

Koleopterologische Rundschau	75	337–348	Wien, Juni 2005
------------------------------	----	---------	-----------------

Review of *Figulus sublaevis* (PALISOT DE BEAUVOIS, 1805) and *F. anthracinus* KLUG, 1833 (Coleoptera: Lucanidae)

L. BARTOLOZZI & C. MONTE

Abstract

Two African species of the genus *Figulus* Macleay, 1819 are reviewed. *Figulus sublaevis* (PALISOT DE BEAUVOIS, 1805) is redescribed, and compared with the closely allied *F. anthracinus* KLUG, 1833, from which it differs in external morphology and genitalic structures. *Figulus anthracinus* from Madagascar, hitherto regarded as a synonym of *F. sublaevis*, is resurrected as valid species (stat.res.) and its lectotype is designated. Lectotypes are also designated for *F. nossibenus* KRIESCHE, 1921, *F. monilifer* PARRY, 1862, and *F. sublaevis* (PALISOT DE BEAUVOIS, 1805).

Key words: Coleoptera, Lucanidae, *Figulus*, Africa.

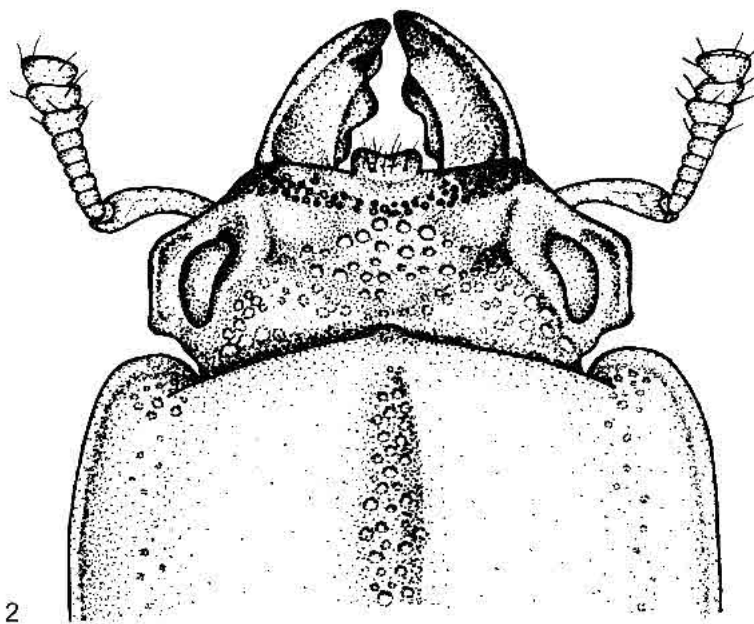
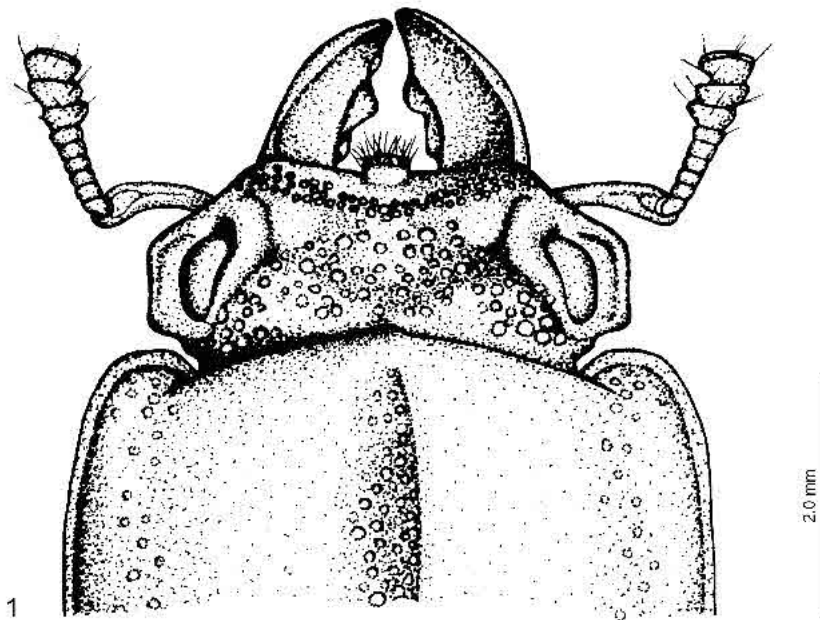
Introduction

Many authors (e.g. BURMEISTER 1847, PARRY 1873, DIDIER & SÉGUY 1953, BRINCK 1956, BENESH 1960, MAES 1992b, BARTOLOZZI & WERNER 2004) considered *Figulus anthracinus* KLUG, 1833 as a synonym, variety, or subspecies of *F. sublaevis* (PALISOT DE BEAUVOIS, 1805); other authors (e.g. PARRY 1864b, ALBERS 1885, KRAJCIK 2001, 2003) listed *F. anthracinus* as a distinct species. KRAJCIK (2001, 2003) considered *F. anthracinus* a “species incertae sedis”.

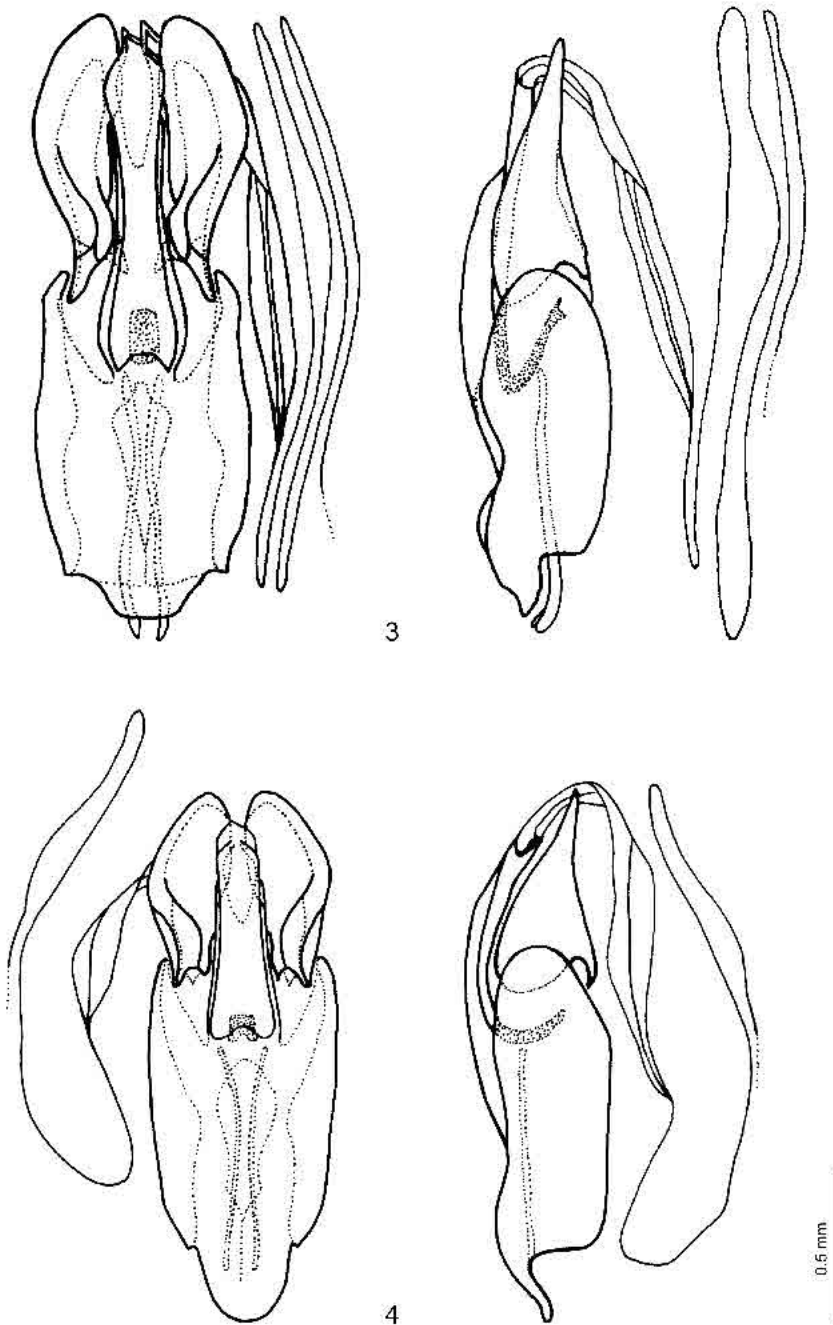
During our revision of the *Figulus* species from continental Africa (MONTE & BARTOLOZZI 2005) we had the chance to examine many hundreds of *Figulus* specimens from the Afrotropical Region. The rich material available and the examination of the types of *F. sublaevis* and *F. anthracinus* enabled us to solve the problem regarding the true status of these two species.

