

New tiger beetle data from Ghana and Nigeria (Coleoptera: Cicindelidae)

Новые данные о жуках-скакунах (Coleoptera: Cicindelidae) Ганы и Нигерии

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КЛЮЧЕВЫЕ СЛОВА: жуки-скакуны, Cicindelidae, Гана, Нигерия, фауна, список видов, новые находки, восстановленный вид.

ABSTRACT: One tiger beetle species, *Habrodera nitidula* (Dejean, 1825), is recorded for the first time from Ghana and Nigeria. Moreover, three other species are also firstly recorded from Nigeria: *Ropaloteres nysa nysa* (Guérin-Méneville, 1849), *Myriochila* (*Myriochila*) *peringueyi* (W. Horn, 1895) and *Cratohaerea chrysopyga* (W. Horn, 1892). Lists of the tiger beetle species presently known from both these countries are given. *Habrodera cabinda* (Bates, 1878) is reinstated as a distinct species, other than *H. leucoptera* (Dejean, 1831).

РЕЗЮМЕ: *Habrodera nitidula* (Dejean, 1825) впервые указывается для фауны Ганы и Нигерии. Кроме того, три других вида: *Ropaloteres nysa nysa* (Guérin-Méneville, 1849), *Myriochila* (*Myriochila*) *peringueyi* (W. Horn, 1895) и *Cratohaerea chrysopyga* (W. Horn, 1892) также впервые отмечены в Нигерии. Приведён список жуков-скакунов, известных в настоящее время с территории этих двух стран. *Habrodera cabinda* (Bates, 1878) восстановлена в качестве самостоятельного вида, отличного от *H. leucoptera* (Dejean, 1831).

The genus *Habrodera* Motschulsky, 1862 is restricted to Africa only. Five species occur in the main continental area: *H. capensis* (Linné, 1764), *H. nilotica* (Dejean, 1825), *H. nitidula* (Dejean, 1825), *H. leucoptera* (Dejean, 1831), and *H. cabinda* (Bates, 1878). The last one was described from Angola and it was later synonymized under *H. leucoptera* (from coastal West Africa) by Fleutiaux [1892] and subsequent authors. However it is herein reinstated in full specific status because of slight but important body characters and the huge geographical gap (Table 1, Fig. 1). In addition, two more species are known to occur in Madagascar: *H. ovas* (Bates, 1878) and *H. truncatilabris* (Fairmaire,

1897) [Wiesner, 1992; Werner, 2000b; Cassola, 2003]. All *Habrodera* species are usually found on sandy shores of oceans and coastal lagoons, with the only exception of the widespread *H. nilotica* which ecologically is a riverine freshwater species, to be found on sandy banks of rivers and lakes [Werner, 2000b].

In particular, *H. nitidula* is a West African species (type locality: Senegal) known to occur in the sandy seashores of several countries: Senegal [Mandl, 1958], Mauritania [Basilewsky, 1970], Gambia [Werner, 2000b], Guinea [Werner, 2000b], Guinea Bissau [Guérin-Méneville, 1849], Sierra Leone [Cassola, 1986], Cameroon [Horn, 1911; Mandl, 1967; Cassola & Jaskuła 2005], Gabon [Werner, 2000b], Bioko Island (=Fernando Poo) [Báguena Corella, 1941, as sub. *rutherfordi*; Basilewsky, 1952], Equatorial Guinea [Báguena Corella, 1941], Zaire [Burgeon, 1937], and Angola [Wellman & Horn, 1908; Wiesner 1992]. Werner [2000b] has questioned its occurrence in Angola, but in fact the species was firstly collected by Uhson More at Landana (Loango) and by F.C. Wellman at the Lobito Bay beach, where it syntopically occurred with *H. cabinda* [Wellman & Horn, 1908]. Two supposed *H. nitidula* “subspecies” have been described so far. The first one is *H. n. rutherfordi* Bates, 1878, from Equatorial Guinea and Cameroon [Wiesner, 1992; Werner, 2000b], which, far from being a separate species from Bioko Island as supposed by Báguena Corella [1941], most probably is merely a dark coloured ecotype which occurs on black volcanic sands of coastal Cameroon too. The specimens from the white beaches, both in Cameroon and Bioko Island, are in contrast of the same light colour as typical *H. nitidula* [Davidson, in Werner, 2000b]. The second form is *H. n. scherpeltzi* Mandl, 1958, described from Senegal (thus from the same type locality as *H. nitidula*!) based on three specimens only. As to present-day Burundi [see Werner, 2000b for a discussion about the type locality of *H. n. scherpeltzi*],

