

Revision of the Afrotropical genus *Perichilus* Quedenfeldt (Tenebrionidae: Stenochiinae), with description of a new species from South Africa

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Abstract

The species of the Afrotropical genus *Perichilus* Quedenfeldt, 1885 (Stenochiinae Kirby, 1837, Cnodalonini Gistel, 1856) are revised, *P. ndumuicus* n. sp. from South Africa is described. Figures of diagnostic characters of all six species are given, and an updated identification key is added.

Key words: Tenebrionidae, Stenochiinae, Cnodalonini, *Perichilus*, new species, new records, species key.

Zusammenfassung

Die Arten der afrotropischen Gattung *Perichilus* Quedenfeldt, 1885 (Stenochiinae Kirby, 1837, Cnodalonini Gistel, 1856) werden revidiert, *P. ndumuicus* n. sp. aus Südafrika wird beschrieben. Diagnostische Merkmale aller sechs Arten werden abgebildet, und ein aktueller Bestimmungsschlüssel wird angefügt.

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1 Introduction

So far, the tenebrionid genus *Perichilus* Quedenfeldt, 1885 (type species *P. brevicornis* Quedenfeldt, 1885) (Stenochiinae Kirby, 1837, Cnodalonini Gistel, 1856) contains only a couple of species, distributed in the Afrotropical region including northeastern South Africa (QUEDENFELDT 1885, FAIRMAIRE 1887, PÉRINGUEY 1904, ARDOIN 1976). GEBIEN (1921) presented a key of the few contemporary congeners, based mainly on coloration.

The genus might be placed near *Alcyonotus* Pascoe, 1882, and *Nannoceris* Fairmaire, 1887, and can easily be recognised by the extraordinarily short antennae, not surpassing the basal margin of the pronotum. Among specimens in the Ditsong National Museum of Natural History, Pretoria, a further species new to science from South Africa was discovered and is described herein. Additionally, all known species are revised, figures of diagnostic characters of all six species are given, and an updated identification key is provided.

Acronyms of depositories

CRG	Collection Dr. ROLAND GRIMM, Neuenbürg, Germany
HNHM	Hungarian Natural History Museum, Budapest, Hungary

MNB	Museum für Naturkunde, Berlin, Germany
MNHN	Muséum National d'Histoire Naturelle, Paris, France
NHMB	Naturhistorisches Museum, Basel, Switzerland
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany
TMSA	Ditsong National Museum of Natural History, Pretoria, South Africa

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2 The species of *Perichilus*

Perichilus alternatus Ardoïn, 1976
(Figs. 1, 7)

Examined material: Tanzania, Mt. Nguru (Mt. Unguu), 6°12'S/37°32'E, 15.–20.XI.2011, leg. A. PUCHNER, 1 ex. SMNS.

¹ Contributions to Tenebrionidae no. 126. For no. 125 see: Annals of the Ditsong National Museum of Natural History 5 (2015).

Remarks: This taxon should not be mistaken for *Falsoperichilus alternatus* Ardoïn, 1965 from Cameroon and Congo, which turned out to be a junior synonym of *Falsonannocerus dentaticeps* Pic, 1946 (SCHAWALLER 2012).

Type locality: "Mts. Uluguru".

Distribution: Tanzania (ARDOIN 1976).

Perichilus brevicornis Quedenfeldt, 1885
(Figs. 2, 8)

