

Raphignathoid mites from Kenya with description of *Exothorhis kenyae* spec. nov. (Acari: Prostigmata)

H. R. BOLLAND

BOLLAND, H. R., 1988. RAPHIGNATHOID MITES FROM KENYA WITH DESCRIPTION OF *EXOTHORHIS KENYAE* SPEC. NOV. (ACARI: PROSTIGMATA) – *ENT. BER., AMST.* 48(2): 23-26.

Abstract: Two raphignathoid mites, *Agistemus tranatalensis* Meyer and *Eupalopsellus brevopilus* (Meyer & Ryke), are recorded for the first time from Kenya. A description with figures of *Exothorhis kenyae* n. spec. is given.

Laboratory of Experimental Entomology, University of Amsterdam, Kruislaan 302, 1098 SM Amsterdam

Introduction

Very little information exists on the distribution of raphignathoid mites in Africa. Most of the information deals with the species of South Africa, with only few notes on raphignathoid taxa from other parts of this continent. Since several raphignathoid taxa occur on plants infested by spider mites, it is worthwhile to mention new records.

In a collection of plant associated mites from Kenya made by Dr. W. Helle in 1986, two raphignathoid species were found, viz. *Agistemus tranatalensis* Meyer, 1969 (fam. Stigmaeidae) and *Eupalopsellus brevopilus* (Meyer & Ryke, 1959) (fam. Eupalopsellidae). Both species were found at Sinda near Victoria Lake, Nyanza, on *Cordia ovalis* R. Br. (fam. Boraginaceae). The species were found in association with tetranychoid mites, on which they prey.

A. tranatalensis was reported from different localities in South Africa (Meyer, 1969). *E. brevopilus* has been reported not only from the RSA (Meyer & Ryke, 1959; Meyer & Rodrigues, 1966; Smith-Meyer & Ueckermann, 1984), but also from the Camerouns (Bolland & Ueckermann, 1984). A new eupalopsellid species was collected from an unknown tree at Nairobi. The description follows below.

Exothorhis kenyae spec. nov.

(figs. 1-5).

Type material: Holotype ♀, Kenya, Nairobi, on unknown tree, 27.xi.1986, W. Helle.

Description

Female: Dorsum length (excluding gnathosoma) 328 µm, length (including gnathosoma) 443 µm, width 243 µm. Length legs: 320/325 µm; 280/285 µm; 245 µm; 255 µm. Length of dorsal setae *ae* 41 µm; *be* 50/53 µm; *ce* 66 µm; *pm* 50/53 µm; *he* 66 µm; *la* 64/67 µm; *lm* 72 µm; *li* 69 µm; *le* 37 µm; *a* 56/59 µm; *b* 62 µm; *c* 50 µm. The abbreviations for setae in the description are according to Summers (1960) and Wood (1967).

Dorsum with thirteen pairs of heavy, subspatulate setae, anchored on strong tubercles and located on five distinct dorsal shields. The humerals are situated in a dorso-lateral position. One pair of eyes is visible on the propodosoma. A pair of ill-defined, postocular bodies are located laterally to setae *pm*.

Venter: The first two pairs of ventral setae (*1a* + *3a*) are very long, the third pair (*4a*) is shorter. There are three pairs of paragenital and four pairs of anogenital setae, of which the last