This paper is based on the examination of material from the following Institutions and private collections:

CDK	Collection Roger De Keyzer, Sydney, Australia
CLB	Collection Luca Bartolozzi, Florence, Italy
CMD	Collection Marc Desfontaine, Toulon, France
CPM	Collection Philippe Moretto, Toulon, France
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium
MNHN	Muséum National d’Histoire Naturelle, Paris, France
MRAC	Musée Royal de l’Afrique Centrale, Tervuren, Belgium
MSNG	Museo Civico di Storia Naturale, Genoa, Italy
MSNM	Museo Civico di Storia Naturale, Milan, Italy
MZUF	Museo di Storia Naturale, Sezione di Zoologia “La Specola”, University of Florence, Italy
NHM	The Natural History Museum, London, United Kingdom
NHMB	Naturhistorisches Museum (Frey Collection), Basel, Switzerland
ZMHB	Museum für Naturkunde, Humboldt-Universität, Berlin, Germany



Figs. 1–2: Head and pronotum of 1) *Figulus sublaevis*; and 2) *F. anthracinus*.



Figs. 3–4: Aedeagus, ventral and lateral view, of 3) *Figulus sublaevis*; and 4) *F. anthracinus*.

***Figulus sublaevis* (PALISOT DE BEAUVOIS, 1805)**

Lucanus sublaevis PALISOT DE BEAUVOIS, 1805: 3.

Figulus sublaevis WESTWOOD 1838: 262; BURMEISTER 1847: 436; MONTROUZIER 1860: 296 (note); THOMSON 1862: 402, 433; PARRY 1863: 450; PARRY 1864b: 64, 99; VOLLENHOVEN 1865: 146; GEMMINGER & HAROLD 1868: 965; GERSTAECKER 1871: 46; PARRY 1873: 343; PARRY 1875: 22; RITSEMA 1880: 217; ALBERS 1884: 173; ALBERS 1885: 248; KOLBE 1897: 129; BOILEAU 1898: 433; FELSCH 1898: 78; GRIFFINI 1906: 147; PÉRINGUEY 1908: 548; BOILEAU 1909: 338; VAN ROON 1910: 53; BOILEAU 1913: 267; KRIESCH 1921: 112, 114; KRIESCH 1922: 130; DIDIER 1937: 30; NAGEL 1941: 68; DIDIER & SÉGUY 1953: 183; SÉGUY 1954: 211; BRINCK 1956: 314, 332; BENESH 1960: 28; ENDRÖDI 1968: 165, 173; VAN WAEREBEKE 1970: 6, 10; GOMES ALVES 1973: 30; NAKAMURA 1974: 9; MEDLER 1980: 181; BOMANS 1992: 251, 252; MAES 1992a: 52; MAES 1992b: 41; MIZUNUMA & NAGAI 1994: 300; MIZUNUMA 2000: 56, 85; KRAJCIK 2001: 13; KRAJCIK 2003: 84; BARTOLOZZI & WERNER 2004: 37.

Figulus monilifer PARRY 1862: 113; PARRY 1864b: 99; GEMMINGER & HAROLD 1868: 965; PARRY 1873: 343; FELSCH 1898: 78; GRIFFINI 1906: 147; VAN ROON 1910: 53; KRIESCH 1921: 112; DIDIER & SÉGUY 1953: 183; BRINCK 1956: 314; GOMES ALVES 1973: 30; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 13.

TYPE MATERIAL: *Figulus sublaevis*: **Lectotype** (here designated): ♀, "REGNE OWARE" (= area between Benin and Nigeria) (MNHN) ["unique exemplaire ancien identifié correctement et topotypique; la localité figure sur le fond de boîte" – S. Boucher, MNHN, personal communication].

Figulus monilifer: **Lectotype** (here designated): ♀, "NOV. ZEAL.?, # 607840" (NHM).

ADDITIONAL MATERIAL EXAMINED:

CAMEROON: 1 ex., Edéa, ex Coll. Le Moul, R. Det. 7870 (MRAC); 1 ex., Mundame, leg. R. Rohde, Coll. Kraatz, 5343 (NHM); 1 ex., Yaoundé, leg. J. Vadon, 1931 (MNHN); 1 ex., Yaoundé, St. De Nkolbisson, IV.67 (MNHN); 2 exs., N'Kongsamba, V.1957, leg. J. Cantaloube (MNHN); 1 ex., Bitye Ja River, ex Coll. R. Oberthür (MNHN); 1 ex., Erfand, 1923, John W. Angell Collect., Chicago Nat. Hist. Mus. B. Benesh Colln. Lucanidae (Benesh, Access No. 5217) (MNHN); 1 ex., Lolodorf, II.1921, leg. A. I. Good, Acc. 6615, Chicago Nat. Hist. Mus. B. Benesh Colln. Lucanidae (Benesh, Access No. 5390) (MNHN); 3 exs., Isubu, ex Coll. R. Oberthür (MNHN); 1 ex., Essazok, 12.XI.69, Test sur Cacao (MNHN); 1 ♀, SW Lokomò, 10.XI.1990, leg. R. Mourglia (CLB); 1 ex., Cameroon, ex Coll. Bates 1892/ ex Coll. R. Oberthür (MNHN); 2 exs., Cameroon Centre, I.2000, leg. M. Desfontaine (CMD).

CENTRAL AFRICAN REP.: 1 ex., La Maboké, 25.XII.1965, leg. P. Teocchi (MNHN); same locality, 1 ex., X.1967, leg. P. Teocchi (MNHN); same locality, 1 ex., 22.X.1968, leg. P. Teocchi (MNHN); same locality, 2 exs., XI.1968, leg. P. Teocchi (MNHN).

