

## NEW CHEYLETIDAE FROM AFROTROPICAL SWIFTS (APODIDAE)

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----- ABSTRACT—A new genus *Apodicheles*, a new subgenus *Bakericheyla* (*Apodicheyla*), and three new species are described from afrotropical swifts: *Apodicheles cypsiurus* sp. n. and *Bakericheyla* (*Apodicheyla*) *africana* sp. n. both from *Cypsiurus parvus* and *Apodicheles apus* sp. n. from *Apus caffer*. -----

*Apodicheles* gen. nov.

DEFINITION—Cuticle finely striated, striations punctate except in middle of dorsum (=scutum) and on coxae where they are not punctate. Coxae very poorly sclerotized. GNATHOSOMA: Peritreme on each side with 3 longitudinal, thick, segments and 1 or 2 narrow, transverse, segments. Palps in female thick and short, palpgenu very short, tibiae with very strong, curved, spines (tibial claws) and femora with 2 pairs of ventral, retrorse, triangular processes. Palps in male narrower, tibiae with smaller and less curved spines and femora without any processes. Palpal tarsi very small, without comb-like setae, tarsi in male with 2 falciform setae. All legs ending in a pair of strong claws and a rayed pulvillus. Aedeagus long, narrow, sinuous and directed backwards.

CHAETOTAXY (female)—Setae *vi*, *ve* and *sci* barbed and close together; setae *d1*, *d2*, *d4*, *d5*, *l2*, *l3* and *l5* very short, thin and not barbed; *d3* and *l4* lacking; setae *se*, *h* and *l1* long and barbed. Anal setae absent. 5 pairs genital setae. Setae *ic1*, *ic3* and *ic4* relatively long. Coxae I-IV with 2-1-1-1 setae. Legs: trochanters 1-1-1-0, femora 2-2-0-0, genua 2-2-1-0, tibiae 4-4-3-3, tarsi 9-6-6-6. Tarsi I-II and genu I with 1 solenidion.

