

FABIO CASSOLA*

**STUDIES OF TIGER BEETLES. CLXV.
NEW DATA FROM BENIN
(COLEOPTERA: CICINDELIDAE)**

ABSTRACT - A survey of the tiger beetle fauna of Benin (ex-Dahomey) is presented, mostly based on material collected during a recent expedition of the Natural History Museum of Carmagnola (Torino, Italy). Thirty species are shown to occur in this West African country, seven of which represent new country records (Table 1).

KEY WORDS - Tiger beetles, Cicindelidae, Benin, list of species, new records.

RIASSUNTO - Viene riveduta la fauna cicindelologica del Benin (ex-Dahomey), in gran parte sulla base dei ritrovamenti di una recente spedizione del Museo Civico di Storia Naturale di Carmagnola (Torino). Trenta specie risultano essere state finora ritrovate in questo piccolo paese africano, di cui sette mai segnalate prima (Tavola 1).

Benin (ex-Dahomey) is a small West African country, placed between Togo and Nigeria, which, narrow and elongate, runs from the coast of the Gulf of Guinea up to the sub-Saharan arid zone, thus encompassing the region's main ecotypes. Its tiger beetle fauna is typically West African, and most species known from West Africa (Senegal to Cameroon) are step by step being discovered to occur in Benin too. Werner (2000a) considered 17 tiger beetle species as occurring in the Benin fauna. My own present reckoning shows that the total number is actually 30 species (Table I), and the final result will probably become even higher in the future.

* via F. Tomassucci 12/20 - I-00144 Rome, Italy. E-mail: FabioCassola@alice.it

This paper basically originates from the findings of an expedition recently carried out to Benin by the Natural History Museum of Carmagnola (Torino, Italy; MCCI), which were kindly submitted for identification by Dr. Gianfranco Curletti, who personally collected the specimens. However, I would like to take such fine opportunity for communicating also a few more scattered data from other collections as well [C. Callegari, Ravenna,

Table I - List of the Cicindelidae (Coleoptera) known from benin.

No.	Species	Reference
1.	<i>Megacephala quadrisignata quadrisignata</i> Dejean, 1829 <i>Megacephala quadrisignata</i> (Dejean) ssp. <i>rivalieri</i> Basilewsky, 1966	Wiesner 1992 Basilewsky 1966
2.	<i>Megacephala bocandei bocandei</i> Guérin, 1848	Basilewsky 1953
3.	<i>Megacephala denticollis</i> (Chaudoir) ssp. <i>schultzeorum</i> W. Horn, 1904	Basilewsky 1966
4.	<i>Prothyma concinna</i> (Dejean) ssp. <i>anognata</i> Bates, 1878	Cassola, this paper
5.	<i>Euryartbron saginatum</i> (W. Horn, 1912)	Cassola, this paper
6.	<i>Euryartbron gibbosum</i> (W. Horn, 1894)	Werner 2000a
7.	<i>Elliptica lugubris</i> (Dejean, 1825)	Werner 2000b
8.	<i>Elliptica longestriata longestriata</i> (W. Horn, 1912)	Cassola, this paper
9.	<i>Ropaloteres cinctus</i> (Olivier, 1790)	Werner 2000b
10.	<i>Ropaloteres congoensis congoensis</i> (Fleutiaux, 1893)	Cassola, this paper
11.	<i>Ropaloteres vittatus</i> (Fabricius, 1801)	Werner & Schüle 2006
12.	<i>Ropaloteres nysa nysa</i> (Guérin-M., 1849)	Werner & Schüle 2006
13.	<i>Hipparidium interruptum</i> (Fabricius, 1775)	Basilewsky 1953
14.	<i>Calomera fimbriata</i> (Dejean, 1831)	Basilewsky 1953 (sub <i>dongalensis</i> Klug, 1832)
15.	<i>Lophyra</i> (Lophyra) <i>neglecta neglecta</i> (Dejean, 1825)	Basilewsky 1953
16.	<i>Lophyra</i> (Lophyra) <i>senegalensis</i> (Dejean, 1825)	Basilewsky 1953
17.	<i>Lophyra</i> (Stenolophyra) <i>luxerii</i> (Dejean, 1831)	Werner 2000b
18.	<i>Lophyra</i> (Stenolophyra) <i>saraliensis saraliensis</i> (Guérin, 1849)	Werner 2000b
19.	<i>Habrodera nilotica</i> (Dejean, 1825)	Basilewsky 1953
20.	<i>Habrodera nitidula</i> (Dejean, 1825)	Cassola, this paper
21.	<i>Chaetodera regalis regalis</i> (Dejean, 1831)	Basilewsky 1953
22.	<i>Cylindera (Ifasina) decellei</i> Basilewsky, 1968	Wiesner 1992
23.	<i>Cylindera (Ifasina) octoguttata</i> (Fabricius, 1787)	Basilewsky 1953
24.	<i>Myriochila</i> (Myriochila) <i>melancholica melancholica</i> (Fabricius, 1798)	Basilewsky 1953
25.	<i>Myriochila</i> (Myriochila) <i>plurinotata</i> (Audouin & Brullé, 1839)	Basilewsky 1953
26.	<i>Myriochila</i> (Myriochila) <i>peringueyi peringueyi</i> (W. Horn, 1895)	Cassola, this paper
27.	<i>Myriochila</i> (Monelica) <i>dumolinii</i> (Dejean, 1831)	Werner 2000b
28.	<i>Myriochila</i> (Monelica) <i>flavidens flavidens</i> (Guérin-M., 1949)	Cassola, this paper
29.	<i>Myriochila</i> (Monelica) <i>vicina</i> (Dejean, 1831)	Werner 2000b
30.	<i>Cratobaerea chrysopyga</i> (W. Horn, 1892)	Basilewsky 1954