Examined material: Cameroon, Douala, Bois des Singes, X.1958, leg. J. CANTALOUBE, 1 ex. TMSA (det. ARDOIN). – Cameroon, Yaounde, Mont Febé, 16.VII.1963, leg. L. SEGERS, 1 ex. SMNS. – S Cameroon, Bipindi, X.–XII.1896, leg. G. ZENKER, 3 ex. MNB, 1 ex. NHMB. – S Cameroon, Lolodorf, XII.1894–II.1895, leg. L. CONRADT, 5 ex. MNB, 1 ex. NHMB. – Cameroon, Joh.-Albrechtshöhe, V.–VIII.1898, leg. L. CONRADT, 3 ex. MNB. – S Cameroon, Longü, X.1910, leg. L. KOLIN, 3 ex. MNB. – Cameroon, Océan Dept., Bipindi, 3–4.II.1971, leg. G. NONVEILLER, 1 ex. HNHM (det. KASZAB). – Cameroon, Nyong-et-Kéllé Dept., Éséka, XII.1967, leg. G. NONVEILLER, 3 ex. HNHM (det. KASZAB). – Cameroon, Lekié Dept., Nkolossé, 13.V.1969, leg. G. NONVEILLER, 3 ex. HNHM (det. KASZAB). – Cameroon, Ntem Dept., Mang, Ebolowa, X.1969, leg. G. NONVEILLER, 2 ex. HNHM (det. KASZAB). – Cameroon, Sanaga-Maritime Dept., Ngambé, XII.1967, leg. G. NONVEILLER, 1 ex. HNHM (det. KASZAB). – Cameroon, Mefou Dept., Nkoébé, 21.XI.1967, leg. G. NONVEILLER, 1 ex. HNHM (det. KASZAB). – Cameroon, Nyong-et-Mfoumou Dept., Mbang-Ndellé, Akonolinga, V.1968, leg. G. NONVEILLER, 1 ex. HNHM (det. KASZAB). – Gabon, Bas-Ogoué, no further data, 1 ex. SMNS. – Equatorial Guinea (labelled as Span. Guinea), Nkolentangan, XI.1907–V.1908, leg. G. TESSMANN, 5 ex. MNB, 1 ex. NHMB.

Type material was not studied. There is no type material in MNB (JÄGER in litt.), probably it is stored in coll. OBERTHÜR (MNHN).

Type locality: QUEDENFELDT (1885) did not specify a detailed type locality. According to the title of the paper, the type specimens were collected by FRIEDRICH WILHELM ALEXANDER VON MECHOW at Quango (= Kwango) River (Angola/Congo border region).

Distribution: Angola/Congo border region (type locality); Congo (GEBIEN 1921); Ivory Coast (ARDOIN 1969); Equatorial Guinea, Gabon, Cameroon (new records).

Perichilus ditissimus Péringuey, 1904
(Figs. 3, 9)

Examined material: South Africa, Natal, without date, leg. R. M. MARTIN, 5 ex. HNHM (det. KASZAB). – South Africa, Zululand, without date, leg. R. M. MARTIN, 1 ex. HNHM (det. KASZAB). – South Africa, Eteza, Zululand, 3.XI.1954, collector unknown, 1 ex. HNHM (det. KASZAB). – South Africa, KwaZulu-Natal, Gingindhlovu, 22.V.1926, leg. R. E. TURNER, 1 ex. TMSA. – South Africa, KwaZulu-Natal, Empusheri Falls, 8.IV.1952, collector unknown, 1 ex. TMSA. – South Africa,

KwaZulu-Natal, Nyala Game Reserve, X.1975, leg. P. E. REAVEL, 1 ex. TMSA. – South Africa, KwaZulu-Natal, Mntunzini, 11.X.1976, leg. P. E. REAVEL, 1 ex. TMSA. – South Africa, KwaZulu-Natal, Empangeni Univ., 14.X.1976, leg. P. E. REAVEL, 1 ex. TMSA. – South Africa, KwaZulu-Natal, Karkloof Grassveld, 10.XII.1989, leg. S. ENDRÖDY-YOUNGA & J. KLIMASZEWSKI, 1 ex. TMSA. – South Africa, KwaZulu-Natal, 25 km NE Durban, 25.X.1990, collector unknown, 1 ex. SMNS. – South Africa, Mpumalanga, Potholes, 22.X.1982, leg. C. L. BELLAMY, 1 ex. SMNS.

Type locality: "Natal, Eshowe".

