

**TWO NEW SPECIES OF *SCHOUTEDENICHIA*
(ACARI: TROMBICULIDAE) FROM A SHREW (INSECTIVORA)
IN TANZANIA, EAST AFRICA¹**

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Abstract. *Schoutedenichia tanzaniaensis* and *Schoutedenichia discalis* are described as new from specimens collected from a single shrew, *Crocidura* sp., taken in Tanzania, East Africa.

Jadin & Vercammen-Grandjean (1954) proposed the genus *Schoutedenichia* with *Schoutedenichia fulleri* Jadin & Vercammen-Grandjean, 1954, as the type-species. Vercammen-Grandjean (1958) revised the genus and listed 41 species and subspecies. Subsequently, Taufflieb (1960, 1961, 1966) described 7 additional species in the genus, all from Africa. Examination of material collected from a single individual shrew collected on the campus of the University of Dar Es Salaam, Tanzania, has revealed 2 additional species, described below. Holotypes are in the B.P. Bishop Museum (BPBM) and paratypes are there and in the collection of the U.S. National Museum of Natural History/Smithsonian Institution (chigger collection currently housed at Bishop Museum). All measurements are given in micrometres. Terminology follows Goff et al. (1982).

***Schoutedenichia tanzaniaensis* Goff, new species**

Fig. 1

Description of species. Larva. *Idiosoma.* Measuring 385 × 250 in engorged specimen. Eyes 1/1, free on cuticle. 1 pair of humeral setae, measuring 27-29; 52 dorsal idiosomal setae, measuring 18-21; arranged 8-14(10+4)-10-6-6-2; 2 pairs of sternal setae, anterior 25-29, posterior 18-21; 26 preanal setae, 13-15; 26 postanal setae, 17-20; total idiosomal setae 110. *Gnathosoma.* Palpal setal formula B/N/NNB/4B; palpal claw 3-pronged; galeala N; cheliceral blade (22-23) with tricuspoid cap; gnathobase lightly punctate, bearing a pair of branched setae. *Scutum.* Lightly punctate with biconcave anterior margin; posterior margin biconvex; intersensillary craters present slightly posterior to level of AL bases; AM base in line with or slightly posterior to level of AL bases; SB anterior to level of PL bases; AM = PL > AL; PW/SD = 1.80-2.02; sensillae clavate, head with coarse setules. Scutal measurements of holotype followed by means and ranges of type series in parentheses: AW 52 (52, 49-55); PW 79 (78, 75-83); SB 38 (38, 36-40); ASB 21 (22, 21-24); PSB 19 (19, 17-20); AP 37 (37, 35-40); AM 26 (27, 24-28); AL 19 (19, 16-20); PL 25 (26, 22-29); sens. 31 × 12 (32 × 11, 31-33 × 11-12). *Legs.* All 7-segmented, terminating in a pair of claws and a clawlike empodium. Onychotriches