DEMOCRATIC REP. CONGO (= Zaire): 1 ♂, Mukonkoto, I.1937 (IRSNB, I.G. 11680); 1 ♂, Bambesa, 29.VI.1937, leg. J. Vrydagh (IRSNB, I.G. 11393); 1 ♀, Okondo, Buhunde, 18.IX.1929, leg. A. Collart (IRSNB); 1 ♀, Zilo (Katanga), 24.I.1967, leg. V. Allard (MSNM); 1 ex., Env. Lac Leopold II, 11.–14.VI.1925, leg. S.A.R. Prince Leopold, R. Det. 1830d (MRAC); 1 ex., Lulua: Kapanga, XII.1931, leg. G.F. Overlaet, R. Det. 7870 (MRAC); same locality, 3 exs., X.1932, 2 exs., XI.1932 and 8 exs., XII.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., Lulua: Muteba, V.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); same locality, 1 ex., XI.1932 leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., Lulua: Tshibamba, XI.1931, leg. G.F. Overlaet, R. Det. 7870 (MRAC); same locality, 1 ex., V.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ♀, Kafakumba, XI.1937 (IRSNB, I.G. 11680); 2 exs., Kafakumba, III.–IV.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); same locality, 13 exs., XII.1932 and 1 ex., I.1934, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., Riv. Kasai Thiluagi, II.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., Kapanga, XII.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., Lualaba: Kolwezi, 1954, leg. Mme L. Gilbert, R. Det. 7870 (MRAC); 1 ex., Lualaba: Kakanda (Mutaka), XI.–XII.1953, leg. R.P. Th. De Caters, R. Det. 7870 (MRAC); 1 ex., Lualaba: Kapolowe, 1959, leg. J.P. Herremans, R. Det. 7870 (MRAC); 1 ex., Coquilhatville-Wafanya, 11.V.1949, leg. Rev. P. Hulstaert, R. Det. 7870 (MRAC); 1 ex., Katanga, E VII/e 1949 Novembre, leg. J.-J. Van Mol, c. 1046, R. Det. 7870 (MRAC); 1 ex., Katanga, Kipopo (E'ville), 4.XII.1961, don R. Maréchal, k 1099, R. Det. 7870 (MRAC); 1 ex., Bambesa, 11.V.1937, leg. J. Vrydagh, R. Det. 7870 (MRAC); same locality, 1 ex., 3.IX.1937, 1 ex., 1.X.1938, 1 ex., I.I.1939, 1 ex., IV.1939, leg. J. Vrydagh, R. Det. 7870 (MRAC); 2 exs., Madibi, VI.–VII.1913, leg. R. Verschueren, R. Det. 7870 (MRAC); 2 exs., Mayidi, 1942, leg. Rev. P. Van Eyen, R. Det. 7870 (MRAC); 1 ex., Kunungu, 1934, leg. N'Kele (Coll. Schouteden), R. Det. 7870 (MRAC); 1 ex., Congo da Lemba, I.X.1911, leg. R. Mayné, R. Det. 7870 (MRAC); 1 ex., Haut-Uelé: Moto, 1920, leg. R. Burgeon, R. Det. 7870 (MRAC); same locality, 1 ex., 1923, leg. R. Burgeon, R. Det. 7870 (MRAC); 1 ex., Riv. Busira, VI.1936, leg. J. Ghesquié, R. Det. 7870 (MRAC); 1 ex., Gandajika, 1954 de Francquen, E. 733, 1H0430, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2518, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC); 1 ex., Mweka, 1955, leg. J. Lefèvre, 416, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2550, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC);

- 3 exs., Mweka, III.53, leg. G. Thöne, GT.56, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2473, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC); 1 ex., Yangambi, 1952 C. Donis, Z.A. 441, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2453, ex Coll. Mus. Congo, Don R. Mayné, 4825 (NHM); 1 ex., Yangambi, 1952, C. Donis, Z.A. 439, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2453, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC); same locality, 2 exs., 1952 C. Donis, Z.A. 441- Z.A. 420, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2453, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC); 2 exs., Yangambi, 1953 C. Donis, Z.A. 940 and Z.A. 986, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2491, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC); 2 exs., Yangambi, 1953 C. Donis, Z.A. 539 and Z.A. 663, Coll. R. Mayné, Com. Ét. Bois Congo, R. 2458 and R. 2467, Coll. Mus. Congo, Don R. Mayné, R. Det. 7870 (MRAC); 1 ex., Yangambi, X.1951, leg. J. Decelle, R. Det. 7870 (MRAC); same locality, 1 ex., XII.1951, leg. J. Decelle, R. Det. 7870 (MRAC); 1 ex., Bamanya, 1934, leg. R. Fr. Longinus, R. Det. 7870 (MRAC); 1 ex., Tshende Mushij, 23.II.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., P.N.G. [= Parc National Garamba], Kanonga (695 m), 13.-27.IX.1947, Mission G.F. de Witte, 785a (MRAC); 1 ex., P.N.G., Kanonga (700 m), 16.-23.IX.1949, Mission G.F. de Witte, 2366a (MRAC); 1 ex., P.N.G., Kankunda (1300 m), 19.-24.XI.1947, Mission G.F. de Witte, 984a (MRAC); 1 ex., P.N.G., Kaziba (1140 m), 19.-27.II.1948, Mission G.F. de Witte, 1314a (MRAC); 22 exs., P.N.G., Mission H. De Saeger, II/ed/16, 20.III.1951, Réc. H. De Saeger, 1429 (MRAC); 1 ex., P.N.G., Mission H. De Saeger, II/fd/17, 24.VII.1951, leg. Réc. H. De Saeger, 2132 (MRAC); same locality, 4 exs., 4.IX.1951, 2362 (MRAC), 31 exs., 5.IX.1951, 2364 (MRAC) and 1 ex., 7.V.1952, 3446 (MRAC); 1 ex., P.N.G., Mission H. De Saeger, II/db/8, 6.XI.1952, leg. Réc. H. De Saeger, 3106 (MRAC); 1 ♂, Semliki forest, VIII.59, leg. C. Koch (Coll. Frey, NHMB); 1 ex., Lisala, 1934, leg. Dr. Tabacco, R. Det. 7870 (MRAC); 1 ex., Kindu, VI.1936, leg. P. Henrard, R. Det. 7870 (MRAC); 1 ex., Kikwit, X.1920, leg. P. Vanderijst, R. Det. 7870 (MRAC); 1 ex., Eala, II.1935, leg. J. Ghesquière, R. Det. 7870 (MRAC); same locality, 2 exs., III.1935, leg. J. Ghesquière, R. Det. 7870 (MRAC); 1 ex., Eala, VIII.1935, leg. J. Ghesquière, 779 (handwritten), R. Det. 7870 (MRAC); 1 ex., Kasai: Kondué, leg. E. Luja, R. Det. 7870 (MRAC); 1 ex., K. 329 de Kindu, leg. L. Burgeon, R. Det. 7870 (MRAC); 2 exs., Kindu, VI.1936, leg. P. Henrard, R. Det. 7870 (MRAC); 2 exs., Lomami: Mutombo-Mukulu, VI.1931, leg. P. Quarré, R. Det. 7870 (MRAC); 1 ex., Katanga, Muene Ditu, IX.1935, leg. Ch. Seydel, No C. 19529, R. Det. 7870 (MRAC); same locality, 1 ex., XI.1935, leg. Ch. Seydel, No C. 19529, R. Det. 7870 (MRAC); 1 ex., Sandoa, XII.1931, leg. G.F. Overlaet, R. Det. 7870 (MRAC); same locality, 1 ex., VII.1932, leg. G.F. Overlaet, R. Det. 7870 (MRAC); 1 ex., Kivu: riv. Natulonge, terr. Fizi, I.1957, leg. N. Leleup, ex I.R.S.A.C. – Mus. Congo, 4824 (NHM); 1 ex., Stanley Pool to Lukolela, Harrison '94, ex Coll. R. Oberthür (MNHN); 1 ex., Sankuru: Lukenia, I.1928, leg. J. Ghesquière, R. Det. 7870 (MRAC).
- GABON: 1 ex., N'Diolé, leg. J. Arrighi, ex Coll. R. Oberthür (MNHN); 1 ♀, Fieng. Nord Bououé, s. écorce Nieuik [= under bark of *Fillaeopsis discophora*] pourri sur pied [= rotten and standing up], 29.III.84 (CLB).
- GHANA (= Gold Coast): 1 ex., Aburi, 1912-13, leg. W.H. Patterson, 1914-441, # 607851 (NHM); 1 ex., Côte D'Or, ex Coll. Mniszech/ ex Coll. R. Oberthür (MNHN).
- GUINEA: 1 ex., Guinea (Golden), 27203, Fry Coll. 1905-100, # 607863 (NHM); 1 ex., Guinea, 85/28 (handwritten), # 607846 (NHM).
- IVORY COAST: 1 ex., Bingerville, IV.1961, leg. J. Decelle (MRAC); same locality, 1 ex., X.1962, leg. J. Decelle (MRAC); 3 exs., Adiopodoumé, Basse Côte D'Ivoire (MNHN); 3 exs., Côte D'Ivoire, leg. G. Melou, ex Coll. R. Oberthür (MNHN); 2 exs., N'Zita, Lepesme 1946, ex Coll. R. Oberthür (MNHN); 1 ex., Akrésie, 1910, ex Coll. R. Oberthür (MNHN); 4 exs., Dimbroko (MNHN); 1 ex., Dimbokro, leg. J. Dyot (MNHN); 2 exs., Assikasso '97, Coll. A. Bonhoure 1909 (MNHN); 2 exs., Sassandra, XII.1996, leg. P. Moretto (CPM); 2 exs., Sassandra, VIII.1997, leg. P. Moretto (CPM); same locality, 2 exs., IV.1998, 3 exs., II.1999 and 17 exs., III.2002, leg. P. Moretto (CPM); 1 ex., Comoé, III.1997 (CPM); 1 ex., Touba, V.2001 (CPM); 1 ex., San Pedro, III.2000 (CPM); same locality, 2 exs., VI.2000 (CPM), 1 ex., VIII.2000 (CPM), 1 ex., VIII.2001 (CPM) and 1 ex., IX.2001 (CPM); 1 ♀, Yamoussoukro, 1986, leg. Leblond (CMD); 1 ex., same locality, III.1986, leg. Leblond (CMD); 1 ♂, Ft. de Banco, XII.1989, leg. Ture (CMD).
- REP. OF CONGO (= Congo Français): 1 ex., Congo & Oubanghi, Decaux 140-96 (MNHN); 1 ex., Djoumouna, 10.XII.1969, Ec. Sup. Sc. Brazzaville, leg. J.P. Grillot, 6485 (NHM); 1 ex., Djoumouna, 23.XII.1969, Ec. Sup. Sc. Brazzaville, leg. J.P. Grillot, 6486 (NHM).
- SENEGAL: 1 ♂, Senegal, Alte Museums Sammlung [= old museum collection] (NHMB).
- SOUTH AFRICA: 1 ♂, Kapland (NHMB).
- TANZANIA: 1 ♂, near Mitundo, Dodoma prov., 10.-16.XII.1999, leg. K. Werner & R. Lizler (CKW).
- TOGO: 1 ♀, Fazao, mt. 580, 16.IV.85, leg. R. Mourglia (CLB).
- UGANDA: 2 exs., Busoga Distr., VI.-VIII.1969, leg. J.J. Rwabuneza (MRAC); 1 ex., Busoga Distr., VI.-VIII.1969, leg. J.J. Rwabuneza, ex Coll. Mus. Tervuren, 4826 (NHM); 1 ex., Région Kigunga, sur *Chlorophora* mort [= on dead *Chlorophora*], ex Coll. H. Bomans, 4833 (NHM); 1 ex., Région Parisa, sur palmier [= on palms], Coll. H. Bomans, 4834 (NHM); 1 ex., Région Kamule, ecorces palmier [= palm barks], ex Coll. H. Bomans, 4835 (NHM).

