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**PRELIMINARY REPORT ON A RECENT SURVEY
OF THE EGYPTIAN CERAMBYCIDAE,
WITH DESCRIPTION OF THREE NEW SPECIES**

(Insecta Coleoptera Cerambycidae)

Abstract

A preliminary report is given on the Cerambycidae collected during three collecting trips in Egypt or belonging to various Egyptian public collections. The following new species are described and illustrated: *Hesperophanes andresi* n.sp. from Alexandria (lake Maryout), *Agapanthia fadli* n.sp. from Burg el-Arab (Alexandria) and *Crossotus tamer* n.sp. from Wadi Abu Ghusun (Wadi Gemal Protectorate). *Lygrus becvari* Sama, 1999 and *Oxilus elegans* (Fairmaire, 1887) are recorded for the first time from Egypt; in addition, interesting information is provided for *Anthracocentrus arabicus* (Thomson, 1877), *Zoodes liturifer* (Walker, 1871), *Daramus* sp., *Crossotus subocellatus* (Fairmaire, 1886), *C. strigifrons* (Fairmaire, 1886).

Key Words: Cerambycidae, Egypt, new species, new records.

Riassunto

[Rapporto preliminare su recenti ricerche sui Cerambycidae dell'Egitto, con descrizione di tre nuove specie]

Gli autori espongono i risultati preliminari di recenti ricerche sui Cerambycidae dell'Egitto. Tre nuove specie vengono descritte: *Hesperophanes andresi* n.sp. (Maryout, Alexandria), *Agapanthia fadli* n.sp. (Burg el-Arab, Alexandria) e *Crossotus tamer* n.sp. (Wadi Abu Ghusun, Wadi Gemal Protectorate); *Lygrus becvari* Sama, 1999 e *Oxilus elegans* (Fairmaire, 1887) risultano nuove per la coleotterofauna egiziana. Ulteriori dati interessanti riguardano *Anthracocentrus arabicus* (Thomson, 1877), *Zoodes liturifer* (Walker, 1871), *Daramus* sp., *Crossotus subocellatus* (Fairmaire, 1886) e *C. strigifrons* (Fairmaire, 1886).

Introduction

In November 2003 and during the springs of 2004 and 2005, in collaboration with the Entomology Department, Faculty of Agriculture, Ain Shams University of Cairo and the Entomology Department, Faculty of Science, Cairo University, Giza, we had the opportunity to carry on field researches on Egyptian Cerambycidae, chiefly in the Protected Areas: Ras Mohamed National Park (southern Sinai), Saluga & Gazal Nature Reserve near Aswan (Upper Nile), Wadi el Gemal Protectorate (eastern Desert). Furthermore, we were able to visit different localities such as Shalatein (south-eastern Desert), Burg el-Arab and lake Maryout (near Alexandria) and in south-eastern Sinai.

Most of our material was collected in immature stages in infested wood and the adults were obtained by rearing under laboratory condition. In addition, specimens preserved in the main Egyptian public institutions, chiefly collected by the past Egyptian entomologists, have been revised and their identification verified. Finally, one of us (G. Sama) was able to study the Egyptian Cerambycidae held by various European institutions. In the present paper we give a preliminary report on the Cerambycidae collected during our surveys, as well as information on the review of the material examined. If not stated otherwise, notes about distribution are taken from authors' archives.

Abbreviations

ASUC	Ain Shams University, Faculty of Science, Entomology Department, Cairo (Egypt)
CPS	Coll. Peter Schurmann - coll. G. Sama, Cesena (Italy)
EDCU	Entomology Department, Faculty of Science, Cairo University (Egypt)
ESEC	Entomological Society of Egypt, Cairo (Egypt)
MNHNP	Muséum National d'Histoire Naturelle, Paris (France)
NHMB	Naturhistorisches Museum, Basel (including coll. G. Frey) (Switzerland)
NHML	Natural History Museum, London (Great Britain)
PPRIC	Plant Protection Research Institute, Ministry of Agriculture, Cairo (Egypt)
SMF	Senckenberg Museum, Frankfurt am Main (Germany)

Anthracocentrus arabicus (Thomson, 1877)

Tithoes arabicus Thomson, 1877, Rev. Mag. Zool. (3), 5: 266. Type locality: "Djedda, Arabia".