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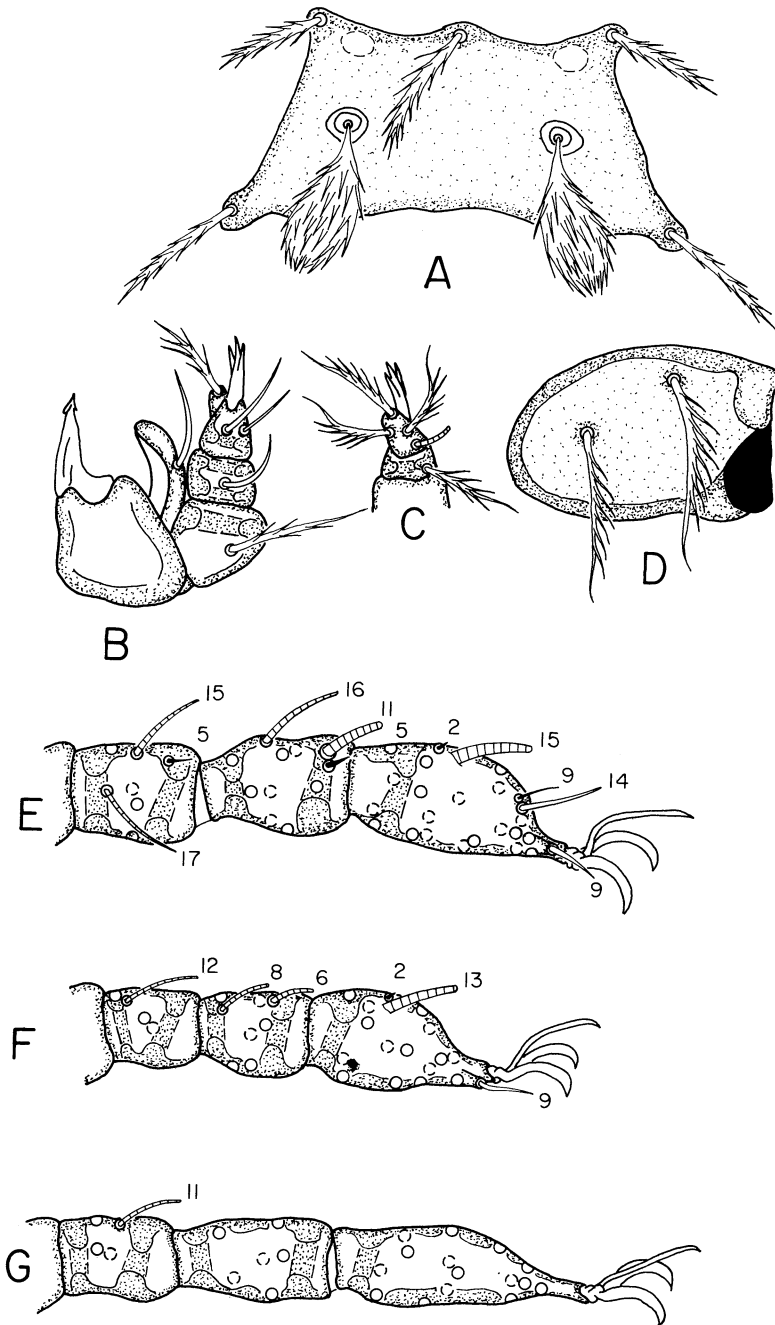


FIG. 1. *Schoutedenichia tanzaniaensis*: **A**, scutum; **B**, dorsal aspect of gnathosoma; **C**, ventral aspect of palpal tibia and tarsus; **D**, coxa III; **E**, leg I distal 3 segments showing specialized setae (measurements in micrometres) and bases of branched setae; **F**, leg II as above; **G**, leg III as above.

absent. IP 568–585. *Leg I.* 196–207; coxa with 1 branched seta (1B); trochanter 1B; basifemur 1B; telofemur 5B; genu 4B, 2 genualae (σ), microgenuala (k); tibia 8B, 2 tibialae (ϕ), microtibiala (k); tarsus (42×18) 20B, tarsala (15–16) (ω), microtarsala (e), subterminala (ζ), parasubterminala, pretarsala (ζ). *Leg II.* 171–177; coxa 1B; trochanter 1B; basifemur 2B; telofemur 4B; genu 3B, genuala (σ); tibia 6B, 2 tibialae (ϕ); tarsus (38×17) 15B, tarsala (13–14) (ω), microtarsala (e), pretarsala (ζ). *Leg III.* 197–206; coxa 2–3B; trochanter 1B; basifemur 2B; telofemur 3B; genu 3B, genuala (σ); tibia 6B; tarsus (48×14) 14B.

Type data. Holotype (BPBM 12,770) and 7 paratypes, TANZANIA: Dar Es Salaam, University of Dar Es Salaam campus, ex *Crocidura* sp., 2.XII.1980 (D.M. Howell).

