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Koleopterologische Rundschau	71	143 - 148	Wien, Juni 2001

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

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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

Acknowledgements

I wish to thank Dr. Ottó Merkl (TMB), Dr. Nicole Berti (MHNP) and Dr. Manfred A. Jäch (NMW) for the kind loan of the material, David S. Boukal (České Budějovice) for comments on the manuscript and John Swann (Centre for Biodiversity and Conservation Biology, Royal Ontario Museum), who improved the English.

Taxonomy

Heterocerus ottomerkli sp.n.

TYPE LOCALITY: Sousse, eastern Tunisia.

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

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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. Fencl lgt."

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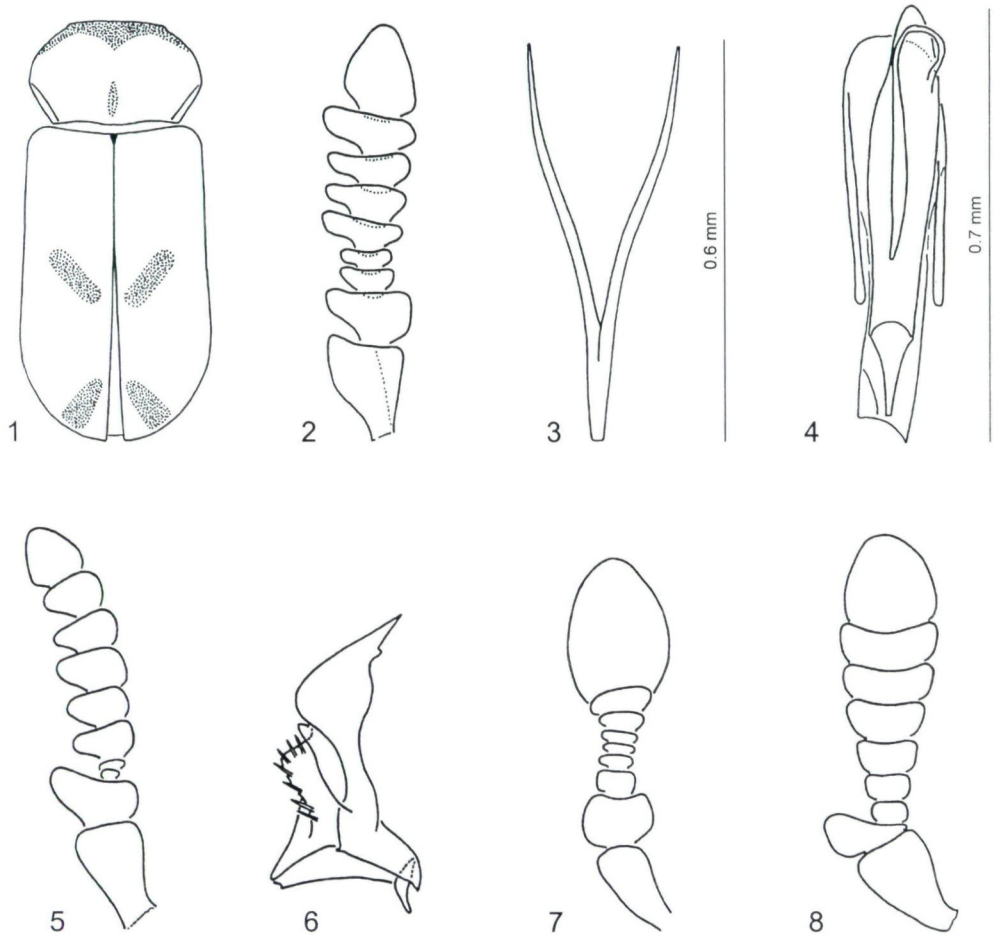

Figs. 1 - 4: *Heterocerus ottomerkli*, holotype: 1) pronotum and elytra, dorsal view; 2) left antenna, dorsal view, 3) spiculum gastrale, dorsal view, 4) aedeagus, dorsal view.
Figs. 5 - 6: *Heterocerus dayremi*, lectotype: 5) left antenna, dorsal view, 6) left mandible, dorsal view.
Figs.7 - 8: Left 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.

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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).

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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).

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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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Digitale Literatur/Digital Literature

Zeitschrift/Journal: Koleopterologische Rundschau

Jahr/Year: 2001

Band/Volume: 71_2001

Autor(en)/Author(s): Skalicky Stanislav

Artikel/Article: Faunistic notes on African Heteroceridae with description of Heterocerus ottomerkli sp.n. and redescription of H. dayremi (Heteroceridae). 143-148