Linzer	biol.	Beitr.

New species of the genus *Cerceris* LATREILLE, 1802 from Sub-Saharan Africa (Hymenoptera, Apoidea, Crabronidae) Part I

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A b s t r a c t : The following 19 species of *Cerceris* of the Sub-Saharan Africa region are newly described: *Cerceris anubis* (Kenya, Tanzania), *C. centralafricanula* (Central African Republic), *C. chimoio* (Mozambique), *C. ethiopia* (Ethiopia, Kenya, Malawi, Tanzania), *C. hanangensis* (Tanzania Mt. Hanang, Mt. Meru), *C. mackinnona* (Ethiopia, Kenya, Tanzania), *C. namibiensis* (Namibia), *C. nigeriaensis* (Nigeria), *C. nut* (Kenya, Tanzania), *C. pseudoanubis* (Ethiopia, Kenya, Tanzania), *C. pseudocurvitarsis* (Burkina Faso), *C. pseudosolitaria* (Tanzania), *C. tangaensis* (Tanzania), *C. saveensis* (Mozambique), *C. sidamoensis* (Ethiopia, Kenya, Tanzania), *C. tefnut* (Ethiopia), *C. tsavoensis* (Ethiopia, Kenya, Tanzania), *C. voiensis* (Kenya).

K e y w o r d s : Apoidea, Crabronidae, Philanthinae, Cerceris.

Introduction

I am currently working in cooperation with the Museum of Natural History of Vienna (Austria) on a key for the genus *Cerceris* of the Sub-Saharan Africa region. Due to the large number of species of this region I have devided the species into two sections. This is only a pragmatic classification to facilitate the production of a key. The few intermediate forms will be incorporated in both sections.

Section A ("regular" species) has the following features: coxa III <u>without</u> longitudinal carina on inner margin, at least tergum I with small impression at apex (often difficult to recognise on coarsely punctured gaster) and the yellow drawings of the gaster are of regular type (yellow transverse bands on terga apical) or rarely gaster completely yellow or ferruginous.

Section B ("irregular" species): coxa III <u>with</u> distinct longitudinal carina on inner margin, all terga without small impressions at apex and yellow drawings of the gaster are of the irregular type (tergum II with basal patch or basal band extending to posterior corners or other irregular pattern).

The following abbreviations of the institutional and personal collections where the material is housed are used:

CASCalifornia Academy of Sciences, San Francisco, California USA

JHC private collection of Jiři Halada, Suchdol nad Lužnici, Czech Republic

OÖLMOÖ Landes-Kultur GmbH, Biologiezentrum Linz, Austria

308

New species of section A ("regular" species)

Cerceris anubis DOLLFUSS nov.sp. (Figs 1, 2)

H o l o t y p e : ♀, Kenya, Voi (Tsavo) env. 22.XI.-2.XII.1996, leg. Mi. Halada (OÖLM).

P a r a t y p e s : 16 33, same data as holotype; Kenya, 1♀, 1♂, Voi (Tsavo), 13.-17.XII.1997, leg. M Snižek (JHC); 233, Voi, 22.XI.1999, leg. Snižek (JHC); 1♂, Voi (Tsavo), 22.XI.-2.XII.1996, leg. Snižek (JHC); 1♂, SE of Makinnon road, 13.IV.2007, leg. M. Halada (JHC); 1♂, Rift Valley Province, Lodwar road 24 km N road to Sigor, 1°42.2'N 35°29.5'E, 8.VI.1999, leg. Pulawski & Schweikert (CAS). Tanzania, 1♀, Kilimandjaro Province, 10 km S of Same, 830m, 04°09'33"S 37°46'10"E, 8.IV.2018, leg. J. Halada (JHC).

E t y m o l o g y : Anubis is an egyptian god.

R e c o g n i t i o n : Cerceris anubis has no longitudinal carina on coxa III.

The female is characterized by having a short and broad clypeus, the apical margin is slightly emarginate and with small tooth lateral, the median area of clypeus has a small transverse carina with lateral teeth, behind this there are two short sharply keeled tubercles (Fig. 1a,b). Additionally, the mandible has two large teeth internally, one in lateral and one in vertical direction (Fig. 1a,c), the propodeal enclosure is anteriorly obliquely and posteriorly transversely rugose, the scutum is micropunctate (dull) and longitudinally rugose-punctate and the pygidial plate is narrowed apically (Fig. 1e). The female of *C. iniqua* differs from *C. anubis* by having a nasiform clypeal process triangularly erected.

The male is characterized by having the apical margin of the clypeus produced, yellowich brown and shallowly tridentate (Fig. 2a,b), the mandible has a distinct tooth internally, the flagellomeres IV-XI have small tyloidea (Fig. 2c), the propodeal enclosure is obliquely rugose with isolated punctures and the genitalia are characteristically shaped (Fig. 2f). The male of *C. pseudoanubis* is imilar to *C. anubis* but differs in having the sternum II with a longitudinal carina, only the flagellomeres X and XI with small tyloidea, the prosternum with a blunt transverse carina and the scutum with more sparsely punctures (punctures 1-2 diameters apart). (*C. anubis* has the sternum II without longitudinal carina, the prosternum without transverse carina and the scutum is more densely punctate). The male of *C. iniqua* differs from *C. anubis* in having the flagellum without tyloidea, the flagellomere XI is slightly bent and blunt and the scutellum is lateral slightly rised. The male of *C. tsavoensis* differs from *C. anubis* in having the flagellum without tyloidea, the flagellomere XI apically bent and blunt and the body is predominantly ferruginous.

D e s c r i p t i o n : \bigcirc , 11-12 mm. <u>Sculpture</u>: apical margin of clypeus slightly emarginate and with small tooth lateral; median area of clypeus with small transverse carina near apical margin, this carina is slightly concave anteriorly and has two sharply longitudinal keeled tubercles (Fig. 1a,b); mandible with two large teeth, one in lateral and one in vertical direction (Fig. 1a,c); prosternum without transverse carina; mesopleuron with tubercle; epimeron without crest; propodeal enclosure anteriorly obliquely and posteriorly transversely rugose, medio-longitudinal furrow indistinct developed; petiolus slightly wider than long (Fig. 1f); coxa III without longitudinal carina; sternum II without basal plate; flagellum (Fig. 1d); pygidial plate apically narrowed (Fig. 1e). <u>Puncturation</u>: clypeus micropunctate; frons micropunctate (dull) and longitudinally rugose-punctate; scutellum dull and sparsely punctate; metanotum dull; propodeal sides densely punctate; terga densely punctate; sterna shining, apico-lateral punctate. <u>Pilosity</u>: clypeal sides covered with short appressed setae; sternum VI with appressed setae; sternum VII with bundle of long setae apically (Fig. 1e); besides pygidial plate with long erect setae; rest of body covered with very short setae. <u>Coloration</u>: black; following parts yellow: clypeus and frons; mandibles (except apex); transverse stripe on vertex, gena, pronotal collar, tegula, mesopleuron, epimeron, scutellum, metanotum, propodeal sides, terga I-V lateral, sterna partly, legs and pygidial plate partly. Wings hyaline except apex behind radial cell fuscous.

∂: 8-10 mm. Sculpture: apical margin of clypeus produced, slightly tridentate; clypeal sides distinctly concave (Fig. 2a); mandible distinctly dentate internally; flagellomeres IV-XI with linear tyloidea (Fig. 2c); prosternum without transverse carina; mesopleuron without tubercle; epimeron without crest; propoeal enclosure obliquely rugose, with isolated punctures (variably); petiolus slightly longer than wide (Fig. 2d); coxa III without longitudinal carina; sternum II without median plate and without longitudinal carina; sternum VI with broad lamellate tooth apicolateral; pygidial plate (Fig. 2e); genitalia (Fig. 2f,g). Puncturation: clypeus and frons densely punctate; vertex densely punctate; pronotal collar, mesopleuron and epimeron densely punctate; scutum micropunctate and nearly densely punctate; scutellum similar; metanotum finely punctate; propodeal sides and terga densely punctate; pygidial plate sparsely punctate; sterna lateral punctate. Pilosity: clypeal brush broad (Fig. 2a); rest of body sparsely covered with short erect setae. Coloration: black; following parts yellow: clypeus, frons, gena, tegula, pronotal collar and lateral part of pronotum, prosternum, mesopleuron, mesopleuron venter, epimeron, scutellum lateral, metanotum, propodeum lateral, terga lateral, sterna partly and legs nearly all; flagellum, hindtibia dorsal and anterior margin of clypeus ferruginous; wings hyaline, apical behind radial cell fuscous.

Distribution: Kenya, Tanzania.



Fig. 1: Cerceris anubis DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) mandible lateral view; (d) flagellum; (e) pygidial plate; (f) petiolus.



Fig. 2: Cerceris anubis DOLLFUSS nov.sp. 3: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) petiolus; (e) pygidial plate; (f) genitalia dorsal view; (g) gonostylus in lateral view.

Cerceris centralafricanula DOLLFUSS nov.sp. (Fig. 3)

- H o l o t y p e : ♀, <u>Central African Republic</u>, 15 km S Mbaïki, 420 m, 03°44'N 18°00'E, 25.XII.2008, leg. J. Halada (OÖLM). P a r a t y p e s : 1♀, same data as holotype (JHC); 1♀, <u>Central African Republic</u>, 55 km NWW Mbaïki, 510 m, 04°03'N 17°40'E, 23.XII.2008, leg. J. Halada (JHC).
- E t y m o l o g y : The types were collected in the Central African Republic.

R e c o g n i t i o n : The female of *Cerceris centralafricanula* is characterized by the coxa III without a longitudinal carina, the apical margin is nearly straight, the lateral clypeal areas are emarginate, the medioclypeal area has two elevated lobes near apical margin (Fig. 3a), the mandible has a rounded protuberance internally on basal half and the interantennal carina is widened posteriorly. Additionally, the scutum has longitudinal ridges convergent posteriorly, mesopleuron has a distinct tubercle, the propodeal enclosure is arcuately striate with shallow medio-longitudinal furrow, the gaster is yellowich-brown, the wings are brownish-ferruginous. The female is large-sized (17-18 mm).

The female of *C. cratocephala* is similar to *C. centralafricanula* but differs in having a nasiform variably erected process on the clypeal median area. The female of *C. spectrum* differs from *C. centralafricanula* in having the apical margin of clypeus with five blunt teeth, the median area with two flattened tubercles placed little over the middle, the scutum is finely densely punctate, the mandibles are edentate internally and the gaster is yellow and black.

D e s c r i p t i o n : \bigcirc , 17-18 mm. <u>Sculpture</u>: apical margin of clypeus nearly straight and lateral with tooth; median area of clypeus with two elevated lobes near apical margin (Fig. 3a); lateroclypeal area emarginated; interantennal carina widened in posterior half and with short longitudinal carina (Fig. 3a); mandible with rounded protuberance internally on basal half; prosternum dull and without transverse carina; mesopleuron with distinct tubercle; epimeron with shallow vertical crest anteriorly; propodeal enclosure arcuately striate and with shallow medio-longitudinal furrow; petiolus wider than long; pygidial plate narrowing apically (Fig. 3d); flagellum (Fig. 3c). <u>Puncturation</u>: clypeus dull, frons dull and sparsely punctured; frons and vertex before ocelli longitudinally striate and punctate; gena micropunctate and sparsely punctate; pronotal collar dull and punctate; pronotum lateral with vertical rugae; scutum with longitudinal ridges and punctures convergent posteriorly; scutellum longitudinally ridged; metanotum impunctate; propodeal sides transversely rugose and with punctures between rugae; mesopleuron coarsely transversely rugose and punctate; sterna medially micropunctate and lateral punctate. <u>Pilosity</u>: clypeus covered with very short setae; sterna III-V with setae directed backwards; sternum VI with brush of long setae; rest of body with sparse short setae. <u>Coloration</u>: black; following parts whitish-yellow: clypeus, anterior half of frons, stripe on vertex lateral; pronotal collar lateral (variably), scutellum, metanotum, propodeum lateral, epimeron anteriorly, basal half of mandible, femora I and II partly. Gaster predominantly yellowichbrown (except petiolus). Wings fuscouse.

 \mathcal{J} unknown.



Fig. 3: Cerceris centralafricanula DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate.

Distribution: Central African Republic.

Cerceris chimoio DOLLFUSS nov.sp. (Fig. 4)

- H o l o t y p e : \bigcirc , <u>Mozambique</u>, 40 km SW Chimoio, 19°23'S 33°11'E, 650 m, 16.VII.2005, leg. J. Halada (ÖOLM). P a r a t y p e s : $2\bigcirc \bigcirc$ same data as holotype (JHC, CAS).
- E t y m o l o g y : The holotype of Cerceris chimoio was collected in Chimoio, Mozambique.



Fig. 4: Cerceris chimoio Dollfuss nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.

R e c o g n i t i o n : The female of *Cerceris chimoio* is characterized by having the coxa III without longitudinal carina, the apical margin of clypeus with five teeth slightly erected (Fig. 4a), the mandible with double tooth internally and the mesopleuron with small tubercle. Additionally, the propodeal enclosure has transverse or slightly obliquely rugae, the scutum is shining and densely longitudinally elongate punctured and the legs are yellow and ferruginous. The female of *C. saveensis* is similar to *C. chimoio* but differs in having the anterior margin of the clupeus triangularly nearly rectangularly erected, this elevation has two carinae in ventral view which converge ventrally and is larger (11.5-12.5 mm) (*C. chimoio* 9-10 mm).