Range. Widespread from southern Israel and southern Jordan to the Arabian Peninsula and in Sahelo-Saharan Africa from Sudan and Somalia to southern

Morocco and Mauritania (Sama, in preparation). It was recorded from Egypt under the names *Acanthophorus vicarius* Lameere, 1912 (described from “Egypt”) and *Nothophysis rugosiceps* Pic, 1925 (from “Abou Simbel”).

One specimen was collected in the end of summer 2004 by the ranger Mahmoud Ahmed Tamer, attracted to light near the office of the Wadi Gemal Protectorate south of Marsa Alam. We know it also from Sinai: Wadi el Gibi, 35 km north of Dahab, 9.4.1997, leg. Batelka et Podroušková.

Macrotoma palmata (Fabricius, 1792)

Prionus palmatus Fabricius, 1792, Ent. Syst., 1(2): 249. Type locality: “Guinea”.

Range. Common and widespread in most intertropical and austral Africa from South Africa to Senegal, Somalia and Sudan. It is also known from all Saharian countries, westward to Western Sahara. In Egypt, where it nearly reaches the Mediterranean shore, it is rather common everywhere, following the populations of *Acacia*, its preferred host plants. It is apparently absent in Sinai.

We have found this large longhorn beetle in the Wadi Gemal Protectorate: Wadi Abu Ghusun.

Lygrus becvari Sama, 1999

Lygrus becvari Sama, 1999, Biocosme Mesogéen, 15 (2) (1998): 178. Type locality: southern Jordan: 50 km SE Maan.

Lygrus longicornis: Halperin & Holzschuh, 1993, nec Pic, 1895.

Paraleptoeme brunnea: Fadl, 1999: 143 (misidentification).

Range. Southern Jordan (SAMA, 1999), southern Israel (HALPERIN & HOLZSCHUH, 1993 as *Lygrus longicornis*), Egypt (Sinai).

A new record for Egypt and Israel.

In Egypt, it is only known from southern Sinai: Wadi El Liga, 12.VI.1941, “*Paraleptoeme* n.sp., det. Quentin”; idem, 7.VIII.1942 (ASUC); Wadi el-Lega, Wadi Isla and Wadi Gebal, 19.VIII.1995 (Fadl, 1999); Dj. Serbal, 27.V.1997, leg. Abdel-Dayem (EDCU); Wadi Tarfat, west of Watia Pass, *ex larva* from *Ficus* sp. (probably *Ficus pseudosycomorus*), leg. P. Rapuzzi & G. Sama.

Zoodes liturifer (Walker, 1871)

Hesperophanes liturifer Walker, 1871, List. Col. coll. by Lord: 18.

Zoodes liturifer: Fadl, 1999: 145.

Range. Chiefly widespread throughout the eastern countries of intertropical and austral Africa from South Africa and Namibia northward to Sudan (Sama, in prep.); recorded from Yemen (VILLIERS, 1968) and from Saudi Arabia (SHALABY, 1961; HOLZSCHUH, 1993). It was known from southern Egypt: Eastern Desert: Shalatein, 5.X.1995, 2 specimens attracted to light (FADL, 1999, PPRIC). We have found it in the Wadi Gemal protectorate: Wadi Abu Ghusun, 15.III.2004, a dead female in pupal cell; II.2005, many larvae in dead trunks and big branches of

Acacia raddiana; adults emerged under laboratory condition, X.2006; Eastern Desert: Bir Shalatein, ex larva from *Acacia raddiana*, one adult emerged, III.2006.

Daramus Fairmaire, 1892

Species of the genus *Daramus* are typical inhabitants of the entomocenosis of *Acacia* in Sahelian and Saharian arid biotopes. Three species are currently known from the southern part of North Africa. *D. major* Pic, 1924 (Sinai), *D. mehennii* Sama, 1994 (southern Libya and southern Algeria) and *D. macrops* (known from a single specimen from Algeria). The fourth species, found by us in Western Sahara is currently being described (Sama, in preparation).

In Egypt, this genus occurs in almost all growths of *Acacia raddiana* of southern Sinai and along the eastern Desert from Marsa Alam to the Wadi Gemal Protectorate and Bir Shalatein; it is apparently absent in other populations of *Acacia* which we have visited, such as Saluga Protectorate (Aswan). The material collected during our surveys, awaiting detailed study, apparently belongs to three different species: *D. macrops* Pic, 1924 (Sinai), ?*D. serricornis* Fairmaire, 1892 (Bir Shalatein) and *Daramus* sp. (Wadi Gemal Protectorate).

