

## Notes on the Vespidae (Hymenoptera: Vespoidea) of Djibouti

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### Abstract

An annotated checklist of the family Vespidae from Djibouti is provided. New records are communicated. *Antodynerus sheffieldi sheffieldi* (MEADE-WALDO, 1915), *Delta hottentotum berlandi* (GIORDANI SOIKA, 1934), *Ischnogasteroides flavus* MAGRETTI, 1884, *Knemodynerus stigma* (DE SAUSSURE, 1863), *Pseudonortonia* sp. and *Polistes marginalis marginalis* (FABRICIUS, 1775) are new to the fauna of Djibouti.

Key words: Vespidae, Eumeninae, Polistinae, checklist, new records, Djibouti.

### Zusammenfassung

Eine kommentierte Artenliste der Familie Vespidae von Dschibuti wurde erstellt. Neue Funddaten werden mitgeteilt. *Antodynerus sheffieldi sheffieldi* (MEADE-WALDO, 1915), *Delta hottentotum berlandi* (GIORDANI SOIKA, 1934), *Ischnogasteroides flavus* MAGRETTI, 1884, *Knemodynerus stigma* (DE SAUSSURE, 1863), *Pseudonortonia* sp. und *Polistes marginalis marginalis* (FABRICIUS, 1775) sind neu für die Fauna von Dschibuti.

### Introduction

During an entomological expedition of the Natural History Museum Vienna to Djibouti (25 January – 4 February 2016), several specimens of Vespidae were collected by M. Madl. The material contains nine species, of which six species are first records for the fauna of Djibouti. Altogether 14 species of Eumeninae and three species of Polistinae are now recorded from Djibouti.

The knowledge of the Vespidae of Djibouti (WALKER 1871, INNES BEY 1912) is mainly based on the Lord collection, which was housed at the Ecole de Médecine du Caire, Egypt. This collection is completely destroyed (INNES BEY 1912: 97–98) and only voucher specimens exist in the Natural History Museum in London. Unfortunately the localities of species mentioned by WALKER (1871) sometimes differ from those mentioned by INNES BEY (1912).

### Abbreviations:

Afr. reg.	Afrotropical region	fig. (s)	figure(s)
biol.	biology	syn.	synonym
cat.	catalogue	tax.	taxonomy

References and distributional data are only given for countries of the Afrotropical region.

## Annotated checklist

### Subfamily Eumeninae

#### ***Ancistrocerus parietum* (LINNAEUS, 1758)**

*Odynerus parietum* (LINNAEUS, 1758): INNES BEY 1912: 103 (Tadjoura, cat. Lord Collection).

Distribution: Djibouti?

Notes: This record is probably a misidentification, because *Ancistrocerus parietum* is unknown from the Afrotropical region, and also from Egypt and the Arabian Peninsula. WALKER'S (1871: 32) record of *Ancistrocerus parietum* from Egypt (Cairo) is most probably based on a misidentification. In North Africa this species is only recorded from Morocco. The record from Djibouti is not mentioned in MEADE-WALDO (1915: 486), BEQUAERT (1918) and CARPENTER et al. (2009, 2010b).

#### ***Antepipona cingulifer* (WALKER, 1871)**

*Antepipona cingulifera* (sic!) (WALKER, 1871): CARPENTER et al. 2009: 563 (cat. Afr. reg.).

\**Odynerus defractus* DU BUYSSON, 1906: BEQUAERT 1918: 296 (tax., cat. Afr. reg.).

\**Odynerus parvulus* LEPELETIER DE SAINT-FARGEAU, 1841: WALKER 1871: 32 (Tadjoura).

Distribution: Cameroon, Djibouti, Eritrea, Ethiopia, Ghana, Mali, Niger, Nigeria, Sudan.