D e s c r i p t i o n : \bigcirc , 9-10 mm. <u>Sculpture</u>: anterior margin of clypeus with five blunt teeth only slightly erected (Fig. 4a,b); lateral clypeal area distinctly emarginated; clypeus broader than long; mandible with double tooth internally; interantennal carina broad; prosternum without transverse carina; mesopleuron with small tubercle; epimeron without crest; propodeal enclosure with transverse or slightly oblique rugae and with mediolongitudinal furrow; petiolus wider than long (Fig. 4e); coxa III without longitudinal carina; sternum II without basal plate; pygidial plate (Fig. 4d); flagellum (Fig. 4c). <u>Puncturation</u>: clypeus and frons micropunctate and densely punctate; vertex densely punctate; propodeal collar densely punctate; metanotum impunctate; tegula impunctate; propodeal sides densely punctate; terga densely punctate; pygidial plate irregularly structured; sterna medial finely sparsely punctate, lateral coarsely punctate. <u>Pilosity</u>: latero-clypeal area with short appressed setae; rest of body with short erect setae. <u>Coloration</u>: black; following parts yellow: clypeus, frons, interantennal carina, mandible basal half, genae, pronotal collar, tegula partly, mesopleuron partly, epimeron, scutellum, metanotum, propodeal sides, terga partly and legs partly; following parts ferruginous: flagellum, vertex partly, tegulae partly, terga partly, pygidial plate, sterna, legs partly; wings hyaline, apical fuscous.

 δ unknown.

Distribution: Mozambique.

Cerceris ethiopia DOLLFUSS nov.sp. (Figs 5, 6)

- H o l o t y p e : ♀, <u>Ethiopia-S</u>, 20 km SE Konso, 05°15'N 37°32'E, 850 m, 11.-13.V.2015, leg. J. Halada (OÖLM).
- P a r a t y p e s : Ethiopia, 19, 533, same data as holotype (JHC); 233, 40 km W Konso, $05^{\circ}19$ 'N 37°04'E, 600 m, 14.V.2015, leg. J. Halada (JHC); 13, Oromia State, 25 km SE Mega, 1400 m, 03°55'37"N 38°56'53"E, 15.IV.2016, leg. J. Halada (JHC); 1♂, Wachile env. 04°32'N 39°03'E, 1070 m, 22.V.2015, leg. J. Halada (JHC). Kenya, 12, E Mwingi, 14.V.2007, leg. M. Halada (JHC); 6 Mwingi, Kangonde Wadi, 18.IV.2007, leg. M. Halada (JHC); 8 33, Voi Tsavo) env., 22.XI.-2.XII. 1996, Ieg. Mi. Halada (JHC); 9건건, Voi (Tsavo) env., 8.-18.XI.1996, Ieg. Mi. Halada (JHC); 1건, Taita province, Taita Hills Lodge, 15.XI.1993, leg. Heiss (JHC); 13, Kasigan Mts., Pukanga, 26.XI.1997, leg. Snižek (JHC); 1♂, Nairobi, Salama env., 25.XI.1999, leg. Snižek (JHC); 1♂, E 729 Sosoma, 202 km E Thika, 26.IV.2008, leg. Snižek (JHC); 1♀, Rift Valley Province, Eliye springs W Lake Turkana, 3°15.2'N 36°1.3'E, 24.IX.2002, leg. Prentice (CAS); 11♂♂, Rift Valley Province, Lodwar, 3°07N 35°35'E, 10.-12.VI,1999, leg. Pulawski & Schweigert (CAS); 13, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2'N 35°27.4'E, 6.-7.VI.1999, leg. Pulawski & Schweigert (CAS); 233, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2'N 35°27.4 E, 20.-21.+ 26.-27.XI.2002, leg. Pulawski (CAS); 13, locality as above 13.-14.VI.2000, leg. Bourbin, Lee & Pulawski (CAS); 1∂, Rift Valley Province, 77 km E Narok, 1°00.6'S 36°30.2'E, 16.VI.1999, leg. Pulawski & Schweigert (CAS); 2∂∂, Eastern Province, 94 km E Thika, 1°06.6'N 37°42.1'E, 10.-11.XII.2002, leg Pulawski & Prentice (CAS); 3 3 3, Rift Valley Province, Lodwar road 24 km N road to Sigor, 1°42.2'N 35°29.5'E, 8.VI.1999, leg. Pulawski & Schweigert (CAS); 233, Archer's Post Uaso Nyiro river, 2300', 12.XII.1969, leg. Irwin & Ross (CAS); 13, Eastern Province. Near Ewaso Ngiro river opposita Archer's Post, 0°38.1'N 37°40.4'E, 2.-8.XII.2002, leg. Prentice (CAS); Malawi, 13, 160 km SE Lilongwe, Balaka, 20.XII.2001, leg. J. Halada (JHC). Tanzania, 1^o, Dodoma province, 70 km N Dodoma, 05°40'S 35°48'E, 1300 m, 16.XII.2006, leg. J. Halada (JHC); 2³/₀, province Kilimandjaro, 10 km S Same, 830 m, 0.4²09'30"S 37²46'10"E, 8.IV.2018, leg. J. Halada (JHC); 3³/₀, Tanga Region, 10 km WNW Mabokweni, 4^o59.6'S 38^o59.0'E, 16.-18.I.2003, leg. Pulawski (CAS); 1³/₀, Morogoro Region, 62 road km SW Morogoro, 7°02.5'S 37°15.3'E, 2.I.2003, leg. Pulawski (CAS); 13, Tanga Region, 2 km NE Mkomazi, 4°37.8'S 38°05.5'E, 13.I.2003, leg. Prentice (CAS); 200, Tanga Region, 73 km NW Korogwe, 4°40.8'S 38°06.4'E, 19.-20.VII.2001, leg. Haji & Pulawski (CAS).

E t y m o l o g y : The holotype was collected in Ethiopia.

R e c o g n i t i o n : The female of *Cerceris ethiopia* is characterized by having the coxa III without a longitudinal carina, the apical margin of clypeus has four small teeth (Fig. 5a), the mandible has two small emarginations internally and the mesopleuron two tubercles. Additionally, the propodeal enclosure is densely punctate and the mediolongitudinal furrow is not crenulate, the scutum is irregularly punctate and the legs are ferruginous. The female of *C. curvitarsis* is similar to *C. ethiopia* but differs in having the propodeal enclosure more sparsely punctate (punctures 1-2 diameters apart and with microstriation), the scutum is shining and very sparsely punctate (punctures 1-4 diameters apart), the gaster is yellowich-brown, the clypeus and the frons are all ferruginous, the pygidial plate is emarginate apically and the body is longer (16-19 mm). (*C. ethiopia* is 13 mm long, the lateral clypeal sides and the frons are yellow and the gaster is black ferruginous and yellow). The female of *C. podagrosa* is similar to *C. ethiopia* but differs in having the mandible without emarginations or teeth internally, the terga III and IV are

dull and finely sparsely punctate, the clypeus and frons are all ferruginous, the body is black and ferruginous and longer (14-18 mm).

The male of C. ethiopia is characterized by having the coxa III without a longitudinal carina, the median area oc the clypeus is roundly produced, edentate and with an extraordinary broad clypeal brush reaching from apical margin of clypeus to the orbits of the eyes (Fig. 6a), the propodeal enclosure is punctate or punctato-rugose and smooth near the medio-longitudinal furrow. Additionally, the sterna (II) III-VI are covered with long erect setae which not obscure the underlying sculpture and the legs are ferruginous and yellow. The male of C. lateriproducta differs from C. ethiopia in having a small clypeal brush, the terga without ferruginous color, the legs yellow and black, the terga with not so long setae and the genitalia are differently shaped. The male of C. curvitarsis is similar to C. ethiopia but differs in having the basitarsus of midleg curved, the flagellomere XI distinctly bent, the propodeal enclosure is smooth with only few punctures and the scutum shining and sparsely irregularly punctate (punctures 0-3 diameters apart). (C. ethiopia has the basitarsus of midleg not curved, the flagellomere XI not distinctly bent, the scutum nearly densely punctate and the propodeal enclosure nearly all densely punctate). The male of C. podagrosa is similar to C. ethiopia but differs in having the basitarsus of midleg curved and with a tooth, the flagellomere XI is distinctly bent and the genitalia are differently shaped.

D e s c r i p t i o n : \mathcal{Q} , 12-13 mm. Sculpture: apical margi of clypeus with four small teeth (Fig. 5a); mandible with two small emarginations internally; prosternum shining, sparsely punctate and without transverse carina; mesopleuron with two tubercles; epimeron without crest; propodeal enclosure densely punctate, medio-longitudinal furrow not crenulate, lateral furrows shallow; petiolus broder than long (Fig. 5e); sternum II without basal plate; terga II-III apico-lateral produced; sternum V apical with transverse carina, apico-lateral with blunt corner; flagellum (Fig. 5c); pygidial plate (Fig. 5d). Puncturation: median part of clypeus shining and sparsely punctate; latero-clypeal areas micropunctate; frons micropunctate and irregularly punctate; vertex densely rugosepunctate: pronotal collar densely punctate: prosternum shining and sparsely finely punctate; tegula impunctate; scutum shining, irregularly punctate (punctures 0-2 diamerts apart); scutellum sparsely punctate (punctures 0-2 diameters apart); metanotum punctate; mesopleuron densely coarsely rugose-punctate; propodeal sides densely rugose-punctate; terga densely punctate; sterna laterally punctate; pygidial plate basally finely structured, apical half dull. Pilosity: latero-clypeal area covered with silvery appressed setae; gena ventral, mesopleuron, propodeal sides and femora covered with long erect setae; setae lateral of pygidial plate long. Coloration: black, following parts yellow: latero-clypeal area, frons, gena, interantennal carina, pronotal collar lateral, tegular partly, metanotum lateral, propodeal sides, terga I-V lateral, sterna II-V(VI) lateral; following parts ferruginous: median part of clypeus, vertex, flagellum and legs; rest of body predominantly variably ferruginous.

♂, 11-15 mm. Sculpture: apical margin of clypeus produced and edentate; clypeal brush reaching from apical margin of clypeus to orbits of eyes (Fig. 6a); latero-clypeal areas distinctly concave; mandibles edentate internally; flagellomere XI not distinctly bent (Fig. 6c); prosternum without transverse carina; mesopleuron without tubercle; epimeron without crest; propodeum enclosure irregularly punctate, medially smooth, lateral- and medio-longitudinal furrows shallow and not crenulate; petiolus broader than long (Fig. 6c).

6e); pygidial plate (Fig. 6d); genitalia (Fig. 6f). <u>Puncturation</u>: clypeus and frons and vertex densely punctate; prosternum sparsely punctate; pronotal collar densely punctate; scutum shining and more or less densely punctate; scutellum sparsely punctate; metanotum sparsely punctate; tegula impunctate; terga densely punctate; propodeal sides densely punc-



Fig. 5: Cerceris ethiopia DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.



Fig. 6: Cerceris ethiopia DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostylus in lateral view.

tate; pygidial plate coarsely punctate; sterna finely and densely punctate. <u>Pilosity</u>: gena, prosternum and propodeal sides sparsely covered with long erect setae; terga (II) III-VI covered with more or less dense erect setae which not obscure underlying sculpture. <u>Coloration</u>: black; following parts yellow: apical margin of clypeus, clypeus, frons, interantennal carina, pronotal collar lateral, mandibles basal, gena partly, tegula, mesopleuron, epimeron, scutellum partly, metanotum propodeal sides, terga lateral, tibia partly; clypeal brush golden colored; rest of body predominantly variably ferruginous.

D i s t r i b u t i o n : Ethiopia, Kenya, Malawi, Tanzania.

Cerceris hanangensis DOLLFUSS nov.sp. (Fig. 7, 8)

H o l o t y p e : ♀, <u>Tanzania</u> Nangwa SE side Mt. Hanang, 6300 feet, 25.1.2070, leg. M.E. Irwin & E.S. Ross (CAS).

P a r a t y p e s : <u>Tanzania</u>, 2♂♂, same data as holotype (CAS); 1♀, Tanganyika east side, Mt. Meru, 1700 m, 28.X.1957, leg. Ross & Lee (CAS).

E t y m o l o g y : The holotype was collected on Mt. Hanang in Tanzania.

R e c o g n i t i o n : *Cerceris hanangensis* is characterized by having no longitudinal carina on coxa III. The apical margin of the clypeus of the female has median a small slightly rised lamella and the lateral parts of the clypeus are distinctly emarginate (Fig. 7a,b), the mandible has a broad tooth internally, the scutum is micropunctate and shallowly longitudinally striate with punctures between the striae, the propodeal enclosure is irregularly obliquely striate with shallow lateral- and medio-longitudinal furrows. Additionally, clypeus and frons, tegula, legs partly and wings are ferruginous. The female of C. tsavoensis is similar to C. hanangensis but differs in having the median part of clypeus with a triangular carina near apical margin. The female of C. nugax differs from C. hanangensis by having a median area of clypeus with two small projections and a short longitudinal carina behind them, the mandible has an acute tooth internally, the scutum is dull and densely punctate and the propodeal enclosure is transversely striate. The female of C. anubis is similar to C. hanangensis but differs in having the median area of the clypeus with a slightly emarginate transverse carina and behind it two short sharply keeled tubercles, the mandibles has a double-tooth and the clypeus, the frons and basal half of mandibles are yellow.

The male of *C. hanangensis* is characterized by having the apical margin of clypeus black and tridentate (Fig. 8a), the mandibles are edentate internally, the flagellomeres VIII-XI have small tyloidea (Fig. 8c), the prosternum has no transverse carina, the propodeal enclosure is shallowly irregularly obliquely ridged and the lateral- and medo-longitudinal furrows are indistinctly developed. Additionally, the petiolus is slightly longer than wide, the tegulae and the wings are ferruginous and the genitalia are characteristically shaped (Fig. 8f). The male of *C. rufiscutis* is similar to *C. hanagensis* but differs in having the flagellomere X and XI with flat tyloidea, distinctly differently shaped genitalia and the body is predominantly ferruginous.

