

African and Asian antlion data from the EFMEA collection (*Neuroptera: Myrmeleontidae*)

EYJOLF AISTLEITNER¹ & LEVENTE ÁBRAHÁM²

¹Entomologisches Forschungsmuseum EFMEA, A-6800 Feldkirch, Austria, e-mail: eyjaist@yahoo.de

²Rippl-Rónai Museum, H-7400 Kaposvár, Hungary, e-mail: labraham@smmi.hu, <https://orcid.org/0000-0002-8007-7117>

Abstract: The collection of the Entomologisches Forschungsmuseum Eyjolf Aistleitner (EFMEA) contains lots of faunistic data on antlions, which have been collected over 40 years. 603 specimens of 100 species from Africa and Asia can be found in the collection. From a faunistic point of view, the most interesting species are: *Palpares gratiosus* Navás, 1929, *Palparellus damarensis* (McLachlan, 1868), *Pseudopalpares parvopunctatus* Ábrahám, 2023, *Stenares hyaena* (Dalman, 1823), *Hagenomyia lethifera* (Walker, 1853), *Banyutus pulverulentus* (Rambur, 1842), *Creoleon gri-seus* (Klug in Ehrenberg, 1834), *Distoleon asiricus* Hölzel, 1983. Each of them is illustrated with a habitus photo. *Palpares elegantulus* Péringuey, 1910, *Myrmeleon doralice* Banks, 1911, and *Neuroleon chloranthe* (Banks, 1911) are new records for the fauna of Angola, and *Hagenomyia lethifera* (Walker, 1853) for Ethiopia

Introduction

The EFMEA collection (the Entomologisches Forschungsmuseum Eyjolf Aistleitner) is one of the largest private insect collections in Austria. It contains a large amount of faunistic data in several insect orders (Lepidoptera, Coleoptera, Hymenoptera etc.), not only from Austria and Europe, but also from exotic African and Asian countries.

Among the Neuroptera families, Ascalaphidae, Nemopteridae, and Myrmeleontidae are well represented in the collection.

The first author began publishing data from the collection more than four decades ago and also described several new taxa (Aistleitner 1973, 1980, 1981, 1982a, b, 2007, 2015, 2019, 2020, Aistleitner & Hölzel 2012, Aistleitner & Lencina Gutiérrez 2020). From 2023, the second author of this paper assisted in identifying the material and compiling the publications (Aistleitner & Ábrahám 2023a, b, c, 2024; Aistleitner et al. 2025). In these papers, data on the examined material were reported by the neuropteran families. The first author collected numerous times and significant amounts of material, also from Spain and Cape Verde. Those local faunistic data were published in separate publications (Aistleitner & Ábrahám 2023c, Aistleitner et al. 2025).

This paper aims to present the faunistic data of the African and Asian antlions preserved in the EFMEA collection.

Material and methods

The first author of this paper has been collecting lacewings, focusing on the families Ascalaphidae, Nemopteridae, and Myrmeleontidae for over 50 years. However, the exotic material from Asia and Africa was not personally collected by the author, but rather received, exchanged, or purchased from Austrian, German, Czech, Spanish, and other entomologists. The majority of the species were collected using portable light traps and light or torches by different collectors.

The species included in the study were determined by the second author, using the entomological collection of the Rippl-Rónai Museum (SCMK) as a reference and comparative material and remarks was written on the distribution of each species.

The faunistic data are not uniform because they come from different periods and collectors. Therefore, the data are presented in the order of the information listed in labels and have not been standardized. The faunistic data are grouped by country and smaller geographical units (such as provinces, geographical landscape units etc.) along with phenological and other information. Since the faunistic data come from several countries and locations where a non-Latin alphabet is used, the spelling of the sites was supplemented using Google Maps.

The species are arranged in alphabetical order within their traditional subfamilies and tribes.

Abbreviations:

e or E. – east, w or W. – west, s or S. – south, n or N. – north, vic. – vicinity, NP. – National Park.

EFMEA – Entomological Research Museum (Entomologisches Forschungsmuseum Eyjolf Aistleitner), Austria

SCMK – The entomological collection of the Rippl-Rónai Museum, Kaposvár, Hungary.

Results and discussion

In this paper, faunistic data on antlion species are published from Africa and Asia in the EFMEA collection. The collection contains 100 species and 603 specimens. Of these 20 species and 150 specimens from Asia, and 77 species and 451 specimens from Africa were collected. 3 species occur on both continents. The faunistic data originate from 12 African (Angola, Central African Republic, Egypt, Ethiopia,

Ivory Coast, Kenya, Madagascar, Mali, Morocco, Namibia, Republic of South Africa, Tunisia) and 13 Asian (Russia, Iran, Israel, Kazakhstan, Kyrgyzstan, Laos, Libanon, Mongolia, Thailand, Turkey, Turkmenistan, Usbekistan, Yemen) countries. In the collection material, larger antlions with colourful wings are better represented than non-decorative smaller ones. Most species are widely distributed, occurring locally in high numbers. Short remarks on their distribution are provided for every species.

The taxonomic classification follows the catalogue of Aspöck et al. (2001).

List of species

Family: **Myrmeleontidae** Latreille, 1802

Subfamily: **Palparinae** Banks, 1911

Tribe: **Palparini** Banks, 1911

Crambomorphus madagascariensis (van der Weele, 1907)

Madagascar, Prov. Toliara, Ifaty, 20 km N Tulear, 10-27.12.2015, 1 ex., leg. Anonymus, ex coll. SCMK.