Notes: *Antepipona cingulifer* is also known from the Palaearctic region. The record from Djibouti is not mentioned in DALLA TORRE (1894: 88), DALLA TORRE (1904: 51), INNES BEY (1912: 103), and MEADE-WALDO (1915). BEQUAERT (1918: 296) listed the paper of WALKER (1871) under *Odynerus defractus* DU BUYSSON, 1906.

#### ***Antodynerus bellatulus bellatulus* (DE SAUSSURE, 1853)**

*Odynerus bellatus* (sic!) DE SAUSSURE, 1853: WALKER 1871: 32 (Tadjoura); INNES BEY 1912: 103 (Tadjoura, cat. Lord Collection).

*Odynerus bellatulus* DE SAUSSURE, 1853: BEQUAERT 1918: 175 ("not seen"), 294 (cat. Afr. reg.).

*Antodynerus bellatulus bellatulus* (DE SAUSSURE, 1853): CARPENTER et al. 2009: 601 (cat. Afr. reg.).

Distribution: Angola, Burkina Faso, Djibouti, Eritrea, Gambia, Ghana, Guinea Bissau, Ivory Coast, Mali, Niger, Nigeria, Senegal, Sudan, Togo.

Notes: The record from Djibouti is not mentioned in DALLA TORRE (1894: 55) and DALLA TORRE (1904: 41).

#### ***Antodynerus sheffieldi sheffieldi* (MEADE-WALDO, 1915)**

Material examined: Road N. 9 to Tadjoura, Oued near Sagallou (11°39'15"N, 42°42'44"E, 8 m a.s.l.), 29.I.2016, leg. M. Madl, 1 ♀.

Distribution: Djibouti, Malawi, Mozambique, Zambia, Zimbabwe.

Notes: New to the fauna of Djibouti.

#### ***Chlorodynerus kelidopterus* (KOHL, 1906)**

*Euodynerus* (*Chlorodynerus*) *kelidopterus* (KOHL, 1906): BLÜTHGEN 1954: 225 (world cat.), 238–239 (key ♂, descr. ♂, 248–249 (key ♀, descr. ♀, fig. 24), 253 (tax., Obock).

*Chlorodynerus kelidopterus* (KOHL, 1906): CARPENTER et al. 2009: 625–626 (cat. Afr. reg.).

Distribution: Burkina Faso, Chad, Djibouti, Mali.

Notes: *Chlorodynerus kelidopterus* is also known from the Palaearctic region.

***Delta cafferum* (A LINNÉ, 1767)**

*Eumenes caffer* (A LINNÉ, 1767): WALKER 1871: 29 (Tadjoura); INNES BEY 1912: 102 (Tadjoura, cat. Lord Collection).

*Eumenes caffer caffer* (A LINNÉ, 1767): BEQUAERT 1918: 10 (tax., as *E. caffer*), 24 (biogeogr., as *E. caffer*), 55 (biol.), 65 (tax., as *E. caffer*), 69 (tax., descr. ♂♀, as *E. caffer*), 71 (fig. 56: map, as *E. caffer*), 71 (key), 72 (tax., descr. ♂♀), 275 (cat. Afr. reg.).

*Delta cafferum* (A LINNÉ, 1767): CARPENTER et al. 2010a: 97–98 (cat. Afr. reg.).

Distribution: Chad, Djibouti, Eritrea, Kenya, Mauritania, Namibia, Niger, South Africa, Sudan.

Notes: The record from Djibouti is not mentioned in DALLA TORRE (1894: 19) and DALLA TORRE (1904: 21). BEQUAERT (1918: 275) cited the paper of WALKER (1871), but did not list Djibouti in the distribution. As *Delta cafferum*, which is restricted to southern Africa, can be mistaken for *Delta lepeletierii* (DE SAUSSURE, 1852), all records should be checked again.

***Delta dimidiatipenne* (DE SAUSSURE, 1852)**

*Eumenes dimidiatipennis* DE SAUSSURE, 1852: WALKER 1871: 29 (Tadjoura).