D e s c r i p t i o n : \bigcirc , 11.5 mm. <u>Sculpture</u>: apical margin of clypeus median with small slightly rised lamella and lateral with small tooth; lateral sides of clypeus distinctly emarginate (Fig. 8a); mandible with broad tooth internally; interantennal carina not sharply keeled; prosternum without transverse carina; pronotal collar lateral rounded; mesopleuron with tiny tubercle or without; epimeron without crest; propodeal enclosure irregularly obliquely striate lateral- and medio-longitudinal carina shallow; petiolus as

wide as long (Fig. 7e); sternum II without basal plate; flagellum (Fig. 7c); pygidial plate (Fig. 7d). <u>Puncturation</u>: clypeus densely micropunctate (dull); frons micropunctate and sparsely punctate; pronotal collar dull and irregularly punctate; scutum dull and longitudinally rugose-punctate; scutellum similar as scutum; metanotum impunctate; mesopleuron dull and reticulate-punctate; mesopleuron venter micropunctate; propodeal sides densely reticulate-punctate; terga I-IV dull and sparsely punctate; tergum V micropunctate and



Fig. 7: Cerceris hanangensis DOLLFUSS nov.sp. \bigcirc : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.



Fig. 8: Cerceris hanangensis DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostyle in lateral view.

finely punctate; pygidial plate irregularly structured; tegulae impunctate; sterna shining and shallowly punctate. <u>Pilosity</u>: clypeus sides covered with appressed setae; gena covered with long erect setae; terga III-V more or less covered with appressed short setae which not obscure underlying sculpture; rest of body sparsely covered with erect setae. <u>Coloration</u>: black; following parts ferruginous: clypeus, frons, mandibles (except apex), interantennal carina, flagellum, gena, tegula, segment VI, legs nearly all, wings and sternumV; following parts yellow: pronotal collar in some specimens, metanotum, petiolus apico-lateral, terga II-IV apical and coxa III lateral.

3, 10-12 mm. Sculpture: apical margin of clypeus more or less tridentate (Fig. 8a); mandible edentate internally; prosternum without transverse carina; mesopleuron without tubercle; epimeron without crest; flagellomere VIII-XI with small tyloidea (Fig. 8c); propodeal enclosure shallowly irregularly ridged, lateral furrows indistinctly developed. medio-longitudinal furrow more or less developed; petiolus as slong as wide or slightly longer (Fig. 8e); coxa III without longitudinal carina; sternum II without basal plate; sternum VI with rectangular lamella apico-lateral; pygidial plate (Fig. 8d); genitalia (Fig. 8f). Puncturation: clypeus and frons micropunctate; vertex densely punctate; prosternum dull and sparsely punctate; pronotal collar micropunctate and irregular punctate; scutum and scutellum rugose and punctate between rugae: metanotum impunctate; propodeal sides densely punctate; mesopleuron rugose-punctate; mesopleuron venter dull; terga densely punctate, toward last tergite more and more sparsely punctate; sterna shining and apicolateral sparsely punctate. Pilosity: body with long erect setae, except on terga III-VI dorsal more appressed; clypeal brush broad. Coloration: black; following parts yellow: clypeus, frons, interantennal carina partly, pronotal collar lateral; metanotum, petiolus apico-lateral, terga II-IV small bands apically, sterna II-IV latero-apical; hindcoxa and hindtrochanter partly; following ferruginous: mandible (except apex), flagellum, wings, tergum and sternum VI partly, pygidial plate and legs partly.

D i s t r i b u t i o n : Tanzania (Mt. Hanang, Mt. Meru).

Cerceris mackinnona DOLLFUSS nov.sp. (Figs 9, 10)

H o l o t y p e : ♀, Kenya-SE, S Mackinnon Road, 13.IV.2007, leg. M. Halada (OÖLM).

P a r a t ý p e s : 8 33, same data as holotype (JHC); <u>Ethiopia</u>, 2♀ ♀, 20 km SE Konsa, 05°15'N 37°32'E, 850 m, 11.-13.V.2015, leg. J. Halada (JHC); 1♀, 40 km W Konso, 05°19'N 37°04'E, 600 m, 14.V.2015, leg. M. Halada (JHC). <u>Kenya</u>, 1♀, Voi (Tsavo), 13.-17.XII.1997, leg M. Snižek (JHC); 1♀, E Mwingi, 14.V.2007, leg. M. Halada (JHC); 1♂, Coast Province, Taita Hill Discovery Centre, 3°42.3'S 38°46.6'E, 13.-14.X.2002, leg. Prentice (CAS).<u>Tanzania</u>, 1♂, Tanga Region, 2 km NE Mkomazi, 4°37.8'S 38°5.5'E, 13.1.2003, leg. Prentice (CAS).

E t y m o l o g y : The holotype was collected in Mackinnon Road (Kenya).

R e c o g n i t i o n : *Cerceris mackinnona* is characterized by having the coxa III without a longitudinal carina, the mandibles are edentate internally and the epimeron is unusually swollen. The female of *C. mackinnona* is characterized in having the clypeus concave in lateral view (Fig. 9b), the apical margin of the clypeus is produced with four more or less developed teeth (Fig. 9a), the propodeal enclosure is obliquely irregularly rugose and the sternum II has a basal plate limited laterally with shallow carina (Fig. 9e). Additionally, the scutum is shining and irregularly sparsely punctate (punctures 0-2 diameter apart). The female of *C. gomphocarpi* differs from *C. mackinnona* in having the propodeal enclosure smooth as a mirror, the lateral- and medio-longitudinal furrows nearly lacking and the sternum II has no basal plate. The female of *C. illustris* is similar to *C.*

mackinnona but differs in having the scutum densely longitudinally punctured and the apical margin of clypeus is tongue-like produced and without teeth. The female of *C. xosa* differs from *C. mackinnona* in having the apical margin of the clypeus tongue-like produced and median emarginate, the scutum has longitudinal rugae and punctures between them and the epimeron is not unusually swollen. The female of *C. namibiensis* differs from *C. mackinnona* in having the clypeus distinctly convex in lateral view, a small point on apical one-third of median area, the propodeal enclosure is smooth as a mirror, the sternum II has no basal plate and the epimeron is not unusually swollen. The female of *C. nigeriaensis* differs from *C. mackinnona* in having the clypeus distinctly convex in lateral view, the scutum is micropunctate and coarsely densely punctate, the epimeron is not unusually shaped and the sternum II has no basal plate, the apical margin of clypeus has a tooth lateral and the mandible has a small emargination internally.

The male of *C. mackinnona* is characterized by an apical margin of clypeus black and tridentate (Fig. 10a) and a nearly flat clypeus in lateral view (Fig. 10b), the flagellomeres VII-XI have shining broad tyloidea (Fig. 10c), the sternum II has a semicircular basal plate shallowly delimited behind (Fig. 10e) and the pygidial plate is distinctly narrowed basally (Fig. 10f). Additionally, the propodeal enclosure is obliquely rugose, the lateral carina of pronotum is ending in a point and the sterna III-IV have more or less developed long erect setae which not obscure the underlying sculpture. The male of *priesneri* differs from *C. mackinnona* in having the apical margin of clypeus yellowich-brown and edentate, the propodeal enclosure is smooth and the body is predominantly yellow. The male of *namibiensis* differs from *C. makinnona* by having the pronotal enclosure smooth, the sternum II without a basal plate and the flagellum without tyloidea.

D e s c r i p t i o n : \bigcirc , 8-10 mm. Sculpture: median part of clypeus slightly concave in lateral view (Fig. 9b); apical margin of clypeus produced with fore more or less developed teeth, in some specimens nearly straight (Fig. 9a); mandible edentate internally; prosternum without transverse carina; pronotal collare lateral rounded; propodeal enclosure irregularly obliquely rugose (variably); petiolus wider than long (Fig. 9d); sternum II with basal plate limited with shallow carina (Fig. 9e); mesopleuron without tubercle; epimeron unusually swollen but without distinct crest; coxa III without longitudinal carina; flagellum (Fig. 9c); pygidial plate basal slightly narrower than apical (Fig. 9f). Puncturation: medioclypeal area shining and very sparsely finely punctate (punctures 2-4 diameters apart); clypeal sides dull; frons dull and punctate; vertex densely punctate; prosternum dull and sparsely punctate; scutum shining and irregularly punctate (punctures 0-2 diameters apart); scutellum more sparsely punctate; metanotum finely punctate; tegula impunctate; mesopleuron and propodeal sides coarsely reticulatepunctate; terga I-IV densely punctate; tergum V dull and sparsely finely punctate; pygidial plate densely punctate; sterna shining and lateral punctate. Pilosity: clypeal sides covered with white appressed setae; sternum V with more or less long setae which not obscure underlying sculpture; rest of body covered with sparse setae. Coloration: very variably; black; following parts whitish-yellow: clypeus, frons, tegula, metanotum, terga apical, mandible basal; legs black, ferruginous and yellow (variably); flagellum ventral ferruginous, dorsal fuscous; some specimens with gaster ferruginous and yellow; wings hyaline, radial cell of forewing fuscous.

3, 8-10 mm. <u>Sculpture</u>: apical margin of clypeus tridentate and clypeus in lateral view flat (Fig. 10a,b); mandible edentate internally; flagellomers VII-XI with flat shining tyloidea

(Fig. 10c); prosternum lateral with short rugae; pronotal collar lateral rounded; lateral carina of pronotum ending in point; mesopleuron without tubercle; epimeron unusually swollen; propodeal enclosure obliquely rugose; petiolus wider than long (Fig. 10d); pygidial plate distinctly narrower basal than apical (Fig. 10f); sternum II with basal plate more or less



Fig. 9: Cerceris mackinnona DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus in lateral view; (c) flagellum; (d) petiolus; (e) sternum II; (f) pygidial plate.



Fig. 10: Cerceris mackinnona DOLLFUSS nov.sp. \mathcal{A} : (a) clypeus; (b) clypeus in lateral view; (c) flagellum; (d) petiolus; (e) sternum II; (f) pygidial plate; (g) genitalia dorsal and gonostylus in lateral view.

321

delimited behind (Fig. 10e); coxa III without longitudinal carina; genitalia (Fig. 10g). <u>Puncturation</u>: clypeus and frons shining and sparsely punctate; vertex shining and sparsely punctate; pronotal collare densely punctate; prosternum micropunctate; scutum shining and variably irregularly punctate (punctures 0-1 diameter apart); scutellum sparsely punctate (punctures 1-2 diameters apart); mesopleuron and propodeal sides coarsely reticulate-punctate; terga coarsely punctate; mesopleuron venter shining and very finely sparsely punctate; sterna medially finely and apico-laterally coarsely punctate. <u>Pilosity</u>: clypeal brush broad (Fig. 10a); sterna III-VI with more or less long erect setae which not obscure underlying sculpture; rest of body with sparse setae. <u>Coloration</u>: black; following parts yellow: clypeus, frons, interantennal carina, mandible basally, scapus anteriorly, pronotal lobes laterally, tegula, metanotum, terga apically; petiolus, tergum II and sternum II partly ferruginous; flagellum ferruginous and partly fuscous; legs black, ferruginous and yellow; wings hyaline, radial cell fuscous.

D i s t r i b u t i o n : Ethiopia, Kenya, Tanzania.

Cerceris namibiensis DOLLFUSS nov.sp. (Figs 11, 12)

- H o l o t y p e : ♀, <u>Namibia</u>, Hardap Region, Naukluft Mt., Zebra Park, 24.229044°S 15.913022°E, 1.III.2022, leg. J. Halada (OÖLM).
- P a r a t y p e s : <u>Namibia</u>, 2♀ ♀, 20 km N Karibib, 10.II.1993, leg. J. Gusenleitner (OÖLM); 1♀, Erongo region, 30 km W Omaruru, 21°21.637'S 15°40.709'E, 14.-19.III.2022, leg. J. Halada (JHC); 3♀ ♀, 3♂♂, Karibib, 65 km SW Usakos, 24.II.1990, leg. Max Schwarz (OÖLM); 1♀, 15 km W Karibib, 25.II.1990, leg. Max Schwarz (OÖLM); 1♀, Karibib, 55 km W Usakos, 25.II.1990, leg. Max Schwarz (OÖLM); 1♀, Rehobot, 9 km S Rehobot, 14.II.1990, leg. Max Schwarz (OÖLM); 1♀, Erongo province, 1-5 km E Usakos, 21°59'S 15°37'E, leg. A. Kudma jr. (JHC); 1♀, Khomas province, 25 km NNE Vsakos, 21°52'S 15°19'E, 1110 m, 17.III.2014, leg. J. Halada (JHC); 5♀ ♀, 6♂♂, Karibib, 7.II.1993, leg. J. Gusenleitner & Max Schwarz (OÖLM); 1♂, Karibib, 15 km W Karibib, 28.II.1993, leg. Max Schwarz (OÖLM); 1♂, Erongo province, 1-5 km E Usakos, 21°58'S 15°30'E, 900 m, 14.II.2014, leg. J. Halada (JHC); 1♂, Erongo province, 28 km S Karibib, 1150 m, 22°11'38"S 15°51'13"E, 28.III.2017, leg. J. Halada (JHC).

E t y m o l o g y : The holotype was collected in Namibia.