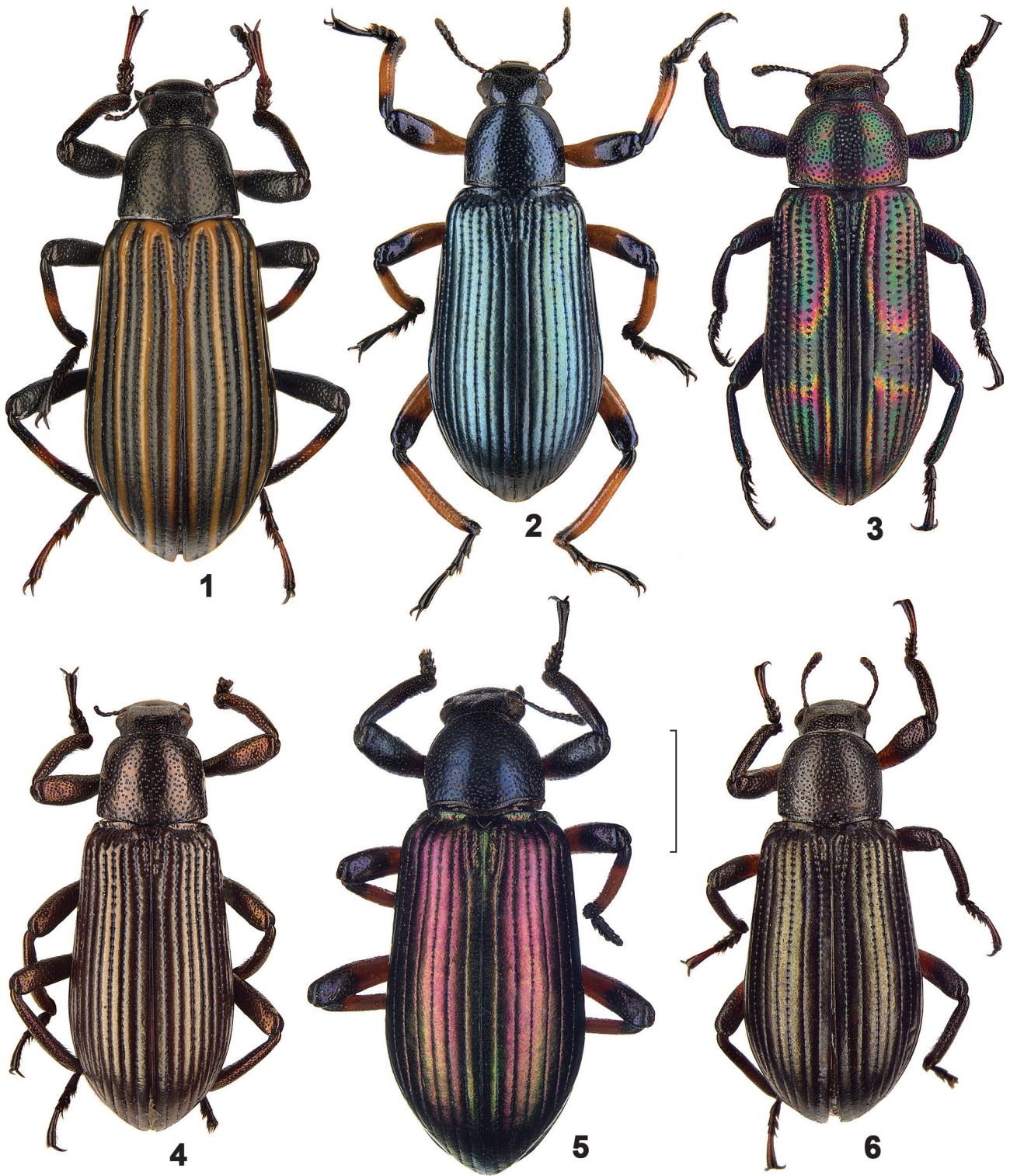
Distribution: Northeastern South Africa (KwaZulu-Natal, Mpumalanga).

Perichilus ndumuicus n. sp.
(Figs. 4, 10)