Remarks: Two endemic species of *Crambomorphus* are found in Madagascar (Stange 2004). *C. madagascariensis*, which has rounded wing tips, is more abundant than *C. grandidieri* van der Weele (1907) and has been found in the drier SW regions of the island (Ábrahám & Dobosz 2011).

Golafrus oneili (Péringuey, 1911)

Namibia, Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 1 ex., leg. Halada. — **Republic of South Africa**, Northern Cape, Great Karoo, Tweefontein 20 km SE, De Mond Nature Reserve, Ufer, 34°42'S 20°06'E, 900-1000 m, 4-5.4.1997, 1 ex., leg. de Freina.

Remarks: It inhabits arid, sparsely vegetated areas (Mansell 2002) in southern Africa: Botswana, Namibia, South Africa (Mansell & Oswald 2025).

Goniocercus klugi (Kolbe, 1898)

Ethiopia, Negele, Borana, 14.5.2002, 1 ex., leg. Werner. — **Kenya**, NE Prov. El Wak, 1-3.5.2001, 1 ex., leg. Werner & SMRZ; ex coll. SCMK.

Remarks: It prefers semi-arid desert, xeric shrubland, and grass savanna areas on the border of the Sahara and sub-Saharan Africa. According to Prost (2010), its distribution in West Africa and the southern part of the Arabian Peninsula is sporadic. Based on the coll. SCMK, there are locally large populations in East Africa (Ethiopia, Kenya).

Lachlathetes moestus (Hagen, 1853)

Namibia, Oshikoto, Tsumeb, 35 km W, 19°12'S 17°19'E, 1230 m, 26.03.2014, 1♀, leg. Halada.

Remarks: It inhabits the tropical savanna regions of southeastern Africa, Mozambique, Zimbabwe, Zambia,

Tanzania and the northeastern part of South Africa. It can be locally common in areas of dampness and on loose sandy soil.

Nosa tigris (Dalman, 1823)

Central African Republic, Sangha-Mbaéré, Nola form, 14.11.2012, 1 ex., leg. Halada. — **Ethiopia**, Southern Province, Addis Abeba 125 km SW, 5 km N Abelti at Omofluss, 8.14.2711 37.555040, 2000 m, 28.10.2010, 1 ex., leg. de Freina. — **Mali**, Kangaba Distr. 10 km E Kangaba city, 80 km W Bamako, IX.2012, 2♂, leg. Anonymus. — Koulikoro region, Ouronina, 12°06'11"N 8°24'38"W, IX.2020, 1♂, leg. Kravchenko, Petrányi & Müller, ex coll. SCMK.

Remarks: Its distribution area extends north of the Equator in West and East Africa, in dry grassy and woody savanna areas (Prost 2019).

Palpares assyriorum Ábrahám, 2012

Libanon, Beirut, 20 km N, Tabarje Beach, 28-31.05.1969, 1♂, 4♀, leg. Groß.

Remarks: Its distribution is not yet mapped in the East Mediterranean region; it is documented in Jordan, Israel, Lebanon and Syria. It inhabits dry, rocky and semi-arid deserts.

Palpares caffer (Burmeister, 1839)

Republic of South Africa, Freestate, Drakensberge E, Harrismith, 30 km S, Hlalanati Res, 1280 m, 14.-16.12.2014, 2 ex., — Mpumalanga, Lydenburg (= Mashish-ing), 3 km NW, 25°04'S 30°26'E, 1600 m, 12-13.1.2009, 1 ex., leg. de Freina. — 24-26.11.2009, 2 ex., leg. de Freina. — Kwa Zulu-Natal, Drakensberge Region, Underberg (30 km SSW), Coleford National Reserve, 1750-1900 m, 24-26.11.1999, 1 ex., leg. de Freina.

Remarks: It is widespread in parts of southern Africa (RSA, Namibia and Mozambique). The habitat is in the south temperate steppe and subtropical dry forest (Mansell & Oswald 2025).

Palpares chrysopterus Navás, 1910

Turkey, Erzerum, Ispir, 1200-1400 m, 14.-15.07.1976, 1♀, leg. Eckweiler. — **Hakkari**, Esendere, 20 km W, Dilezipass, 2100 m, 20.07.1983, 1♀, leg. de Freina. — vic. Hakkari, 2000 m, 9.-10.07.1979, 1♂, leg. Görgner. — Tanin, Taninpass, 2000-2300 m, 12.-13.07.1983, 4♂ 1♀, leg. de Freina. — Varagöe, Sat dağları, 1850-2000 m, 21.-24.07.1983, 1♂ 2♀, leg. de Freina. — Yüksekova, vic. Oremar, 30 km N, Sat dağları, 1650-1850 m, 09.08.1978, 1 ex., leg. Naumann. — vic. Yüksekova, 20 km NW, 1950 m, 18.07.1983, leg. de Freina. — Zab-Tal, 1350-1400 m, 10.07-18.07.1980, 1♂, leg. de Freina. — 1500 m, [no date] 1♂ 1♀, leg. Fickler; 1600 m, 05.07.1984, 2♂ 1♀, leg. Huber. — **Siirt**, Uludere, 2000 m, 07.07.1978, 1♂, leg. Betti. — **Şirnak**, Uludere, 40 km E, Mutluca-Tal, vic. Melise, 1450 m, 13.07.1983, 1♂, leg. de Freina. — **Van**, vic. Van, 10 km S, 1300 m, 27.07.1978, 1♂ 3♀, leg. Görgner. — **Çatak**, 1900 m, 10.07.1978, 1♂ 1♀, leg. Betti.