R e c o g n i t i o n : The female of *Cerceris namibiensis* is characterized by having the coxa III without a longitudinal carina, the median area of the clypeus is distinctly convex in lateral view (Fig. 11b), the apical margin of the clypeus is ferruginous with six very small teeth or is nearly straight with lateral tooth (Fig. 11a) and the clypeus has a small point on the apical one-third of median area. Additionally, the propodeal enclosure is smooth as a mirror and the lateral- and medio-longitudinal furrows are nearly lacking, the prosternum has fine transverse striae, the scutum and the propodeal sides are shining and sparsely punctate, in most specimens the terga II-IV are produced apico-lateral and the gaster is predominantly ferruginous. The female of *C. nigeriaensis* has a similar shaped clypeus but differs in having the scutum, the scutellum and the propodeal sides densely coarsely punctate. Additionally, the propodeal enclosure is shallowly transversely ridged, the prosternum has no transverse carina and the gaster is black and yellow.

The male of *Cerceris namibiensis* is characterized by having the coxa III without a longitudinal carina, the anterior margin of clypeus is yellowich-brown and without distinct teeth (Fig. 12a), the flagellomere XI is short and bent (Fig. 12c), the mandible has no distinct tooth internally, the propodeal enclosure is smooth as a mirror and nearly without lateral- and medio-longitudinal furrows. Additionally, the scutum and the propodeal sides are shining and irregularly sparsely punctate (punctures 1-3 diameters apart), in many

specimens the terga II-IV are more or less produced apico-laterally, the prosternum has a transverse carina or striae, the petiolus is wider than long (Fig. 12e) and the gaster is predominantly yellow. The male of *C. vittata eurypyga* is similar to *C. namibiensis* but differs by having the pronotal collar lateral angularly prutruding, the propodeal sides are densely punctate and the prosternum is shining sparsely punctate and without transverse carina.

Description: Q, 8-9 mm. <u>Sculpture</u>: apical margin of clypeus with six very small teeth or nearly straight with one tooth on each side (Fig. 11a); median area with small point on apical one-third and distinctly convex in lateral view (Fig. 11b); mandible with two small teeth internally; prosternum with transverse carina or fine transverse striae; pronotal collar rounded lateral; mesopleuron without tubercle; epimeron without crest; petiolus wieder than long (Fig. 11d); terga I-IV with fossa apico-medial; tergum II without mediobasal plate; coxa III without longitudinal carina; terga II-IV more or less produced apicolaterally; pygidial plate oval (Fig. 11c). Puncturation: median area of clypeus shining and punctate; lateral areas of clypeus and frons dull and punctate; vertex densely punctate; pronotal collar sparsely punctate; scutum shining, sparsely irregularly and finely punctate (punctures 1-3 diameters apart); scutellum similar; metanotum sparsely finely punctate; mesopleuron densely punctate; propodeal enclosure smooth as mirror and nearly without lateral- and medio-longitudinal furrows; propodeal sides shining, sparsely irregularly punctate (punctures 0-3 diameters apart); tegula impunctate; terga punctate (punctures 1-2 diameters apart); pygidial plate finely structured, dull; sterna lateral punctured. Pilosity: lateral areas of clypeus and frons covered with appressed silvery setae; gena covered with long erect setae; rest of body irregularly sparsely covered with erect setae; terga III-V nearly glabrous. Coloration: black; following parts whitish-yellow: clypeus, frons, mandible (except apex), spot on gena, tegula lateral half, pronotal collar, scutellum, metanotum, spot on propodeum lateral, apical half on tergum I, apical stripes on terga II-V; fore- and midlegs black and yellow, hindlegs ferruginous and yellow; terga and sterna predominantly ferruginous; wings hyaline, apical fuscous; flagellum ferruginous, dorsal darkened.

 \mathcal{S} , 8-10 mm. Sculpture: apical margin of clypeus without distinct teeth (Fig. 12a); mandible without tooth internally; prosternum shining with transverse carina or striae; pronotal collar rounded lateral; flagellomeres IX-XI with shallow tyloidea hardly to be seen; flagellomere XI short and bent (Fig. 12c); mesopleuron without tubercle; epimeron without crest; propodeal enclosure smooth as mirror, lateral- and medio-longitudinal furrows shallow and not crenulate; petiolus wider than long (12e); coxa III without longitudinal carina; pygidial plate (Fig. 12d); genitalia (Fig. 12f). Puncturation: clypeus and frons sparsely punctate; vertex irregularly punctate; pronotal collar sparsely punctate; tegula impunctate; scutum shining and sparsely punctate (punctures 1-3 diameters apart); scutellum and metanotum similar punctured; mesopleuron shining and sparsely punctate (punctures 0-1 diameter apart); propodeal sides sparsely punctate (punctures 0-3 diameters apart), terga I-IV with apico-medial fossa; terga sparsely punctate (punctures 0-1 diameter apart), sterna lateral punctate. Pilosity: clypeus and frons nearly glabrous; clypeal brush broad; gena with erect setae; rest of body with sparse short setae; some specimens with more or less erect setae on sterna II-VI. Coloration; black; following parts yellow (variably): clypeus, frons, interantennal carina, scapus, mandibles (except apex), pronotal collar, tegula, spot on epimeron, scutellum, metanotum, spot on propodeal sides, apical band on tergum I, terga II-IV, sterna II-VI lateral, legs nearly all, flagellum (dorsal

fuscous); wings hyaline, apical fuscous; terga II-VI partly ferruginous, in some specimens nearly all yellow.

Distribution: Namibia.



Fig. 11: Cerceris namibiensis DOLLFUSS nov.sp. \bigcirc : (a) clypeus; (b) clypeus lateral view; (c) pygidial plate; (d) petiolus.



Fig. 12: Cerceris namibiensis DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostylus in lateral view.

Cerceris nigeriaensis DOLLFUSS nov.sp. (Figs 13, 14)

H o l o t y p e : ♀, <u>Nigeria</u>, Gashaka Gumfi NP, 25 km SW Serti env., 07°20'N 11°13'E, 400 m, 9-13.V.2011, leg. J Halada (OÖLM). P a r a t y p e s : 1♀, 3♂♂, same data as holotype (JHC); <u>Nigeria</u>, Gashaka Gumfi NP, 30 km SE Serti env., 07°21'N 11°32'E, ~450 m, 24.IV.-8.V.2011, leg. J. Halada (JHC).

E t y m o l o g y : The types were collected in Nigeria.

R e c o g n i t i o n : *Cerceris nigeriaensis* has no longitudinal carina on the coxa III, the prosternum has no transverse carina, the propodeal enclosure is transversely striate and the lateral carina on pronotum is ending in rectangular protuberance. The female of *C*.

nigeriaensis is characterized by having the apical margin of clypeus with four small teeth, the median ones are bent downwards and hardly to be seen (Fig. 13a), the median area of the clypeus is micropunctate and sparsely punctate and has median a short transverse carina on apical one-third (Fig. 13b). Additionally, the mesopleuron is coarsely reticulate without tubercle, the epimeron has no crest, the mandible has a small notch internally, the propoedeal sides are densely punctate and the gaster is black and yellow. The female of *C. namibiensis* has a similar shaped clypeus but differs in having the prosternum with transverse carina, the lateral carina of pronotum is rounded, th propodeal enclosure is smooth as a mirror with nearly lacking lateral- and medio-longitudinal furrows and the propodeal sides are shining and sparsely punctate. Additionally, the scutum of *C. namibiensis* is shining sparsely punctate and the petiolus is broader than long and the gaster is predominantly ferruginous.

The male of *C. nigeriaensis* is characterized by having the mandible with a distinct tooth internally, the apical margin of clypeus is edentate (Fig. 14a,b), the sternum VI has a distinct tooth (Fig. 14e) and the flagellum no tyloidea (Fig. 14c). Additionally, the mesopleuron is very coarsely rugose and without tubercle, the epimeron has no crest and the genitalia are as in Fig. 14g. The similar *C. bothavillensis* differs from *C. nigeriaensis* in having short black tyloidea on flagellomeres X and XI, the sternum VI without tooth and the anterior margin of clypeus is tridentate.

D e s c r i p t i o n : $\stackrel{\bigcirc}{\downarrow}$, 7.5-8 mm. <u>Sculpture</u>: apical margin of clypeus with four small teeth, median ones bent downwards and hardly to be seen; median area of clypeus with small and short transverse carina on apical one-third (Fig. 13a,b); mandible with small notch internally; prosternum without transverse carina; lateral carina of pronotum ending in rectangular protuberance; mesopleuron without tubercle; epimeron without crest; propodeal enclosure transversely striate and without distinct median furrow; petiolus wider than long or slightly longer than wide and with apico-medial fossa (Fig. 13e); sternum II without basal plate; pygidial plate (Fig. 13d). Puncturation: clypeus and frons micropunctate and sparsely punctate; scutum and scutellum micropunctate and densely longitudinally elongate punctate; mesopleuron coarsely reticulate; metanotum impunctate; propodeal sides densely punctate; terga micropunctate and densely punctate; pygidial plate irregularly structured; sterna shining and lateral punctate. Pilosity: clypeus and frons covered with short appressed setae; the rest of body with sparse setae. Coloration: black; following parts yellow: clypeus, frons, mandibles (except apex), scapulae anteriorly, tegula anteriorly, pronotal collar laterally, metanotum, terga I-V apically and legs partly; following ferruginous: flagellum beneath, pygidial plate, apical margin of clypeus and tegula posterior; wings hyaline, radial cell of forewings fuscous.

 \Diamond , 8 mm. <u>Sculpture</u>: anterior margin of clypeus edentate (Fig. 14a); mandible with distinct tooth internally; flagellomeres without tyloidea (Fig. 14c); prosternum without transverse carina; lateral carina of pronotum ending in rectangular protuberance; propodeal enclosure with shallow transverse rugae and without medio-longitudinal furrow; sternum II without basal plate; sternum VI with distinct tooth apico-lateral (Fig. 14e); petiolus wider than long and with apico-medial fossa; genitalia (Fig. 14g). <u>Puncturation</u>: clypeus and frons coarsely punctate; vertex densely punctate; scutum shining and irregularly punctate (punctures 0-1 diameter apart); scutellum irregularly sparsely punctate; propodeal sides coarsely nearly densely reticulate-punctate; terga irregularly sparsely punctate (punctures 0-1 diameter apart); sterna shining and lateral punctate; pygidial plate dull with few punctures. <u>Pilosity</u>: clypeus and frons lateral covered with appressed setae; rest of body with sparse setae. <u>Coloration</u>: black; following parts yellow: clypeus, frons, mandibles (except apex), scapus anterior, pronotal collar lateral, metanotum, tegula anterior half, terga II-VI apically, sterna laterally (variably), legs partly.

Distribution: Nigeria.



Fig. 13: Cerceris nigeriaensis DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.



Fig. 14: Cerceris nigeriaensis DOLLFUSS nov.sp. \mathcal{J} : (a) clypeus; (b) clypeus lateral; (c) flagellum; (d) pygidial plate; (e) sternum VI lateral view; (f) petiolus; (g) genitalia dorsal and gonostylus in lateral view.

Cerceris nut DOLLFUSS nov.sp. (Fig. 15)

H o l o t y p e : Q, <u>Tanzania</u>, province Kilimandjaro, 10 km S Same, 830 m, 04°09'30"S 37°46'10"E, 8.IV.2018, leg. J. Halada (OÖLM). P a r a t y p e s : 1Q, <u>Kenya</u>, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2'N 35°27.4'E, 25.-29.VII.1999, leg. W.J. Pulawski & J.S. Schweigert (CAS); 1Q, <u>Tanzania</u>, Tanga Region, 11 km SW Korogwe, 5°14.2'S 38°24.7'E, 10.VII.2001, leg. Omari, Haji & Pulawski (CAS).

E t y m o l o g y : Nut is an egyptian god.

R e c o g n i t i o n : The female of *Cerceris nut* is characterized by having the coxa III without a longitudinal carina, the apical margin of the clypeus is medially straight with an acute tooth on each side, the median area of the clypeus has a rectangular rised lamella (Fig. 15a), the epimeron has a triangular crest, the propodeal enclosure is smooth and shining, without a median furrow and the lateral furrows are shallowly developed and not crenulate. Additionally, the prosternum has no distinct transverse carina, the scutum, the scutellum and the propodeal sides are shining and irregularly sparsely punctate (punctures 0-3 diameters apart), the petiolus and the sternum II are ferruginous and the legs darkbrown and yellow.

The female of *C. languida* is similar to *nut* but differs in having a longitudinal carina on coxa III, the apical margin of clypeus has two teeth laterally and the prosternum a distinct transverse carina.



Fig. 15: Cerceris nut DOLLFUSS nov.sp. Q: (a) clypeus; (b) clypeus lateral; (c) flagellum; (d) pygidial plate; (e) petiolus.

D e s c r i p t i o n : \bigcirc , 7-8 mm. <u>Sculpture:</u> apical margin of clypeus median straight with one acute tooth on each side (Fig. 15a); median area of clypeus with rectangular rised lamella; prosternum without distinct transverse carina; mandible with small tooth internally; epimeron with triangular crest; propodeal enclosure smooth as mirror, without medio-longitudinal furrow, lateral furrows not crenulate; propodeal sides near enclosure smooth; petiolus as long as wide (Fig. 15e); sternum II without basal plate; mesopleuron without tubercle; coxa II without longitudinal carina; flagellum (Fig. 15c); pygidial plate (Fig. 15d). <u>Puncturation</u>: clypeus median area shining and finely punctate; clypeual sides micropunctate; frons dull and sparsely punctate; vertex nearly densely punctate; prosternum micropunctate and sparsely punctate; pronotal collar shining and sparsely punctate; scutum shining and irregularly sparsely punctate; propodeal sides near enclosure smooth, lateral irregularly sparsely punctate (punctures 0-3 diameters apart); petiolus ireegularly punctate; terga II-IV very coarsely densely punctate (punctures partly as large as ocelli); pygidial plate irregularly structured; mesopleuron densely punctate; sterna laterally punctate. <u>Pilosity</u>: clypeal sides and frons covered with short appressed setae; rest of body with sparse setae. <u>Coloration</u>: black; following parts yellow: clypeus on posterior half, frons lateral, anteror half of tegula, pronotal collar lateral; metanotum, terga II-V apical, mandible (except apex); legs brown and yellow; following parts ferruginous: flagellum beneath, petiolus, tergum II partly, sternum II; wings hyaline, apical fuscous.