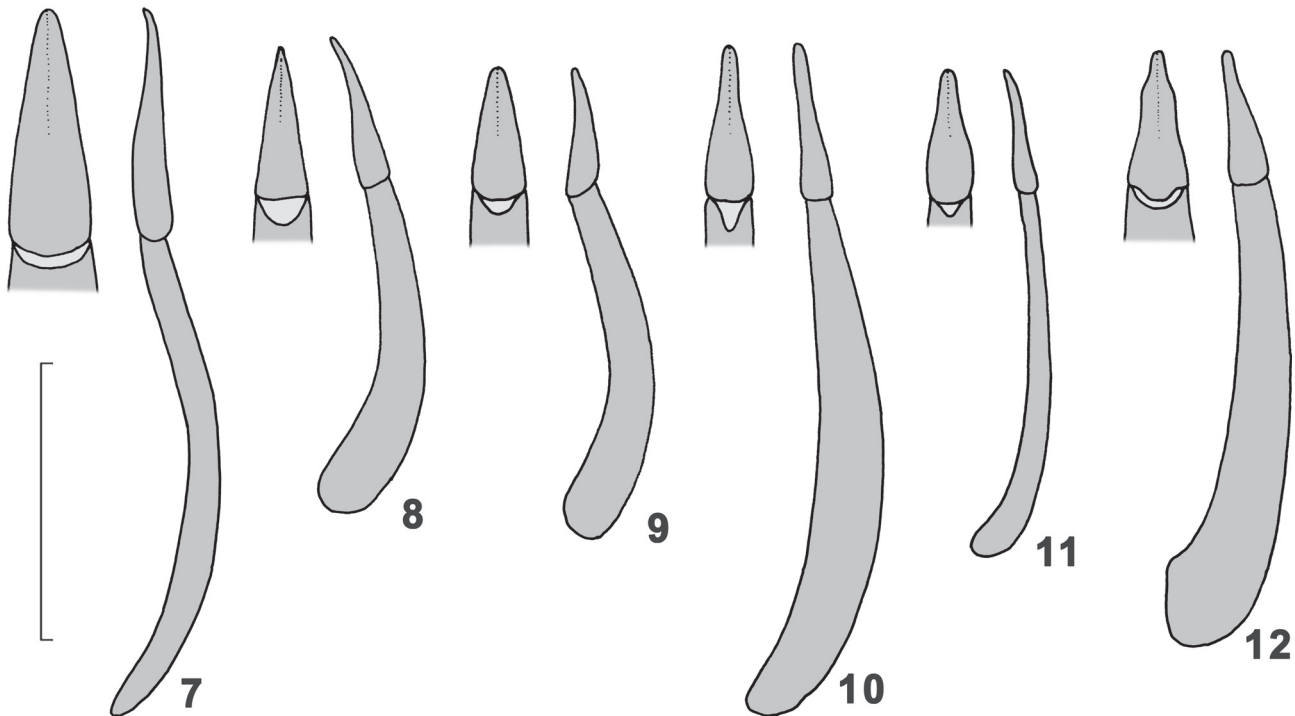
Holotype (♂): South Africa, KwaZulu-Natal [labelled as "Zulu-Ld."], Ndumu, 27°56'S/32°16'E, XII.1960, leg. P. DE MOOR, TMSA.

Etymology: Named after the Ndumu (= Ndumo) Nature Reserve, where the holotype was collected.

Description: Body length 7.5 mm. Body and all appendages unicoloured shining black with a brass lustre. Head with large but not confluent punctures as on pronotum, punctures of clypeus finer, punctures without microsetae, fronto-clypeal suture recognizable, head distinctly impressed along fronto-clypeal suture, clypeus separated from genae by rectangular emargination, anterior margin of clypeus straight, labro-clypeal membrane exposed; eyes reniform, without subocular furrow; antennomere 3 only slightly longer than antennomere 4 (distal antennomeres of both antennae missing). Pronotum (Fig. 4) subquadrate and widest at base, distal corners not protruding and rounded, basal corners pointed, with large but not confluent punctures similar as on head, punctures without microsetae, lateral margins completely bordered, distal margin unbordered in the middle, basal margin completely unbordered, lateral margins straight and not emarginate before posterior angles; propleura with similar punctation; prosternal apophysis bent down. Elytra (Fig. 4) elongate parallel, widest in posterior third; base of elytra with deep transverse impression; each elytron with 9 complete punctural rows with weak striae, third row with about 40 punctures, rows not joined basally, rows 4 and 5 joined posteriorly, punctures of rows smaller than on pronotum, punctures without microsetae, intervals distinctly convex, shagreened without punctures, lateral margin completely visible in dorsal view except shortly before apex; epipleura narrow throughout whole length, with distinct emargination shortly before apex. Abdominal ventrites laterally with large, partly wrinkled punctures which are smaller medially and posteriorly and without microsetae, last ventrite completely unbordered and without impression or other modifications, intersegmental membranes between



