

ZOOLOGISCHE MEDEDELINGEN

UITGEGEVEN DOOR HET

RIJKSMUSEUM VAN NATUURLIJKE HISTORIE TE LEIDEN
(MINISTERIE VAN CULTUUR, RECREATIE EN MAATSCHAPPELIJK WERK)

Deel 49 no. 3

4 april 1975

TELOCHILUS FREYI, A NEW GENUS AND SPECIES FROM NIGERIA (COLEOPTERA: CETONIIDAE)

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With 9 text-figures and 1 plate

ABSTRACT

Telochilus freyi, gen. nov., sp. nov., from Lake Barombi, Kumba district, Nigeria, is described and illustrated. The trituberculate mesosternum as well as certain other unique features render *Telochilus* remarkably remote from the other known genera of cremastochiliform beetles.

Revisional work on the gross classification of the cremastochiliform beetles, i.e. the forms currently placed in or near the cetoniid tribe Cremastochilini (Schenkling, 1921: 353 et seqq.), has resulted in a number of discoveries requiring separate attention. One of these discoveries concerns an interesting specimen from Nigeria found in the collection of Dr. G. Frey (Tutzing, near Munich). Although the ecological circumstances under which this insect was collected are unknown, its structure is strongly indicative of some association with social insects. Many cremastochiliform species are known to inhabit the nests of ants, bees or termites, and this association has considerably influenced their evolution; particularly the mouthparts, the antennal scapes and the legs may be strongly modified compared to the bulk of the beetles placed in the family. Such is the case with the present specimen. Moreover, it shows a set of unique properties, and therefore has to be isolated in a separate genus, named here:

***Telochilus* gen. nov.**

Generic diagnosis. — Mesosternum with three tubercles (fig. 8), two paramedians and one posteromedian. Tarsi (figs. 6, 7) stout, 5-segmented, with two longitudinal costulae; segments of fore tarsi swollen. Anterior section of elytral suture lined with tubercles (fig. 5). Anterior margin of clypeus

acutely deflexed (fig. 3), hence transversely carinate. Surface around spiracles of visible sternites 3-5 swollen. Antennal scape (fig. 2) enlarged, angulate distally. Virtually entire integument favose (photographs).

Apparent clypeal border (fig. 1) straight or rounded, genuine border emarginate (fig. 3). General surface of clypeofrontal disc simply convex, lacking structural ornamentation. Anterior section of lateral pronotal borders rounded (fig. 4); posterolateral angle of pronotum distinct; lateral margin not thickened. Pronotal disc lacking structural ornamentation, general surface simply convex. Elytra (fig. 5) elongate, ratio max. length/max. combined width exceeding 1; disc with geminate striae, any structural ornamentation lacking. Mentum slightly thickened, dilated, lacking pronounced appendages, concealing labial palpi; maxillary palpi free. Anteromedian projection of prosternum apparently a high carina; posteromedian part of prosternum with ridge; anterolateral flap of prosternum well developed. Middle coxal separation (fig. 8) narrow but distinct, lacking projection. Spiracles of visible abdominal sternites free, arranged in an almost straight line. General surface of pygidium (fig. 9) convex. Fore tibia (fig. 6) with two external, distal denticles; inferior side with longitudinal ridge. Middle and hind tibiae with distal-external elevation. Femora slender. Colour entirely black. — Contents of diagnosis tentative due to limited material.

Type-species. — *Telochilus freyi* sp. nov.

Affinities. — The single known species of *Telochilus* stands isolated among the cremastochiliform beetles, particularly because of the mesosternal, elytral, tarsal, and integumentary characters mentioned in the first paragraph of the generic diagnosis. The only forms superficially resembling *Telochilus* are found in the derived sections of the *Coenochilus* group of genera, e.g. *Astoxenus* Péringuey and *Basilewskynia* Schein. In my proposed publication on the gross taxonomy of the cremastochiliform cetonids I will return to the question of the systematic position of *Telochilus*, and indicate a probable twin taxon.

Distribution. — Western Africa: locality of the single known specimen on the Nigerian-Cameroon border.

Bionomics. — Unknown, but association with social insects suspected.