Remarks: The distribution area of the species is confined to the mountainous regions of eastern Turkey, western Iran and Eastern Iraq.

Palpares contrarius (Walker, 1853)

Laos, Ban Kheun Oudomsay, July 16, 2014. 2 ex., leg. Li Jingke. — **Thailand**, Wang Chin, Phrae prov. 08.04.2011, 2♀, leg. Anonymus, ex coll. SCMK.

Remarks: It is widespread in South and East India, and in the continental southeastern Asia, inhabiting tropical, subtropical moist and dry broadleaf forests, and in synanthropic ecosystems (Suryanarayanan et al. 2025b).

Palpares elegantulus Péringuey, 1910

Angola, Malanje prov. 55 km NE Malanje, 9.16425S 16.51046E, 1600 m, 11.-23.1.2025. 1 ex., leg. Halada J. — **Namibia**, Erongo reg. 30 km W-NW Omaruru, 21.36179S 15.67192E, 3.2.2025. 1 ex., leg. Halada J. — Erongo, Usakos, 25 km ENE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 1♂, leg. Halada. — Hardap prov. Maltahohe, 24.84398S 16.272938E, 1350 m, 1.11.-11.2.2014, 1 ex., leg. Murzin. — Tirasberge, Koiimasis Campsite, 25°55'S 16°15'E, 1300 m, 17.01.2016, 2 ex., leg. Mayr T.

Remarks: It lives in deserts and semi-desert shrublands in southwestern Africa from RSA through Namibia to Angola, especially in flat or hilly areas, often on red sandy red soil (Tippett 2022a).

Palpares graciosus Navás, 1929 (Fig. 1).

Namibia, Erango prov. 8 km W Gobabeb, 430 m, 23°38'S 15°11'E, 18.3.2014, 1 ex., leg. J. Halada.

Remarks:

It is a rare and endemic species in Namibia. Gobabeb is located at a point where three main habitats meet (ephemeral river, gravel plain and the Namib erg) and lies within the inland edge of the fog zone.

Palpares immensus McLachlan, 1867

Namibia, Damaraland, Uis, 3 km NW, 1600 m, 21.01.1998, 2 ex., leg. de Freina. — Opuwo, Country Lodge, 18°02'S 13°50'E, 05.01.2016, 1♀, . — Erongo, Karibib S, Tsoabis Campsite, 22°22'S 15°45'E, 720 m, 30.12.2015, 2 ex., leg. Mayr T. — Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 6 ex., and Erongo, Usakos, 25 km ENE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 2 ex., leg. Halada. — **Republic of South Africa**, Northern Cape, Great Karoo, Tweefontein (20 km SE), Doring-Ufer, 900-1000 m, 4-5.4.1997, 2 ex., leg. de Freina.

Remarks: One of the largest and most abundant *Palpares* species is in SW Africa. Its area extends into RSA, Namibia, Botswana, and southern Angola. It inhabits the arid open shrublands, preferring flat or hilly habitats in southern Africa. (Tippett 2022b)

Palpares hispanus Hagen, 1860

Morocco, Taroudant, Hoher Atlas, Tizi-n-Test, SW Seite, 29.7-3.8.1998, 1♀, leg. Ortner S. — Hoher Atlas, Tizi-n-Tichka, 17.06.2000, 1♂, leg. Mühle. — Mittlerer Atlas, Ifrane, 1700 m, 25.07.1975, 1♀, leg. Groß.

Remarks: Its distribution area extends to the southern half of the Iberian Peninsula and North Africa (Aspöck et al. 2001), mainly found in mosaics of Mediterranean dry grasslands and scrublands.

Palpares lentus Navás, 1912

Republic of South Africa, Limpopo, Soutpansberg Südhänge, Louis Trichardt, 30 km W, Medike, Nature Reserve, 800–900 m, 28.11-6.12.2009, 1 ex., leg. de Freina.

Remarks: It is an endemic species in Botswana, Zimbabwe and the central and eastern provinces of South Africa (Mansell 2002), inhabiting savannah woodlands.

Palpares libelluloides (Linnaeus, 1764)