ZAMBIA: 1 ex., NW Prov., 80 km south of Mwinilunga, 18.–19.XI.2003, leg. Werner & Smrž (CKW); 1 ex., NW Prov., 50 km north of Kasempa, 24.XI.2003, leg. Werner & Smrž (CKW).

REDESCRIPTION: Measurement (mm): Total length: 12.0–17.3; mandibles: 0.9–1.4; pronotal width: 3.5–5.7; elytral width: 3.6–5.5.

Male. Body elongate, with sub-parallel sides, black, glossy. Head transverse, about 2.5 times as wide as long, medially depressed (Fig. 1). Frons concave and smooth at the anterior margin. There is a transverse band of small and deep punctures behind the frons. Two small glossy areas are in front of the eyes. Clypeus broad, short, with anterior margin blunt. Vertex concave in the middle, inclined forwards, with two small transverse elevations. Eyes large, divided in two parts by the canthi, the upper part smaller than the lower; well distinct ommatidia. Canthus well developed, almost straight laterally; anterior corners largely rounded, posterior corners almost right; slightly depressed on the upper surface, with dense punctures on the lateral margin. Head surface not densely punctate, with superficial, large punctures. Mandibles as long as head, strong and asymmetrical, rounded externally; apex slightly blunted and bent upwards; upper surface of external margin slightly elevated. Internal margin of the right mandible with a more or less developed basal tooth, and a medial strong tooth directed inwards; internal margin of the left mandible with a more or less developed basal tooth, and two medial teeth, the most apical one more ventral and flatter. Antenna with 10 joints, with scape as long as the remaining articles together; club with the last three segments flatter and broader than the remaining joints of the funicle. Prothorax slightly wider than long with sub-parallel sides; anterior margin convex, strongly elevated, with a more or less developed medial tubercle; posterior margin almost straight or slightly bisinuated; anterior angles rounded; posterior ones largely rounded. Deep medial longitudinal groove on the disc, with large circular punctures. Pronotal surface glossy, with several very minute punctures, larger and denser at sides and at the anterior margin towards the corners. Scutellum small, narrow, wedge-shaped. Elytra convex, about twice as long and as wide as prothorax. Base concave, sub-parallel sides, apex regularly rounded. Humeri acute, with a very small tubercle. Elytral surface glossy; stria 1 and 6 always present on disc. Stria 5 can be present or not, when present it can be recognised by deep circular punctures at base followed by superficial circular punctures or by some punctures near the base only. Stria 4 can be recognised by some superficial punctures near the base, sometimes reaching mid-elytra. Stria 3 is usually missing, sometimes there may be only some very superficial circular punctures. Stria 2 always missing. The striae, when present, are formed by a row of punctures, well separated from each other, except for stria 1, where the punctures are confluent. Stria 1 is the deepest and the only one to reach the declivity. Interstriae smooth, glossy, much larger than striae, slightly convex basally, flat apically. Elytral margins and apex strongly punctured, with very short erected reddish setae. Wings present. Legs thin and straight. Protibiae with strong, elongate apical fork, and a long, strong spur internally at apex; lateral margin with 4–6 teeth, increasing in size distally. Mesotibiae with four acute apical teeth, and two apical spines, one larger than the other; lateral margin with strong submedial tooth, preceded by 2–3 smaller teeth. Metatibiae with four acute apical teeth, and two apical spines, one larger than the other; lateral margin with strong submedial tooth, preceded by 1–2 smaller teeth. Underside coarsely punctate, with few smooth areas, finely punctate. Mentum sub-rectangular, concave medially, with sides slightly rounded; base almost straight, punctate. A flat, large triangular process is present at base and is about half as long as mentum, invading the medial concavity. Sides with an elevation in the anterior half. Prosternum narrow, sub-pentagonal in shape behind the coxae; surface finely punctate behind the coxae. Metasternum almost smooth, with very minute punctures, and a very narrow medial groove. First abdominal sternite with dense horse-shoe shaped superficial hollows. Sternites 2–4 smooth with sparse and fine punctures, narrower at sides. Last sternite with dense and very deep punctures; external margin with fine punctures. Aedeagus: see Fig. 3.

Female. No external morphological differences to male.

DISTRIBUTION: “Regne Oware” [type locality] (= Région de Warri ou Ouari = area between Benin and Nigeria), Cameroon, Central African Republic, Democratic Republic of the Congo (= Zaire), Gabon, Ghana, Guinea, Ivory Coast, Namibia, Republic of the Congo, Senegal, South Africa, Tanzania, Togo, Uganda, Zambia.