***Telochilus freyi* sp. nov.** (figs. 1-9, pl. I figs. 10-13)

Description (holotype). — Approximate length 14, width 7, height 5 mm. Colour black; opaque, largely due to microsculpture (visible at magnification $\times 50$). Integument virtually entirely favose (pl. I fig. 10); four types of sculptural units (and transitional types): simple pits (1); pits with raised centre and perimarginal striola (2); (usually irregularly) annulate striolae (3);

simple, small pits, so-called normal punctures (4); types 1 and 2 frequently provided with brownish-yellowish stubble or scale. Habitus, pl. 1 fig. 10.

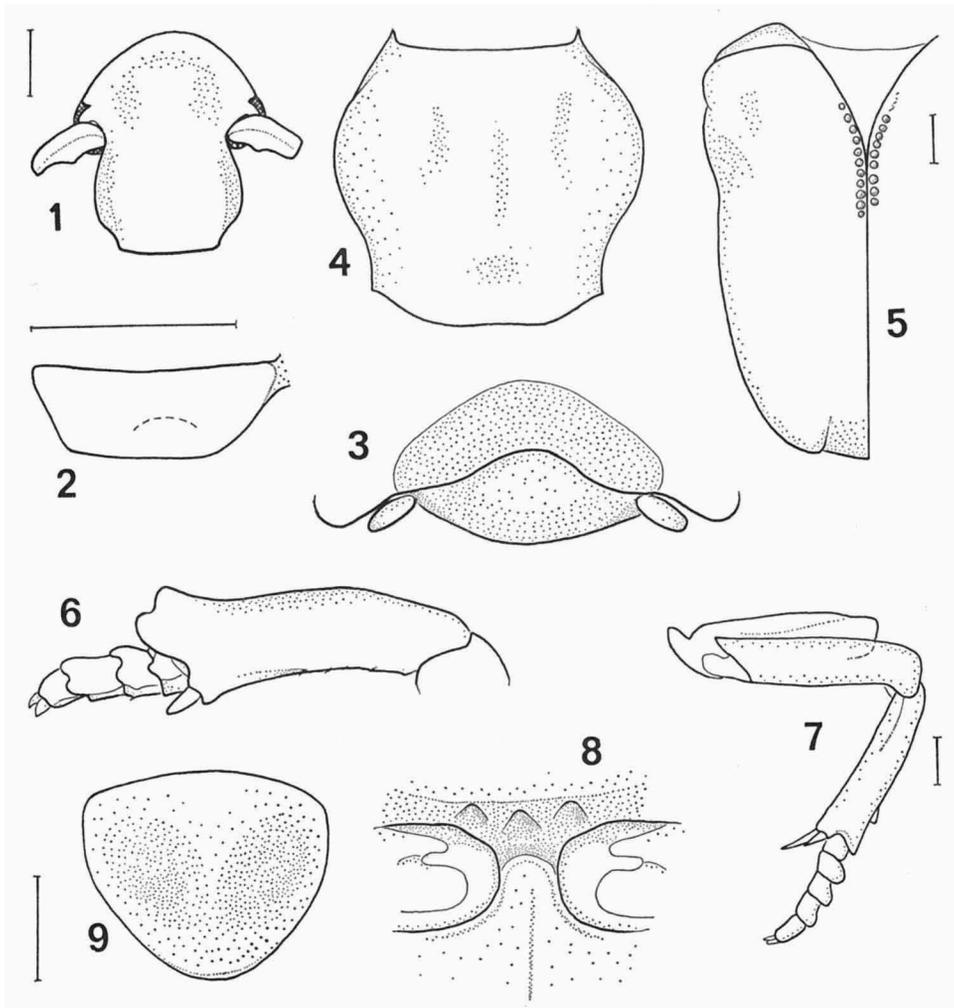
Cephalic contours, fig. 1. Clypeofrontal disc heavily pitted (type 1; pl. 1 fig. 11); density of pits 13-17/0.25 sq. mm, diameters ca. 0.075 mm. Clypeus slightly tumid centrally; anterior margin broadly, acutely deflexed (fig. 3). Frons with faint transverse costa; eye-canthi wide. Max. width of head 2.65 mm.

Pronotal contours, fig. 4. Anterolateral angle of pronotum obsolete, posterolateral angle distinct, ca. 110°. Pronotal disc with feebly depressed midline and sublateral depression; margins simple, lateral margin abruptly passing into sternal surface. Pronotum almost entirely pitted (type 1), on basal margin with elongate annulate striolae (type 3); densities of pits on centre of pronotum 20-25/0.25 sq. mm, diameters ca. 0.05 mm. Pronotal median length 4.0, maximum width 4.6 mm, ratio 1/w 0.87. Scutellum large (fig. 5), covered with annulate striolae.