*Delta dimidiatipenne* (DE SAUSSURE, 1852): CARPENTER et al. 2010a: 100 (cat. Afr. reg.).

Material examined: Bankoualé, Oued (11°49'16"N, 42°40'09"E, 649 m a.s.l.), 29.I.2016, leg. M. Madl, 1 ♀.

Distribution: Chad, Djibouti, Eritrea, Ethiopia, Mauritania, Niger, Socotra, Somalia, South Africa, Sudan and Uganda.

Notes: *Delta dimidiatipenne* is also known from the Oriental and Palaearctic regions. The record from Djibouti is not mentioned in DALLA TORRE (1894: 22), DALLA TORRE (1904: 22) and INNES BEY (1912: 103).

***Delta hottentotum berlandi* (GIORDANI SOIKA, 1934)**

Material examined: Bankoualé, Oued (11°49'16"N, 42°40'09"E, 649 m a.s.l.), 29.I.2016, leg. M. Madl, 2 ♀♀.

Distribution: Angola, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Somalia, Tanzania and Zimbabwe.

Notes: *Delta hottentotum berlandi* is also known from the Palaearctic region. New to the fauna of Djibouti.

***Eumenes lucasius* DE SAUSSURE, 1852**

*Eumenes lucasius* DE SAUSSURE, 1852: GIORDANI SOIKA 1975: 70 (key, fig. 5), 89 (tax., descr. ♂♀, Obock), 90 (figs. 29-32); CARPENTER et al. 2010a: 129–130 (cat. Afr. reg.).

Distribution: Botswana, Burkina Faso, Djibouti, Eritrea, Ethiopia, Kenya, Namibia, Somalia, South Africa, Sudan, South Africa, Tanzania (Tanzania, Zanzibar), Uganda, Zimbabwe.

***Euodynerus variegatus* (FABRICIUS, 1793)**

\**Odynerus crenatus* DE SAUSSURE (sic!): INNES BEY 1912: 103 (Tadjoura, cat. Lord Collection).

Distribution: Djibouti.

Notes: *Euodynerus variegatus* is also known from the Palaearctic region. The record from Djibouti is not mentioned in BEQUAERT (1918) and CARPENTER et al. (2010a, b). WALKER (1871: 32) recorded this species from Egypt (Cairo).

***Ischnogasteroides flavus* MAGRETTI, 1884**

Material examined: Bankoualé, Oued, near waterfall (11°49'14" N, 42°40'09" E, 649 m a.s.l.), 29.I.2016, leg. M. Madl, 3 ♀♀; Lac Abbé (11°06'07" N/41°53'40" E, 287 m), 1–2.II.2016, leg. M. Madl, 1 ♀.

Distribution: Djibouti, Eritrea.

Notes: *Ischnogasteroides flavus* is also known from the Palaearctic region. New to the fauna of Djibouti.

***Knemodynerus rhynchoides rhynchoides* (DE SAUSSURE, 1853)**

*Odynerus (Lionotus) rhynchoides* DE SAUSSURE, 1853: MEADE-WALDO 1915: 487 (cat. Afr. reg.), 494 (key), 509 (Tadjoura).

*Odynerus (Rhygchium) rhynchoides* DE SAUSSURE, 1853: BEQUAERT 1918: 309 (cat. Afr. reg.).

*Odynerus (Rhynchium) tectus* var. *rhynchoides* DE SAUSSURE, 1853: GIORDANI SOIKA 1934: 46 (tax., Tadjoura based on MEADE-WALDO 1915).

*Knemodynerus rhynchoides rhynchoides* (DE SAUSSURE, 1853): CARPENTER et al. 2010a: 153–154.

Distribution: Burkina Faso, Central African Republic (?), Democratic Republic of Congo (?), Djibouti, Eritrea, Ethiopia, Gambia, Kenya, Mali, Niger, Nigeria, Senegal, Sudan.