***Figulus anthracinus* KLUG, 1833 stat.res.**

Figulus anthracinus KLUG 1833: 85; DEJEAN 1837: 194; WESTWOOD 1838: 261; STURM 1843: 137; HOPE & WESTWOOD 1845: 7; BURMEISTER 1847: 436; THOMSON 1856: 8; THOMSON 1862: 402; PARRY 1863: 450; PARRY 1864a: 6; PARRY 1864b: 64, 99; GEMMINGER & HAROLD 1868: 965; GERSTAECKER 1871: 46; PARRY 1873: 343; PARRY 1875: 22; RITSEMA 1880: 217; ALBERS 1884: 173; ALBERS 1885: 248; FAIRMAIRE 1893: 521; BOILEAU 1898: 432; FELSCHE 1898: 76; GRIFFINI 1906: 147; PÉRINGUEY 1908: 548; VAN ROON 1910: 53; KRIESCHE 1921: 113; DIDIER & SÉGUY 1953: 183; SÉGUY 1954: 211; BRINCK 1956: 314; BENESH 1960: 28; GOMES ALVES 1973: 30; NAKAMURA 1974: 9; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 9, 13.

Figulus ebenus WESTWOOD 1834: 119; WESTWOOD 1838: 261; HOPE & WESTWOOD 1845: 7; BURMEISTER 1847: 436; THOMSON 1856: 8; THOMSON 1862: 402; PARRY 1863: 450; PARRY 1864b: 99; GEMMINGER & HAROLD 1868: 965; GERSTAECKER 1871: 46; PARRY 1873: 343; BOILEAU 1898: 432; FELSCHE 1898: 78; GRIFFINI 1906: 147; VAN ROON 1910: 53; KRIESCHE 1921: 113; DIDIER & SÉGUY 1953: 183; GOMES ALVES 1973: 30; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 9.

Figulus ovis DEJEAN 1837: 194 (nomen nudum); STURM 1843: 137; HOPE & WESTWOOD 1845: 7; BURMEISTER 1847: 436; THOMSON 1856: 8; THOMSON 1862: 402; PARRY 1864b: 99; GEMMINGER & HAROLD 1868: 965; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 13.

Figulus nigrita WESTWOOD 1838: 261; HOPE & WESTWOOD 1845: 7; BURMEISTER 1847: 436; THOMSON 1856: 8; THOMSON 1862: 402; PARRY 1863: 450; PARRY 1864b: 99; GEMMINGER & HAROLD 1868: 965; PARRY 1873: 343; PARRY 1875: 22; RITSEMA 1880: 217; ALBERS 1884: 173; BOILEAU 1898: 432; FELSCHE 1898: 78; GRIFFINI 1906: 147; VAN ROON 1910: 53; KRIESCHE 1921: 112; DIDIER & SÉGUY 1953: 183; SÉGUY 1954: 211; BRINCK 1956: 314; GOMES ALVES 1973: 30; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 13.

Figulus cernensis HOPE & WESTWOOD 1845: 7 (nomen nudum); THOMSON 1856: 8; GEMMINGER & HAROLD 1868: 965; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 9.

Figulus vulneratus THOMSON 1862: 402, 433; PARRY 1864b: 64, 99; GEMMINGER & HAROLD 1868: 965; FELSCHE 1898: 78; GRIFFINI 1906: 147; VAN ROON 1910: 53; KRIESCHE 1921: 113; DIDIER & SÉGUY 1953: 183; GOMES ALVES 1973: 30; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 9.

Figulus lettowi KRIESCHE 1921: 113; DIDIER & SÉGUY 1953: 183; BRINCK 1956: 314; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 13.

Figulus nossibenus KRIESCHE 1921: 114; DIDIER & SÉGUY 1953: 183; MAES 1992a: 52; MAES 1992b: 41; KRAJCIK 2001: 9.

TYPE MATERIAL: *Figulus anthracinus*: **Lectotype** (here designated): 1 ♂, MADAGASCAR, “40186/ Type/ MADAG. GOUD./ var. *anthracinus* Klug/ ssp. *anthracinus* × 2” (ZMHB); **Paralectotype** (here designated): 1 ♂, “Type” [no locality] (ZMHB).

Figulus nossibenus: **Lectotype** (here designated): 1 ♀, “NW MADAGASCAR, Nossibé, 15.VIII.95, leg. Voeltzkow” (ZMHB); **Paralectotypes** (here designated): 4 ♀♀, “NW MADAGASCAR, Nossibé, 15.VIII.95, leg. Voeltzkow” (ZMHB).

Figulus lettowi: **Lectotype**: 1 ♂, TANZANIA, “Deutsch Ostafrika, Hinterland von Dar es Salaam, Chraphanshi/ Lectotypus, Monte & Bartolozzi 2004” (ZMHB); **Paralectotype**: 1 ♀, TANZANIA, “Deutsch Ostafrika, Uhehe, Iringa, I.III.99, leg. Götz S./ Paralectotypus, Monte & Bartolozzi 2004” (ZMHB); **Paralectotype**: 1 ♂, MALAWI, “Nyassa-See, Langesburg, Ende XII.98–Ende I.99, leg. Füllenborn S./ Paralectotypus, Monte & Bartolozzi 2004” (ZMHB); **Paralectotype**: 1 ♀, MALAWI, “Nyassa-See, Unyika, 1–2.XI.99, leg. Goetze S./ Paralectotypus, Monte & Bartolozzi 2004” (ZMHB).

Figulus vulneratus: “**Syntype**” (?): 1 ♀, “AFR. OCC., ex Musæo James Thomson/ ex Coll. R. Oberthür” (MNHN). [received from MNHN as type, but the locality of the original description is “Madagascar”].

ADDITIONAL MATERIAL EXAMINED:

COMORES: 1 ex., Isola Maheli Mohani, 21.VIII.1973, leg. R. Mourglia (MSNM); 3 exs., Isola Maheli Mohani, 21.VIII.1973, leg. R. Mourglia (NHMB); 1 ex., Isola Maheli Mohani, 21.VIII.1973, leg. R. Mourglia, 6548a (NHM); 2 ♂♂, Isola Maheli Mohani, 21.VIII.1973, leg. R. Mourglia (CLB); 1 ♂, 1 ♀, Anjouan Nioumakele, VIII.1987, leg. R. Viossat (CLB); 1 ex., Grande Comore, I.1984, leg. Desegaulx de Nolet (MRAC); 1 ex., Mayotte, I.1981, Coll. H. Bomans, 11138 (NHM); 1 ex., Iles Comores, L. Humblot 1886–1886, ex Coll. R.