Elytral contours, disposition of tubercles, fig. 5. Humeral and apical umbones of elytron distinct; juxtasutural margin, apart from 12 tubercles (fig. 5, etc.), not elevated; parascutellar surface slightly tumid. Elytron with pair of geminate longitudinal striae, apparently originating from irregularly annulate striolae, which cover the entire surface (type 3 or 2-3); central elevation of striolae slightly below the intervening surface; densities of sculptural units on parascutellar region 13-17/0.25 sq. mm, diameters 0.05-0.15 mm. Elytral max. length 8.3, sutural length (scutellar apex - elytral apex) 6.1, max. width of elytra combined 6.5 mm, ratio max. 1/w 1.28.

Mentum dilated, inferior surface flat; maxillary palpi free. Antennal scape, figs. 1, 2. Postcoxal part of prosternum with median longitudinal ridge; surface of prosternum scabrous. Lateral elements of propectus favose, towards postocular cavities changing into regulae. Other pectoral parts entirely favose (mostly type 2-3). Posteromedian part of mesosternum smooth or vaguely scabrous, with three tubercles (fig. 8). Metasternum with well-defined impressed midline; densities of striolae decreasing laterad (disc 10-15, halfway wings ca. 7/0.25 sq. mm), diameters decreasing laterad (disc 0.05-0.1, halfway wings 0.15-0.2 mm), stubbles of metasternal striolae placed anteromarginally. Abdominal sternites entirely covered with annulate-striolate depressions (type 3), many of them with anteromarginal stubble; densities medially ca. 10/0.25 sq. mm, diameters mostly 0.1-0.15 mm; anal sternite with small normal punctures, its base smooth. Lateral surface of visible sternites 3-5 with raised spiracles. Pygidium (fig. 9, pl. 1 fig. 13), except apex, heavily pitted (type 1), with pair of tumescences; densities of pits 13-17/0.25 sq. mm, diameters 0.05-0.1 mm.

Fore tibia (fig. 6) finely pitted (type 1), denticular tips merely scabrous; inferiorly and interiorly with stubbles; inferior ridge low; terminal spur short, acuminate not reaching beyond tibial apex. Segments of fore tarsus short (fig. 6), segments 1-4 swollen, with interior-inferior and interior-superior costula; claws of fore tarsi as well as of other tarsi short, rather thick, acuminate, scarcely curved. Fore coxae anteriorly with long brown pilosity.



Figs. 1-9. *Telochilus freyi* sp. nov. 1, head capsule, with antennal scapes, full-face view; 2, left antennal scape, dorsal view; 3, deflexed margin of clypeus, mentum, maxillary palpi; 4, pronotum; 5, left elytron, dorsal view; 6, right fore tibia; 7, left hind leg; 8, meso-metasternal space; 9, pygidium. Scale-lines = 1 mm; 1, 4, same scale; 2, 3, same scale; 6, 8, 9, same scale.

Visible femoral and tibial surfaces all finely, deeply pitted, with stubbles. Middle and hind tibiae (fig. 7) with external elevation at about one-fifth from apex; terminal spurs weakly acuminate, superior one larger than inferior, both more or less exceeding tarsal segment 1. Tarsal segments of middle and hind legs thick, covered with fine elongate punctures, many bearing a stubble.

Material examined. — Holotype, female, from "Lake Barombi/Distr. Kumba/27.xi.55", "Exped. Mus. G. Frey/Nigeria — Kamerun/Bechyně 1955-56", in Museum G. Frey (Tutzing, near Munich). Judged from an additional label, the late H. Schein already recognized the specimen as representing a new genus. — I am greatly indebted to Dr. Frey for permitting the study of this beetle, consequently named after him.

REFERENCE

SCHENKLING, S., 1921. Scarabacidae: Cetoninae. — *Coleopt. Catalogus*, 72 : 1-431.



Pl. I. Figs. 10-13, *Telochilus freyi* sp. nov. 10, general appearance; 11-13, details, 11, head, 12, elytron, 13, hind body, showing pygidium, sternites and hind leg.