgenuala I absent; tibiala III present; subterminala and parasubterminala I absent.

Afropolonia *tgifi* GOFF, new species

(Fig. 1)

**Description of species.** — Larvae. *Idiosoma*. Measuring 455 × 230 in holotype. Eyes 2/2, anterior larger (11 diam.) than posterior (6 diam.), ocular plate absent. 1 pair of humeral setae, measuring 32; 76 dorsal idiosomal setae, measuring 20-24, arranged beginning 12-12

Fig. 1. — Larva of *Afropolonia tgifi* GOFF, n. gen. & n. sp. A, scutum and eyes; B, dorsal aspect of gnathosoma; C, ventral aspect of palpal tibia and tarsus; D, leg I distal 3 segments showing specialized setae (measurements given in μm) and bases of branched setae; E, leg II as above; F, leg III as above.
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+ 52; 2 pairs of sternal setae, anterior 21-22, posterior 21; 50 preanal setae, 16-23; 20 postanal setae, 19-23; total idiosomal setae 152. Gnathosoma. Palpal setal formula B/B/BBB/5BS; palpal claw 3-pronged; galeala B; cheliceral blade (16-17) strongly recurved, lacking denticles; gnathobase lightly punctate, bearing a pair or branched setae. Scutum. Lightly punctate with biconcave anterior margin; posterior margin rounded; anteromedian nasus present, measuring 16 × 7; AM setae paired, AM bases slightly posterior to level of AL bases; PL setae extrascutal; PL > AL > AM; sensillae flagelliform with basal barbs and distal branches. Scutal measurements of holotype followed by those of paratype in parentheses: AW 31 (38); AA 4 (4); SB 15 (15); ASB 24 (25); PSB 17 (17); AM 13 (12); AL 24 (21); PL 29 (24); sens. 51 (50). Legs. All 7-segmented, terminating in a pair of claws and a clawlike empodium. Onychotriches absent. IP 595-617. Leg. I. 207-224; coxa with 1 branched seta (1B); trochanter 1B; basifemur 1B; telofemur 5B; genu 4B, genuala (σ); tibia 8B, 2 tibialae (Φ), microtibiala (κ); tarsus (56 × 18) 20B, tarsala (ω) (17-18), microtarsala (ε), pretarsala (γ). Leg II. 185-186; coxa 1B; trochanter 1B; basifemur 2B, telofemur 4B; genu 3B; tibia 6B, 2 tibialae (Φ); tarsus (44 × 18) 16B, tarsala (ω) (16), microtarsala (ε), pretarsala (γ). Leg III. 203-207; coxa 1B; trochanter 1B, basifemur 2B; telofemur 3B; genu 3B, tibia 6B, tibiala (Φ); tarsus (52 × 14) 14B.

Type data. — Holotype and 1 paratype from South Africa: Sturder Pass, ex Aethomys namaquensis (53 851), taken 4.X.1980 by X. MISONNE.

Remarks. — VERCAMMEN-GRANDJEAN & KOLEBINOVA (1968) revised the Apoloniinae and proposed 2 tribes for the 7 species and 6 genera then recognized: Apoloniini and Sauracarellini. Subsequent to this treatment, VERCAMMEN-GRANDJEAN (1970 & 1971) described 2 additional species from Africa and Iran, and GOFF & LOOMIS (1982) described a species from the North Solomon Islands. Afropolonia is in the tribe Apoloniini as defined by VERCAMMEN-GRANDJEAN & KOLEBINOVA, based on the unexpanded sensillae, along with Apolonia TORRES & BRAGA, 1938, Straelensia VERCAMMEN-GRANDJEAN & KOLEBINOVA, 1968, Vargatula BRENNAN & YUNKER, 1966, and Womersia WHARTON, 1947. Among these genera, Afropolonia is most similar to Straelensia in the form of the scutum and lacking subterminala, paratergotala and microgenuala I, but differs in having the palpal tarsus 5BS (4BS for Straelensia), tibiala III present (absent in Straelensia), coxa II unisette (bisetose in Straelensia) and lacking ventrolatera setae between coxae II and III (present in Straelensia). Afropolonia differs from Apolonia in having palpal tarsus 5BS (7BS in Apolonia), lacking subterminala I (present in Apolonia) and eyes free on cuticle (on ocular plate in Apolonia). Afropolina is similar to species of Vargatula in having palpal tarsus. 5BS, but differs in having a nasus present (absent in Vargatula), coxa II unisette (bisetose in Vargatula), and lacking both subterminala
and microgenuala I (both present in *Vargatula*). Tibiala III is present in *A. tgifi* and *Vargatula pacifica* GOFF & LOOMIS, 1982, but is missing from *Vargatula hispida* BRENNAN & YUNKER, 1966, the other species in the genus *Vargatula*. *Afropolonia* may be separated from *Womersia* in having palpal tarsal formula 5BS (5B for *Womersia*), paired AM setae (single AM seta in *Womersia*), and lacking microgenuala I (present in *Womersia*). *Afropolonia* may be distinguished from the 2 genera in the tribe *Sauracarellini*, *Sauracarella* LAWRENCE, 1949, and *Afracarella* VERCAMMEN-GRANDJEAN & KOLEBINOVA, 1968, by having flagelliform sensillae (expanded sensillae in genera of *Sauracarellini*). In their treatment of the Apoloniinae, VERCAMMEN-GRANDJEAN & KOLEBINOVA included comments on *Bernia marita* ALLRED & BECK, 1966, which had been tentatively placed in the Apoloniinae by ALLRED & BECK (1966). Subsequently TANIGOSHI & LOOMIS (1969) noted that this species, represented by only the holotype, was actually an aberrant specimen of *Hyponeocula arenicola* (LOOMIS, 1954) and thus removed from the Apoloniinae.

**Key to the Genera Species of Apoloniinae**


   Palpal tarsus 7BS; 2 genualae I; coxa II unisetose .......................... 3.


   Paired AM setae .................................. 8.

5. Palpal tarsus 5B; galeala N; microgenuala I present .......................... 6.
   Palpal tarsus 4BS; galeala B; microgenuala I absent .......................... 7.


18 setae in sternal region; galeala N . . . . . . . . . . . .

8. Nasus present . . . . . . . . . . . . . 9.
Nasus absent . . . . . . . . . . . . . . 10.

Palpal tarsus 7BS; subterminala I present . . . . . . . . .
. . . . . . . Apolonia tigipoensis TORRES & BRAGA, 1938.

10. Tibiala III present; coxa II unisetose; eyes 1/1 . . . . . . .
Tibiala III absent; coxa II bisetose; eyes absent . . . . . . .
. . . . . . . Vargatula hispida BRENNAN & YUNKER, 1966.

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