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Table 1. Main differences between *Habrodera leucoptera* and *H. cabinda*
Таблица 1. Основные отличия между *Habrodera leucoptera* и *H. cabinda*

Features	<i>H. leucoptera</i>	<i>H. cabinda</i>
Body length	7.1–8.8 mm	9–10.2 mm
Elytral markings	Wide, often confluent, intervals narrow, subapical spur and side margin connected with each other	Narrower, intervals wide, subapical spur and side margin only rarely connected with each other
Female mesepisternal coupling sulci	A marked groove in the middle of mesepisternum	Just a rounded concavity
Male aedeagus	Slightly hooked dorsally	Button-ended, not hooked
Ground body colour	With mostly reddish reflections	With more greenish reflections
Geographical distribution	Coastal areas of West Africa from Morocco to Guinea-Bissau	Coastal areas of south-western Africa from Gabon to Angola

such an inland country does not certainly host any *H. nitidula* populations. Consequently, both taxa are considered to be highly dubious and quite distant from the correct geographical concept of subspecies, and they are not retained here.

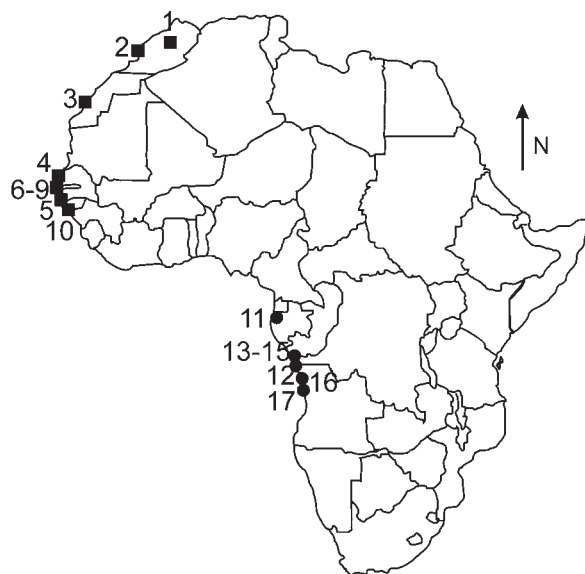


Fig.1 Distribution of *Habrodera leucoptera* (squares) and *H. cabinda* (circles).

Morocco: 1 — Khouribga [Kocher, 1965] — most probably a doubtful locality! [Cassola 1973]; 2 — Agadir, Souss Hassa-Drâa province [Gebert 1996] and Oued Souss (Inezgane), Agadir, VIII. 1973, leg. P. Cabella (DSC); Western Sahara: 3 — Villa Cisneros (R.O.) [present-day Al Dakhla], leg. J. Mateu (FCC); **Senegal:** 4 — Lake Retba, 25 km E Dakar, 11.VIII.1978, leg. R. Naviaux (FCC); 5 — Cap Skiring, at light, 19:30–2:00, 10.XI.1977, leg. Cederholm et al., Lund Univ. Exped. (FCC); **Gambia:** 6 — Bakau, Cape St. Mary at Sun Wing Hotel, beach, 5.XI.1977, Cederholm et al., Lund Univ. Exped. (FCC); Bakau, 6–26.XI.1984, leg. Th. Palm (FCC); 7 — Tanji Forest, near the beach, 13°22'47N–16°47'28W, 19.VII.1999, leg. E. Werner (FCC); 8 — env. Komo Beach Novotel, 13°27'40N–16°42'29W, 27.VII.1999, leg. E. Werner (FCC); 9 — env. Brufut, 100 m to beach, 13°25'09N–16°44'15W, 11.VII & 13.VII.1999, leg. E. Werner (FCC); **Guinea-Bissau:** 10 — Varela [Serrano, 1997]; **Gabon:** 11 — Libreville [Burgeon, 1937; Werner, 2000b, apparently misinterpreted this locality as situated in Zaire]; **Zaire:** 12 — D.R. Congo, Banane [=Banana, at the mouth of River Congo?], 1937, Dr. Dartevell; **Angola:** 13 — Landana (Loango) [present-day Cacongo, Cabinda] [Bates, 1878, type loc.]; 14 — Cabinda [Ferreira, 1965]; 15 — Cabinda, Malongo [Benguela], XI.1984, leg. Bucchi (FCC); 16 — Luanda, Iha de Cabo [Werner, 2000b]; 17 — Luanda-River Kwanza, 25 km S Luanda, 8.X.1994, 29.X.1994, 11.XI.1994, 6.XI.1994, leg. A. Bandinelli (FCC).