Daramus major (Pic, 1924)

Tetropiopsis major Pic, 1924, L'Échange, 24, 418: 30. Type locality: "Nuweibat, Eastern Sinai" (Sinai, Egypt).

Range. Endemic species to Egypt, only known from southern Sinai. We have found a large series of this rare species in some localities of southern and eastern Sinai: Ras Mohamed, road from Sharm el Sheikh to Dahab and in Wadi Tarfat. All specimens were reared from living twigs of *Acacia raddiana*. Adults were emerging from April to May.

***Daramus* sp.**

Road to Idfu, 18/20 km west of Marsa Alam; Wadi Gemal Protectorate: Wadi Abu Ghu^oun, Wadi el Reada.

Daramus serricornis Fairmaire, 1892

D. serricornis Fairmaire, 1892, Rev. Ent. Fr., 11: 121. Type locality: "Obock" (Djibouti).

FADL (1999), reported one specimen of this species from vicinity of Shalatein (south-eastern Desert). During our surveys, we had the possibility to collect near this village, where we have found a dead and very damaged specimen in pupal cell on *Acacia raddiana* and a few twigs of the same plant infested by the distinctive larvae of *Daramus* sp. Unfortunately, no adults have yet emerged, so we are unable to confirm whether this population really belongs to *Daramus serricornis* or to the same species living in Wadi Gemal.



Fig.1 – *Hesperophanes andresi* n.sp. Holotype male.

Fig. 2 – *Hesperophanes andresi* n.sp. Paratype female.

***Hesperophanes andresi* n.sp.** (Figs 1, 2)

Type series. Holotype ♂: “Alexandria, Aegypten, Ad. Andres” (SMF); paratypes 1 ♀: “Mergheb, 3.10.1910” (ex Museum G. Frey, coll. Alfieri, NHMB); 1 ♀: “Alexandrie, 2.VI.43, éclos de racines d’*Halocnemum strobilaceum*”, leg. J. Barbier (MNHNP, coll. Villiers); 1 ♀: “Alexandria, 9.07, A. Saraudi” (NHML); 1 ♀: “Alexandrie, 2.VI.43, leg. J. Barbier (coll. A. Villiers > CPS); 2 (sex ?): Ramleh, 1.VII.1921; VII.1927, leg. Carneri (ASUC).

Etymology. The new species is named after the entomologist Adolf Andres, who first recorded it.

Description of the holotype. Length 23 mm. Integument brown. Pronotum conspicuously swollen, rounded laterally, slightly wider than elytra, very densely clothed with white-yellowish recumbent pubescence nearly totally concealing the ground puncturation, except for some discal setigerous points and partly

masking three shallow dimples and one longitudinal line at each side of the middle. Elytra elongate, parallel sided, narrowed toward the apex, the surface densely clothed with whitish pubescence and with scattered, short, brown bristle-like setae originating from shining shallowly impressed points. Ventral side of the body with long white pubescence totally covering the ground pubescence; abdominal sternites without visible glabrous shining points. Antennae moderately robust, shorter than the body, reaching the apical third of elytra, densely clothed with grey pubescence; 3rd segment the longest, 1.14x longer than the 1st; 1st longer than each 5th, 6th and 7th which are similar in length. Legs densely clothed with greyish pubescence, ventral side of tarsi with a dense sole of hairs, except for a narrow longitudinal median furrow clothed with sparse pubescence, somewhat indistinct. Male and female genitalia not examined.

Variability in paratypes. Length: 14-24 mm. Sexual dimorphism like in *H. sericeus* (Fabricius, 1787); female differs from male by pronotum considerably less swollen, with sparser ground pubescence not totally concealing the coarse ground punctures and three distinct discal calluses, antennae shorter, not reaching the middle of the elytra.

Differential diagnosis. The new species is very similar to *H. sericeus* with which it was confused in the past (ANDRES, 1910; ALFIERI, 1916; PETROFF, 1919; BARBIER, 1975); it is on average smaller: 14-24 mm. instead of 18-31 mm. The male of *H. sericeus* can be easily separated from the holotype (the only known male) of *H. andresi* n. sp. by the following characters: body, including appendages, covered with much shorter and sparser pubescence, the elytra appear consequently distinctly shining and the abdominal sternites show distinct small glabrous points; antennae longer, with the last segment (or the half of it) extending beyond the elytral apex; 1st segment not longer than 6th and 7th and slightly longer than 5th. The female of *H. sericeus* differs from the female of the new species by having shorter antennae, clearly reaching beyond the middle of elytra; pronotum with denser pubescence and moderately finer puncturation; elytra, at base, more sparsely granulate, with longer ground pubescence; prosternum finely punctured (granulate in *H. sericeus*). In both sexes the ventral side of tarsi has a wide shining median longitudinal furrow.