Notes: *Knemodynerus rhynchoides rhynchoides* is also known from the Palaearctic region.

***Knemodynerus stigma* (DE SAUSSURE, 1863)**

Material examined: Lac Abbé (11°07'40" N, 41°53'39" E, 236 m a.s.l.), 1–2.II.2016, leg. M. Madl, 1 ♀.

Distribution: Chad, Djibouti, Eritrea, Ethiopia and Sudan.

Notes: *Knemodynerus stigma* is also known from the Palaearctic region. New to the fauna of Djibouti.

***Paramischocyttarus subtilis* MAGRETTI, 1884**

*Paramischocyttarus subtilis* MAGRETTI, 1884: GIORDANI SOIKA 1979: 57 (key), 58 (descr. ♂♀, Djibouti, figs. 56, 59), 60 (figs. 62–65); CARPENTER et al. 2010a: 180 (cat. Afr. reg.).

Distribution: Djibouti, Eritrea, Ethiopia, Niger, Nigeria, Sudan.

Notes: *Paramischocyttarus subtilis* is also known from the Palaearctic region.

***Pseudonortonia* sp.**

Material examined: Oued Kalou, Allouli (11°33'27" N/42°20'26" E, 101 m a.s.l.), 31.I.2016, leg. M. Madl, 1 ♂, 1 ♀.

Notes: New to the fauna of Djibouti. As the genus *Pseudonortonia* GIORDANI SOIKA, 1936, which is represented by 39 species and one subspecies in the Afrotropical region (CARPENTER et al. 2010b: 1003), is in need of a modern revision, the identification to species level is not possible currently.

***Zethus (Zethus) favillaceus* WALKER, 1871**

*Zethus favillaceus* n. sp.: WALKER 1871: 28 (descr. ♂♀, Tadjoura).

*Zethus favillaceus* WALKER, 1871: DALLA TORRE 1894: 11 (world cat.); DALLA TORRE 1904: 17 (world cat. (Djibouti (not Egypt))); CAMERON 1910: 178 (syn. of *Eumenes lucasia* (sic!) DE SAUSSURE, 1852); INNES BEY 1912: 102 (Tadjoura, cat. Lord Collection); BEQUAERT 1918: 271 (cat. Afr. reg.); BEQUAERT 1926: 517 (tax.); CARPENTER et al. 2010a: 305 (cat. Afr. reg.).

*Zethus (Zethus) favillaceus* WALKER, 1871: GIORDANI SOIKA 1979: 22 (fig. 3), 24 (key), 43 (tax., descr. ♂♀, Obock, Tadjoura), 44 (pl. 4), 46 (figs. 31, 32), 47 (figs. 35, 36).

\**Elimus arabicus* n. sp.: MEADE-WALDO 1910: 40 (descr. ♀, Tadjoura).

*Elimus arabicus* MEADE-WALDO, 1910: BEQUAERT 1918: 271 (tax., cat. Afr. reg.).

*Zethus arabicus* (MEADE-WALDO, 1910): BEQUAERT 1928: 151 (tax., descr. ♂♀, Tadjoura); GIORDANI SOIKA 1940: 131 (figs. 4, 11), 132–133 (key), 135 (tax., Tadjoura).

*Elimus arabicus* MEADE-WALDO, 1910: GIORDANI SOIKA 1979: 43 (syn.).

\**Labus Maindroni* n. sp.: BUYSSON 1906: 107 (descr. ♀, Obock).

*Labus maindroni* DU BUYSSON, 1906: MEADE-WALDO 1911: 450 (key); BEQUAERT 1918: 274 (cat. Afr. reg.); BEQUAERT 1926: 152 (syn. of *Zethus arabicus* (“type not seen, lost”)); GIORDANI SOIKA 1979: 43 (syn.).

*Zethus maindroni* (DU BUYSSON, 1906): GIORDANI SOIKA 1983: 153 (tax.).