Italy, CCC; Ondrej Safranek, Decin, Czech Republic, OSC; Zoological Museum Amsterdam, Nederland, ZMAN (curator: Ben Brugge)], for which I am grateful to their respective curators and owners, as well as from my own collection (FCC). I am also grateful to the colleagues who personally collected the specimens studied, in particular to Gianfranco Curletti (Carmagnola, Italy) and Arnost Kudrna (Prague, Czech Republic). The full list of the tiger beetle species presently known to me from Benin is given in Table I.

LIST OF EXAMINED SPECIES

***Euryarthron saginatum* (W. Horn, 1912)**

MATERIAL: NE Benin, E of Kandi, around Saa, 21-23.VI.01, A. Kudrna Jr., 1 ♂ 1 ♀ (FCC) (on light soil road and in sparse grass around it/thick savannah habitat). NW Benin, 5 km N of Tanguieta (direction Tanougou), 28-29.VI.01, A. Kudrna Jr., 1 ♀ (FCC) (quickly running through sparse grass places/grassy forest edges/light trap).

The West African species of the Prothymine genus *Euryarthron* would definitely need to be deeply revised based on larger recently collected materials, as the taxonomic relationships between the various described forms are far from being clear. It can just be hoped that future field research will bring together a much higher amount of specimens than the few scattered ones which are presently available. As to *E. saginatum*, it was firstly described as a subspecies of *E. festivum* (Dejean, 1831), from the Ivory Coast, but it was later considered to be specifically distinct by me (Cassola, 1983). The presently known geographical distribution of this species seems to include Ivory Coast, north-eastern Congo (Garamba National Park and Kibali-Ituri), Sudan, and Cameroon (Cassola, 1983), but Werner (2000a) added Nigeria as well (by also figuring a female specimen from Ewo). The above mentioned findings from Benin represent a new country record.

***Euryarthron gibbosum* (W. Horn, 1894)**

MATERIAL: Benin, N of Paracou, 09°57'N-02°42'E, 4.IV.06, G. Curletti, 1 ♂ 1 ♀ (MCCI).

A distinctive species, easily recognizable by its blue-green body colour and the unspotted elytra (Cassola, 1983). It was described after a female specimen collected by L. Conradt in Togo (Horn, 1894), but Werner

(2000a, fig. 51.2 & 51.3) figured two specimens from Benin (Kosso) as well.

***Prothyma (Prothyma) concinna (Dejean) ssp. anosignata* Bates, 1878**

MATERIAL: Benin, Forêt de Niaouli, 06°44N-02°08E, 10 & 14.IV.06, G. Curletti, 1 ♂ (MCCI); 24.IV.06, G. Curletti, 1 ♂ (MCCI).

A well-known, widely spread Sahelian species, occurring with several subspecies from Senegal to Ethiopia. The occurrence of *ssp. anosignata* in Benin, although easily predictable – as this subspecies was already recorded by Werner (2000a) from both Togo and Nigeria – had never been formally made known so far: new country record.

***Elliptica longestriata* (W. Horn, 1912)**

MATERIAL: NE Benin, E of Kandi, 4 km W of Bensekou, 24-25.VI.01, A. Kudrna Jr., 1 ♂ (FCC) (dark soil places with sparse grass/field edge). NW Benin, 30 km SE of Natitingou, 5 km E of Sina Issire, 30.VI-1.VII.01, A. Kudrna Jr., 1 ♀ (FCC) (dark soil places with sparse grass/field edge).