Turkey, **Afyonkarahisar**, Sandıklı, 25 km S, 1000 m, 27.-28.06.1984, 1♀ 1♂, leg. de Freina. — **Amasya**, vic. Amasya, 21.07.1978, 1♂ 1♀, leg. Betti. — **Ankara**, vic. Ankara, Aıdınlık, 19.07.198x, 3♀, leg. Eselmann & Naumann. — vic. Ankara, 8 km SE, 1000 m, 02.-04.7.1984, 4♂ 3♀, 12.-20.8.1984, 1♀, leg. de Freina. — **Antalya**, Alanya, Küste, 03.06.1974, 1♀, leg. Groß. — Kemer, 50 m, 22.-27.6.1984, 2♂ 3♀, leg. de Freina. — **Aydın**, Yarım, Adasi W Güzelçamlı, NP Dilek, 50-200 m, 07.07.1981, 2♂ 1♀, leg. Junge. — **Bingöl**, vic. Bingöl, 20 km NE, Içpinbar, 1500 m, 26.07.1983, 2♂, leg. de Freina. — **Bitlis**, Sarikonak, Çay-Tal, 1050-1100 m, 07.-08.07.1983, 6♂ 5♀, leg. de Freina. — **Corum**, Sungurlu, 30 km NE, 700 m, 04.07.1981, 1♀, leg. de Freina. — **Elazığ**, vic. Elazığ, Hazar See (NW-Ufer), 1250 m, 11-12.06.1976, 1♀, leg. Groß. — Harput, 1300 m, 02.06.1985, 1♀, leg. Anonymus. — **Hakkari**, Zab-Tal, Çukurca, 16-17.7.1983, 1♀, leg. de Freina. — **Içel**, Cemille, 500 m, 04.07.1978, 2♀, leg. Junge. — **Kırklareli** (europ. Türkei), Babaesci, 40 m, 06.07.1984, 2♀, leg. de Freina. — **Konya**, Belören, 17 km NE, 1350 m, 20.06.1984, 1♀, leg. de Freina. — **Siirt**, Birini, Tepese (30 km NW Sirnak), 1500 m, 09.07.1983, 2♂ 4♀, leg. de Freina. — **Tokat**, Çamlıbel N, 1200 m, 14.07.1976, 1♂, leg. Junge. — **Van**, Gevas, 5 km N, 17-1800 m, 24.07-05.08.1992, 1♀, leg. Kautt & Weiß.

Remarks: Its distribution area extends to the northern and eastern Mediterranean areas, extending Asia Minor and the southern foreland of the Caucasus, as well as the mountainous regions of Western Iran (Aspöck et al. 2001). It inhabits Mediterranean dry grassland and scrubland mosaics.

Palpares speciosus (Linnaeus, 1758)

Republic of South Africa, Western Cape, Swellendam, Bonte Bock-NP, 150-300 m, 13.-23.3.1999, 1♂. — Western Cape, Cederberg-Region, Clanwilliam (30 km E-SE), Alge-

ria NP, -32.192377 18.898698, 600-700 m, 24.01.1998 1♀, leg. de Freina. — 19.03.1999, 1♀, leg. de Freina.

Remarks: It is endemic to the southern and southwestern half of South Africa, inhabiting Fynbos and Karoo biomes with tall grass (Tippett 2022c).

***Palpares umbrosus* Kolbe, 1898**

Ivory Coast, Pakobo NW, Lamto Reserve, 6°13'N 5°00'W, 50-100 m, III.1983, 1♂ 1♀ leg. Lencina J.L.

Remarks: The distribution of the species is uncertain due to the similarity of *Palpares digitatus* Gerstaecker, 1894; the two species can be distinguished by genital examination (Akoudjin & Michel 2011). The distribution area of *P. umbrosus* appears to extend from West Africa through East Africa to South Africa based on the entomological collection of SCMK.

***Palparellus damarensis* (McLachlan, 1868) (Fig. 2).**

Namibia, Erongo, Usakos, 25 km E-NE, 21°52'S 15°19'E, 1100 m, 16.-17.03.2014, 5 ex., leg. Halada. — Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 1 ex., leg. Halada. — Omaheke, Gobabeb, 8 km W, 22°38'S 18°39'E, 430 m, 18.03.2014, 2 ex., leg. Halada.

Remarks: It is a rare, endemic species in Angola, Namibia and South Africa (Mansell 1996), inhabiting the arid and semi-arid regions of the xeric shrubland ecoregion.

***Palparellus flavofasciatus* (McLachlan, 1867)**

Namibia, Erongo reg. 30 km WNW Omaruru, 21.36179S 15.67192E, 3.2.2025. 1 ex., leg. Halada J. — Erongo, Usakos, 25 km E-NE, 21°52'S 15°19'E, 1100 m, 16.-17.03.2014, 3 ex., leg. Halada. — Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 3 ex., leg. Halada. — Khomas, Windhoek, 150 km NE, 23°16'S 16°19'E, 1600 m, 19.03.2014, 1 ex., leg. Halada. — vic. Khomas, 25 km E-NE, 20°15'S 15°24'E, 25.03.2014, 1♂, leg. Halada. — Khomas, Windhoek, 40 km W, Neuheussis env, Eagles Rock Lodge, 22°35'S 17°20'E, 2000 m, 20.1.-6.2.1998, 1♂, leg. de Freina.

Remarks: There are field records from eastern South Africa, particularly Namibia and southwestern Angola (Ábrahám 2020), inhabiting tall grass dry savannas.

***Parapalpares dispar* (Navás, 1912)**

Morocco, Ksar-e-Souk, 30 km E Tinehir, 14.8.1975, 2♂ 3♀, leg. Groß. — **Saudi Arabia** Al Madinah Alula county, Al Gharamfel, 27.426N 037.994E, 16.11.2023, 3 ex., leg. Halada J.

Remarks: A typically eremial species, native to the borderlands of the Afrotropical and Palearctic regions. Its distribution extends from Morocco in North Africa to the Middle East and extends to the Arabian Peninsula (Ábrahám 2017). Its habitat is semi-deserts with dunes, sandy river banks, wadis and fine-grained soil scrublands.

***Parapalpares inclemens* (Walker, 1853)**

Kenya, Watamu, Beach, 08.04.1984, 1 ex., leg. Huemer P.