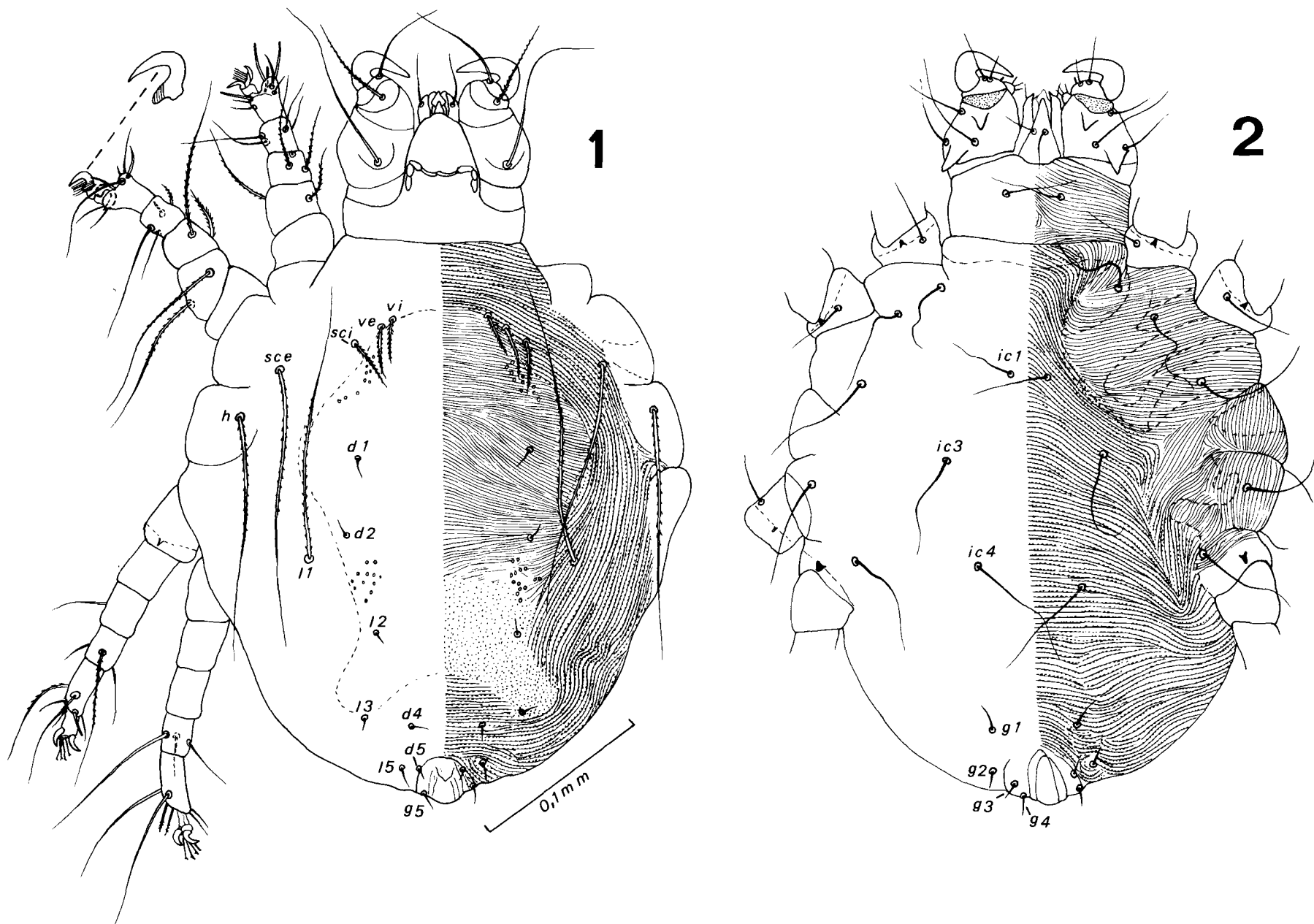
TYPE SPECIES—*Apodicheles cypsiurus* sp. n.

Taxonomic status of the genus *Apodicheles*: This genus is very close to genera *Neocheyletia* Baker and *Bakericheyla* Volgin. However, it is clearly distinguished from both by following characters (females): apical spine of palptibia much stronger and curved, palpfemur bearing retrorse ventral processes, propodonotal setae placed differently, peritremes different in shape, coxae very poorly sclerotized, presence of only 1 seta on trochanter III (2 setae in other genera) and no setae on trochanter IV and femora III-IV (1 seta in other genera), solenidion of tibia I lacking.

1. *Apodicheles cypsiurus* spec. nov.

FEMALE (Figs. 1-2)—Holotype 330 $\mu$  long (idiosoma) and 240 $\mu$  wide. Total length 440 $\mu$  long (including gnathosoma in midline). DORSUM: with a shield in middle (210 $\mu$  long and 150 $\mu$  wide), very poorly sclerotized and with striations in its anterior two thirds and with punctations in posterior one third. Setae *vi*, *ve* and *sci* barbed, *vi* generally slightly shorter (20-25 $\mu$ ) than *ve* and *sci* (29-33 $\mu$ ); setae *se*, *h* and *l1* barbed, 150 $\mu$  long; other setae very short and thin. Anus terminal. VENTER: Legs II distinctly separated from legs III; legs I-II and III-IV contiguous. Coxae poorly defined. Coxae with 2-1-1-1 setae. Vulva terminoventral. Gnatho-

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Figs. 1-2: *Apodicheles cvbsiurus* sp. n. (holotype ♀)-1, dorsum; 2, venter.

soma relatively large; palpfemora with 2 pairs of retrorse ventral triangular processes. Palptibia short, with a strong apical recurved spine; palptarsus very small, without comblike setae. Legs well developed. All tarsi ending in a pair of strongly curved claws and a rayed empodium.