H. andresi n.sp. surprisingly resembles *H. heydeni* Baeckmann, 1923 (from Kazakhstan and Mongolia) and, to lesser extent, *H. pilosus* Bodungen, 1908 (from Azerbaijan), also living in roots and stems of halophilous plants. Both species differ from *H. andresi* by obliquely erect elytral hairs evidently longer (chiefly longer in *H. pilosus*), pronotum without traces of punctures. Moreover, *H. pilosus* differs from both *H. andresi* n.sp. and *H. heydeni* by its pronotum parallel sided, elytra and antennae more sparsely covered with recumbent pubescence and the first antennomere with numerous erect hairs on dorsal surface.

Range and biology. *H. andresi* is an apparently endemic species to north-western Egypt; it is known from the salt lake of Maryout south of Alexandria where it was discovered by G. Maire (ANDRES, 1910, under the name *H. sericeus*) and

subsequently collected by the Egyptian entomologists of that time. As far as we know, the last specimens were reared about 60 years ago (BARBIER, 1975). During our recent survey, we have visited the wet area around the lake Maryout and the network of canals south and south-west of Alexandria, looking for *H. andresi* on its host plant; unfortunately, all our attempts to find the species were unsuccessful. Regrettably, these interesting biotopes have been greatly modified or destroyed, and the few remains are criss-crossed by a network of roads, surrounded by refineries and so seriously polluted that we doubt that this interesting insect could still be found here. *H. andresi* n.sp. develops in the roots of *Halocnemum strobilaceum* Pallas (Bieb.) (Chenopodiaceae), a halophilous plant which commonly grows around the lake. According to the literature, several specimens of *H. andresi* n.sp. were found, reared from wood or attracted by light, as recently as 1943; however, only 6 of them (5 females and just one male), were available for our study. Very likely further specimens will be found in public and private collections, mixed with *H. sericeus*.

Oxilus* cfr. *elegans (Fairmaire, 1887) ssp. (?) aut sp. nov. ?

Obriaccum elegans Fairmaire, 1887, Ann. Soc. entomol. France, 7(6): 334. Type locality: "Somalia: Makdischou" (Somalia, Mogadiscio).

Oxilus gazella: Fadl, 1999: 143 (misidentification).

Range. *Oxilus elegans* is known from Somalia, Ethiopia, Djibouti, Zimbabwe, Namibia (ADLBAUER, 2001).

The specimen recorded by FADL (1999) was found in the Djebel Elba Natural Reserve: Wadi Aideib, probably at light (ASUC). It differs from the typical *O. elegans* by possessing black antennae and legs, a different shape of elytral apex, etc. On account of its bad condition (both antennae lack all segments except the scape) it is difficult to say if it really belongs to this species or to a new taxon.

Eunidia breuningae Villiers, 1951

Eunidia breuningae Villiers, 1951, Mém. Inst. Afr. Noire, 10 (1950): 201. Type locality: Aïr: Agadez (Niger). Type material: Holotype and some paratypes, MNHNP, examined.

Eunidia naviauxi Villiers, 1977, Bull. Soc. ent. France, 82 : 168. Type locality: "Nord Yemen, Achahli" (synonymy in HOLZSCHUH & TEOCCHI, 1991).

Eunidia naviauxi : Fadl, 1999 : 142.

Range. Sahel zone of Africa: Aïr: Agadez (Niger): (VILLIERS, 1951, type locality), Chad, including Ennedi (VILLIERS, 1962), Senegal (ADLBAUER, 1993); also recorded from North Yemen (VILLIERS, 1977) and Saudi Arabia (HOLZSCHUH, 1979). FADL (1999) referred to *E. naviauxi*, currently regarded as a synonym of *E. breuningae*, one specimen collected in South-eastern Egypt: Gebel Elba Protectorate: wadi Daraweina, 22.XI.1995, one female attracted to light.

Apomecyna lameerei (Pic, 1895)

Eurycotyle Lamecrei (sic): Pic, 1895, Echange, 11, n° 127: 77 (lapsus). Type locality: "Arabia".

Pseudoalbana lameeri: Alfieri, 1916: 70.