Remarks: Typically, the distribution of the species is confined to East Africa and eastern South Africa, as well as Yemen (on the islands of Socotra) (Ábrahám 2020, Insom & Terzani 2024). The species is primarily found in sandy soils in coastal areas, forests, and woodlands.

***Parapalpares papilionoides* (Klug in Ehrenberger, 1830)**

Mali, Koulikoro Region, Nioro du Sahel, 15°13.719N 9°35.302W, 300 m, 19.2.2019, 1♀. — 28.9.2019, 1♂, leg. Kravchenko, Petrányi & Müller, ex coll SCMK.

Remarks: Its distribution extends southwards to southern western Africa and the western and southwestern parts of the Arabian Peninsula. Its habitat is a mosaic of sandy loose soil, dry grassland and shrubland, dunes and river banks.

***Parapalpares solidus* (Gerstaecker, 1894)**

Iran, Luristan, Bisheh, 1200-1700 m, 01.-07.06.1978, 1♂, leg. Eckweiler. — **Turkey**, Ufar, Halfeti Euphrat river, 2.-3.7.1994, 1♂ 1♀, leg. Ábrahám L. ex coll SCMK. — **Turkmenistan** SW, Kopetdag, Garrygala env, VI.1995, 1♂ 1♀, leg. Miatlenski J.

Remarks: It is found in the southern Palearctic, from the Middle East: Egypt (Sinai Peninsula), Israel, eastern Turkey) to Pakistan, but its range also extends into Central Asia (Turkistan, Uzbekistan) (Ábrahám 2020). Its habitats are semi-deserts and dry mountainous areas.

***Pseudopalpares parvopunctatus* Ábrahám, 2023 (Fig. 3).**

Namibia, Omaheke, 35 km W Gobabis, 1480 m, 11.3.2022, 1♂ 1♀ leg. J. Halada. — 1♀ Namibia, Omaheke, 35 km W Gobabis, 1480 m, 12.03.2014, leg. J. Halada.

Remarks: A recently described species, with paratype specimens preserved in the EFMEA collection (Ábrahám 2023). Its known distribution is in southwestern Africa, Angola, Botswana, Namibia.

***Pseudopalpares sobrinus* (Péringuey, 1911)**

Namibia, Khomas, Windhoek (150 km NE), 23°16'S 16°19'E, 1600 m, 19.03.2014, 2 ex., leg. Halada. — Windhoek, 30 km S, 22°35'S 17°20'E, 1880 m, 11.03.2014, 3 ex., leg. Halada. — Hardap, Rehoboth, 15 km S, 23°28'S 17°07'E, 1400 m, 20.-24.03.2014, 5 ex., leg. Halada. — Obozonduo, Okahanda, 15 km NE, 21°49'S 16°58'E, 1480 m, 14.03.2014, 1 ex., leg. Halada. — Oshikoto, Tsumeb, 35 km W, 19°12'S 17°19'E, 1230 m, 26.03.2014, 2 ex., leg. Halada.

Remarks: It is found in grassland and savanna habitats in the north and east of South Africa, extending into South Angola, Zimbabwe, Namibia and Botswana (Tippett 2022d).

Pseudopalpares sparsus (McLachlan, 1867)

Namibia, Omaheke E, Gobabis, 35 km W, 22°23'S 18°39'E, 1480 m, 12.03.2014, 1 ex., 11.03.2022, 2 ex., leg. Halada.

Remarks: It primarily inhabits the arid and sandy regions of southern Africa, including countries like South Africa, Namibia, Botswana and southern Angola, the Democratic Republic of Congo (Ábrahám 2023).

Palparidius capicola Péringuey, 1910

Namibia, Harda, Rehoboth, 15 km S, 23°28'S 17°07'E, 1400 m, 20.03.2014, 1♂ 2♀, leg. Halada.

Remarks: It is found in drier areas of Southern Africa, specifically in Namibia, Botswana and the Northern Cape region of South Africa. Its preferred habitat is described as the drier western parts of these regions (Tippett 2022e).

Palparidius concinnus Péringuey, 1910

Namibia, Omaheke E, Gobabis, 35 km W, 22°23'S 18°39'E, 1480 m, 12.03.2014, 1 ex. leg. Halada.

Remarks: Its distribution is limited to southwestern Africa (Botswana, Namibia and RSA), inhabiting the dry savanna woodlands.

Stenares hyaena (Dalman, 1823) (Fig. 4).

Ivory Coast, Pakobo NW, Lamto Reserve, 6°13'N 5°00'W, 50-100 m, III.1983, 1♀, leg. Lencina J. L.

Remarks: A tropical species found only in wet forest habitats of western and central Africa (Prost & Popov 2021). Its Indian faunal data are entirely incorrect (Suryanarayanan et al. 2025b).

Subfamily: **Myrmeleontinae** Latreille, 1802

Tribe: **Acanthaclisini** Navás, 1912

Acanthaclisis occitanica (Villers, 1789)

Morocco, mittlerer Atlas, Azrou S, Col du Zad, 16.08.1975, 1 ex., — Ifrane, 1700 m, 25.07.1975, 1 ex., leg. Groß. — **Kyrgyzstan** Jalal-Abad Oblasti (Toktogul) Inner Tian-Shan, Suusamy Mountain, Chychkan Canyon, 1600-1800 m, 42°05'41.0"N 72°48'06"E, 2024.08.05.-07, 2 ex., leg. Mayr T. — Talas Oblasti, Tian-Shan West, Chatkal, Chandlash Gebiet, Straße Kara-Buura Pass, 1700 m, 42°20'06.0"N 71°36'22"E, 2024.07.31. 1 ex., leg. Mayr T. — Jalal-Abad Oblasti, Tian Shan W Chaak Too, Umgebung Tash-Kömür, 890 m, 41°25'16.0"N 72°18'58"E, 2024.08.04. 3 ex., leg. Mayr T.

