

**Faunistic notes on African Heteroceridae
with description of *Heterocerus ottomerkli* sp.n. and
redescription of *H. dayremi* PEYERIMHOFF
(Coleoptera: Heteroceridae)**

S. SKALICKÝ

Abstract

Heterocerus ottomerkli sp.n. (Coleoptera: Heteroceridae) from Tunisia is described and illustrated. A lectotype is designated for *H. dayremi* PEYERIMHOFF, 1921. Faunistic records on 12 species of Heteroceridae from various African countries are given. *Heterocerus nodieri* GROUVELLE, 1919 is recorded from Ghana for the first time, *Augyles pallens* (CHARPENTIER, 1965) is recorded from Kenya for the first time, *Augyles turanicus* (REITTER, 1887) is reported from Algeria for the first time.

Key words: Coleoptera, Heteroceridae, Africa, Tunisia, taxonomy, faunistics, lectotype, new species, new records.

Introduction

I have recently examined a small series of Heteroceridae collected in eight African countries and deposited in the TMB. The material contains 12 species of *Heterocerus* FABRICIUS, 1792, among them one species, *H. ottomerkli*, new to science. The new species is described below, together with faunistic notes on the other species collected. *Heterocerus dayremi* PEYERIMHOFF is redescribed.

Acronyms:

CSU Coll. S. Skalický, Ústí nad Orlicí
MHNP Muséum national d'Histoire naturelle, Paris
NMW Natural History Museum, Wien
TMB Hungarian Natural History Museum, Budapest

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Taxonomy

***Heterocerus ottomerkli* sp.n.**

TYPE LOCALITY: Sousse, eastern Tunisia.

TYPE MATERIAL: Holotype ♂ (TMB): "Tunis, Sousse, [1]903.II.28, [lgt.] Biró"

DESCRIPTION: Holotype ♂: Length of body 3.45 mm; length of elytra 2.15 mm; width across shoulders 1.20 mm. Coloration pale brown; clypeus, mandibles, head and pronotum dark brown. Pronotum with reddish-brown marking. Elytra with very indistinct, pale brown marking (Fig. 1). Clypeus without anterior horns, apical margin broadly concave. Antenna (Fig. 2) 9-segmented, with 5-segmented club; antennomeres 1 and 2 with very long, erect setae (setae not depicted in illustration). Pronotum rounded; as wide as base of elytra; pronotal base completely rimmed; finely granulate; with two types of pale setae: short, recumbent ones and longer, semi-erect ones laterally. Scutellum pointed. Elytra softly granulate, without longitudinal ridges, each elytron with a humeral depression; epipleural ridges absent; setae pale yellowish, recumbent. Metasternum with a post-mesocoxal ridge. Protibia with 12 spines, meso- and metatibia with 9 spines. Abdomen without post-metacoxal line; with short, yellowish, recumbent setae and with interposed sparse, erect, longer setae. Stridulatory arch marked. Spiculum gastrale (Fig. 3) V-shaped. Aedeagus (Fig. 4) 0.7 mm long, pale brown, partly sclerotized; parameres fused; median lobe with a projectable processus accessorius.

Female: Unknown.

DIFFERENTIAL DIAGNOSIS: *Heterocerus ottomerkli* resembles *H. dayremi* from which it differs in number of antennomeres (10-segmented in *H. dayremi*) and shape of mandibles, lateral mandibular margin more angular in *H. dayremi* whereas it is more evenly rounded in *H. ottomerkli*. Another difference is found in the number of spines of metatibiae (9 in *H. ottomerkli*, 8 in *H. dayremi*). There may be a specific difference between the elytral spots of these two species but more material has to be examined to typify this character.

DISCUSSION: Members of the family *Heteroceridae* possess 9-, 10- or 11-segmented antennae with very variable size and shape of the antennomeres. Apical antennomeres are usually laterally extended, forming a club. Sexual dimorphism in antennal shape is not recorded. Species with 9-segmented antennae (see Figs. 7 and 8) are confined mainly to the genera *Micilus* MULSANT & REY, 1872 (represented by *M. murinus* KIESENWETTER, 1843 in Europe (Palearctic distribution after (PACHECO 1964) not confirmed) and *M. minutissimus* (SAHLBERG, 1900) in Asia) and *Tropicus* PACHECO, 1964 which occurs in the New World. In the genera *Heterocerus* FABRICIUS, 1792 and *Augyles* SCHIÖDTE, 1866, only 10- or 11-segmented antennae have been so far reported apart from *H. ottomerkli*.

DISTRIBUTION: So far known only from the type locality.

ECOLOGY: Unknown.