 \mathcal{J} : unknown.

Distribution: Kenya, Tanzania.

Cerceris pseudoanubis DOLLFUSS nov.sp. (Fig. 16)

H o l o t y p e : ♂, Kenya, Rift Valley Province, Marich Pass Fiels studies Centre, 1°32.2'N 35°27.7'E, 14.-17.V.2000, leg. Lee & Pulawski (CAS). P a r a t y p e s : 2♂♂, same data as holtype (CAS). <u>Ethiopia</u>: 2♂♂, 20 km SE Konso, 05°15'N 37°32'E, 850 m, 11.-13.V.2015, leg. J. Halada (ÖOLM); 1♂, Wachile env., 1970 m, 04°32'N 39°03'E, 22.V.2015, leg. J. Halada (ÖOLM), <u>Kenya</u>: 9♂♂, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2'N 35°27.4'E, 13.-14.VI.2000, leg. Bourbin, Lee & Pulawski (CAS). <u>Tanzania</u>: 1♂, Dodoma Region, 25 km N Dodoma, 5°55.6'S 35°44.6'E, 4.I.2003, leg. Prentice (CAS); 1♂, Dodoma Province, 35 km E Dodoma, 05°54'S 35°45'E, 1100 m, 14.XII.2006, leg. M. Kadlecová (OÖLM).

E t y m o l o g y : The male of *Cerceris pseudoanubis* is similar to the male of C. *anubis*.

R e c o g n i t i o n : The male of *Cerceris pseudoanubis* is characterized in having the coxa III without a longitudinal carina, the scutum is shining and irregularly sparsely punctated (punctures 1-2 diampeters apart), the sternum II has a more or less developed longitudinal carina and the propodeal enclosure is shining with distinct medio-longitudinal furrow and more or less developed shallow oblique striae lateral. Additionally, the median area of clypeus is produced, shallowly tridentate and the lateral sides are emarginate (Fig. 16a), the mandible has a distinct tooth internally and the flagellomeres X and XI have tiny tyloidea (hardly to be seen) (Fig. 16c). The similar male of C. anubis differs from C. pseudoanubis by having the scutum densely punctate (punctures 0-0.5 diameters apart), the sternum II has no longitudinal carina and the flagellomeres IV-XI have small linear tyloidea. The male of bothavillensis is similar to C. pseudoanubis but differs by having the sternum II without a longitudinal carina, the scutum more densely punctate, the flagellomeres X and XI with short black linear tyloidea and the propodeal enclosure with distinct oblique rugae. The male of iniqua differs from C. pseudoanubis by a slightly lateral rised scutellum, the scutum is densely longitudinally punctate, the sternum II has no longitudinal carina, the propodeal enclosure has distinctly oblique rugae and the flagellum has no tyloidea. The male of C. tsavoensis differs from C. pseudoanubis by having the sternum II without longitudinal carina and the body is predominantly ferruginous.

D e s c r i p t i o n : \mathcal{J} , 8-9 mm. <u>Sculpture</u>: apical margin of clypeus median produced and shallowly tridentate (Fig. 16a); clypeal sides emarginate; mandible distinctly dentate internally; prosternum with rounded blunt transverse carina; flagellomere XI nearly as long as X and slightly bent; flagellomeres X and XI with short yellow tyloidea (hardly to be seen) (Fig. 16c); mesopleuron without tubercle; epimeron without crest; propodeal enclosure shining, with distinct medio-longitudinal furrow and lateral with more or less distinct oblique rugae; petiolus slightly longer than wide (Fig. 16e); sternum II with more or less distinct longitudinal carina; coxa III without longitudinal carina; sternum VI with lamellar tooth apicao-lateral; pygidial plate (Fig. 16d); genitalia (Fig. 16f). <u>Puncturation</u>: clypeus and frons irregularly punctured; prosternum densely punctate; gena and vertex densely punctate; pronotal collar nearly impunctate; scutum shining and irregularly sparsely punctate; mesopleuron, propodeal sides and terga coarsely densely punctate; sterna apico-lateral punctate; pygidial plate irregularly punctate. <u>Pilosity</u>: clypeal brush long; body sparsely covered with erect setae. <u>Coloration</u>: black; following parts yellow: clypeus frons, gena, pronotum, tegula, mesopleuron, mesopleuron venter, scutellum, metanotum, propodeum lateral, terga and sterna predominantly, fore- and midleg, hindleg partly, mandibles (except apex); flagellum ferruginous; wings hyaline, apex fuscous.

\mathcal{Q} unknown.

D i s t r i b u t i o n : Ethiopia, Kenya, Tanzania.



Fig. 16: Cerceris pseudoanubis DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostyle in lateral view.

Cerceris pseudocurvitarsis DOLLFUSS nov.sp. (Figs 17, 18)

H o l o t y p e : ♂, <u>Burkina Faso</u>: 1 km S Gorom Gorom, 14°27.3'N 0°13.1'W, 29.VII.2004, leg. Sidiki Komaté & Pulawski (CAS). P a r a t y p e : ♀, <u>Burkina Faso</u>: Oursi, 14°40.5'N 0°27.2'W, 31.VII.2004, Sikidi Komaté & Pulawski (CAS).

E t y m o l o g y : The holotype is similar to *Cerceris curvitarsis*.

R e c o g n i t i o n : The female of *C. pseudocurvitarsis* is characterized by having the coxa III without a longitudinal carina, the median area of the clypeus has no distinct process but a small transverse carina near apical margin (Fig. 17a,b), the mesopleuron has two tubercles and the propodeal enclosure is punctate with oblique rugae. Additionally,

the mandible has a blunt tooth internally, the prosternum has shallow transverse rugae lateral, the scutum is irregularly punctate (punctures 0-1 diameter apart) and the whole female is ferruginous and black without any yellow. The female of *C. curvitarsis* is similar to *C. pseudocurvitarsis* but differs in having the scutum shining, more sparsely punctate (punctures 2-4 diameters apart) and the propodeal enclosure is smooth, shining and lateral sparsely punctate. The female of *C. podagrosa* is similar to *C. pseudocurvitarsis* but differs in having the scutum and scutellum finely densely punctate, the propodeal enclosure is densely punctate and lateral finely transversely striate. Additionally, the terga III and IV are dull and nearly impunctate (*C. pseudocurvitarsis* has all terga shining and nearly densely punctate). The female of *C. ethiopia* has the same sculpture as *C. pseudocurvitarsis* but differs in having also yellow color on the body.

The male of C. pseudocurvitarsis is characterized by having the coxa III without longitudinal carina, the metatarsus of the midleg is distinctly curved (Fig. 18d), the propodeal enclosure is densely punctate and near the medio-longitudinal furrow smooth, the apical margin of the clypeus is brown and edentate, the clypeal brush is very broad (Fig. 18a) and the flagellomere XI is distinctly bent (Fig. 18c). Additionally, the sterna II-IV are covered with long erect setae, the scutum is shining and irregularly punctate (punctures 0-1 diameter apart) and the body is nearly all yellow and ferruginous. The male of C. curvitarsis is similar to C. pseudocurvitatsis but differs in having the propodeal enclosure smooth and shining, lateral with short rugae and some fine punctures, the scutum is shining and irregularly sparsely punctures (punctures 1-3 diameters apart), the genitalia are differently shaped and the head and thorax have more black color. The male of podagrosa is similar to to C. pseudocurvitarsis but differs in having a distinct tooth on the curved basitarsus of midleg and in differently shaped male genitalia. The male of uncifera differs from C. pseudocurvitarsis in having the basitarsus of midleg dilated medially, slightly curved and covered with very long setae, the basitarsus of hindleg is abruptly dilated at the apical third, the scutum is dull densely finely punctate and the flagellomere XI is bent and pointed.

D e s c r i p t i o n : Q, 14 mm. Sculpture: apical margin of clypeus straight lateral with small tooth (Fig. 17a); median area of clypeus convex, near apical margin with slightly elevated transverse carina (Fig. 17b); mandible with blunt tooth and small emargination internally; prosternum shining and small transverse rugae lateral; propodeal collar slightly elevate lateral; mesopleuron with two tubercles; epimeron without crest; propodeal enclosure coarsely punctate and with oblique rugae, medio-longitudinal furrow shallow with transverse microstriae, lateral furrows indistinctly developed; petiolus nearly as wide as long (Fig. 17e); sternum II without basal plate; coxa III without longitudinal carina; pygidial segment with very small tooth apico-lateral; pygidial plate (Fig. 17d). Puncturation: median area of clypeus shining and sparsely punctured; clypeal sides dull; frons dull and sparsely punctate; vertex densely punctate; pronotal collar densely punctate; scutum shining and irregularly punctate; scutellum similar; metanotum densely punctate; mesopleuron densely punctate; mesopleuron venter nearly impunctate; propodeal sides densely punctate; terga densely punctate; sterna lateral punctate. Pilosity: clypeal sides with dense appressed setae; besides pygidial plate with long setae; sternum VI apico-lateral with small bundle of setae; rest of body with sparse setae. Coloration: head and flagellum ferruginous; mandible ferruginous (except apex); thorax ferruginous and black; propodeal

enclosure black (sempre?); terga black (except VI apical); pygidial plate ferruginous; sterna ferrruginous and black; wings hyaline, radial cell of forewing fuscous; yellow color is lacking.

♂, 14 mm. <u>Sculpture</u>: apical margin of clypeus edentate (Fig. 18a); clypeal sides concave; mandible edentate internally; prosternum without transverse carina; pronotal collar lateral slightly elevated; propodeal enclosure punctate, along medio-longitudinal furrow smooth; petiolus as long as wide (Fig. 18f); basitarsus of midleg curved (Fig. 18d); flagellomere XI distinctly bent (Fig. 18c); coxa III without longitudinal carina; sternum II without basal plate; pygidial plate rectangular (Fig. 18e); genitalia are characteristically shaped (Fig. 18g). Puncturation: clypeus shining and sparsely punctate; frons punctate; vertex densely punctate; pronotal collar densely punctate (except lateral part); tegula nearly impunctate; scutum shining and irregularly punctate (punctures 0-1 diameter apart); scutellum sparsely punctate; metanotum densely punctate; mesopleuron, propodeal sides and petiolus densely punctate; terga II-IV densely punctate; terga V-VI more sparsely punctate; pygidial plate coarsely densely punctate. Pilosity: clypeal sides covered with erect setae; clypeal brush very broad (Fig. 18a); gena, mesopleuron venter and propodeal sides covered with erect setae: sterna II-VI covered with long dense partly appressed setae which not obscure the underlying sculpture. Coloration: body yellow and variably ferruginous (except hind tibia apically black); wings yellowich-brown, radial cell of forewing fuscous.

Distribution: Burkina Faso.



Fig. 17: Cerceris pseudocurvitarsis DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.



Fig. 18: *Cerceris pseudocurvitarsis* DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) basitarsus of midleg; (e) pygidial plate; (f) petiolus; (g) genitalia dorsal and gonostylus in lateral view.

Cerceris pseudosolitaria DOLLFUSS nov.sp. (Fig. 19)

- H o l o t y p e : ♂, <u>Tanzania</u>, Morogoro Region, 128 road km NW Morogoro, 6°08.2'S 36°54.3'E, 8.I.2003, leg. Prentice (CAS).
- E t y m o l o g y : The holotype is similar to *Cerceris solitaria*.

Recognition: The large male (18.5 mm) of Cerceris pseudosolitaria is characterized by the coxa III without longitudinal carina and a dull black body (except clypeus and basal half of mandible ferruginous), the apical margin of the clypeus is edentate and slightly emarginate (Fig. 19a), the propodeal enclosure is transversely rugose and without mediolongitudinal furrow. Additionally, the flagellomere XI is clearly bent (Fig, 19c), the scutum is dull and densely punctate, the sternum VI has a small tooth and a long tuft of setae and the forewings are black on the anterior half. The male of *solitaria* is similar to C. pseudosolitaria but differs in having the propodeal enclosure finely transversely microstriate and with shallow medio-longitudinal furrow, the clypeus and the frons are yellow and the rest of the body is black and ferruginous. The also predominantly black male of vigilans differs from C. pseudosolitaria in having the apical margin of the clypeus tridentate, the propodeal enclosure densely punctate and the face with three vertical yellow lines which extend over to the clypeus. The also large male (21 mm) of C. tangaensis differs from C. pseudosolitaria in having a stright apical margin of the clypeus, more yellow collar especially on the clypeus the frons and on terga II-VI and the lateral rectangular pronotal collar. The male of *natalensis* is also predominantly black but differs in having the basitarsus of hindleg dilated over apical half, the propodeal enclosure densely punctate without medio-longitudinal furrow and the sterna III-VI have long erect setae



Fig. 19: Cerceris pseudosolitaria DOLLFUSS nov.sp. \mathcal{A} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostyle in lateral view.

which not obscure the underlying sculpture. The male of *severini* differs from *C*. *pseudosolitaria* in having a tridentate apical margin of the clypeus, an extremly broad clypeual brush, the propodeal enclosure is irregularly rugose, the legs and the gaster are ferruginous-brown and the wings are all fuscous. The large male of *spectrum* differs from *C*. *pseudosolitaria* in having a tridentate apical margin of the clypeus, the propodeal enclosure is yellow and smooth with indistinct medio-longitudinal furrow, the mesopleuron, the propodeal sides and the sterna are more or less covered with erect setae which not obscure the underlying sculpture.