Remarks: It has a wide Palearctic distribution from the Atlantic Ocean to Central Asia (Aspöck et al. 2001). It is documented from North Africa (e.g. Morocco) and Europe, except for the northern parts. It prefers different kinds of habitats, such as sandy areas in European lowlands, xeric and Mediterranean shrublands in western Asian mountains, and temperate grasslands ecoregions in Central Asia.

Centroclisis brachygaster (Rambur, 1842)

Angola, prov. Bié, Cuito 176 km E, 12.18790S 1819249E, 1390 m, 20.1.2025. 1 ex., leg. Halada J. — Cunene prov. Cahama, 76 km SW, 16.0344S 13.955E, 17.1.2025. 1 ex., leg. Halada J. — Cunene pr. Xangongo 10 km SW, 16.81625S 14.93257E, 30.1.2025. 2 ex., leg. Halada J. — Huila prov. Matala 32 km S, 14.9403S 15.1281E, 1200 m, 27.1.2025. 2 ex., leg. Halada J. — **Namibia**, Erongo, Gobabeb, 8 km W, 23°38'S 15°11'E, 430 m, 18.03.2014, 1 ex. — Erongo reg. 30 km WNW Omaruru, 21.36179S 15.67192E, 3.2.2025. 4 ex., leg. Halada J. — Kunene reg. 35 km S Opuwo, 18.73555S 13.77129E, 1550 m, 12.2.2025. 1 ex., leg. Halada. — Omusati reg. Swarbooisdrift 6 km SE, 17.36651S 13.89015E, 31.1.2025. 1 ex., leg. Halada. — Oshana reg. Ondagwa 16 km S, 18.04735S 16.01001E, 16.1.2025. 2 ex., leg. Halada. — Okavango, Rundu 20 km S, 18°13'S 19°43'E, 1112 m, 28.03.2014, 2 ex., — Khomas, Windhoek 150 km NE, 23°16'S 16°19'E, 1600 m, 19.03.2014, 1 ex., all leg. Halada. — Fort Namutoni env. Etosha NP, 18°50'S 16°59'E, 1150 m, 11.-12.5.1996, 1 ex., leg. de Freina. — Kaokoveld, Opuwo, Opuwa Country Lodge, Campsite, 18°02'S 13°50'E, 1250 m, 05.01.2016, 1 ex., leg. Mayr T.

Remarks: Its wide distribution extends from West Africa through Central Africa to South Africa. It is found in woodland and warm savanna habitats (Tippett 2022f).

Centroclisis distincta (Rambur, 1842)

Central African Republic, Sangha-Mbaéré, Nola form, 30 km NW, 11-14.11.2012, 1 ex., and Bambio, 40 km NE, 03°59'N 17°11'E, 490 m, 18.11.2012, 1 ex., leg. Halada. — **Namibia**, Omusati reg. Swarbooisdrift 6 km SE, 17.36651S 13.89015E, 31.1.2025. 2 ex., leg. Halada.

Remarks: It occurs exclusively in Africa, where it is present in a wide range of regions from West Africa through East Africa to South Africa. It prefers very dry and warm habitats such as dry savannas and semi-deserts. There are uncertain distribution data from India, Sri Lanka, Madagascar and Yemen.

Centroclisis maligna (Navás, 1912)

Namibia, Windhoek, Immanuel Wilderness Lodge, 22°22'S 17°03'E, 1510 m, 20.01.2016, 1 ex., leg. Mayr T. — Erongo, Gobabeb, 8 km W, 23°38'S 15°11'E, 430 m, 18.03.2014, 6 ex., leg. Halada. — Kaokoveld, Opuwo, Opuwa Country Lodge, Campsite, 18°02'S 13°50'E, 1250 m, 05.01.2016, 1 ex., leg. Mayr T. — Khomas, Windhoek (150 km NE), 23°16'S 16°19'E, 1600 m, 19.03.2014, 1 ex., leg. Halada. — Otjiwarongo, Waterberg-Plateau, Nationalpark, 1600-1700 m, 23.-25.1.1998, 1 ex., leg. de Freina. — Khoma-Hochland, Windhoek (75 km NE), Karivo, 1700 m, 6.-7.5.1996, 1 ex., leg. de Freina. — **Republic of South Africa**, Western Cape, Cederbergregion, Clanwilliam (30 km ESE), Algeria NP. -32.192377S 18.898698E, 600-700 m, 16.03.1999, 5 ex., leg. de Freina. — Cederbergregion, Leeurivier-Ufer (=Grotrivier-Ufer), 500-700 m, 20.03.1999, 1 ex., leg. de Freina. — Northern Cape, Great Karoo, Tweefontein (20 km SE),

Die Mond, Doring-Ufer, 900-1000 m, 4.-5.4.1997, 3 ex., leg. de Freina.

Remarks: The distribution extends western parts of southern Africa (Namibia, RSA), inhabiting arid sandy soil places (Tippett 2022g).