ETYMOLOGY: Dedicated to Dr. Ottó Merkl (Budapest, Hungary).

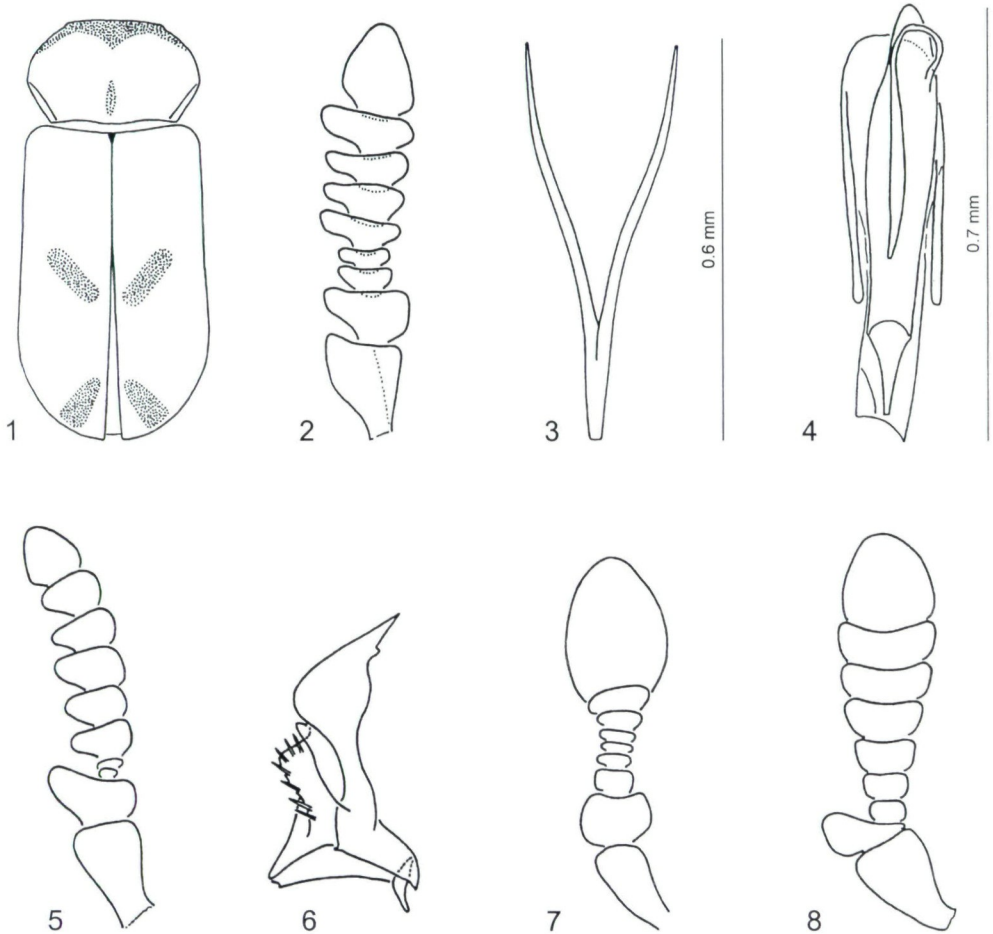
Heterocerus dayremi PEYERIMHOFF, 1921

TYPE LOCALITY: Biskra, Algeria.

MATERIAL EXAMINED: Lectotype ♀ (MHNP), by present designation (the first four labels are original hand written): "Biskra Septembre 1919 J. Dayrem", "Specimen figuré", "Heterocerus Dayremi Peyerh. [Peyerimhoff] type", "TYPE" [red label], "Museum Paris Coll P. de Peyerimhoff 1950". Paralectotypes: 3 ♀♀ (MHNP), (the first two labels are original hand-written, all specimens are on one pin and two of them are upside down to label): "Biskra Septembre 1919 J. Dayrem", "Heterocerus Dayremi Peyerimhoff type", "TYPES" [red label], "Museum Paris Coll P. de Peyerimhoff 1950"; 1 ♀ (NMW), (hand written): "Biskra J. Dayrem ", "Dayremi Peyer [Peyerimhoff]"; 1 ♀ (NMW), (hand written): "Biskra J. Peyer [Peyerimhoff]".

ADDITIONAL MATERIAL EXAMINED:

2 ♀♀ (CSU): "TUNISIA, 11.3.1999, Kairouan env.[environs], Dr. R + D. Fencel lgt."



Figs. 1 - 4: *Heterocerus ottomerkli*, holotype: 1) pronotum and elytra, dorsal view; 2) left antenna, dorsal view, 3) spiculum gastrale, dorsal view, 4) aedeagus, dorsal view.