- Oberthur, 10266 (NHM); 1 ex., Forêt de Remani, Anjouan, Inst. Scientifique Madagascar, CNHM 1965, Bernard Benesh, General Coleopt. Colln., 11265 (NHM); 2 exs., Sadani, ex Musaeo Quedenfeldt/ ex Museo W. Möllenkamp/ ex Coll. R. Oberthür (MNHN); 1 ex., Mayotte Is. Comoro IDS, VIII.1987 (CDK).
- DEMOCRATIC REP. CONGO (= Zaire): 1 ex., B-Congo, 11.55, Stegmann, Straubing, 6445 (NHM).
- GUINEA: 1 ex., Guinée, ex Coll. De Bonvouloir/ ex Coll. R. Oberthür (MNHN).
- IVORY COAST: 1 ex., Lamto (Toumodi), 8.IX.1966, Coll. C. Girard (MNHN).
- KENYA: 1 ex., Diani Beach, IX.1951, leg. N.L.H. Krauss, B.M. 1951–541, # 607854 (NHM); 1 ex., Chimba Hills, leg. Van Someren, III.1941, # 607845 (NHM).
- MADAGASCAR: 1 ex., Andohahela rainforest, VI.1993, leg. B. Randriamampionona (MZUF, 12375); 1 ♀, SW Madagascar, 17 km E Sakaraha, dry forest of Zombitsy, 15.V.1991, leg. L. Bartolozzi, S. Taiti & C. Raharimina (MZUF, 12376); 1 ♀, S Madagascar: Res. Berenty, 27.V.1991, leg. L. Bartolozzi, S. Taiti & C. Raharimina (MZUF, 12377); 1 ♂, 2 ♀♀, SE Madagascar: Res. Nat. Integ. de Andohaëla (NW Fort Dauphin), Parcelle 1 (E side) 300 m, rainforest, 24.–26.V.1991, leg. L. Bartolozzi, S. Taiti & C. Raharimina (MZUF, 12378); 1 ♀, Park Nat. Isalo, Canyon des Singes, 14.V.1991, leg. L. Bartolozzi, S. Taiti & C. Raharimina (MZUF, 12379); 2 exs., Mont D'Ambre, March–Avril, 4719-a and 4719-b (NHM); 2 exs., Mont D'Ambre, Janvier, 6544-a and 6544-b (NHM); 2 exs., Mont D'Ambre, Mars, 6545-a and 6545-b (NHM); 1 ♀, Parc Mont D'Ambre, 26.IX.1989, leg. L. Bartolozzi & S. Taiti (CLB); 3 ♀♀, Mont D'Ambre, 500 m, 5 km before Joffreville, 25.IX.1989, leg. L. Bartolozzi & S. Taiti (CLB); 2 ♀♀, Mont D'Ambre (ca. 1200 m), 25.IX.1989, leg. L. Bartolozzi & S. Taiti (CLB); 1 ex., N Madagascar, Région Androna, 1835 BIS 1839 (Coll. Frey, NHMB); 3 exs., NW Madagascar, Sambirano (Coll. Frey, NHMB); 1 ex., NW Madagascar, Analalava (Coll. Frey, NHMB); 2 exs., SE Madagascar, Midongy (Coll. Frey, NHMB); 7 exs., Ankarafantsika forest, I.1956, leg. C. Koch (Coll. Frey, NHMB); 2 exs., Forêt de Fito, VI/VII.1897, Perrot Fr., ex Coll. Oberthür/ ex Mus. A. Koenig-Bonn (Coll. Frey, NHMB); 1 ex., Antsianaka et Lac Alaotra, 2° Trim. 1817, ex Coll. Oberthür, Mus. A. Koenig-Bonn (Coll. Frey, NHMB); 1 ex., Antsianaka et Lac Alaotra, 2° Trim. 1897, ex Coll. Oberthür/ ex Mus. A. Koenig-Bonn (Coll. Frey, NHMB); 1 ex., Antsianaka, Perrot Frères, 1° semestre 1892, 9318 (NHM); 1 ♀, Antsianaka, Perrot Frères, 2° semestre 1893 (CLB); 1 ♀, Fevrier, Mont D'Ambre (CLB); 1 ♂ Antanambé, baie D'Antongil, 3.IV.97, leg. A. Mocquerys (CLB); 1 ex., Antanambé, baie D'Antongil, 3.IV.97, leg. A. Mocquerys, 6543 (NHM); 1 ♀, Mananjary (MSNM); 1 ex., Région de Mananjary, leg. A. Mathiaux 9326 (NHM); 1 ♂, Mandritsara, ex Coll. Oberthür (IRSNB, I.G. 18293); 1 ♀, Mandritsara (IRSNB, I.G. 18293); 1 ♀, Fénérive, VI.1890, ex Coll. Oberthür (IRSNB, I.G. 18293); 1 ex., Fénérive, 1° Trim. 1896, Perrot Frères, 38 (Coll. Frey, NHMB); 1 ♀, Vohémar, Coll. Le Moul't (IRSNB); 2 exs., Baie d'Antongil, ex Coll. Le Moul't (MRAC); 1 ex., Montagnes des Français, XII.1916/ I.1917, leg. G. Melou, ex Coll. Le Moul't (MRAC); 1 ex., Montagnes des Français, ex Coll. Le Moul't (MRAC); 1 ex., Maroantsetra, ex Coll. Le Moul't (MRAC); 1 ex., Maroantsetra, Coll. Ch. Alluaud 1929, 9324 (NHM); 4 exs., Mananara, 1963, leg. J. Vadon (MRAC); 1 ex., E Madagascar, Ambodivoangy, I.1960, leg. J. Vadon (MRAC); 5 exs., Fampanambo, XII.1960, leg. J. Vadon (MRAC); 1 ex., Fampanambo, I.1961, leg. J. Vadon (MRAC); 6 exs., NE Madagascar, Fizonon, IX.1959, leg. J. Vadon (MRAC); 1 ex., Tamatave et Forêt d'Alahakato, I.VIII.1888, ex Coll. Breuning (MRAC); 1 ex., Tamatave et Forêt d'Alahakato, 1° Semestre 1888, Edouard Perrot, 9321b (NHM); 1 ex., Tamatave, D' E. de Charmoy. 1918–22, Pres. By Ip'm. Bur. Ent., # 607871 (NHM); 1 ex., Ambodrona, I.1948, leg. Vadon, 684a (NHM); 1 ex., Ambodivoangy, leg. Vadon, III.1945, 685 (NHM); 1 ex., Lokaro, VIII.1950, 686 (NHM); 1 ex., Lambomakandro Tuléar Distr., 4720 (NHM); 1 ex., Lambomakandro Tuléar Distr., I.1956, leg. C. Koch (Coll. Frey, NHMB); 1 ex., Vohémar, faune Malgache, Lt. J.P. Lacroix 1972, 5856 (NHM); 1 ex., Analamajoatra, faune Malgache, Lt. J.P. Lacroix 1972, 5858 (NHM); 1 ex., Fianarantsoa, 6447 (NHM); 1 ♀, Nosy Be (MSNM); 1 ex., Nosy Be (Coll. Frey, NHMB); 1 ex., Nosy Komba, Sommet, V.56, A. R., Inst. Scientifique Madagascar, faune Malgache Et. J.P. Lacroix 1972, 5855 (NHM); 1 ex., Nosy Be, leg. H. Pierron, 9327 (NHM); 2 exs., Madagascar, leg. G. Schneider (NHMB); 1 ex., Madagascar, from Deyrolle, 1870 (MSNG); 1 ex., Madagascar, 1875, leg. D. Fairmaire [identified by Fairmaire as *F. striatus*] (MSNG); 1 ex., Madagascar, 5677b, # 607852 (NHM); 1 ex., Madagascar, 85/28, # 607856 (NHM); 1 ex., Madagascar, 85/28, # 607857 (NHM); 1 ex., Madagascar, 85/28, # 607858 (NHM); 1 ex., Madagascar, Deyrolle Coll. 1905–313, # 607859 (NHM); 1 ex., Madagascar, Deyrolle Coll. 1905–313, # 607864 (NHM); 1 ex., C. Madagascar, Cowan, 1915–38, # 607861 (NHM); 1 ex., Madagascar, 8324, # 607865 (NHM); 1 ex., Madagascar, Gerrard, Fry Coll.1905–100, # 607866 (NHM); 1 ex., Madagascar, Pascoe Coll. 93–60, # 607868 (NHM); 1 ex., Madagascar, 85/28, 5622a “compared and agrees perfectly with Westwood type of *F. nigritus*”, # 607869 (NHM); 1 ex., Madagascar, E.Y. Western Coll., B.M. 1924–176, # 607842 (NHM); 1 ex., Madagascar, E.Y. Western Coll., B.M. 1924–176, # 607841 (NHM); 1 ex., Madagascar, E.Y. Western Coll., B.M. 1924–176, # 607862 (NHM); 1 ex., Madagascar, 33520, Gerrard, Fry Coll. 1905–100, # 607860 (NHM); 1 ex., Madagascar, Nevinson Coll. 1918–14, # 607873 (NHM); 2 exs., Madagascar, 7480a and 7480b (NHM); 1 ex., Madagascar, VI.1926, 7481 (NHM); 2 exs., Madagascar, Coll. P. Nagel, 6446a and 6446b (NHM); 2 ♀♀, Madagascar, ex Coll. Oberthür (IRSNB).