MALE (Figs. 3-5)—Allotype  $225\mu$  long (idiosoma) and  $210\mu$  wide. Total length  $275\mu$  (in midline, gnathosoma included). DORSUM: Shield and setae *vi*, *ve*, *sci*, *sce* and *h* as in female. Genital orifice situated behind level of coxa IV. Genital setae 3 pairs. Aedeagus directed backwards, very thin, sinuous, about  $150\mu$  long. VENTER: As in female. Gnathosoma smaller than in female, with palps longer and narrower. Palptibia with a spine smaller than in female and less curved. Palptarsus distinct, with 2 curved setae. Palpfemur without triangular processes. Legs as in female.

HOST AND LOCALITY—On *Cypsiurus p. parvus*, Tzaneen, Transvaal. Mites collected by Prof. F. Zumpt, VII, 1973 (Holotype and 5 paratype females, allotype and 1 paratype male). One female specimen has been collected on the same host from Cameroun (Coll. A. Fain). Types in Museum of Tervuren. Paratypes in South African Museum of Medical Research, Johannesburg and in the collection of the author.

## 2. *Apodicheles apus* spec. nov.

This species is close to *A. cypsiurus*. It is distinguished from latter by following characters: Smaller size of body; setae *ve* much longer ( $45\mu$ ) and thicker than *vi* ( $15\mu$ ); these setae situated more anteriorly; setae *g1*, *g2*, *g3* and *g4* longer ( $45\mu$ ,  $40\mu$ ,  $25\mu$  and  $25\mu$  long respectively); dorsal shield relatively larger ( $195\mu \times 150\mu$ ) and entirely striated.

Holotype female  $285\mu$  long (idiosoma), total length (with gnathosoma, in midline)  $365\mu$  long.

HOST AND LOCALITY—On *Apus caffer*, Butare, Rwanda. August 1954 (Coll. A. Fain). Holotype and only known specimen in Museum of Tervuren.