Remarks. *Schoutedenichia tanzaniaensis* resembles 2 other African species described by Vercammen-Grandjean (1958), *S. morosi* and *S. kivuensis*. *S. tanzaniaensis* may be separated from *S. morosi* in having palpal setation B/N/NNB/4B (B/B/NNB/4B for *S. morosi*), AL < AM (AL > AM in *S. morosi*), eyes 1/1 (2/2 in *S. morosi*) and 52 dorsal idiosomal setae arranged beginning 8-14(10+4)-10 (62 arranged 8-8-8-6-8- . . . in *S. morosi*). *S. tanzaniaensis* may be distinguished from *S. kivuensis* by palpal setation (N/N/NNN/4B in *S. kivuensis*), number of dorsal idiosomal setae (74, arranged 6-10-10-8 in *S. kivuensis*) and coxa III normally 2B (3B in *S. kivuensis*). In 1 specimen of *S. tanzaniaensis*, coxa III was 3B on one side. All other specimens were uniformly 2B. The species name is based on the type-locality.

Schoutedenichia discalis Goff, new species

Fig. 2

Description of species. Larva. *Idiosoma.* Measuring 285×205 in engorged specimen. Eyes 2/2, of equal size, on ocular plate. 1 pair of humeral setae, measuring 33–38; 52 dorsal idiosomal setae, measuring 21–41, anterior setae longest, arranged 6-6-8-8-10-8-4-2; 2 pairs of sternal setae, anterior 25–27, posterior 22; 38 preanal setae, 17–23; 16 postanal setae, 24–26; total idiosomal setae 112. Humeral and dorsal idiosomal setae inserted on circular plates, 7–12 diam, other idiosomal setae free on cuticle. *Gnathosoma.* Palpal setal formula B/B/BBB/4B; palpal claw 3-pronged; galeala B; cheliceral blade (29) with tricuspid cap; gnathobase lightly punctate, bearing a pair of branched setae. *Scutum.* Lightly punctate with sinuous anterior margin; posterior margin shallowly biconvex; AM base slightly posterior to or in line with AL bases; SB anterior to level of PL bases; PL > AL = AM; PW/SD = 1.56–1.78; sensillae clavate, head with coarse setules. Scutal measurements of holotype followed by means and ranges of type series in parentheses: AW 50 (48, 44–51); PW 84 (81, 75–85); SB 37 (36, 35–37); ASB 26 (27, 25–29); PSB 21 (22, 21–23); AP 39 (38, 37–39); AM 28 (28, 26–29); AL 24 (26, 24–29); PL 39 (41, 39–43); sens. 32×11 (33×11 , $32-35 \times 10-11$). *Legs.* All 7-segmented, terminating in a pair of claws and a clawlike empodium. Onychotriches absent. IP 601–619. *Leg I.* 212–214; coxa 1B; trochanter 1B; basifemur 1B; telofemur 5B; genu 4B, 2 genualae (σ), microgenuala (k), tibia 8B, 2 tibialae (ϕ), microtibiala (k); tarsus (51×19) 20B, tarsala (16) (ω), microtarsals (e), subterminala (ζ), parasubterminala, pretarsala (ζ). *Leg II.* 174–186; coxa 1B; trochanter 1B; basifemur 2B; telofemur 4B; genu 3B, genuala (σ); tibia 6B, 2 tibialae (ϕ); tarsus (42×18) 16B, tarsala (13–15) (ω), microtarsala (e), pretarsala (ζ). *Leg III.* 215–219; coxa 1B; trochanter 1B; basifemur 2B; telofemur 3B; genu 3B, genuala (σ); tibia 6B; tarsus (52×16) 15B.

Type data. Holotype (BPBM 12,771) and 4 paratypes, TANZANIA: Dar Es Salaam, University of Dar Es Salaam campus, ex *Crocidura* sp., 2.XII.1980 (K.M. Howell).