Range. Widespread in desert regions from Pakistan westward to Mauritania; not recorded from Libya and Algeria where its occurrence is likely. Due to the confusion with *A. binubila* (Pascoe, 1858), the true distribution needs verification. In Egypt it is known from the southern Nile Valley (Egyptian Nubia): Bir Egat, Eineba (ASUC, ESEC, PPRIC); Red Sea: Bir Ghalia, Wadi Shab, Wadi el Allaqi (ASUC); southern Sinai (ALFIERI, 1976). We have found this species in several localities of southern Sinai Peninsula: Nuweiba - Dahab road, 37 km S. of Nuweiba, 24 km N Dahab, 12 km S of Wadi Feiran: young and mature larvae, pupae, immature and mature adults in and under stems of *Citrullus colocynthis*, 12.XI.2003, 14.II.2005.

Agapanthia fadli n.sp. (Fig. 5)

Agapanthia lateralis Alfieri, 1916: 70; Petroff, 1919: 65; Alfieri, 1976: 225. Fadl, 1984: 94 (nec Ganglbauer, 1884).

Type series. Holotype ♂: 14 km east of Burg al 'Arab (west of Alexandria), 30°58'N 29°40'E, 15.II.2005, leg. G. Sama; paratypes: 67 ♂♂, 42 ♀♀, same locality and collecting date, 15-16.II.2005, leg. D. Baiocchi, P. Rapuzzi, G. Sama; 4 ♂♂, 3 ♀♀: idem, emerged ex larva from *Asphodelus* sp., 3-4.II.2006, leg. P. Rapuzzi.; 1 ♀: Egypt: "Mariut / Mars / Soc. Roy. Entom. Egypte / Faune d'Egypte / Don Dr. Walter Innes bey / 1927" (ESEC); 1 ♂, 1 ♀ "Hammam / (Dakahlich) / Egitto / D.C. Ferrante"; "Marzo / 1909 Soc. Roy. Entom. Egypte / Faune d'Egypte / Don Dr. Av. G. Ferrante / 1927". Further material examined and collecting localities: Maryout: Kinghi; Hammam, Abu Mina, Ikinghi Maryut, Damietta; El Borg; Burg el-Arab; Sherbeen: 48 ex., collected from February to May, last collecting year, 1930) (PRIIC, ASUC, ESEC).

Holotype in coll. G. Sama, paratypes in coll. D. Baiocchi, P. Rapuzzi, G. Sama, Entomological Society of Egypt, Cairo (ESEC), Ain Shams University, Faculty of Science, Entomology Department, Cairo (ASUC), Plant Protection Researches Institute, Ministry of Agriculture, Cairo (PPRIC).

Etymology The new *Agapanthia* was named in honour of Prof. Hassan Fadl, Entomology Department, Faculty of Science, Ain Shams University of Cairo for his enthusiastic support during our trips in Egypt.

Description. Length: 11-21 mm (holotype 18 mm). Black brown with bronze lustre. Head with front densely clothed with cinereous recumbent pubescence and long black hairs, vertex with a longitudinal stripe of yellow hairs; lower eyes lobes about as long as the cheeks. Pronotum transverse, wider at base than in front, moderately tuberculate at sides in the middle, densely wrinkled on the disc

and covered with numerous long black erect hairs and three longitudinal stripes of dense yellowish pubescence. Elytra with long erect black hairs until the apical fifth and with irregularly speckled pubescence on the disc, a longitudinal stripe of conspicuously denser pubescence on the lateral edge delimited by a distinctly visible longitudinal stripe of grey shorter pubescence, strongly attenuate at apex. Antennae longer than body, surpassing the elytra by the last five segments; first segment black, densely covered with appressed short black pubescence on the dorsal surface and densely shortly ciliate beneath; segments 3rd to 12th predominantly reddish, clothed with white pubescence and blackened apically; 3rd segment with a tuft of black hairs at the apex, the 4th only with sparse hairs. Ventral surface of the body densely clothed with lanuginous pubescence and with numerous longer ad thinner grey erect hairs.

Variability in paratypes. Paratypes do not differ substantially from the holotype except for the usual sexual dimorphism of female: broader body, elytra parallel sided, not evidently tapering behind, antennae shorter, surpassing the elytral apex by two segments.