D e s c r i p t i o n : \emptyset , 18.5 mm. <u>Sculpture</u>: apical margin of clypeus edentate and slightly emarginate (Fig. 19a); median area slightly pressed medially; clypeal brush broad; mandible edentate internally; prosternum without transverse carina; flagellomere XI distinctly bent (Fig. 19c) and flagellomeres IX-XI flattened and smooth below; mesopleuron without tubercle; epimeron without distinct crest; propodeal enclosure trans-

versely rugose, without medio-longitudinal furrow and lateral furrows shallow; petiolus wider than long (Fig. 19e); coxa III without longitudinal carina; sternum II without basal plate; pygidial plate rectangular (Fig. 19d); genitalia (Fig. 19f). <u>Puncturation</u>: medio- and latero-clypeal areas dull and impunctate; frons dull and impunctate; vertex densely punctate; pronotal collar lateral rounded, dull and punctate; scutum micropunctate and densely punctate; metapleuron dull and punctate; propodeal sides densely punctate; metapleuron dull and punctate; propodeal sides densely punctate; mesopleuron plate-shaped punctate; mesopleuron venter dull and impunctate; terga I-IV micropunctate and irregularly sparsely punctate (punctures 0-1 diameter apart); terga V and VI microstriate; sterna I-VI shining and lateral punctate. <u>Pilosity</u>: latero-clypeal areas covered with golden setae; sternum VII with dense erect setae; rest of body with sparse erect setae. <u>Coloration</u>: body all black, except medio- and lateral-clypeo areas ferruginous; forewings black on anterior half.

 \bigcirc unknown.

Distribution: Tanzania.

Cerceris ptah DOLLFUSS nov.sp. (Fig. 20)

H o l o t y p e : ♀, Kenya, Eastern Province, near Ewaso Ngiro River opposite Archer's Post, 0°31.1N 37°40.4′E, 19.-20.XII.2002, leg. M.A.Prentice (CAS).

E t y m o l o g y : Ptah is an egyptian god.

R e c o g n i t i o n : The female of *Cerceris ptah* is characterized by having the coxa III without longitudinal carina, the apical margin of clypeus is median slightly emarginate with two teeth lateral, the median area of clypeus has a nasiform process erected in the middle (Fig. 20a), the prosternum is punctate with few transverse rugae, the propodeal enclosure is shallowly micropunctate and lateral punctate and nearly without lateral- and medio-longitudinal furrows. Additionally, the terga II-IV are produced apico-laterally (as in *chromatica*), the sternum II has a medio-longitudinal carina, the pygidial plate is slightly narrower basal than apical, the mandible is edentate internally, sternum VI has four long teeth and the legs are ferruginous and yellow. The female of *C. fitzgeraldi* shares with *C. ptah* the nasiform process but differs in having the mandible with tooth internally, the mesopleuron with two teeth and the propodeal enclosure is dull and finely coriaceous.

D e s c r i p t i o n : \bigcirc , 11.5 mm. <u>Sculpture</u>: apical margin of clypeus median slightly emarginate and with two teeth lateral (Fig. 20a); median area of clypeus with nasiform process distinctly erected (Fig. 20b); mandible edentate internally; prosternum with few transverse rugae; pronotum lateral with few carinae; pronotal collar rounded laterally; propodeal enclosure dull and sparsely irregularly punctured, lateral- and mediolongitudinal furrows nearly lacking; petiolus as long as wide (Fig. 20e); terga II-IV apico-lateral produced; sternum II with medio-longitudinal carina, lateral slightly concave; sternum VI with four long teeth; coxa III without longitudinal carina; mesopleuron without tubercle; epimeron without crest; flagellum (Fig. 20c); pygidial plate basally narrowed (Fig. 20d). Puncturation: clypeus and frons dull and punctate; vertex densely punctate (except near ocelly); prosternum shining and sparsely punctate; pronotal collare dull and sparsely punctate; scutum shining and irregularly punctate; (punctures 0-1 diameter apart); scutellum dull, more sparsely punctate; metanotum dull, finely punctate; propodeal sides dull and irregular sparsely punctate (punctures 0-1 diameter apart); terga densely punctate; pygidial plate coarsely irregularly punctate; sterna laterally punctate; mesopleuron and epimeron densely punctate. Pilosity: clypeal sides with short appressed setae; gena, mesopleuron and propodeal sides with long erect setae; rest of body with sparse erect setae. Coloration: black; following parts yellow: clypeus and frons (except anterior margin), interantennal carina, scapus anterior half, spots on vertex and gena, pronotal collar lateral, tegula partly, mandible (except apex), scutellum lateral, metanotum, propodeum lateral, spot on mesopleuron and epimeron, terga I, II, III and V apical, sterna II and III lateral; legs ferruginous and yellow; apical margin of clypeus ferruginous-brown; flagellum ferruginous and brown; wings hyaline, except apex.

δ unknown.

Distribution: Kenya.



Fig. 20: Cerceris ptah DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.

Cerceris saveensis DOLLFUSS nov.sp. (Figs 21, 22)

H o l o t y p e : ♀, <u>Mozambique-S</u>, 15 km SE Save, 21°13'S 34°40'E, 65 m, 18.-19.XII.2005, leg. Kadlecová (OÖLM). P a r a t y p e s : <u>Mozambique</u>: 1♀, 5♂♂, 8 km SW Vila Franca do Save, 21.2035°S 34.507°E, 24.II.2020, leg. M. Halada (JHC); 2♂♂, 15 km SE Save, 21°13'S 34°40'E, 65 m, 18.-19.XII.2005, leg. J. Halada (JHC); 1♂, 8 km SW Vila Franca do Save, 21.2035°S 34.507°E, 12.II.2020, leg. M. Halada (JHC).

E t y m o l o g y : The holotype was collected near the Save-river, Mozambique.

R e c o g n i t i o n : The female of *Cerceris saveensis* is characterized in having the coxa III without longitudinal carina on coxa III, the apical margin of the clypeus is triangularly erected medially and the latero-clypeal area is emarginate (Fig. 21a,b,c), the mandible has a double tooth internally (Fig. 21d) and the mesopleuron has a tubercle. Additionally, the body is black, ferruginous and yellow colored, the wings are hyaline and behind the radial cell of forewings fuscous. The similar female of *cratocephala* differs from *C. saveensis* in having the wings fuscous with violaceous shine, the thorax and the legs are black, the scutum is longitudinally rugose with punctures between rugae and the gaster is ferruginous except petiolus. The female of *C. chimoio* is similar to *C. saveensis* but differs in having the apical of clypeus with five, teeth slightly erected and the body length is 9-10 mm (*C. saveensis* has a body length of 11.5-12.5 mm).



Fig. 21: Cerceris saveensis DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) apical margin of clypeus dorsal view; (d) mandible lateral view; (e) pygidial plate.

The male of *Cerceris saveensis* is characterized in having the coxa II without longitudinal carina, the apical margin is ferruginous and tridentate (Fig. 22a), the flagellomeres IX-XI have tyloidea (Fig. 22c), the mandible has a rounded tooth internally, the sternum VI a nearly rectangular tooth apico-laterally and the genitalia are charcteristically shaped (Fig. 22e). The male of *C. iniqua* differs from *C. saveensis* by having the mandible with acute tooth internally, a broad clypeal brush and black and differently shaped genitalia.

D e s c r i p t i o n : Q, 11.5-12.5 mm. <u>Sculpture</u>: apical margin of clypeus triangularly

erected medially lateral with small tooth (Fig. 21a,b,c); latero-clypeal areas emarginate; mandible with double tooth internally, interantennal carina broad; prosternum without tranverse carina; mesopleuron with tubercle; epimeron without crest; propodeal enclosure obliquely rugose with distinct not crenulate medio-longitudinal furrow; petiolus wider than long, apico-medial with fossa; sternum II without basal plate; pygidial plate (Fig. 21e). Puncturation: clypeus micropunctate and finely punctate; frons micropunctate and punctate; vertex densely rugose-punctate; pronotal collar densely punctate; scutum with densely longitudinally elongate punctures; mesopleuron densely reticulate-punctate; scutum sparsely punctate; metanotum finely punctate; propodeal sides densely punctate; terga densely punctate; pygidial plate irregularly strulptured; sterna laterlally punctured. Pilosity: latero-clypeal areas covered with dense erect setae; rest of body covered with sparse setae. Coloration: black, following parts yellow: clypeus, frons, interantennal carina, mandible basal half, gena partly, pronotal collar, tegula anterior half, scutellum, metanotum, mesopleuron partly, epimeron, propodeal sides, petiolus lateral, terga II-IV partly, tergum V all and fore- and midlegs partly; following ferruginous: anterior margin of clypeus, flagellum (dorsally darkened), head partly, tegula partly, terga partly, pygidial plate, sterna predominantly, mandible apical half, fore- and midtibia partly, hindlegs; wings hyaline, apically fuscous.



Fig. 22: *Cerceris saveensis* DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) genitalia dorsal and gonostylus in lateral view.

♂, 11.5 mm. Sculpture: anterior margin of clypeus produced and tridentated (Fig. 22a); latero-clypeal areas emarginate ; clypeus in lateral view nearly straight (Fig. 22b); mandible with rounded tooth internally; flagellomeres IX-XI with tyloidea (Fig. 22c); prosternum without transverse carina; propodeal enclosure obliquely rugose and medio-longitudinal furrow not crenulate; mesopleuron without tubercle; epimeron without crest; petiolus as long as wide; sternum VI with nearly rectangular tooth; pygidial plate (Fig. 22d), genitalia characteristically shaped (Fig. 22e). Puncturation: median part of clypeus shining and sparsely punctate; latero-clypeal area and frons micropunctate and punctate; vertex densely punctate; prosternum sparsely punctate; pronotal collar densely punctate; scutum and scutellum densely rugose-punctate; metanotum punctate; propodeal sides densely rugose-punctate; terga densely coarsely punctate; pygidial plate punctate. Pilosity: latero-clypeal areas covered with dense erect setae; clypeal brush small (Fig. 22a); rest of

body covered with sparse erect setae. <u>Coloration</u>: black, following parts yellow: clypeus, frons, mandible basal half, spots behind ocelli, gena partly pronotal collar, mesopleuron partly, epimeron, tegula partly, scutellum, metanotum, propodeal sides, terga II-V apico-lateral (variably), tergum VI, sterna III-V apico-lateral, legs partly; following ferruginous: apical margin of clypeus, petiolus, tergum II partly, pygidial area, flagellum (dorsal fuscous), sterna predominantly, legs partly; wings hyaline, apical fuscous.

Distribution: Mozambique.

Cerceris sidamoensis DOLLFUSS nov.sp. (Figs 23, 24)

H o l o t y p e : ♀, <u>Ethiopia</u>-S. Sidamo province, 20 km SE Konsa, 855 m, 18.IV.2007, leg. J. Halada (OÖLM). P a r a t y p e s : <u>Ethiopia</u>: 3♂♂, Sidamo province, near Bitata, 1480 m, 27.IV.2007, leg. J. Halada (OÖLM); <u>Kenya</u>: 11♂♂, Voi (Tsavo) env. 22.XI.-2.XII.1996, leg. Mi. Halada (OÖLM); 2♂♂, Voi (Tsavo), 22.XI.-2.XII.1996, leg. M. Snižek (OÖLM); 4♂♂, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2'N 35°27.4'E, 14.-17.V.2000, leg. Lee & Pulawski (CAS); 1♂, Coast Province, 14 km SW Voi, 3°28.2'S 38°28.3'E, 21.V.2000, leg. Lee & Pulawski (CAS).

E t y m o l o g y : The holotype was collected in Sidamo Province, Ethiopia.

R e c o g n i t i o n : The female of Cerceris sidamoensis is characterized by the coxa III without a longitudinal carina, the apical margin of the clypeus is slightly emarginate and with two lateral teeth, the median area has a process free down to its base which is in the level of the tentorial pits (Fig. 23a,b), the process is a little broader than long and the sides are convergent apically in dorsal view, the lateral carina of the pronotum is ending in a distinct point and the mandible has a small emargination and a distinct tooth internally. Additionally, the propodeal enclosure is coarsely obliquely rugose, the mesopleuron has a small tubercle, the scutum, the scutellum, the metanotum and the propodeal sides are densely coarsely punctate and the legs are all ferruginous (sempre?). The female of C. flavonasuta differs from C. sidamoensis by the clypeal process transversely convex and distinctly so lengthwise, shining and broadly carinate medio-longitudinally, the propodeal enclosure is closely obliquely rugulose and finely punctures between the rugae and the head ist black and ferruginous. The large female (14 mm) of C. pseudoproteles differs from C. sidamoensis by having a ferruginous gaster and fuscous wings, the mandible is edentate internally and the terga are dorsally impunctate. Additionally, the apical margin of the clypeus has two large teeth and is deeply emarginate between them, the clypeal process is slightly emarginate apically in dorsal view and the sterna IV and V have golden setae apical. The female of C. erythrosoma differs from C. sidamoensis by having the apical margin of clypeus with two large teeth laterally and a deep emargination between them, the clypeal process is wider than long, the scutum is shining and longitudinally rugose with distinct punctures, the thorax is all black, the gaster (except petiolus) is ferruginous. Additionally, the wings are dark-brown fuscous, the sterna IV and V more or less with golden setae and the mandible edentate internally. The large female (19-15 mm) of C. solitaria differs from C. sidamoensis by having the apical margin of clypeus semilunarly emarginate with two teeth laterally and sprouting conspicuous bristles, the mandible has two large teeth internally, the propodeal enclosure is transversely microstriate, body predominantly ferruginous and the wings are fuscous. The female of C. schalleri differs from C. sidamoensis by having the apical margin of clypeus with one tooth median, the clypeal process is highly rised and semicircularly emarginated, the propodeal enclosure is smooth and shining and only with a trace of a medio-longitudinal furrow. Additionally, the terga II-IV are produced apico-lateral.