Figs. 5 - 6: *Heterocerus dayremi*, lectotype: 5) left antenna, dorsal view, 6) left mandible, dorsal view.

Figs. 7 - 8: Left antenna (dorsal view) of 7) *Micilus murinus*, 8) *Tropicus pusillus*.

Figs. 1, 2, 5-8 not to scale.

COMMENTS: In the original description no holotype was designated and even the number of specimens in the type series was not mentioned. 9-segmented antennae with 6-segmented club is mentioned in the description (see Fig. 1 in PEYERIMHOFF 1921). There is no illustration of the aedeagus in the original description of *H. dayremi* and male specimens have not been discovered yet. The species was mentioned by KOCHER (1956) following Winkler's catalogue with a distribution in the Sahara (WINKLER 1926) and by AGUILERA, MASCAGNI & RIBERA (1998). CHARPENTIER (1965) expressed serious doubts about the number of antennal segments.

REDESCRIPTION: Lectotype ♀: Length 2.9 mm; length of elytra 2.1 mm; width across shoulders 1.1 mm. Coloration ochre brown, pronotum dark brown, ochre brown laterally. Head and scutellum brown to black. Antennae (Fig. 5) 10-segmented, with 6-segmented club. Antennomeres 3, 4 very small, antennomeres 1 and 2 with very long erect setae. Mandible (Fig.

6) with nipping angle in outside margin. Elytra with very indistinct, darker marking. Pronotum a little narrower than base of elytra, pronotal base completely rimmed; finely granulate; setae short, yellowish and semi-erect. Elytra without longitudinal ridges, finely granulate; epipleural ridges absent; setae as on pronotum. Metasternum with a post-mesocoxal ridge. Transverse ridge of mesosternum U-shaped. Protibia with 12 spines, mesotibia with 9 and metatibia with 8 spines. Abdomen without post-metacoxal line; with short, yellowish, recumbent setae and with interposed sparse, erect, longer setae. Stridulatory arch less marked.

DIFFERENTIAL DIAGNOSIS: This species is related to *H. ottomerkli* from which it is easily distinguished by the its number of antennomeres (see above).

VARIABILITY: Size: length 3.1 to 3.9 mm; one specimen without elytral markings.

DISTRIBUTION: *H. dayremi* is known only from Tunisia (Kairouan) and Algeria (Biskra).

ECOLOGY: Unknown.

Faunistic notes

Note: All specimens mentioned in this section are housed in the TMB.

Heterocerus abyssinicus MAMITZA, 1930

MATERIAL EXAMINED: 9 exs., "KENYA, Lake Turkana, Sibilio Nat. Park Koobi Fora, Hung. Sci. Africa Exp. "Teleki" 17.IV.1988, No. 280, leg. A. Vojnits"; 1 ex., "KENYA, Tsawo West National Park, near Kitani Lodge, Hung. Sci. Africa Exp. "Teleki" 7.IV.1988, No. 280, leg. A. Vojnits"; 2 exs., "ETHIOPIA, Lake Langano, at light, 15.I.1980, No. 243, leg. A. Demeter"; 1 ex., "TANZANIA, Lake Natron, Hung. Sci. Africa Exp. "Teleki", 4.II.1988, No. 188, leg. A. Vojnits"; 1 ex., "TANZANIA, USA River 3900 ft., at light, 1965, leg. J. Szunyoghy"; 1 ex., "TANZANIA, Serengeti Nat. Park, Seronera, Hung. Sci. Africa Exp. "Teleki" 30.V.1988, No. 344, leg. A.Vojnits".

DISTRIBUTION: Ethiopia, Kenya, Tanzania (CHARPENTIER 1965).

Heterocerus atroincertus CHARPENTIER, 1965

MATERIAL EXAMINED: 4 exs., "TANZANIA, Morogoro, 560m a.s.l. light trap III-IV.1987, coll. Pócs & Sontera".

DISTRIBUTION: Democratic Republic of the Congo (former Zaire), Tanzania (CHARPENTIER 1965).