Differential diagnosis. On account of the very elongate third segment of front tarsi, the new species belongs to the *A. asphodeli* (Latreille, 1804) species group (see SAMA, 1994), being chiefly closely related to *A. nicosiensis* Pic, 1927 from Cyprus and resembling *A. zappii* Sama, 1987 from North Africa. *A. nicosiensis* differs from the new species by the absence of the longitudinal stripe of grey pubescence along the lateral margin of elytra, the absence of transverse wrinkles on pronotal disc, which is rather more or less irregularly and deeply punctate, the elytra more densely covered with recumbent pubescence and with erect hairs until the apex. *A. zappii* differs from the new species by the puncturation of pronotum, the conspicuously denser elytral ground pubescence (like in *A. asphodeli*), the antennae, except the scape, very sparsely ciliate beneath, the 3rd segment without a tuft of hairs at the apex. Because of the elytral lateral stripe of grey pubescence, *A. fadli* n.sp. was confused with *A. lateralis* Ganglbauer, 1884; this species, only known from Turkey, is easily distinguishable by the third segment of front legs that is transverse, not longer than wide and by the pronotal disc without transverse wrinkles. *A. pustulifera* Pic, 1905 (from the Near East), which has the pronotal disc transversely wrinkled like the new species, is easily recognizable by the transverse third segment of front tarsi, pronotum with a short median tubercle on each side, elytra covered with much shorter and sparser ground pubescence and without a lateral stripe of grey pubescence.

Range. *A. fadli* is an endemic species from northern Egypt, where it was collected in some localities of the Nile Delta by the earlier Egyptian entomologists, who erroneously referred it to *A. lateralis*. The new species was chiefly spread in the coastal plain west of Alexandria, westwards to El Hammam, where it has apparently not been found since 1930. Since there, the whole Nile Delta area has been strongly modified and most of the biotopes explored by Alfieri, Andres and others are dramatically altered or totally urbanised. Also due to the strong pollu-

tion caused by petrol refineries and legal or illegal garbage dumping, the distribution of this *Agapanthia* (but see also *Hesperophanes andresi* n.sp.) has dramatically reduced. During a recent survey, we were able to find it only in a few small areas near Burg El Arab, where its host plant still survives, among houses and big plantations, thank to the rocky soil unsuitable for agriculture. Records from Cairo: Choubrah (ALFIERI, 1916) and Damietta (ALFIERI, 1976) could not be confirmed.

Biology, host plants & flight period. *A. fadli* n.sp. develops in *Asphodelus* sp., probably *A. microcarpus* Salzm. & Vic. (= *A. ramosus* L.); according to ALFIERI (1916) also in Carduaceae. Larval bionomics is similar to *A. asphodeli*, but apparently with two generations: a winter generation flying in early February, after overwintering as adult in pupal cell, and a spring generation which overwinters as larva and emerges in May. During our survey in February, we found both adults recently emerged and copulating on their host plant and many mature larvae, very active in cut stems.

***Crossotus tamer* n.sp.** (Fig. 6)

Type series: Holotype ♂: Upper Egypt, Red Sea: Wadi Gemal Protectorate: Wadi Abu Ghun, 7/11.II.2005, ex larva from *Acacia raddiana*, emerged 1/7.IV.2005, leg. G. Sama; paratypes: 6 ♂♂, 12 ♀♀, same locality and collecting date, adults emerged from 1.IV to 30.IV.2005, G. Sama leg.; 1 ♂, 3 ♀♀: idem, leg. P. Rapuzzi, adults emerged 20.V-10.VI.2005, 1.VII.2005, 20.VII.2005, 15.III.2006; 1 ♂: idem, 24°25'40"N 03°05'49"E, emerged 17.VI.2005, leg. D. Baiocchi. Holotype in coll. G. Sama, paratypes in coll. P. Rapuzzi, G. Sama and J. Sudre.

Etymology. The new species is amicably dedicated to Mahmoud Tamer responsible of the office of Marsa Alam of the Wadi Gemal protectorate, who kindly supported us during our researches.