Fig. 23: Cerceris sidamoensis DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus.

The male of *Cerceris sidamoensis* is characterized by having no longitudinal carina on coxa III, the pronotum has below collar a marked lateral carina ending in a point, the ganitalia are characteristically shaped (Fig. 24e), the apical margin of clypeus is ferruginous and distinctly tridentate (Fig. 24a) and the propodeal enclosure is obliquely rugose. Additionally, the scutum is shining densely coarsely punctate, the petiolus is ferruginous and wider than long, the pygidial plate is broad (Fig. 24d) and the legs are ferruginous and yellow. The male of *C. querula* shares with *C. sidamoensis* the lateral carina of pronotum ending in a point but differs in having the propodeal enclosure smooth, the pygidial plater is smaller, the genitalia are differently shaped and the legs are black and yellow.

D e s c r i p t i o n : \bigcirc , 11 mm. <u>Sculpture</u>: apical margin of clypeus slightly emarginate with two small teeth lateral (Fig. 23a); clypeal process in level of tentorial pits free down to its base (Fig. 23b); mandible with small emargination and distinct tooth internally; lateral carina of pronotum ending in distinct point; prosternum with oblique rugae lateral; pronotal collar rounded lateral; mesopleuron with small tubercle; epimeron with trace of crest; pronotal enclosure anteriorly obliquely rugose, posteriorly tranversely rugose and nearly without lateral- and medio-longitudinal furrows; petiolus wider than long (Fig. 23e); coxa III without longitudinal carina; sternum II without basal plate; flagellum (Fig. 23c); pygidial plate (Fig. 23d). <u>Puncturation</u>: clypeus beneath process impunctate; clypeal sides micropunctate; clypeal process sparsely finely punctate; frons dull and punctate; vertex shining anterior ocelli densely longitudinally punctate, posterior ocelli densely punctate; prosternum densely punctate and lateral rugose; scutum, scutellum metanotum and propodeal sides shining and densely punctate; mesopleuron and mesopleuron venter densely reticulate-punctate; terga II-VI irregularly punctate; sterna lateral punctate; pygidial plate irregularly structured. <u>Pilosity</u>: few long setae on anterior margin of clypeus; clypeal sides and frons covered with appressed setae; gena, mesopleuron and sterna V and VI covered with sparse long setae; rest of body covered with irregular setae. <u>Coloration</u>: black, following parts yellow: clypeus, frons, mandible basal half, spot on gena, pronotal collar lateral, tegula anterior half, terga II-V apico-lateral; following parts ferruginous: flagellum (dorsal fuscous), tegula posterior half, petiolus pygidial plate, sterna and legs.

3, 8-9 mm. Sculpture: apical margin of clypeus tridentate (Fig. 24a); lateral carina of pronotum ending in point; beneeth this carina with oblique rugae; prosternum lateral with few small rugae; pronotal collar rounded laterally; epimeron with trace of crest; mandibles edentate internally; propodeal enclosure anteriorly obliquely rugose, posteriorly transversely rugose, lateral- and medio-longitudinal furrows shallow developed; petiolus wider than long; coxa III without longitudinal carina; pygidial plate broad (Fig. 24d); sternum II without basal plate; genitalia characteristically shaped (Fig. 24e). Puncturation: median part of clypeus densely punctate; clypeal sides micropunctate; frons micropunctate and punctate; vertex anterior ocelli longitudinally rugose, posterior ocelli densely punctate; prosternum densely punctate; pronotal collar densely punctate; scutum, scutellum and metanotum densely punctate; mesopleuron and propodeal sides densely coarsely punctate; terga nearly densely punctate; sterna shining and apico-lateral punctate; pygidial plate coarsely densely punctate. Pilosity: clypeal sides and frons covered with short appressed setae; rest of body covered with sparse erect setae. Coloration: black, following parts yellow: clypeus frons, interantennal carina, spots on gena, pronotal collar, anterior half of tegula, terga II-V apico-lateral (variably) and tibiae partly; following parts ferruginous: apical margin of clypeus; mandible (except apex), flagellum basal half, tegula posterior half, femora and clypeal brush; wings hyaline, apical fuscous.

Distribution: Ethiopia, Kenya.



Fig. 24: Cerceris sidamoensis DOLLFUSS nov.sp. ♂: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) genitalia dorsal and gonostylus in lateral view.

Cerceris tangaensis DOLLFUSS nov.sp. (Fig. 25)

Holotype: *З*, <u>Tanzania</u>, Tanga Region, 2 km NE Mkomazi, 4°37.8'S 38°05.5'E, 29.-31.XII.2002, leg. W.J. Pulawski (CAS).

E t y m o l o g y : The holotype was collected in Tanga Region, Tanzania.

R e c o g n i t i o n : Te large male (21 mm) of *Cerceris tangaensis* is characterized by having the coxa III without a longitudinal carina, the apical margin of the clypeus is brown and edentate (Fig. 25a), the propodeal enclosure is transversely microstriate with shallow medio-longitudinal furrow, the scutum and the metapleuron are dull and densely finely punctate, the mandible is edentate internally and the flagellomere XI is distinctly longer than X and bent (Fig. 25c) and the petiolus is wider than long (Fig. 25e). Additionally the terga II-VI are nearly all yellow and the wings are fuscous. The similar large male of *spectrum* differs from *C. tangaensis* in having the apical margin of clypeus tridentate, the propodeal enclosure is smooth and yellow, the flagellomere XI is as long as X, the sterna II-VI are covered with dense erect setae and the rest of the body is covered with sparse erect setae at least so long as three times the diameter of anterior ocellus. Additionally, the wings are not all fuscous. The male of *C. multipicta* differs from *C. tangaensis* in having the apical margin of clypeus tridentate, the propodeal enclosure is smooth at yellow and the wings are not all fuscous. The male of *C. multipicta* differs from *C. tangsensis* in having the apical margin of clypeus tridentate, the propodeal enclosure is smooth at yellow and XI is as long as X. Additionally, the petiolus is distinctly longer than wide and the wings are not all fuscous.

D e s c r i p t i o n : 21 mm. Sculpture: apical margin of clypeus edentate and median area with brown spot medially (Fig. 25a); mandible edentate internally; flagellomere XI longer than X, distinctly bent and pointed below (Fig. 25c); prosternum without transverse carina; pronotal collar lateral nearly rectangular elevated; tegula on lateral half smooth; propodeal enclosure transversely microstriate (dull), lateral-and medio-longitudinal furrows shallow; petiolus wider than long (Fig. 25e); coxa III without longitudinal carina; mesopleuron without tubercle; epimeron without crest; sternum II without basal plate; pygidial plate apically rounded (Fig. 25d); genitalia (Fig. 25f). Puncturation: median part of clypeus on anterior half shining and impunctate, on posterior half micropunctate and irregular punctate; latero-clypeal parts and frons micropunctate and punctate; vertex densely punctate; pronotal collar densely punctate; pronotum lateral with short rugae; scutum micropunctate and densely finely punctate; scutellum shining and more sparsely punctate; mesopleuron and mesopleuron venter densely reticulate-punctate; propodeal sides simular punctate as on mesopleuron; terga dull and densely punctate, towards last terga more sparsely; sterna shining and lateral punctate; pygidial plate punctate. Pilosity: Clypeal brush small (Fig. 25a); latero-clypeal areas covered with dense erect setae; clypeus glabrous; rest of body more or less covered with sparse erect setae as long as two times of diameter of anterior ocellus. Coloration: black; following parts yellow: clypeus, frons, interantennal carina, mandible except apex, spot on gena, scapulae, pronotal collar lateral, tegula, lateral spots on scutellum, metanotum, terga II-VII apical half or near all, sterna II-V apico-lateral small spot; legs ferruginous and yellow, hindleg partly black; flagellum basal half ferruginous; wings fusco-ferruginous and with violet shine; clypeus anterior margin brown.

 $\stackrel{\bigcirc}{\rightarrow}$ unknown.

Distribution: Tanzania.



Fig. 25: Cerceris tangaensis DOLLFUSS nov.sp. \mathcal{J} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostyle in lateral view.

Cerceris tefnut DOLLFUSS nov.sp. (Fig. 26)

Holotype: ♂, <u>Ethiopia</u>, 40 km W Konso, 05°19'N 37°04'E, 600 m, 14.V.2015, leg. J. Halada (OÖLM). Paratypes: 3♂♂, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2N 35°27.4'E, 20.-21.XI.2002, leg. W.J. Pulawski (CAS).

E t y m o l o g y : Tefnut is an egyptian god.

R e c o g n i t i o n : The male of *Cerceris tefnut* is characterized by having no transverse carina on coxa III, the apical margin of clypeus is tridentate Fig. 26a), the mandible edentate internally, propodeal enclosure smooth and shining latero- and medio-longitudinal furrows shallow and the penis valves longer than gonostyle (Fig. 26f). Additionally, the scutum is shining and sparsely punctate (punctures 1-3 diameters apart), the prosternum has transverse rugae and the sterna III-VII have more or less developed erect setae which not obscure the underlying sculpture. The male of *gomphocarpi* is similar to *C. tefnut* but differs in having different male genitalia.

D e s c r i p t i o n : 3, 10 mm. <u>Sculpture</u>: apical margin of clypeus tridentate (Fig. 26a); mandible edentate internally; gena obtuse angled in lateral view; prosternum with lateral rugae; proponotal enclosure smooth and shining, lateral- and medio-longitudinal furrows shallowly developed; petiolus wider than long (Fig. 26d); coxa III without longitudinal carina; mesopleuron without tubercle; epimeron without crest; sternum II without basal plate; flagellomere XI as long as X, distinctly bent and without tyloidea (Fig. 26c); pygidial plate (Fig. 26e); genitalia have penis valves longer than gonostyle (Fig. 26f).



Fig. 26: Cerceris tefnut DOLLFUSS nov.sp. \mathcal{J} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) petious; (e) pygidial plate; (f) genitalia dorsal and gonostyle in lateral view.

<u>Puncturation</u>: clypeus and frons sparsely punctate; vertex densely punctate; pronotal collar anterior half sparsely punctate, posterior half impunctate; tegula impunctate; scutum shining and irregularly sparsely finely punctate (punctures 1-3 diameters apart); scutellum similarly punctated; metanotum sparsely finely punctate; propodeal sides irregularly sparsely punctate (punctures 0-2 diameters apart); mesopleuron densely coarsely punctate; terga irregularly punctate (punctures 0-1 diameter apart); pygidial plate sparsely punctate. <u>Pilosity</u>: clypeal brush broad; sterna II-VIII more or less covered with more or less long setae. <u>Coloration</u>: black, follwowing parts yellow: clypeus, frons, spot on gena, pronotal

collar lateral, tegula, epimeron, scutellum lateral, metanotum, petiolus lateral, terga II-VI with apical band, sterna II-IV lateral, mandible basal half, fore- and midlegs, hindleg (except femur and tibia apical); flagellum ferruginous apical half dorsal fuscous; in some specimens propodeal sides yellow and sterna ferruginous; wings hyaline and apical fuscous.

 $\ensuremath{\stackrel{\bigcirc}{_{\scriptscriptstyle +}}}$ unknown.

Distribution: Ethiopia, Kenya.

Cerceris tsavoensis DOLLFUSS nov.sp. (Figs 27, 28)

H o l o t y p e : ♀, Kenya, Voi (Tsavo) env., 8.-18.XI.1996, leg. Mi. Halada (ÖOLM).

P a r a t y p e s : 2♂♂, same data as holotype (JHC); <u>Ethiopia</u>: 1♀, 1♂, Sidamo province near Bitata, 1480 m, 27.IV.2007, leg. J. Halada (JHC); 1♀, Arba Minch, 05°60'N 37°33'E, 1380 m, XI.2011, leg. M. Ströhle (JHC); <u>Kenya</u>: 1♀, E Mwingi, 14.V.2007, leg. M. Halada; 5♂♂, Voi (Tsavo) env., 22.XI.-2.XII.1996, leg. Mi. Halada (JHC); 1♂, Voi, 10.XII.1999, leg. M. Snižek (JHC); 1♂, Voi (Tsavo), 23.III.-4.IV.1997, leg. Ma. Halada (JHC); 1♂, Coast Province, 2 km S Voi, 3°24.7'S 38°32.3'E, 16.XII.2002, leg. Prentice (CAS); 3♂♂, Coast Province, 4 km ENE Namanga, 2°31.4'S36°49.8'E, 5.V.2000, leg. Bourbin, Lee & Pulawski (CAS); 1♂, Rift Valley Province, Marich Pass Field Studies Centre, 1°32.2'N 35°37.4'E. 4.VI.2000, Bourbin, Lee & Pulawski (CAS); 1♂, Eastern Province, 94 km E Thika, 1°06.6'N 37°42.1'E, 10.-11.XII.2002, leg. Pulawski (CAS); <u>Tanzania</u>: 1♀, Tanga region, 2 km NE Mkomazi, 4°37.8'S 38°05.5'E, 29.XII.2002, leg. Prentice (CAS); 1♀, E Kiberashi, kit wel plain, 16.III.2002, leg. Snižek (JHC).

E t y m o l o g y : The holotype was collected in Tsavo National Park, Kenya.