Рис. 1 Распространение *Habrodera leucoptera* (квадраты) и *H. cabinda* (кружки).

Марокко: 1 — Хурибга [Kocher, 1965] — скорее всего, ошибочное указание! [Cassola, 1973]; 2 — Агадир, провинция Сус Масса-Драа [Gebert, 1996] и уэди Сус (Инезган), Агадир, VIII.1973, leg. P. Cabella (DSC); **Западная Сахара:** 3 — Вилла Циснерос (Р.О.) [современное название Эль-Дахла], leg. J. Mateu (FCC); **Сенегал:** 4 — озеро Ретба, 25 км В Дакара, 11.VIII.1978, leg. R. Naviaux (FCC); 5 — мыс Скайринг, на свет, 19:30–2:00, 10.XI.1977, leg. Cederholm et al., эксп. Лундского ун-та (FCC); **Гамбия:** 6 — Бакау, мыс св. Марии, отель “Солнечное крыло”, пляж, 5.XI.1977, Cederholm et al., эксп. Лундского ун-та (FCC); Бакау, 6–26.XI.1984, leg. Th. Palm (FCC); 7 — Танжи Форест, около пляжа, 13°22'47N–16°47'28W, 19.VII.1999, leg. E. Werner (FCC); 8 — пос. Комо Бич, 13°27'40N–16°42'29W, 27.VII.1999, leg. E. Werner (FCC); 9 — пос. Бруфут, 100 м от пляжа, 13°25'09N–16°44'15W, 11.VII & 13.VII.1999, leg. E. Werner (FCC); **Гвинея-Биссау:** 10 — Варела [Serrano, 1997]; **Габон:** 11 — Либревиль [Burgeon, 1937; Werner, 2000b — вероятно, ошибочное данного локалитета для Заира]; **Заир:** 12 — ДР Конго, Банане [=Банана, устье реки Конго?], 1937, Dr. Dartevell; **Ангола:** 13 — Ландана (Лоанго) [современное название Каконго, Кабинда] [Bates, 1878, типовый локалитет]; 14 — Кабинда [Ferreira, 1965]; 15 — Кабинда, Малонго [Бенгуела], XI.1984, leg. Bucchi (FCC); 16 — Луанда, о-в Кабо [Werner 2000b]; 17 — Луанда, река Кванза, 25 км Ю Луанды, 8.X.1994, 29.X.1994, 11.XI.1994, 6.XI.1994, leg. A. Bandinelli (FCC).

To the known distribution of *H. nitidula* given above, we are presently able to add two more countries. Our data indicate the species' occurrence in both Ghana and Nigeria, what is not at all surprising, as this tiger beetle species will likely be found in the future on the seashores of all other intervening West African countries, such as Liberia, Ivory Coast, Benin and Togo.

Habrodera nitidula nitidula (Dejean, 1825)

MATERIAL. **Ghana:** 1 ♂ (RJC), 1 ♂ (OSC) Accra, Labadi Beach, 20.X.1992., leg. M. Kliča; 1 ♂ (SSC) Busua, I.2004, leg. A. Vinchevsky; **Nigeria:** 3 ♂♂ 1 ♀ (FCC) Lagos, leg. Saccà; 1 ♂ (ABC) Niger Delta, env. Warri, 22–26.XI.1984, leg. Assing.

Moreover, our data add three other species to the fauna of Nigeria.

Ropaloteres nysa nysa (Guérin-Méneville, 1849)

MATERIAL. 1 ♀ (GMC) Izom, 200 km S Kaduna, VI.1980, leg. G. Macchi.

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

MATERIAL. 8 ex. (BMNH) N. Nigeria, Azare, VII.1924, leg. L. Loyd.

Cratohaerea chrysopyga (W. Horn, 1892)

MATERIAL. 1 ♀ (BMNH) Lagos distr., V. 1954, leg. W.E.S. Merrett; 1 ♂ (BMNH) Lagos, 1901, leg. H. Strachan.