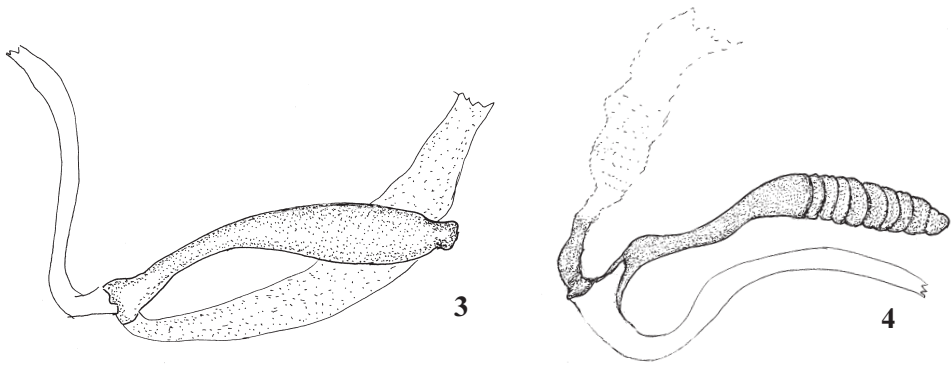
Description. Length: 9-14 mm (holotype 13 mm). Integument dark brown. Head moderately elongate, lower eye lobes about as long as or a little longer than genae, antennal tubercles prominent, vertex without oblique smooth carinae or lines. Pronotum transverse, moderately broader at base, with a short obtuse tubercle on each side, the disc with some shallow calluses and a distinct longitudinal, median smooth area before the base; surface densely clothed with whitish recumbent pubescence, with a wide transverse band on the anterior margin and a more distinct transverse band of dark brown pubescence on the basal half, punctures totally masked by the pubescence except for some large punctures on the middle of the disc. Scutellum dark brown with whitish pubescence on lateral borders. Elytra sub-parallel sided, only somewhat narrowing behind; humeri distinct, apices separately rounded, the base coarsely granulate / punctate; surface densely clothed with mixed brown and black recumbent pubescence, prevalently blackish at base, with a vague antemedian transverse patch of

light pubescence interrupted by numerous longitudinal stripes and spots of mixed golden brown, greyish and blackish pubescence; a spot of whitish pubescence is also visible on each elytron beyond the middle; the apical half of elytra densely clothed with mixed brown and black recumbent pubescence; each elytron with two not very distinct tufts of short black or golden hairs; one sub-basal on a distinct postscutellar swelling and one on the hind margin of the post median white spot. Antennae longer than the body (extending 2.5 segments beyond elytral apices, 2nd segment elongate, twice as long as wide, 3rd segment longer than 1st, about as long as 4th; 1st and 2nd segments clothed with cinereous pubescence, segments from the 3rd widely annulated at base with lighter pubescence; 1st segment on dorsal and ventral sides with sparse, very short uncinuate hairs, 5th to 9th moderately densely, 10th and 11th more densely ciliated with long black hairs, but without a true brush of black hairs on ventral side. Legs short, with tibiae conspicuously thickened behind. Prosternum short, intercoxal process arcuate, parallel sided, dilated apically, mesosternum deeply transversely impressed in front, intercoxal process wide, subquadrate, abruptly declivous in front, anterior margin distinctly carinate, flat between coxae, very deeply bilobed posteriorly; metasternum moderately convex in the middle, with one distinct callus at each side, abdominal sternites sparsely clothed with white pubescence, with a lateral band of condensed white pubescence and with numerous dark, glabrous, shining round areas; last sternite densely clothed with long white apical recumbent pubescence. Male genitalia: median lobe moderately elongate and narrow, rounded apically. Endophallous with an apical membranous hook, as in other species of *Crossotus*.

Variability in paratypes. Female differs from male by antennae shorter than body, extending to about apical quarter of elytra, with segments 7th to 11th not ciliate beneath, but only with 2-3 apical hairs; prosternal process angulate, abruptly declivous anteriorly with two tubercles at base divided by a deep longitudinal furrow, metasternum flattened in the middle and with one oblique callus at each side; abdomen more densely pubescent, without glabrous round areas; last segment with a median basal pit masked by the pubescence and a large subtriangular impression near the apex. Spermatheca as in fig. 3.

Differential diagnosis. The new species differs from all *Crossotus* occurring in Africa north of the Sahara by the small size (with the exception of *C. albicollis* Guérin, 1844), the shape of mesosternal process, the absence of a median smooth area on the base of last sternite in female, the shape of the spermatheca which is rather unusual for the genus; in all species of *Crossotus* we have examined the spermatheca has a distinctive shape, with the surface longitudinally sulcated on the distal half, by several longitudinal sub-parallel furrows, that are totally absent in the new species (Figs 3, 4).

On account of its small size, pronotum with short lateral spines, antennae sparsely fringed beneath and the distinctive shape of prosternal and mesosternal processes, the new species is closely related to *C. schoudeteni* Breuning, 1935,



Figs 3-4 – Spermatheca: 5. *Crossotus tamer* n.sp.; 6. *C. albicollis* (Guérin, 1844) from Southern Morocco.

described on a single specimen from Mt. Elgon, Kenya (Holotype female, MRAC, examined). *C. schoudeteni* may be recognized from the new species by its smaller size (8-9 mm), pronotum longer than broad, with sparse but distinct punctures on the disc and without a median smooth area feebly impressed before the base, last sternite of abdomen, in female, with a smooth area in the middle of the base.