Centroclisis punctulata Navás, 1912

Tunisia, Sabria (30 km E), Douz (25 km W), 33°23'N 08°44'E, 10.-11.10.2005, 1 ex., leg. Hoppe.

Remarks: Its distribution extends from the Cape Verde Islands deep into the Sahara Desert (Algeria, Burkina Faso, Mali, Mauritania, Niger, Senegal, Tunisia) (Aspöck et al. 2001). It prefers semiarid desert and xeric shrubland habitats (Güsten 2002).

Centroclisis rufescens (Gerstaecker, 1885)

Central African Republic, 40 km NE Bambio, 490 m, N 03°59' E 17°11', 18.11.2012. 1 ex., leg. J. Halada. — 30 km N of Nof Nola form, 11.-14.11.2012. 1 ex., leg. J. Halada. — 10 km NW Maiki SE of Boda, 8.11.2012. 1 ex., leg. J. Halada.

Remarks: Its distribution extends from West Africa to Central Africa in the sub-Saharan region (Stange 2004). It is associated with humid savannas and semi-arid areas, and considered to be a locally frequent species (Michel & Letourmy 2007).

Fadrina nigra Navás, 1912

Egypt, Dschanub Sina, Taba, 35 km S, 5 m, 6.-10.11.1995, 1 ex., leg. Oswald.

Remarks: It is widespread in North Africa, the northern part of East Africa, and the Arabian Peninsula (Aspöck et al. 2001, Güsten 2002, 2003), inhabiting semi-deserts and Saharan xeric shrublands. Specimens from Madagascar are misidentified by Ábrahám & Dobosz (2011); probably, taxa in Southern Africa are undescribed.

Jaya atrata (Fabricius, 1781)

Ivory Coast, Pakobo NW, Lamto Reserve, 6°13'N (6.22o) 5°W (5.00), 50-100 m, 15.03.1983, 1 ex., leg. Lencina J.L. — Lamto, III. 1988. 1 ex.

Remarks: There are data on the occurrence in West and Central Africa (Stange 2004).

Jaya dasymalla (Gerstaecker, 1863)

Republic of South Africa, Limpopo, Soutpansberg Süd-hänge, Louis Trichardt, 30 km W, Medike, Nature Reserve, 800-900 m, 28.11.-6.12.09, 2 ex., leg. de Freina.

Remarks: The distribution of the species is confined to the southeastern region of Africa, extending from Tanzania to South Africa (Letardi 2014).

Phanoclis longicollis (Rambur, 1842)

Morocco, Tinehir (30 km E), Ksar-es-Souk, 1200 m,

14.08.1975, 1♂, leg. Groß. — **Tunisia**, Sabria (30 km E), Douz, 25 km W, 33°23'N 08°44'E, 10.-11.10.2005, 1♂, leg. Hoppe.

Remarks: The species is typically found in the Sahara and surrounding arid, semi-desert regions and is documented in North Africa, sub-Saharan Africa and the Middle East (Ábrahám 2017). The data from Indonesia (Stange 2004) is incorrect.

Syngenes medialis Mansell, 2018

Namibia, Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 2♂, leg. Halada.

Remarks: Its distribution data is known from southern and eastern Africa (RSA, Botswana, Mozambique, Zimbabwe, northern Namibia, Malawi, DRC and Tanzania (Mansell 2018).

Syngenes scholtzi Mansell, 2018

Namibia, Khomas, Windhoek, 150 km NE, 23°16'S 16°19'E, 1600 m, 19.03.2014, 1 ex. — Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 2♂, leg. Halada.

Remarks: It was documented in South Africa, Botswana and Namibia, inhabiting dry savanna areas (Mansell 2018).

Tribe: **Myrmecaelurini** Esben-Petersen, 1918

Furgella intermedia Markl, 1953

Namibia, Omaheke, Gobabeb, 8 km W, 23°38'N 15°11'E, 430 m, 13.08.2014, 1 ex., leg. Halada.

Remarks: Its distribution is limited to southwestern Africa (Botswana, Mosambique, Namibia, RSA) (Markl 1953), inhabiting sandy deserts and semi-deserts.

Lopezus arabicus Hölzel, 1972

Tunisia, Chott Djerid SE, Douz, 25 km W, 33°23'N 8°44'E, 45 m, 28.04.2008, 4 ♀, — Tataouine, 41 km S, Bir Tetlathine S, 32°37'N 10°18'E, 275 m, 19.04.2007, 2 ♀, leg. Hoppe. — Tunisia mer, Grand Erg oriental, Ksar Ghilane, Oasenrand, 32°58'N 9°38'E, 03.05.2008, 1 ex., leg. Hoppe & Lange.

Remarks: It is primarily native to the Arabian Peninsula (e.g. Saudi Arabia, the UAE, and Yemen) and North Africa (e.g. Morocco). (Ábrahám 2017). Its habitat is typically associated with dry sandy semi-desert areas.

Myrmecaelurus lachlani Navás, 1912

Morocco, Drâa-Tafilalet, Tinerhir 30 km E, Ksar-es-Souk, 1200 m, 14.08.1975, 2 ex., leg. Groß.

Remarks: It is a species native to the Atlas Mountains in North Africa. Its habitat is associated with dry or semi-arid areas (Ábrahám 2017).