R e c o g n i t i o n : The female of C. tsavoensis is characterized by having the coxa III without longitudinal carina, the median area of clypeus has a triangular carina near the apical margin (Fig. 27a), the scutum and the scutellum are longitudinally rugose and punctate. Additionally, the mandible has a blunt tooth internally, the propodeal enclosure is transversely striate, the mesopleuron has a small tubercle, the petiolus is slightly wider than long and the body is predominantly ferruginous. The female of C. schultzei differs from C. tsavoensis by having the peopodeal enclosure densely punctate and with erect setae and the median area of clypeus with a slightly covex process near apical margin. The female of C. ethiopia differs from C. tsavoensis by having the propodeal enclosure irregularly punctate, the apical margin of the clypeus with two teeth on each side, a short transverse carina just above it and the scutum is sparsely punctate with short longitudinal striae posteriorly. The female of C. podagrosa differs from C. tsavoensis by having the propodeal enclosure densely punctate, the scutum is finely and densely punctate. Additionally, the terga III and IV are dull and nearly impunctate, the clypeus is nearly straight with a short transverse carina just above the apical margin and the mandible are edentate internally. The female of C. erythroura differs from C. tsavoensis by the apical margin of clypeus forming a triangular lamina with teeth laterally, the scutellum is longitudinally rugose and punctured, the propodeal enclosure dull irregularly obliquely rugose and the wings are fuscous.

The male of *C. tsavoensis* is characterized by the coxa III without a longitudinal carina, the apical margin of the clypeus is yellowich-brown and shallowly tridentate (Fig. 28a), the clypeal brush is broad, the mandible has a distinct tooth internally, and the scutum is longitudinally rugose and punctate between the ruage. Additionally, the propodeal enclosure is shallowly transversely rugose, the petiolus is slightly longer than wide, the sternum VI has a lamellate tooth apico-laterally, the gonostylus is characteristically shaped in lateral view and the body is predominantly ferruginous.

The male of *C. anubis* is similar to *C. tsavoensis* but differs by having no ferruginous color on the body, the scutum is punctate (punctures 0-1 diameter apart), the propodeal enclosure is irregularly obliquely rugose and isolated punctate and sternum VI has no distinct tooth it is only slightly produced. The male of *C. pseudoanubis* is also similar to *C. tsavoensis* but differs by having the scutum shining and sparsely punctate (punctures 1-2 diameters apart) and posteriorly with short longitudinal rugae, the sternum II with more or less developed longitudinal carina and the body is predominantly yellow without ferruginous color. The male of *C. iniqua* is similar to *C. tsavoensis* but differs in having no feruginous color on body, the scutum is nearly densely punctate and the prosternum is obliquely rugose and the scutellum is in most specimens slightly rised laterally.

Description: Q, 14-16 mm. Sculpture: apical margin of clypeus straight with small tooth lateral; median part of clypeus with triangular carina near apical margin (Fig. 27a); mandible with blunt tooth internally; prosternum without transverse carina; interantennal carina broad; pronotal colar rounded lateral; mesopleuron with small tubercle; epimeron without crest; propodeal enclosure transversely ruguos, lateral- and medio-longitudinal furrows not crenulate; coxa II without longitudinal carina; sternum II without basal plate; flagellum (Fig. 27c); pygidial plate (Fig. 27d). Puncturation: clypeus micropunctate: frons micropunctate and punctate; vertex densely punctate; prosternum micropunctate; pronotal collar dull and impunctate; scutum and scutellum longitudinally rugose and punctate; metanotum impunctate; mesopleuron densely reticulate-punctate; propodeal sides and petiolus densely punctate; terga II-IV dull and densely punctate, VI more sparsely; pygidial plate densely irregularly structured; sterna shining and apicolateral punctured. Pilosity: clypeal sides covered with short dense appressed setae; rest of body covered with sparse more or less erect setae. Coloration: black; following parts yellow: clypeus, frons, interantennal carina; mandible basal half, pronotal collar, scutellum, metanotum, petiolus lateral, terga II-IV apical, propodeal sides (varyably); following parts ferruginous: flagellum, apical margin of clypeus, vertex, gena, prosternum, scutum, mesopleuron, mesopleural venter, propodeal sides, terga and sterna predominantly, pygidial plate and legs.



Fig. 27: Cerceris tsavoensis DOLLFUSS nov.sp. \bigcirc : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate.

∂, 10-11 mm. Sculpture: apical margin of clypeus produced and tridentate (Fig. 28a); mandible with acute tooth internally; prosternum without transverse carina; pronotal collar rounded laterally; propodeal enclosure transversely or slightly arcuaterly rugose, lateraland medio-longitudinal furrows shallow developed; mesopleuron without tubercle; epimeron without crest; coxa III without longitudinal carina; sternum II without basal plate; sternum VI with distinct lamellate tooth apico-lateral; pygidial plate rectangular (Fig. 28d); flagellum (Fig. 28c); petiolus slightly longer than wide (Fig. 28e); genitalia (Fig. 28f). Puncturation: clypeus and frons densely punctate; vertex densely punctate; pronotal collar sparsely punctate; tegula impunctate; scutum and scutellum longitudinally rugose and punctured beween rugae; metanotum impunctate; propodeal sides densely punctate; terga densely punctate; mesopleuron densely reticulate-punctate; pygidial plate flatly punctate; sterna apico-lateral punctate. Pilosity: clypeal brush broad (Fig. 28a); rest of body covered with sparse erect setae. Coloration: black; following parts yelloow: clypeus, frons, interantennal carina, mandible basal half, pronotal collar posteriorly, scutellum lateral, metanotum, propodeum sides partly, mesopleuron, petiolus apicolateral, terga II-V apical; following parts ferruginous: vertex gena, tegula, scutum, scutellum partly, metanotum, propodeal sides partly, terga I and II partly, tergum VI, pygidial plate, sterna predominantly and legs partly; wings hyaline and apical fuscous; apical margin of clypeus yellowich-brown.

D i s t r i b u t i o n : Ethiopia, Kenya, Tanzania.



Fig. 28: Cerceris tsavoensis DOLLFUSS nov.sp. $\vec{\bigcirc}$: (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) pygidial plate; (e) petiolus; (f) genitalia dorsal and gonostylus in lateral view.

Cerceris voiensis DOLLFUSS nov.sp. (Figs 29, 30)

Holotype: ♀, Kenya, Voi (Tsavo), 13.-17.XII.1997, leg. M. Snižek (OÖLM). Paratypes: Kenya: 1♂, same data as holotype (JHC); 1♂, E Mwingi, 14.V.2007, leg. M. Halda (JHC); 3♂♂, Coast Province, 2 km S Voi, 3°24.7'S 38°32.3'E, 16.XII.2002, leg. M.A.Prentice (CAS); 1♂, Coast Province, Taita Discovery Centre, 3°42.3'S 38°46,6'E, 6.V.2000, leg. Lee & Pulawski (CAS); 1♂, Coast Province, Taita Hill Discovery Centre, 3°42.3'S 38°46.6'E, 13.-14.XII.2002, leg. W.J. Pulawsky (CAS).

E t y m o l o g y : The holotype was collected in Voi (Tsavo National Park), Kenya.

R e c o g n i t i o n : Cerceris voiensis has no longitudinal carina on coxa III and the prosternum has no transverse carina. The female of Cerceris voiensis is characterized by having the scutum and the scutellum with very coarse longitudinal rugae and sparse punctures between them (Fig.30d), the apical margin of the clypeus with two large teeth, deeply emarginate between them and two small teeth laterally, the median area of clypeus has a projecting lamina which is above the tentorial pits and entirely free down to its base. the lamina is slightly broader than long and distinctly concave in frontal view (Fig. 29a,b). Additionally, the propodeal enclosure is shining with coarse longitudinal rugae and the lateral- and medio-longitudinal furrows are not crenulate, the mesopleuron has an acute small tubercle and the mandible no distinct tooth internally. The female of C. erythrosoma is similar to C. voiensis but differs in having more acute teeth on apical margin of clypeus, the scutum is sparsely punctate, the wings are fuscous with violett shine and sternum IV with dense golden setae (C. voiensis has shorter teeth on anterior margin of clypeus, the scutum is very coarsely longitudinally rugose, the sternum IV without dense setae and the wings are hyaline). The female of C. flavonasuta differs from C. voiensis in having the anterior margin of the clypeus straight, the mandible with blunt tooth and the head and the thorax are dull. The female of C. ruficauda shares with C. voiensis the projecting lamina on clypeus but differs in having a longitudinal carina on the coxa III, the mandible are bidentate internally and the scutum densely punctate.

The male of *Cerceris voiensis* is characterized by having the scutum and the scutellum with very coarse longitudinal rugae and sparse punctures beween them (Fig. 30d), the mandible with distinct tooth internally, the apical margin of clypeus is produced and tridentate (Fig. 30a), the flagellomeres VII-XI have tyloidea (Fig. 30c), the sternum VI has a blunt tubercle covered with short dense erect setae, the petiolus is as long as wide and the legs are yellow. The male of *C. erythrosoma* shares with *C. voiensis* the distinct tooth on the mandible inernally, but differs in having the anterior margin of the clypeus edentate, the flagellum without tyloidea and the sternum VI with a fringe of golden setae posteriorly. Additionally, the scutum is shining and punctate and the genitalia are distinctly differently shaped.

D e s c r i p t i o n : \bigcirc , 10 mm. <u>Sculpture</u>: apical margin of clypeus with two large teeth, deeply emarginate between them and two small teeth laterally (Fig. 29a); median area of clypeus with projecting lamina slightly broader than long and distinctly convex in frontal view, entirely free down to its base and above the tentorial pits (Fig. 29b); mandibles with small emargination internally; prosternum dull and without transverse carina; propodeal collar slightly emarginate medially; lateral carina of pronotum without ending in point; mesopleuron with small acute tooth; epimeron without distinct crest; scutum and scutellum very broadly longitudinally rugose and some punctures between them (Fig. 30d); propodeal enclosure longitudinally coarsely rugose, lateral- and medio-longitudinal

furrows not crenulate; propodeal sides obliquely reticulate-rugose; petiolus wider than long; inner orbits parallel; flagellum I slightly longer than II; sternum II without basal plate; pygidial plate with parallel sides (Fig. 29c). Puncturation: clypeus and frons dull and sparsely finely punctate; vertex before ocelli longitudinally striate, behind ocelli micropunctate and densely punctate; gena densely punctate; pronotum dull and impunctate; tegula impunctate; mesopleuron coarsely reticulate-punctate; mesopleuron venter micropunctate; petiolus apico-medial with fossa and sparsely punctate; terga medially impunctate, shining and laterally sparsely punctate; pygidial plate irregularly structured; sterna median impunctate, lateral sparsely punctate. Pilosity: clypeal sides with short appressed setae; gena with appressed white setae; mesopleuron venter with fine appressed setae; pygidial plate lateral with distinct erect setae; sternum V with dense erect setae; sternum VII with few long setae. Coloration: black; following parts yellow: clypeal lamella (except apical margin), clypeal sides, frons, interantennal carina, spots on vertex lateral, pronotal collar lateal, scapus, tegula lateral half, scutellum, metanotum, terga II-V lateral broad and medial small, legs (except coxae); following ferruginous: flagellum basal part, petiolus apical, tergum II basal, tergum III medial and sterna. Wings subhyaline.

♂, 9-10 mm. <u>Sculpture</u>: apical margin of clypeus produced and tridentate (Fig. 30a); median area with short longitudinal carina medially; mandible with distinct tooth internally; prosternum sparsely punctate and without transverse carina; scutum and scutellum with very broad longitudinally rugae and with some punctures between them (Fig. 30d); propodeal enclosure very coarsely obliquely rugose, lateral- and medio-longitudinal furrows not crenulate; propodeal sides coarsely reticulate; flagellomeres VII-XI with tyloidea



Fig. 29: Cerceris voiensis DOLLFUSS nov.sp. \mathcal{Q} : (a) clypeus; (b) clypeus lateral view; (c) pygidial plate; (d) petiolus.



Fig. 30: Cerceris voiensis DOLLFUSS nov.sp. \mathcal{J} : (a) clypeus; (b) clypeus lateral view; (c) flagellum; (d) scutum dorsal; (e) pygidial plate; (f) genitalia dorsal and gonostyle in lateral view.

(Fig. 30c); sternum VI with blunt tubercles and short setae (Fig. 30e); petiolus slightly wider than long; sternum II without basal plate; pygidial plate (Fig. 30e). <u>Puncturation</u>: clypeus and frons sparsely punctate; vertex irregularly punctato-rugose; pronotal collar sparsely punctare; tegulae impunctate; mesopleuron coarsely reticulate; mesopleuron venter dull; terga micropunctate and nearly densely punctate; pygidial plate micropunctate and coarsely punctate; sterna medially impunctate laterally punctate. <u>Pilosity</u>: clypeal sides with short erect setae; gena with appressed setae; sternum VI lateral covered with short dense erect setae. <u>Coloration</u>: black, following parts yellow: clypeus (except apical margin), frons, mandible (except apex), pronotal collar lateral, tegula, scutellum partly, metanotum, terga II-VI apically, legs; flagellomeres I and II (III) ferruginous.

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348

Zusammenfassung

Die folgenden 19 Arten werden neu beschrieben: C. anubis (Kenya, Tanzania), C. centralafricanula (Central African Republic), C. chimoio (Mozambique), C. ethiopia (Ethiopia, Kenya, Malawi, Tanzania), C. hanangensis (Tanzania Mt. Hanang, Mt. Meru), C. mackinnona (Ethiopia, Kenya, Tanzania), C. namibiensis (Namibia), C. nigeriaensis (Nigeria), C. nut (Kenya, Tanzania), C. pseudoanubis (Ethiopia, Kenya, Tanzania), C. pseudosolitaria (Tanzania), C. ptah (Kenya), C. saveensis (Mozambique), C. sidamoensis (Ethiopia, Kenya), C. tangaensis (Tanzania), C. tefnut (Ethiopia), C. tsavoensis (Ethiopia, Kenya, Tanzania), C. voiensis (Kenya).

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