MOZAMBIQUE: 1 ex., Caia, Zambesi, 25.b.12, leg. H. Swale, Andrewes Bequest B.M. 1922–221, # 607850 (NHM); 1 ex., env. de Vila Pery, forêt d'Amatongas, leg. P. Lesne 1929 (MNHN).
 RÉUNION: 1 ex., Bourbon, from Tarnier (MSNG); 1 ex., Bourbon, Mus. Murray, Fry Coll. 1905–100, # 607867 (NHM).
 SÃO TOMÉ AND PRÍNCIPE: 1 ♀, Roca Inf. Henrique, 200–300 m, II.1901, leg. L. Fea (MSNM); same locality and data, 2 exs., leg. L. Fea (MSNG); same locality, 2 exs., III.1901, leg. L. Fea (MSNG).
 SENEGAL: 1 ♂, Senegal (CLB, ex Coll. Bomans); 1 ♂, Senegal (Coll. Frey, NHMB); 1 ex., Senegal, ex Coll. R. Oberthür (MNHN); 1 ex., Senegal, ex Coll. R. Oberthür (MNHN); 1 ex., Senegal, ex Coll. M. Sédillot (MNHN); 1 ex., Senegal, “*F. ovis* Dejean”, ex Coll. M. Sédillot (MNHN).
 TANZANIA: 1 ex., Ost-Afrika, Fruhstorfer, ex Coll. Dr. E. Knirsch (Coll. Frey, NHMB); 1 ex., Zanzibar, via Raffray (MSNG); 1 ex., Zanzibar, 58407, leg. G. Revoil (Fry Coll. 1905–100), # 607870 (NHM); 1 ex., D. Ost-Afrika, Mhonda, 7482 (NHM); 1 ex., Zanzibar, leg. Raffray, ex Coll. R. Oberthür (MNHN).
 ZAMBIA: 1 ex., Kashitu, north of Broken Hill [= Kabwe], I.1915, leg. H.C. Dollman (H.C. Dollman Coll. 1919–79), # 607872 (NHM).

Figulus anthracinus is very similar in shape and colour to *F. sublaevis*, from which it differs by the following characters:

- anterior margin of clypeus more or less bilobed (Fig. 2)
- more than three striae always present on elytral disc. Elytral surface glossy, with four sub-parallel evident striae, each formed by a row of large punctures, well separated from each other, except for stria 1 where the punctures are confluent. Stria 1 is the deepest and the only one to reach the declivity. Striae 2 and 3 are always absent; sometimes stria 3 is indicated by 3–4 large circular punctures towards the base. Striae 4–6 always present. Interstriae smooth, glossy, much larger than striae, slightly convex basally, flat apically
- different shape of the aedeagus (see Fig. 4)

MEASUREMENTS (mm): Total length: 11.1–17.4; mandibles: 0.8–1.4; pronotal width: 3.5–6.0; elytral width: 3.5–5.8.

DISTRIBUTION: Madagascar [type locality], Angola, Comores, Democratic Republic of the Congo, Guinea, Ivory Coast, Kenya, Malawi, Mozambique, Réunion, São Tomé and Príncipe, Senegal, Tanzania, Zambia.

Acknowledgements

We are grateful to the following colleagues for the loan of the material: Stéphane Boucher (MNHN), Marc De Meyer (MRAC), Marc Desfontaine (Toulon, France), Roger De Keyzer (Sydney, Australia), Alain Drumont (IRSNB), Johannes Frisch (ZMHB), Malcolm Kerley (NHM), Philippe Moretto (Toulon, France), Roberto Poggi (MSNG), Fabrizio Rigato (MSNM), Eva Sprecher (NHMB), Michele Zilioli (MSNM), Hella Wendt (ZMHB). We also thank Christina Coster Longman (MZUF) for the revision of the English text.

References

- ALBERS, G. 1884: Über den *Figulus anthracinus* Klug und seine afrikanischen Verwandten. – Stettiner entomologische Zeitung 1884: 173–176.
 ALBERS, G. 1885: Zur Berichtigung. – Deutsche entomologische Zeitschrift 29 (1): 248.
 BARTOLOZZI, L. & WERNER, K. 2004: Illustrated catalogue of the Lucanidae from Africa and Madagascar. – Hradec Kralove: Taita Publishers, 192 pp.
 BENESH, B. 1960: Coleopterorum Catalogus. Pars 8. Lucanidea (sic!). – The Hague: Junk, 178 pp.

- BOILEAU, H. 1898: Note sur le "Catalogue des Lucanides" de M. Carl Felsche. – *Annales de la Société entomologique de France* 67 (3): 401–437.
- BOILEAU, H. 1909: Coleoptera. 17. Lucanidae (pp. 337–340). – In: Sjöstedt, B.Y. (ed.): *Wissenschaftliche Ergebnisse der Schwedischen Zoologischen Expedition nach dem Kilimandjaro, dem Meru und den umgebenden Massai-Steppen Deutsch-Ostafrikas, 1905–1906*, unter Leitung von Y. Sjöstedt. Herausgegeben mit Unterstützung der Königl. Schwedischen Akademie der Wissenschaften. – Stockholm, Vol. 1, 812 pp.
- BOILEAU, H. 1913: Note sur Lucanides conservés dans les collections de l'Université d'Oxford et du British Museum. – *Transactions of the Royal entomological Society of London* 1913 (2): 213–272.
- BOMANS, H.E. 1992: Les Coléoptères Lucanidae de l'Île Principe. – *Lambillionea* 92 (3): 251–254.
- BRINCK, P. 1956: Coleoptera: Lucanidae. – *South African Animal Life* 8 (3): 304–335.
- BURMEISTER, H.C.C. 1847: Lucanidae (pp. 304–530). – In: *Handbuch der Entomologie*. 5 (Coleoptera Lamellicornia, Xylophila et Pectinicornia). – Berlin: Enslin, VIII+584 pp.
- DEJEAN, P. 1837: *Catalogue des Coléoptères de la collection de M. le Comte Dejean*. 3^{ème} Edition. – Paris: Méquignon-Marvis, XIV+503 pp.
- DIDIER, R. 1937: *Études sur les Coléoptères Lucanides du Globe*. – Paris: Lechevalier, XLIX+257 pp.
- DIDIER, R. & SÉGUY, E. 1953: *Catalogue illustré des Lucanides du Globe*. Texte. – *Encyclopédie entomologique (A)* 27: 1–223.
- ENDRÖDI, S. 1968: Contributions à la connaissance de la faune entomologique de la Côte-D'Ivoire (J. Decelle, 1961–1964). IX. – *Coleoptera Lucanidae, Dynastinae und Hybosorinae*. – *Annales du Musée Royal de l'Afrique Centrale, Zoologie* 165: 171–173.
- FAIRMAIRE, L. 1893: Coléoptères des Îles Comores. – *Annales de la Société entomologique de Belgique* 37: 521–555.
- FELSCH, C. 1898: Verzeichniss der Lucaniden, welche bis jetzt beschrieben sind. – Leipzig: Heyne, 90 pp.
- GEMMINGER, M. & HAROLD, E. von 1868: *Catalogus Coleopterorum hucusque descriptorum synonymicus et systematicus*. Tom. III. – Munich: Gummi; Paris: Deyrolle & Franck; London: Williams & Norgate, pp. 753–978.
- GERSTAECKER, A. 1871: Beitrag zur Insektenfauna von Zanzibar. III. Coleoptera. – *Archiv für Naturgeschichte* 37 (1): 42–86.
- GOMES ALVES, M.L. 1973: Coleópteros da África Portuguesa (Lucanidae, Scarabaeidae: Cetoninae; Chironinae, Phaenomerinae; Cicindelidae e Chrysomelidae: Hispinae) (pp. 27–34, 55–56). – In: *Libro de homenagem ao Prof. Fernando Frade*. – Lisbon: Junta de Investigações do Ultramar, XX+422 pp.
- GRIFFINI, A. 1906: Lucanidi raccolti da Leonardo Fea nell'Africa occidentale. – *Annali del Museo civico di Storia naturale Giacomo Doria, Genova* 42: 135–148.
- HOPE, F.W. & WESTWOOD, J.O. 1845: A catalogue of the Lucanoid Coleoptera in the collection of the Rev. F. W. Hope, M.A., F.R.S. & c., President of the Entomological Society of London, with descriptions of the new species therein contained. – London: Bridgewater, 31 pp.
- KLUG, F. 1833: Bericht über eine auf Madagascar veranstaltete Sammlung von Insekten aus der Ordnung Coleoptera. – *Abhandlungen der königlichen Akademie der Wissenschaften, Berlin* 1832/1933: 91–223.
- KOLBE, H.J. 1897: Familie Lucanidae, Hirschkäfer (pp. 128–129). – In: *Die Käfer Deutsch-Ost-Afrikas, Coleopteren*, IV, 3/4. – Berlin: Reimer, 367 pp.
- KRAJCIK, M. 2001: *Lucanidae of the world. Catalogue – Part I. Checklist of the Stag Beetles of the World (Coleoptera: Lucanidae)*. – Most: published by the author, 108 pp.