Figs. 1–6. *Perichilus* spp., dorsal views. – 1. *P. alternatus*, non-type Nguru, SMNS. 2. *P. brevicornis*, non-type Douala, TMSA. 3. *P. ditissimus*, non-type Mntunzini, TMSA. 4. *P. ndumuicus* n. sp., holotype, TMSA. 5. *P. purpurinus*, non-type Moliwe, MNB. 6. *P. violaceipes*, non-type Pemba, TMSA. – Scale: 2 mm.



Figs. 7–12. *Perichilus* spp., aedeagi, dorsal and lateral views. – 7. *P. alternatus*, non-type Nguru, SMNS. 8. *P. brevicornis*, non-type Douala, TMSA. 9. *P. ditissimus*, non-type Ampangeni, TMSA. 10. *P. ndumuicus* n. sp., holotype TMSA. 11. *P. purpurinus*, non-type Nbanga, SMNS. 12. *P. violaceipes*, non-type Iringa, SMNS. – Scale: 1 mm.

ventrites 3/4 and 4/5 exposed. Anterior tibiae with feeble interior emargination before tip, all tibiae rounded without keels or furrows, anterior tarsomeres not dilated, first tarsomere of anterior and middle tarsi not prolonged, first tarsomere of posterior tarsus only slightly prolonged and not longer than tarsomeres 2–3 combined. Aedeagus as in Fig. 10.

Diagnosis: *P. ndumuicus* n. sp. can be recognised by the absence of subocular furrows, the subquadrate pronotum widest at base with straight lateral margins, the base of elytra with deep transverse impression, the distinctly convex elytral intervals, unicoloured dark legs, and the shape of the aedeagus (Fig. 10). For separation from the other congeners see the key (section 3).

Perichilus purpurinus Gebien, 1921
(Figs. 5, 11)

Examined type material: Cameroon, Mukonje Farm, Mundame at Mungo, without date, leg. R. ROHDE, 1 ♀ syntype NHMB, designated herewith as lectotype. – Cameroon, Mundame, leg. R. ROHDE, 1 ♀ syntype HNHM, labelled as paralectotype. – Cameroon, Moliwe near Victoria, without further data, 2 ♀♀ syntypes NHMB, labelled as paralectotypes.

Examined material: NW Cameroon, Moliwe near Victoria, 1.–8.XII.1907, leg. Frfr. VON MALTZAN, 9 ex. MNB,

1 ex. NHMB. – Cameroon, Edjom P. A., 22.–23.IV.1971, leg. G. NONVEILLER, 1 ♀ TMSA, 1 ex. HNHM (det. KASZAB). – Cameroon, Nbanga P. A., zone Bonbon, I.1973, leg. G. NONVEILLER, 1 ♂ SMNS (det. KASZAB). – Cameroon, Nyong-et-So'o Dept., Metet, XII.1968, leg. G. NONVEILLER, 1 ♀ HNHM (det. KASZAB). – Cameroon, Boumba Ngoko Dept., Ngola, Yokadouma, 6–7.I.1971, leg. G. NONVEILLER, 1 ex. HNHM (det. KASZAB). – Cameroon, Boumba Ngoko Dept., Moloundou, 18.–19.I.1971, leg. G. NONVEILLER, 4 ♂♂ HNHM (det. KASZAB). – Cameroon, Mefou Dept., Awaé, Olenguina, XI.1967, leg. G. NONVEILLER, 2 ♀♀ HNHM (det. KASZAB). – Cameroon, Ntem Dept., Meye-Centre, Ebolowa, V.1969, leg. G. NONVEILLER, 1 ♀ HNHM (det. KASZAB). – Cameroon, Kadey Dept., Djompiel, Batouri, XI.1969, leg. G. NONVEILLER, 1 ex. HNHM (det. KASZAB).

Remarks: See below under *Perichilus* sp. from Sierra Leone.

Type locality: “Mukonje-Farm”.

Distribution: Cameroon (GEBIEN 1921).