**Distribution:** Burundi, Djibouti, Kenya, Somalia, South Africa, Sudan, Tanzania, Zimbabwe.

**Notes:** *Zethus favillaceus* is also known from the Palearctic region.

### Subfamily Polistinae

The record of *Belonogaster abyssinica* DU BUYSSON, 1906 from Djibouti (Menabella) mentioned by RICHARDS (1982: 96) is in fact from Ethiopia. Currently this species is restricted to Eritrea and Ethiopia.

#### ***Belonogaster menelikii* GRIBODO, 1879**

*Belonogaster griseus* var. *meneliki* (!) GRIBODO, 1879: BUYSSON 1909: 250 (tax., surroundings of Djibouti).

*Belonogaster griseus* var. *menelikii* GRIBODO, 1879: BEQUAERT 1918: 332 (cat. Afr. reg.).

**Material examined:** Bankoualé, Oued, near waterfall (11°49'14"N, 42°40'09"E, 649 m a.s.l.), 29.I.2016, leg. M. Madl, 3 ♀♀.

**Distribution:** Djibouti, Ethiopia, Somalia.

**Notes:** The record from Djibouti (BUYSSON 1909) is not mentioned in KOJIMA & CARPENTER (1997: 84–85). The identification should be checked, because RICHARDS (1982: 52) stated that the box with *Belonogaster menelikii* (Muséum National d'Histoire Naturelle Paris) contains several species. We have not examined the material.

#### ***Polistes marginalis marginalis* (FABRICIUS, 1775)**

**Material examined:** Bankoualé, Oued, near waterfall (11°49'14"N, 42°40'09"E, 649 m a.s.l.), 29.I.2016, leg. M. Madl, 3 ♀♀.

**Distribution:** Burkina Faso, Djibouti, Ethiopia, Eritrea, Kenya, Lesotho, Niger, Somalia, South Africa, Tanzania (Tanzania, Zanzibar).

**Notes:** *Polistes marginalis marginalis* is also known from the Palearctic region. New to the fauna of Djibouti.

***Ropalidia cincta* (LEPELETIER DE SAINT-FARGEAU, 1836)**

*Ropalidia cincta* (LEPELETIER DE SAINT-FARGEAU, 1836): WALKER 1871: 40 (Tadjoura); BEQUAERT 1918: 340 (cat. Afr. reg.); KOJIMA & CARPENTER 1997: 13–14 (world cat).

Distribution: Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Gambia, Kenya, Mozambique, Namibia, Senegal, Somalia, South Africa, Sudan, Tanzania, Uganda, Zimbabwe.

Notes: *Ropalidia cincta* is also known from the Palaearctic region. The record from Djibouti is not mentioned in DALLA TORRE (1894: 118; 1904: 73) and INNES BEY (1912: 104). KOJIMA & CARPENTER (1997: 13) listed the paper of WALKER (1871), but Djibouti is missing in the distribution.

***Ropalidia* sp.**

Material examined: Bankoualé, Oued, near waterfall (11°49'14" N, 42°40'09" E, 649 m a.s.l.), 29.I.2016, leg. M. Madl, 1 ♂.

Notes: A modern revision of the Afrotropical species of the genus *Ropalidia* GUÉRIN-MÉNEVILLE, 1831 is necessary to identify the material.

Acknowledgements

We are indebted to Manuela Vizek (Naturhistorisches Museum Wien, Austria) and Fritz Gusenleitner (Biologiezentrum Linz des Oberösterreichischen Landesmuseums, Austria) for their help in various ways during this study. Michael Madl is grateful to Houssein A. Rayaleh (Association Djibouti Nature, Djibouti) who organized the excursion in Djibouti, and the guides Ebo and Mamoussa for their excellent service during the field trip.

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Jahr/Year: 2016

Band/Volume: [68](#)

Autor(en)/Author(s): Gusenleitner Josef Alois, Madl Michael

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