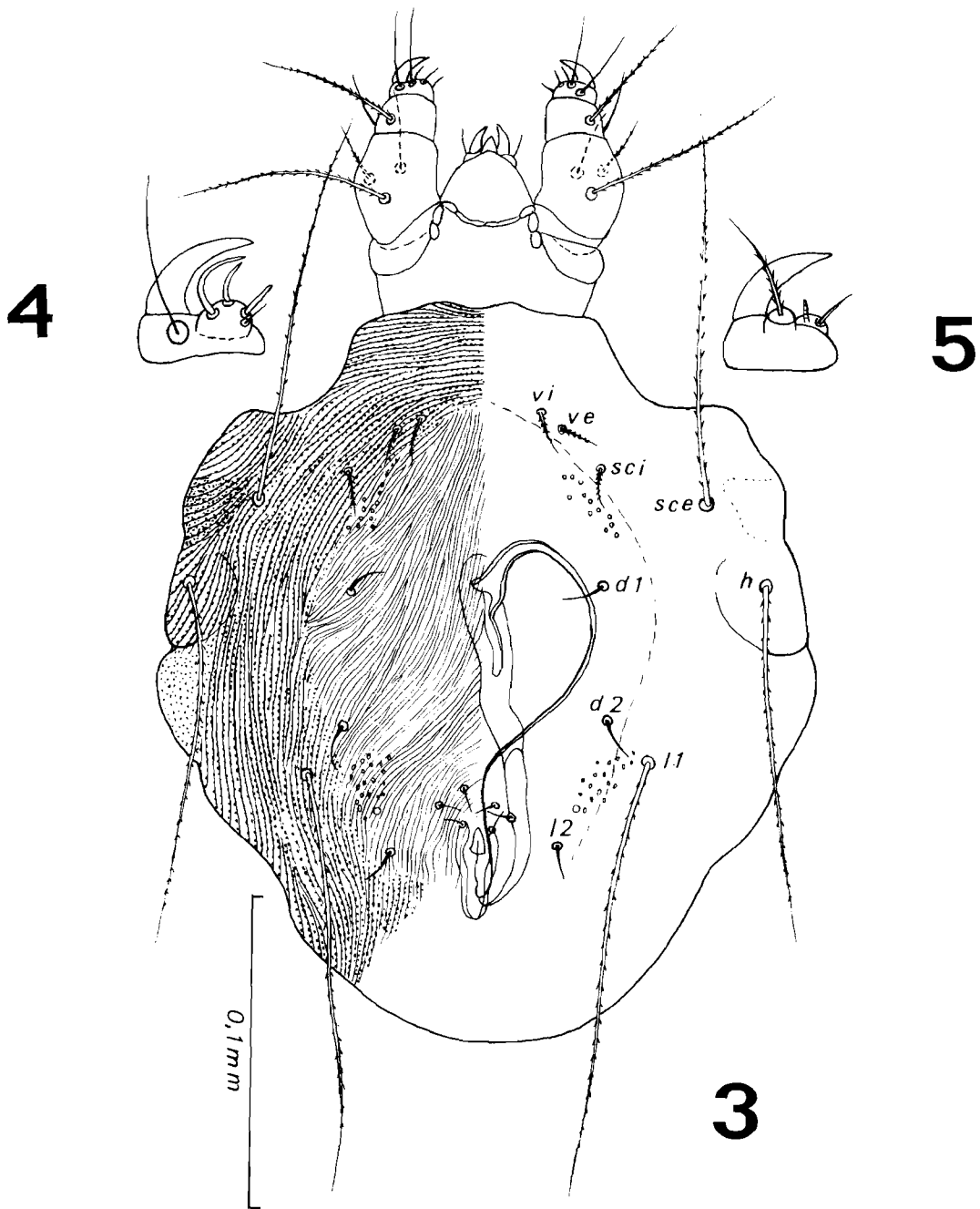
Genus *Bakericheyla* Volgin, 1966  
Subgenus *Apodicheyla* subg. nov.

DEFINITION—Known only from female. Cuticle finely striated and without any punctations. Propodonotum with a shield very finely striated. Coxae forming two groups (I-II and III-IV) widely separated. Vulva ventroterminal. Gnathosoma elongate; palps narrow and relatively long, with a long palpgenu; palptibia ending in a small curved claw-like spine; palptarsus not observed. Legs stout, ending in a pair of small claws and a rayed pulvillus.

CHAETOTAXY—Propodosomal shield with *vi*, *ve*, *sci* and the *d1* setae, all very short and thin. Setae *sce*, *h*, *l4* and *l5* long, *sce* close to *sci*. Setae *d2* and *l1* small and thin, curved spines situated on a sclerotized base. Setae *l2* and *l3* very short and thin; *d3-d5* absent. 3 intercoxals: *ic1*, *ic3* and *ic4*. Two pairs of anal setae (*a1* and *a2*), 5 pairs of genital setae (*g1* to *g5*), of which 2 internal pairs situated on vulvar lips. Coxae 2-1-2-2, trochanters 1-1-2-1, femora 2-2-1-1, genua 2-2-2-2, tibiae 4-4-3-3, tarsi 9-7-7-7. A dorsal solenidion present on tarsi I-II, on tibia and genu I.

TYPE SPECIES—*Bakericheyla (Apodicheyla) africana* sp. n.

This subgenus is distinguished from typical genus mainly by the different position of the propodonotal setae and by the size of *ve* and *sci* which are very short and thin.