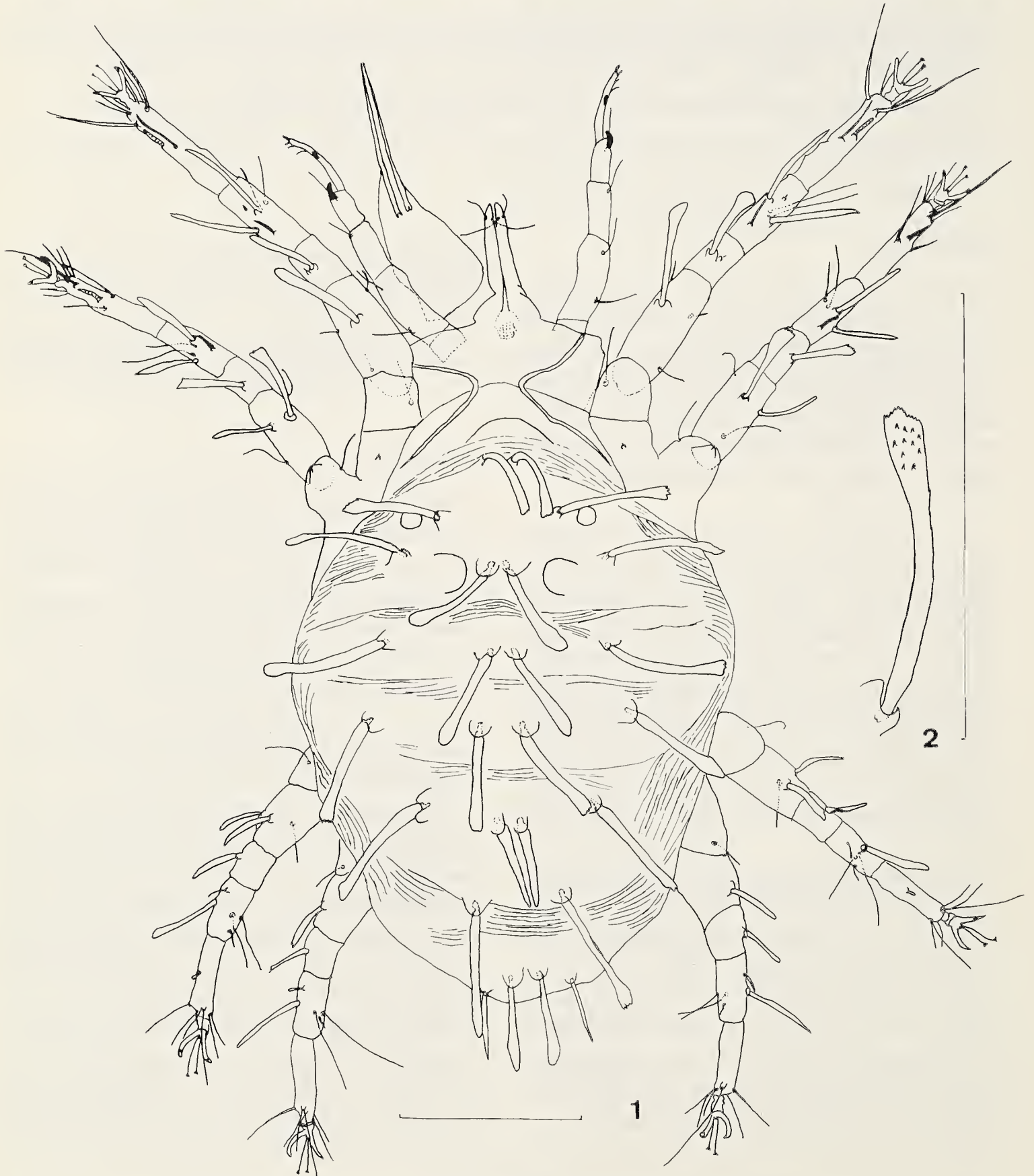
two pairs are serrated ($ps\ 1 + ps\ 2$).

Gnathosoma: Dorsally there is left and right a long peritrema. The bases of the chelicerae are fused. The stylet-like, movable digits are longer than the hypostome. The latter bears two pairs of setae distally ($ri + re$) and two pairs of long setae proximally ($m + n$).

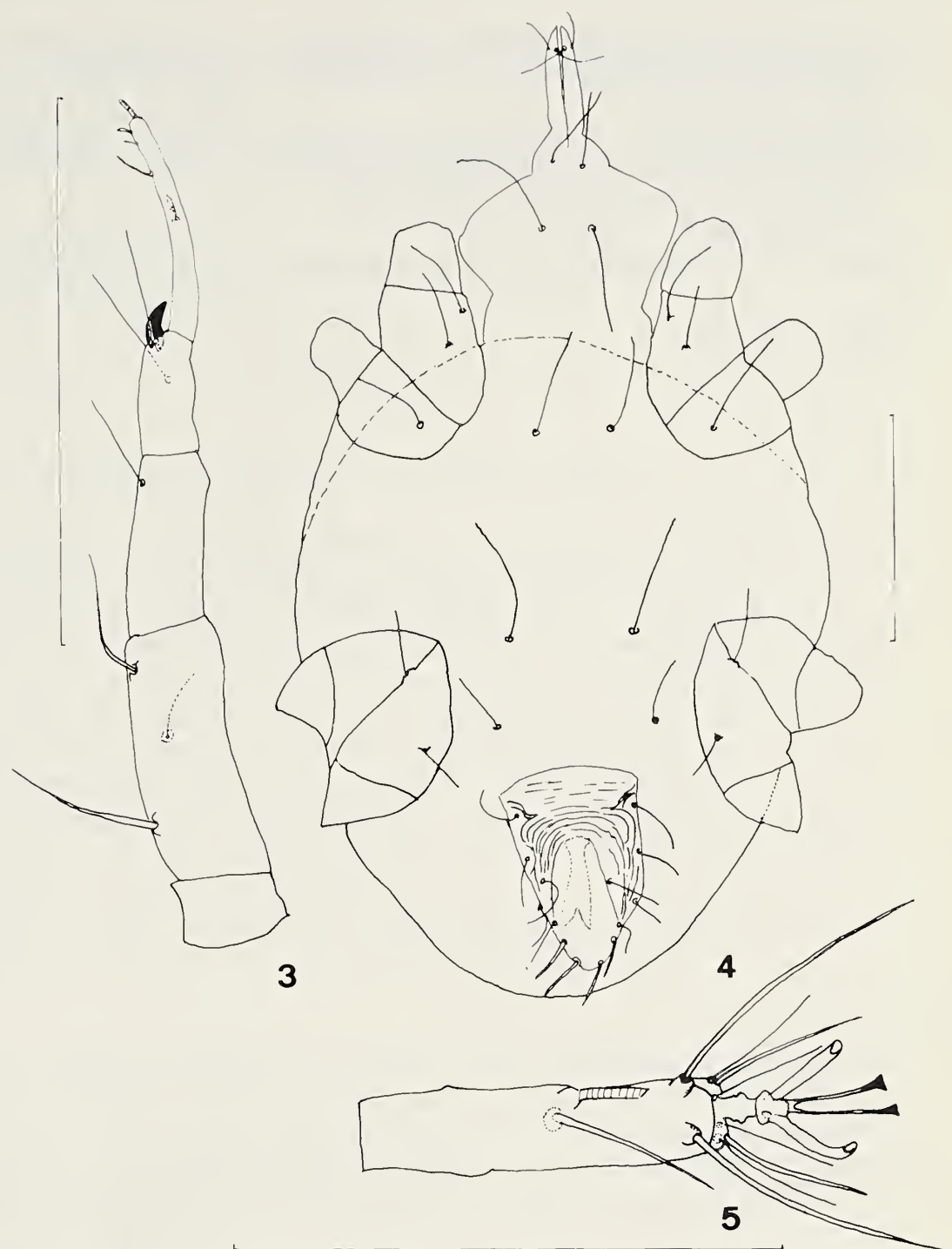
Pedipalp setation: trochanter 0, femur 3, genu 1, tibia 2 + 1 claw, tarsus 3 + 2 solenidia.