Perichilus violaceipes Fairmaire, 1887
(Figs. 6, 12)

Examined material: Congo, Yangambi, XI.1959, leg. E. HAAFF, 4 ex. NHMB, 2 ex. SMNS. – Congo, Luki, 1951, leg. P. HENRAD, 1 ex. TMSA. – Uganda, Kampala, 5.IV.1974, leg. HÁJKOVÁ, 1 ex. NHMB. – Kenya, Mombasa, Mtwapa Creek, IV.1950, leg. E. PINHEY, 1 ex. SMNS. – Kenya, Mombasa,

Kwale, Shimba Hills NP, 300 m, 5.IV.2004, leg. L. PUCHNER, 1 ex. SMNS. – Kenya, Mombasa, Diani Beach, IV.1990, leg. G. WALLABERGER, 1 ex. CRG. – Kenya, Kilifi, IV.1943, leg. G. W. JEFFERY, 1 ex. TMSA. – Tanzania, Zanzibar (labelled as Zanguebar), Mhonda-Ouzigoua, 1879/1880, leg. A. HACQUARD, 2 ex. HNHM (det. KASZAB). – Tanzania (labelled as D. O. A.), dry forest near Miotohovu, IV.1916, leg. METHNER, 2 ex. MNB (det. GEBIEN). – Tanzania (labelled as D. O. Afr.), SE Kilimandjaro, 20.–21.I.1906, leg. C. SCHRÖDER, 1 ex. MNB. – Tanzania (labelled as D. O. Afr.), without further data, 1 ex. NHMB (det. GEBIEN). – S Tanzania, 80 km NE Iringa, 650 m, 9.–10.I.2007, leg. F. KANTNER, 1 ex. SMNS. – Mozambique, Pemba Bay, 1904, leg. P. A. SHEPPARD, 1 ex. TMSA.

Type locality: “Makdischu” (= Mogadishu).

Distribution: Somalia, Tanzania including Zanzibar (FAIRMAIRE 1887); Kenya (FERRER 1996); Congo, Uganda, Mozambique (new records).

Perichilus sp.

Examined material: Sierra Leone, Lester Peak near Freetown, 400 m, 9.II.1979, leg. J. KLAPPERICH, 1 ♂ 1 ♀ HNHM.

Remarks: The identification of these two specimens remains doubtful. They are in many characters, also in the shape of the aedeagus, quite similar to *P. purpurinus* (Fig. 5), known so far only from Cameroon, but the dorsal surface has a unicoloured brass lustre, and the elytral intervals are slightly convex. At present, these differences seem too weak for separating them as a new species.

3 Key to the species of *Perichilus*

- 1 Head with deep subocular furrows. – Figs. 3, 9.... *ditissimus*
- Head without subocular furrows. 2
- 2 Base of elytra without transverse impression; elytra with intervals 1, 3, 5 and 7 completely yellow, and intervals 2, 4, 6 and 8 blackish with feeble metallic lustre. – Figs. 1, 7. *alternatus*
- Base of elytra with deep transverse impression; elytra with metallic shine, all intervals unicoloured. 3
- 3 All elytral intervals convex, legs unicoloured dark. – Figs. 4, 10. *ndumuicus* n. sp.
- All elytral intervals flat, at least in the middle and posterior legs bicoloured with large parts of tibiae and basal parts of femora yellow besides dark tarsi and dark distal parts of femora. 4

- 4 All punctures of elytral rows large and distinctly surpassing striae; apicale of aedeagus pentagonal. – Figs. 6, 12. *violaceipes*
- Punctures of elytral rows small and not surpassing striae (at least on elytral disc); apicale of aedeagus triangular. 5
- 5 Anterior femora with black part extending to apical half; anterior tibiae usually completely black, sometimes middle part yellowish; elytra usually bicoloured: purplish violet with sutural and lateral interstriae greenish, greenish area may be more extended (sometimes whole elytra green); apicale of aedeagus with rounded tip. – Figs. 5, 11. *purpurinus*
- Anterior femora with black part extending to apical one-third; anterior tibiae always yellow except base and apex, similar to middle and posterior tibiae; elytra always unicoloured green or blue; apicale of aedeagus with acute tip. – Figs. 2, 8. *brevicornis*

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