This species was known to occur in the Central African Republic and in northern Congo, and moreover, with its *ssp. katangana* Basilewsky, 1962, in southern Congo (Katanga), Zambia and Tanzania (Werner, 2000b). New country record.

***Ropaloteres congoensis* (Fleutiaux, 1893)**

MATERIAL: NW Benin, N of Natitingou, 5 km NE of Kouarfa, 26-27.VI.01, A. Kudrna Jr., 2 ♂♂ 2 ♀♀ (FCC) (road and grassy places with laterite soil).

This species was hitherto known from a few African countries (Nigeria, Cameroon, Congo, Central African Republic, Sudan), as well as from Uganda and Kenya (*ssp. phyleticus* W. Horn, 1923) (Werner, 2000b). New country record.

***Ropaloteres cinctus* (Olivier, 1790)**

MATERIAL: Benin, Forêt de Niaouli, 06°44N-02°08E, 04.IV.06, G. Curletti, 1 ♀ (MCCI); 10 & 14.IV.06, G. Curletti, 4 ♂♂ 1 ♀ (MCCI).

Also a well-known, widely spread Sahelian species, known to occur from Senegal to Congo, Uganda and Sudan (Werner, 2000b). Its presence in Benin was formally made known by Werner (2000a).

Lophyra (Lophyra) senegalensis (Dejean, 1825)

MATERIAL: Benin, Prov. de Bourgou, VIII-X.84, L.v. Woersem, 2 ♂♂ (ZMAN).

A widely distributed species, firstly described from Senegal, but later recorded from several other scattered countries, from both West Africa (Sierra Leone, Ghana, Togo, Nigeria) and East Africa (Eritrea, Kenya) (Werner, 2000b). Its occurrence in Benin was firstly recorded by Basilewsky (1953), but curiously both Wiesner (1992) and Werner (2000b) apparently overlooked such a record.

Lophyra (Lophyra) neglecta (Dejean, 1825)

MATERIAL: Benin, Prov. Momo, beach Gran Popo, 25.VII-5.VIII.98, C. Callegari, 2 ♀♀ (CCC), 1 ♀ (FCC).

A well-known African species, widely distributed either in West Africa (ssp. *neglecta* s. str.) or, with a south-eastern subspecies (*intermediola* W. Horn, 1921) in the rest of Africa, down to South Africa. The borderline between these two races should cross central Congo somewhere. In coastal Kenya there is a third localized subspecies (*sublitoralis* Cassola, 1995). The occurrence of *L. n. neglecta* in Benin was firstly recorded by Basilewsky (1953), but apparently both Wiesner (1992) and Werner (2000b) overlooked such a record.

Lophyra (Stenolophyra) luxerii (Dejean, 1831)

MATERIAL: Benin, Forêt de Niaouli, 06°44N-02°08E, 10 & 12.IV.06, G. Curletti, 1 ♀ (MCCI); 10 & 14.IV.06, G. Curletti, 2 ♂♂ 3 ♀♀ (MCCI).

Primarily a West African forest species, *luxerii* is known to occur in most African countries from Senegal to Ethiopia, including Benin (Werner, 2000b).

Habrodera nitidula (Dejean, 1825)

MATERIAL: Benin, Prov. Momo, beach Gran Popo, 25.VII-5.VIII.98, C. Callegari, 1 ♀ (CCC).

H. nitidula is basically a West African species (type locality: Senegal), known to occur on the sandy seashores of most countries from Senegal to Angola (Werner, 2000b). Its distribution was recently better precised by

Jaskula & Cassola (2005), who firstly recorded it from Ghana and Nigeria and moreover predicted its occurrence in Benin as well (the species will likely be found in the future on the seashores of all other intervening West African countries, such as Liberia, Ivory Coast and Togo). New country record.

Myriochila (Myriochila) melancholica (Fabricius, 1798)

MATERIAL: Benin, River Sota (Malanv.), 22.VI.86, L.v. Woersem, 1 ♀ (ZMAN).

Perhaps the most widespread tiger beetle species of the world, which practically occurs in the whole of Africa and moreover in southern Europe and the Middle East (eastwards to Pakistan and northern India). It was firstly recorded from Benin by Basilewsky (1953), but curiously both Wiesner (1992) and Werner (2000b) apparently overlooked such a record.

Myriochila (Myriochila) peringueyi (W. Horn, 1895)

MATERIAL: Benin, Ndali, 3 km W of Sontou, 04-05.VII.01, A. Kudrna Jr., 2 ♂♂ 2 ♀♀ (FCC) (on black volcanic rock in woodland area).