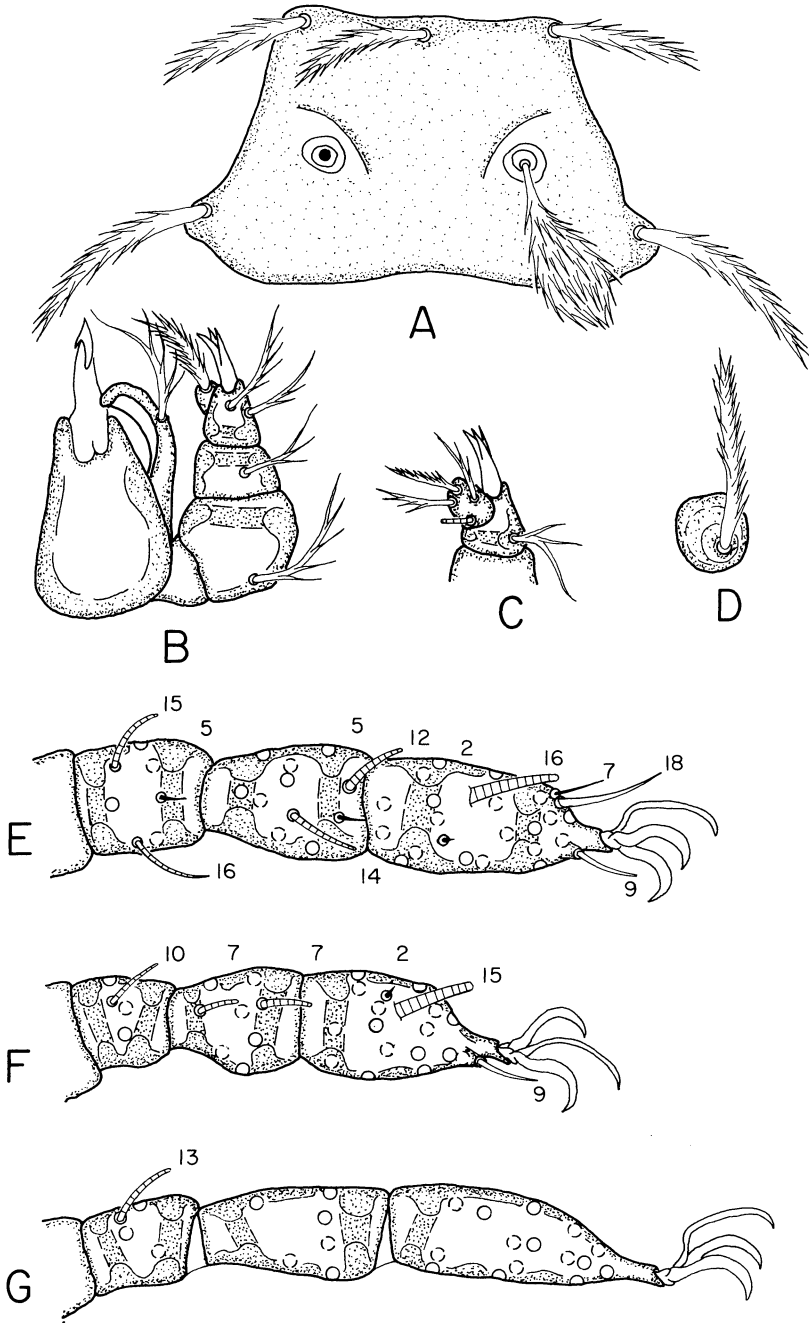


FIG. 2. *Schoutedenichia discalis*: **A**, scutum; **B**, dorsal aspect of gnathosoma; **C**, ventral aspect of palpal tibia and tarsus; **D**, dorsal idiosomal seta; **E**, leg I distal 3 segments showing specialized setae (measurements in micrometres) and bases of branched setae; **F**, leg II as above; **G**, leg III as above.

Remarks. *Schoutedenichia discalis* resembles *S. paulus* Vercammen-Grandjean, 1958, in having dorsal idiosomal setae inserted on circular plates, but differs in the palpal setal formula B/B/BBB/4B (N/N/NNB/4B or B/B/NNB/4B for *S. paulus*), having coxa III unisetose (3B for *S. paulus*) and the shape of the scutum. *S. discalis* may be separated from *S. fulleri* Jadin & Vercammen-Grandjean, 1954, in having dorsal idiosomal setae inserted on plates (free on cuticle in *S. fulleri*), palpal setal formula (B/N/BNB/4B for *S. fulleri*) and number arrangement of idiosomal setae (174 idiosomal setae for *S. fulleri*).

The species name is based on the circular plates surrounding the dorsal idiosomal setae.

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