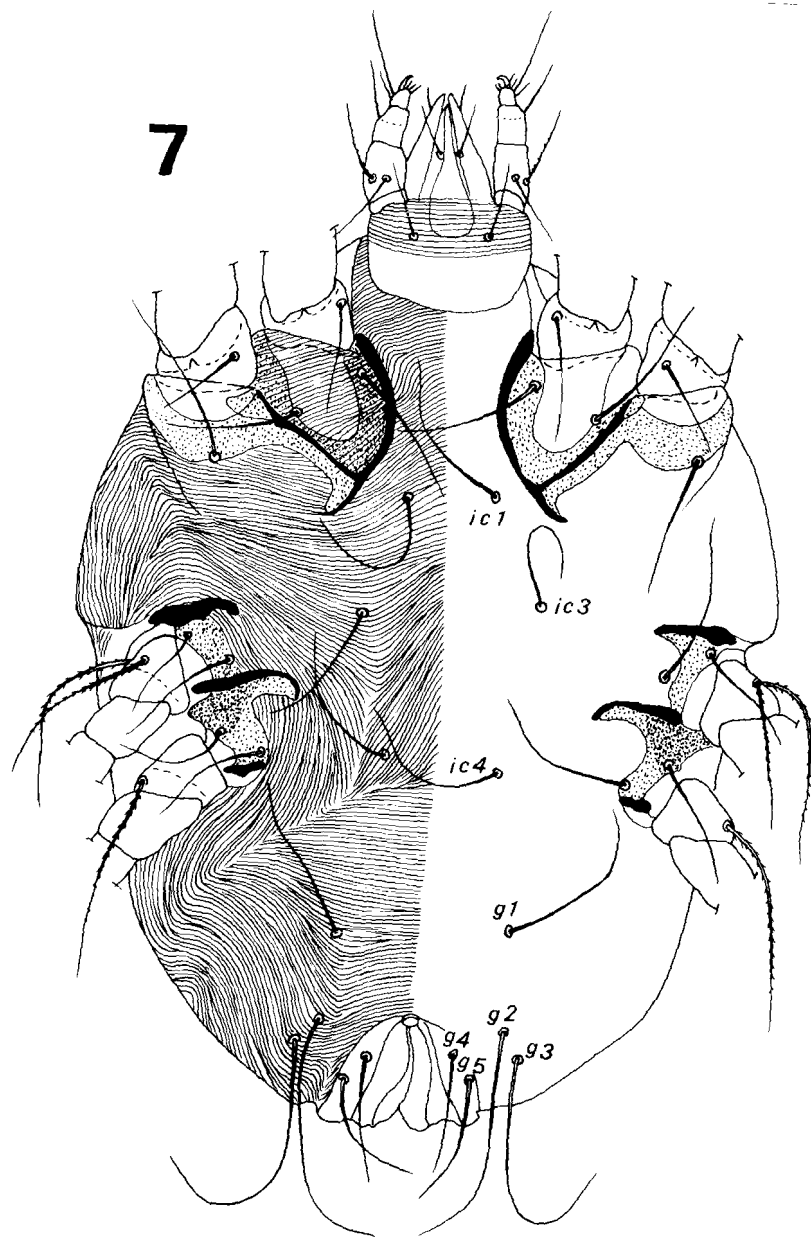


Figs. 3-5: *Apodicheyles cypsiurus* sp. n.—3, allotype male; 4, palptibia ventrally; 5, palptibia dorsally.

*Bakericheyla (Apodicheyla) africana* spec. nov.

**FEMALE** (Figs. 6-7)—Holotype  $460\mu$  long (idiosoma) and  $360\mu$  wide. Total length  $520\mu$  (gnathosoma included, measured in midline). With characters of subgenus. All dorsal setae bare.

**HOST AND LOCALITY**—The holotype and only known specimen was collected by F. Zumpt on *Cypsiurus parvus*, in Tzaneen, Transvaal, VII. 1973. Type as for *Apodicheyles cypsiurus*.



Figs. 6-7: *Bakericheyla (Apodicheyla) africana* sp. n. (holotype ♀)—6, dorsum; 7, venter.

## ACKNOWLEDGEMENTS

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