Table 2. List of the Cicindelidae known from Ghana and Nigeria
Table 2. Список Cicindelidae, известных из Ганы и Нигерии

№ №	Species	References	
		Ghana	Nigeria
1.	<i>Megacephala b. bocandei</i> Guérin-Ménéville, 1848	Wiesner, 1992; Werner, 2000a	Basilewsky, 1966; Wiesner, 1992; Werner, 2000a
2.	<i>M. denticollis schulzeorum</i> W. Horn, 1904		Basilewsky, 1966; Wiesner, 1992; Werner, 2000a
3.	<i>M. megacephala</i> Olivier, 1790		Basilewsky, 1966; Wiesner, 1992; Werner, 2000a
4.	<i>M. q. quadrisignata</i> Dejean, 1829	Werner, 2000a	Basilewsky, 1966; Wiesner, 1992; Werner, 2000a
5.	<i>Prothyma (Prothyma) concinna anosignata</i> Bates, 1878	Werner, 2000a	Werner, 2000a
6.	<i>P. (P.) concinna erythrocnema</i> Chaudoir, 1850	Werner, 2000a	
7.	<i>P. (P.) l. lepreurii</i> (Dejean, 1831)		Jaskula, 2005
8.	<i>Euryarthron dromicarium</i> (Kolbe, 1894)		Werner, 2000a
9.	<i>E. saginatum</i> (W. Horn, 1912)	Cassola, 1983; Wiesner, 1992; Werner, 2000a	Werner, 2000a
10.	<i>Elliptica lugubris</i> (Dejean, 1825)		Wiesner, 1992; Werner, 2000b
11.	<i>Ropaloteres cinctus</i> (Olivier, 1790)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
12.	<i>R. c. congoensis</i> (Fleutiaux, 1893)		Wiesner, 1992; Werner, 2000b
13.	<i>R. feishamelit</i> Guérin-Ménéville, 1849	Werner, 2000b	Werner, 2000b
14.	<i>R. n. nyssa</i> (Guérin-Ménéville, 1849)	Wiesner, 1992; Werner, 2000b	Jaskula & Cassola, this paper
15.	<i>R. vittatus</i> (Fabricius, 1801)		Wiesner, 1992; Werner, 2000b
16.	<i>Hipparidium caternaulti</i> (Guérin-Ménéville, 1849)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
17.	<i>H. interruptum</i> (Fabricius, 1775)		Wiesner, 1992
18.	<i>H. nigrifulum</i> (W. Horn, 1915)	Wiesner, 1992; Werner, 2000b	
19.	<i>Calomera asperula</i> (Dufour, 1821)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
20.	<i>Lophyra (Lophyra) n. neglecta</i> (Dejean, 1825)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
21.	<i>L. (L.) senegalensis</i> (Dejean, 1825)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
22.	<i>L. (Stenolophyra) luxerii</i> (Dejean, 1831)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
23.	<i>Habrodera n. nilotica</i> (Dejean, 1825)		Wiesner, 1992; Werner, 2000b
24.	<i>H. n. nitidula</i> (Dejean, 1825)	Jaskula & Cassola, this paper	Jaskula & Cassola, this paper
25.	<i>Chaetodera r. regalis</i> (Dejean, 1831)		Wiesner, 1992; Werner, 2000b
26.	<i>Cylindera (Ilasina) decellei</i> Basilewsky, 1968	Wiesner, 1992; Werner, 2000b	
27.	<i>C. (I.) o. octoguttata</i> (Fabricius, 1787)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
28.	<i>Myriochila (Monelica) f. flavidens</i> (Guérin-Ménéville, 1849)		Wiesner, 1992; Werner, 2000b
29.	<i>M. (M.) dorsata</i> (Brullé, 1834)		Werner, 2000b
30.	<i>M. (M.) dumolinii</i> (Dejean, 1831)		Werner, 2000b
31.	<i>M. (M.) v. vicina</i> (Dejean, 1831)	Wiesner, 1992; Werner, 2000b	Basilewsky, 1960
32.	<i>M. (Myriochila) m. melancholica</i> (Fabricius, 1798)	Wiesner, 1992; Werner, 2000b	Wiesner, 1992; Werner, 2000b
33.	<i>M. (M.) peringuevi</i> (W. Horn, 1895)		Jaskula & Cassola, this paper
34.	<i>M. (M.) plurinotata</i> (Audouin & Brullé, 1839)		Wiesner, 1992; Werner, 2000b
35.	<i>Cratohaerea chrysoptiga</i> (W. Horn, 1892)	Werner, 2000b	Jaskula & Cassola, this paper
Total		18 species	30 species

Checklists of the tiger beetle species presently known from both these countries are given in the Table 2.

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