- KRAJCIK, M. 2003: Lucanidae of the world. Catalogue – Part II. Encyclopaedia of the Lucanidae (Coleoptera: Lucanidae). – Plzen: published by the author, 197 pp.
- KRIESCHE, R. 1921: Zur Kenntnis der afrikanischen Figulinen (Col. Lucan.). – Archiv für Naturgeschichte (A) 86 (8) [1920]: 107–114.
- KRIESCHE, R. 1922: Zur Kenntnis der Lucaniden. – Stettiner entomologische Zeitung 83: 115–137.
- MAES, J.M. 1992a: Lucanidae (Coleoptera) de las Islas Comores. – Revista Nicaraguense de Entomología 19: 49–54
- MAES, J.M. 1992b: Lista de los Lucanidae (Coleoptera) del mundo. – Revista Nicaraguense de Entomología 22A: 1–60; 22B: 61–121.
- MEDLER, J.T. 1980: Lucanidae (pp. 181–182). – In: Insects of Nigeria. Check List and Bibliography. – Memoirs of the American Entomological Society 30: 919 pp.
- MIZUNUMA, T. 2000: Stag beetles II: Lucanidae. – Tokyo: Endless Science Information, vol. 5, 100 pp.
- MIZUNUMA, T. & NAGAI, S. 1994: The Lucanid beetles of the world. – Mushi-sha Iconographic series of Insects 1: 338 pp.
- MONTE, C. & BARTOLOZZI, L. 2005: Revision of the continental African species of *Figulus* Macleay, 1819, with description of *Figulus pseudominor* n. sp. (Coleoptera, Lucanidae). – Entomologia Africana, Hors Série 2, 24 pp.
- MONTROUZIER, P. 1860: Essai sur la faune entomologique de la Nouvelle-Calédonie (Balade) et des îles des Pins, Art, Lifu, etc. – Annales de la Société entomologique de France (3) 8: 229–308.
- NAGEL, P. 1941: Neues über Hirschkäfer (Col. Lucanidae). – Deutsche entomologische Zeitschrift 1941: 54–75.
- NAKAMURA, H. 1974: A preliminary check list of the stag beetles (Lucanidae, Coleoptera) from Africa. – Miscellaneous Publications of the Entomological Research Institute, Yamanashi 3: 1–10.
- PALISOT DE BEAUVOIS, A.M.F.J. 1805: Insectes recueillis en Afrique et en Amérique, dans les Royaumes d'Oware et de Benin, à Saint-Domingue et dans les États-Unis, pendant les années 1786–1797. – Paris: Fain et Co., XVI+276 pp.
- PARRY, F.J.S. 1862: Further descriptions and characters of undescribed Lucanoid Coleoptera. – Proceedings of the entomological Society of London 3 [1861]: 107–113.
- PARRY, F.J.S. 1863: A few remarks upon Mr. James Thomson's Catalogue of Lucanidae, published in the "Annales de la Société Entomologique de France, 1862". – Transactions of the Royal entomological Society of London (3) 1: 442–452.
- PARRY, F.J.S. 1864a: Further remarks on Mr. James Thomson's Catalogue of Lucanidae. – Proceedings of the entomological Society of London (3) 2: 5–8.
- PARRY, F.J.S. 1864b: A catalogue of Lucanoid Coleoptera, with illustrations and descriptions of various new and interesting species. – Transactions of the Royal entomological Society of London (3) 2: 1–113.
- PARRY, F.J.S. 1873: Characters of seven nondescript Lucanoid Coleoptera, and remarks upon the genera *Lissotes*, *Nigidius* and *Figulus*. – Transactions of the Royal entomological Society of London 1873 (3): 335–345.
- PARRY, F.J.S. 1875: Catalogus Coleopterorum Lucanidorum. Ed. tertia. – London: E.W. Jason, 29 pp.
- PÉRINGUEY, L. 1908: Catalogue of the Coleoptera of South Africa (Lucanidae, Passalidae, Scarabaeidae). Additions and corrections. – Transactions of the South African Philosophical Society 17: 547–752.
- RITSEMA, C. 1880: Description of a new species of the lucanoid genus *Figulus*. – Notes of the Leyden Museum 2: 217–219.

- SÉGUY, E. 1954: Coléoptères Lucanides. – Mémoires de l'Institut français de l'Afrique noire 40 (2): 209–211.
- STURM, J. 1843: Lucanidae (pp. III–XII, 1, 135–138, 343–348, 3 pls.). – In: Catalog der Käfer-Sammlung. – Nürnberg: published by the author, VI+386 pp.
- THOMSON, J. 1856: Description de quatre Lucanides nouveaux de ma collection, d'une *Cicindela* et de deux longicornes précédée du Catalogue des Coléoptères Lucanoides de Hope (1845), et de l'arrangement méthodique adopté par Lacordaire pour sa famille des Pectinicornes (Gén. Des Col., vol. III, 1856). – Revue et Magasin de Zoologie 11: 1–15.
- THOMSON, J. 1862: Catalogue des Lucanides de la collection de M. James Thomson, suivi d'un appendix renfermant la description des coupes génériques et spécifiques nouvelles. – Annales de la Société entomologique de France (4) 12: 389–436.
- VAN ROON, G. 1910: Coleopterorum Catalogus. Pars 8. Lucanidae. – Berlin: Junk, 70 pp.
- VAN VOLLENHOVEN, S. 1865: Sur quelques Lucanides du Muséum Royal d'Histoire naturelle de Leide. – Tijdschrift voor Entomologie 8: 137–166.
- VAN WAEREBEKE, D. 1970: Deux Oxyures parasites de larves de Lucanidae à Madagascar. – Entomophaga 15 (1): 5–13.
- WESTWOOD, J.O. 1834: Descriptio generum nonnullorum novorum e familia Lucanidarum cum tabula synoptica familiae notulis illustrata. – Annales de Sciences naturelles (2) 1: 112–122.
- WESTWOOD, J.O. 1838: Lucanidarum novarum exoticarum descriptiones, cum monographia generum *Nigidii* et *Figuli*. – Entomology Magazine 5: 259–268.

Luca BARTOLOZZI & Cinzia MONTE

Museo di Storia Naturale dell'Università degli Studi di Firenze, Sezione di Zoologia "La Specola", via Romana, 17, I – 50125 Firenze, Italy (luca.bartolozzi@unifi.it)

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Koleopterologische Rundschau](#)

Jahr/Year: 2005

Band/Volume: [75_2005](#)

Autor(en)/Author(s): Bartolozzi Luca, Monte Cinzia

Artikel/Article: [Review of *Figulus sublaevis* \(PALISOT DE BEAUVOIS, 1805\) and *F. anthracinus* KLUG, 1833 \(Coleoptera: Lucanidae\). 337-348](#)