Because of its small size, *C. tamer* n.sp. must also be compared to *C. lateralis* Hintz, 1912 and *C. marshalli* Breuning, 1935. *C. lateralis* Hintz, 1912, described from Harrar (we have examined two specimens from Abyssinia: Dire Daoua, identified by Breuning), differs from the new species by head, pronotum and first four segments of antennae densely clothed with grey pubescence, the lateral tubercles of pronotum conspicuously longer, elytra with three well distinct tufts of hairs, antennae, except the 2nd segment, very densely ciliated on latero-ventral surface, the last segment with a brush of black hairs on ventral side. *C. marshalli* Breuning, 1935, described from a single specimen from “Somaliland” (holotype male, NHMB, examined) is totally different from the new species (the head has oblique smooth lines on the vertex) and could be rather regarded as a synonym or a subspecies of *C. sublineatus* Gestro, 1892 (Sudre, pers. comm.).

Range and biology. The new species is only known from the type locality in Upper Egypt, where it develops on *Acacia raddiana* (*A. tortilis* sbsp. *raddiana* according to some authors); the larval bionomics resembles that of *C. albicollis*. Oviposition usually takes place on twigs (10-15 mm in diameter) or on the thin apical part of branches killed by the larvae of *C. subocellatus* Fairmaire, 1886. Young larvae feed briefly under bark and then internally, boring large galleries filled with compressed sawdust. Mature larvae prepare the pupal cells enlarging considerably their galleries, pupal chamber are isolated by very coarse fibres of wood. Life cycle probably lasts two years.

Crossotus subocellatus (Fairmaire, 1886)

Dichostathes subocellatus Fairmaire, 1886, Ann. Soc. entomol. France, 6 (5): 458. Type locality: “ Obock ” (Djibouti). Type material. Lectotype male, 1 male and 2 females paralectotypes (MNHNP), designated by SAMA (2000).

Crossotus (Crossotides) subocellatus: Alfieri, 1976: 224.

Range. Arabian Peninsula, Saharan and Sahelian countries of Africa, Sudan, Djibouti (type locality), Somalia, Ethiopia, Eritrea, Kenya, North Africa from Egypt to Mauritania (Sama, in preparation). It is recorded from the Nile Delta (ALFIERI, 1916) and from the Libyan Desert (ALFIERI, 1976). We have found this species in the southern Nile Valley: Saluga Protectorate near Aswan, emerged ex larva from *Acacia flava*. It is common along the South-Eastern Desert from Wadi Gemal Protectorate (Wadi Abu Ghu^oun and Wadi el Reada) southwards to Bir Shalatein and in the south-easten Sinai Peninsula, where it attacks all populations of *Acacia raddiana* under hydric stress conditions.

Crossotus strigifrons (Fairmaire, 1886)

Dichostathes strigifrons Fairmaire, 1886, Ann. Soc. ent. France (6), 5: 457 (foot note). Type locality : “ Soudan”.

Range. Sudan (type locality), Djibouti, Somalia, Eritrea (GESTRO, 1889), Ethiopia (BREUNING, 1938), Saudi Arabia (HOLZSCHUH & TEOCCHI, 1991), Oman, Yemen, Egypt (south eastern Egypt and Sinai), Israel, Jordan (SAMA, 2000).

We found this species rather common in the south-eastern Sinai Peninsula, chiefly infesting branches previously killed by *C. subocellatus* and *Agrilus andresi* Obenbergeri, 1920 (Coleoptera Buprestidae): road between Nuweiba and St. Catherine; Djebel Gunna NE. St. Catherine’s Monastery; road between Nuweiba and Dahab; Ras Mohamed, south of Sharm el Sheikh. It is apparently very rare in the Wadi Gemal Protectorate, were we found it just once in dead branches of *Acacia ehrenbergiana* Hayne at Wadi Abu Ghu^oun. In addition, we have examined one specimen labelled “Gabal Elba, IV.V.1929” (PRIIC).

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Fig. 5 – *Agapanthia fadli* n.sp. Paratype male.
 Fig. 6 – *Crossotus tamer* n.sp. Holotype male.

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