This species was described from Togo and moreover it is known from Guinea, Ivory Coast, Cameroon, Central African Republic, Sudan, and Congo (Werner, 2000b). New country record.

Myriochila (Myriochila) plurinotata (Audouin & Brullé, 1839)

MATERIAL: Benin, env. of Kerou, 24.VI.01, F. Kantner, 1 ♂ 1 ♀ (OSC), 1 ♂ (FCC).

A well-known, widely spread West African species, occurring from Senegal to the Central African Republic, including Benin (Werner, 2000b).

Myriochila (Monelica) vicina (Dejean, 1831)

MATERIAL: Benin, Forêt de Niaouli, 06°44N-02°08E, 10 + 14.IV.06, G. Curletti, 1 ♀ (MCCI).

A widely spread African species, and a close relative of the Asian species *M. fastidiosa* (Dejean, 1825), which was recently given full specific status by Werner & Oesterle (2000). *M. vicina* is known to occur in many African countries, from Mauritania and Senegal east- and southwards to Congo, Tanzania and Angola (Werner, 2000b).

Myriochila (Monelica) flavidens (Guérin-M., 1849)

MATERIAL: Benin, NE, E of Kandi, around Saa, 21-23.VI.01, A. Kudrna Jr., 1 ♀ (FCC) (on laterite soil in muddy or moist situations near puddles). E of Kandi, 7 km E of Bensekou, 23-24.VII.01, A. Kudrna Jr., 1 ♂ (FCC) (on laterite soil in muddy or moist situations near puddles).

This species is known from Guinea east- and southwards to Ethiopia, Uganda and Congo. Although already known from both Togo and Nigeria (Werner, 2000b), it represents a new country record for Benin.

Myriochila (Monelica) dumolinii (Dejean, 1831)

MATERIAL: Benin, Bodjekali (Malanv.), VI-IX.86, L.v. Woerse, 1 ♂ 1 ♀ (ZMAN), 1 ♂ (FCC).

Described from Senegal, this large and beautiful species was recorded from several Sahelian countries, from Benin to Niger, Tchad and Sudan (Werner, 2000b).

Cratohaerea chrysopyga (W. Horn, 1892)

MATERIAL: Benin, Forêt de Niaouli, 06°44N-02°08E, 10 + 12.IV.06, G. Curletti, 1 ♂ (MCCI).

A seldom collected West African species (reportedly on termitaries), this species exhibits a remarkable sexual dimorphism in shape of mandibles. Its testaceous labrum distinguishes it easily from the similar congeneric species *C. brunet* (Gory, 1833) (occurring in West Africa only from Senegal to Ivory Coast) (Werner, 2000b). It was firstly recorded from Benin by Basilewsky (1954).

DISCUSSION

The full list of the tiger beetle species presently known to occur in Benin is now raised up to 30 species (Table I). However, several more species, which are presently known from nearby countries, will possibly be discovered in Benin too in the future, when this country will be better prospected in all the proper tiger beetle habitats. Thus, one or more of the following 16 ones will predictably be collected soon or later in Benin (in brackets the neighbour or nearest countries are indicated where they are

presently known from): *Prothyma leprieurii* (Dejean, 1831) (Burkina Faso, Nigeria), *Euryarthron dromicarium* (Kolbe, 1894) (Togo, Cameroon), *Prothymidia angusticollis* (Boheman, 1848) (Togo, Central African Republic), *P. vuilletorum* (W. Horn, 1914) (Niger), *Elliptica deyrollei* (Guérin-M., 1849) (Togo, Cameroon), *Ropaloteres feisthamelii* (Guérin-M., 1849) (Ghana, Nigeria), *R. flavosignatus* (Castelnau, 1835) (Togo, Cameroon), *Hipparidium xanthophilum* (W. Horn, 1894) (Liberia, Cameroon), *H. caternaulti* (Guérin-M., 1849) (Ghana), *Calochroa flavomaculata* (Hope) ssp. *sexsignata* (Mandl, 1954) (Ivory Coast, Cameroon), *Calomera asperula* (Dufour, 1821) (Ghana, Nigeria), *Lophyra (Eriolophyra) arnoldi* (W. Horn, 1904) (Niger), *Cylindera (Cylindera) aurosternalis* (W. Horn, 1894) (Togo, Cameroon), *C. (Ifasina) lutaria* (Guérin-M., 1849) (Ivory Coast, Central African Republic), *Myriochila (Monelica) dorsata* (Brullé, 1834) (Nigeria), *M. (M.) mirei* (Rivalier, 1961) (Niger).

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