Heterocerus elongatus GROUVELLE, 1896

MATERIAL EXAMINED: 1 ex., "GHANA, Volta-Lake, Adawso, 28.ii.1969, leg. B. Entz"; 3 exs., "GHANA, Bagjamze, 8.i.1969, leg. B. Entz"; 4 exs., "TANZANIA, Morogoro, 560m a.s.l. light trap III-IV.1987, coll. Pócs & Sontera"; 49 exs., "SUDAN, Prov. Darfur, El Fasher 730m., ad lucem, 5.9.1976, leg. H. J. Bremer"; 24 exs., the same only "2.9.1976"; 4 exs., "SUDAN Prov. North Dafur, El Geneina, ad lucem, leg. Ibrahim M. Abuzind"; 3 exs., the same only "17.9.1979"; 2 exs., the same only "16.9.1979"; 2 exs., "SUDAN Prov. White Nile, Kosti, ad lucem, lgt. H. J. Bremer 14.2.1979"; 1 ex., "SUDAN Kharthoum Prov. El Garaf 15km East V. Kharthoum-North, ad lucem, leg. H. J. Bremer, 17.9.1977"; 1 ex., "SUDAN Prov. Blue Nile, Wad Medani, ad lucem, lgt. H. J. Bremer, 21.9.1979"; 1 ex., "SUDAN Khartoum North, ad lucem, leg. H. J. Bremer, 22.7.1977".

DISTRIBUTION: Widely distributed in Africa and Madagascar; common (CHARPENTIER 1965).

***Heterocerus fenestratus* THUNBERG, 1784**

MATERIAL EXAMINED: 1 ex., "TUNIS mer. Gabs [Gabes], Exp. Obenb[erger]"; 1 ex., "TUNIS, Coll. Lichtn[er]"; 36 exs., "EGYPT, Port Said, 22.VII.1979 lgt. J. Borbély"; 1 ex., "ALGERIE, ST. Charles, A. Thery, coll. Dr. J. Fodor".

DISTRIBUTION: Palearctic region, the Philippines, Vietnam, Canada, United States.

***Heterocerus flexuosus* STEPHENS, 1828**

MATERIAL EXAMINED: 1 ex., "EGYPT, Port Said, 22.VII.1979 lgt. J. Borbély".

DISTRIBUTION: Palearctic region (CHARPENTIER 1965).

***Heterocerus holosericeus* ROSENHAUER, 1856**

MATERIAL EXAMINED: 1 ex., "TUNISIA, Boughrara, 4.IV.1977, No. 64, leg. S. Mahunka & Oláh"; 1 ex., "ALGERIA, Reitter, coll. Dr. J. Fodor".

DISTRIBUTION: Europe, Turkey, North Africa (Morocco, Algeria, Tunisia) (MASCAGNI 1991), India, Pakistan (MASCAGNI & SFORZI 1999).

***Heterocerus nodieri* GROUVELLE, 1919**

MATERIAL EXAMINED: 17 exs., "GHANA, Bagjamze, 8.I.1969, leg. B. Entz".

DISTRIBUTION: Kenya, Democratic Republic of the Congo (former Zaire), Zimbabwe, Senegal, Tanzania (CHARPENTIER 1965). Recorded from Ghana for the first time.

***Augyles maritimus* (GUÉRIN-MÉNEVILLE, 1844)**

MATERIAL EXAMINED: 1 ex., "TUNIS, Fernana, coll. Dr. J. Fodor"; 1 ex., "TUNISIA, environs of Ain Draham, 31.III.1977, No. 38, leg. Mahunka & Oláh".

DISTRIBUTION: Europe, North Africa (MASCAGNI 1991).

***Augyles pallens* (CHARPENTIER, 1965)**

MATERIAL EXAMINED: 3 exs., "KENYA, Lake Turkana, Sibilio Nat. Park Koobi Fora, Hung. Sci. Africa Exp. "Teleki" 17.III.1988, No. 183, leg. A. Vojnits"; 4 exs., the same only "13.III.1988, No. 192, 193"; 6 exs., the same only "12.III.1988, No. 192, 197, 188, 187"; 3 exs., the same only "20.III.1988, No. 217"; 4 exs., "KENYA, Marsabit National Reserve, Hung. Sci. Africa Exp. "Teleki" 20.III.1988, No. 217, leg. A. Vojnits"; 1 ex., the same only "13.III.1988, No. 193".

DISTRIBUTION: South Africa, Zimbabwe (CHARPENTIER 1965). Recorded from Kenya for the first time.

***Augyles parvus* (GROUVELLE, 1909)**

MATERIAL EXAMINED: 1 ex., "SUDAN Prov. North Darfur, El Geneina, ad lucem, lgt. I. M. Abuzind, 16.8.1971".

DISTRIBUTION: Widely distributed in Africa (CHARPENTIER 1965).

***Augyles turanicus* (REITTER, 1887)**

MATERIAL EXAMINED: 1 ex., "ALGERIA, coll. Reitter".

DISTRIBUTION: Iran, Turkestan (MASCAGNI 1991). Recorded from North Africa (Algeria) for the first time.

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Stanislav SKALICKÝ

Dukla 322, CZ - 56201 Ústí nad Orlicí, Czech Republic (s.skalicky@worldonline.cz)