Palptarsus is much longer than the palptibia.

Leg setation: coxae 2 + 1 spine - 1-0-2, trochanters 1-1-1-1, femora 4-4-3-1, genua 1 + 1 spine (k) - 1-1-1, tibiae 4 + 1 solenidion + 1 sensillum (dt) - 4 + 1 solenidion - 4 + 1 solenidion - 4 + 1 solenidion, tarsi 9 + 1 solenidion - 8 + 1 solenidion - 6 + 1 solenidion - 6. Coxa IV has two setae of which one is based close to the border with coxa III. Coxa III is without



Figs. 1-2. *Exothorhis kenyae* nov. spec. 1, dorsal view; 2, dorsal seta *he*. (Scale 0.1 mm).



Figs. 3-5. *Exothorhis kenyae* nov. spec. 3, pedipalp; 4, venter; 5, tarsus I. (Scale 0.1 mm).

a seta. Tarsi are ending into two claws and a pad-like empodium, bearing two tenent hairs of which one is somewhat longer than the other.

Male: Unknown.

Discussion

Exothorhis kenyae n. sp. resembles *E. okinawana* Ehara, 1967 and *E. armata* Summers, 1960 by the shape of the dorsal setae. It differs from *E. okinawana* by the longer setae *pm*, *a*, and *b* reaching easily to the bases of the setae next behind. It differs from *E. armata* by the presence of sensillum *dt* on tibia I and the shorter *c* setae. *E. caudata*

Summers, *E. sudanicus* Zaher & Yousef, 1973 and *E. camelliae* Smith-Meyer & Ueckermann, 1984 have the dorsal setae pointed distally.

References

- BOLLAND, H. R. & E. A. UECKERMAN, 1984. Raphignathoid mites (Acari: Prostigmata) from Cameroun with references to their chromosome numbers. – *Phytophylactica* 16: 201-207.
- MEYER, M. K. P., 1969. Some stigmaeid mites from South Africa (Acari: Trombidiformes). – *Acarologia* 11: 227-271.
- MEYER, M. K. P. & M. C. RODRIGUES, 1966. Acari associated with cotton in southern Africa (with reference to other plants). – *Garcia de Orta* 13 (2): 1-33.
- MEYER, M. K. P. & P. A. J. RYKE, 1959. Mites of the

- superfamily Raphignathoidea (Acari: Prostigmata) associated with South African plants. – *Ann. Mag. nat. Hist.* [13] 2: 209-234.
- SMITH-MEYER, M. K. P. & E. A. UECKERMANN, 1984. The family Eupalopsellidae (Acari: Prostigmata), with descriptions of new species from South Africa. – *Phytophylactica* 16: 121-142.
- SUMMERS, F. M. 1960. Eupalopsis and Eupalopsellid mites (Acari: Stigmaeidae, Eupalopsellidae). – *Fla Ent.* 43 (3): 119-138.
- WOOD, T. G., 1967. New-Zealand mites of the family Stigmaeidae (Acari, Prostigmata). – *Trans. R. Soc. N. Z. Zool.* 9 (9): 93-139.
- Accepted 14.viii.1987