Myrmecaelurus trigrammus (Pallas, 1771)

Kyrgyzstan, Taschkömür, Burzhu Butac, 1100 m, 08.07.2001, 1 ex., leg. Churkin. — Jalal-Abad Oblasti, Tian Shan W Chaak Too, Umgebung Tash-Kömür, 890 m, 41°25'16.0"N 72°18'58"E, 04.08.2024, 2 ex., leg. Mayr T.

Remarks: Its distribution extends from the western Palearctic to NW China (Aspöck et al. 2001, Wang et al. 2018). It prefers steppe-like habitats, including dry meadows, grasslands and sandy areas.

Nannoleon michaelsoni Esben-Petersen, 1928

Republic of South Africa, Northern Cape, Fraserburg 15 km S-SW, Teekloof-Pass, Südseite, 1040 m, 04.04.1997, 1 ex. — Westkap, Cederberg region, Cederberg env, Leeurivier-Ufer (=Grotrivier-Ufer), 500-700 m, 20.03.1999, 3 ex., leg. de Freina. — Erongo, Usakos, 1.5 km E, 21°58'S 15°36'E, 900 m, 16.03.2014, 1 ex., leg. Halada.

Remarks: Its distribution is mainly restricted to South and Southwest Africa (Botswana, Namibia, and RSA) (Tippett 2022h) belonging to an endemic and monobasic genus. However, it can be locally common (Stange 2004). It inhabits the open, arid shrublands in flat or hilly areas and is also found in dry savanna woodlands.

Nohoveus lepidus (Klug in Ehrenberg, 1834)

Morocco, Souss-Massa, AntiAtlas, Tata, 15 km S, Tigezmirt, 20 km W, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe.

Remarks: It is a widespread species from NW Africa to the Arabian Peninsula. It typically occurs in arid habitats, semi-deserts and oases (Ábrahám 2017).

Nohoveus zigan Aspöck H. et al. 1980

Kazakhstan, Prov. Almaty, Taukum desert, 10 km W Usharal, 450 m, N 44°12' E 76°47', 12.6.2007, 1♂ 1♀, leg. Balázs Benedek, ex coll. SCMK.

Remarks: It has a relatively wide distribution in the Palearctic from the Carpathian Basin through Central Asia to China (Xinjiang) (Ábrahám 2021). Its habitat is dry sandy grasslands.

Nophis teillardi Navás, 1912

Morocco, Drâa-Tafilalet, Tinerhir (30 km E), Ksar-es-Souk, 1200 m, 14.08.1975, 2 ex., leg. Groß.

Remarks: It is typical Western-Eremial from Morocco to the Arabian Peninsula. It inhabits sandy biotops of the coastal plain, dried wadis and semiarid deserts (Simon 1985).

Tribe: **Gepini** Markl, 1954

Solter ledereri Navas, 1912

Turkey, Artvin, Zeytinlik, 10 km s, vic. Narlik, 350 m, 30.-31.07.1983, 1♂ 1♀, leg. de Freina. — Tunceli, vic.

Tunceli, 15 km nw, 1050 m, 07.-09.08.1992, 2♂ 1♀; 26.08.1992, 2♀; 06.-07.09.1992, 1♀, leg. P. Kautt & V. Weiß.

Remarks: Typically distributed in Asia Minor and the southern foreland of the Caucasus and western Iran (Aspöck et al. 2001, Kerimova & Aydemir 2024).

Solter ressl Hölzel, 1972

Iran, Fars, Darab, 80 km SE, 28°25'N 55°09'E, 1510 m, 24.05.2014, 1 ex., leg. Halada.

Remarks: This species was documented on both sides of the Persian Gulf (UAE, Oman, southern Iran, Afghanistan) (Aspöck et al. 2001).

Subgulina lineata (Navás, 1913)

Morocco, Drâa-Tafilalet, Tinerhir 30 km E, Ksar-es-Souk, 1200 m, 14.08.1975, 3♀, leg. Groß. — **Tunisia** mer, Jebel Dahar SW Zwerten, Cheguime 3 km W, 33°25'N 9°57'E, 480 m, 13.05.2008, 3 ex., leg. Hoppe & Lange. — Jebel Dahar, 30 km W Chenini, Steinwüste, 800 m, 22.5.2008, LF, 1 ex., leg. Hoppe & Lange. — Grand Erg oriental, Ksar Ghilane, Oasenrand, 32°58'N 9°38'E, 03.05.2008, 2 ex., leg. Hoppe & Lange.

Remarks: It is mainly distributed in drier, desert or semi-desert regions. It can be found in North Africa (e.g. Morocco) and the Arabian Peninsula (Saudi Arabia), in dry savanna, scrubland and semi-desert habitats.

Tribe: **Nesoleontini** Markl, 1954

Cueta lineosa (Rambur, 1842)

Morocco, Souss-Massa, AntiAtlas, Tata, 15 km S, Tigezmirt, 20 km W, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe. — Drâa-Tafilalet, Tinerhir (30 km E), Ksar-es-Souk, 1200 m, 14.08.1975, 2 ex., leg. Groß. — **Tunisia** mer, Jebel Dahar SW Zwerten, Cheguime 3 km W, 33°25'N 9°57'E, 480 m, 13.05.2008, LF, 1 ex., leg. Hoppe & Lange.

Remarks: It is found primarily in dry, arid regions of Eurasia and Africa, including the Mediterranean region and the Middle East (e.g. Iraq, Turkey). Its range extends from the dry mountainous regions of Central Asia to Western China and south to NW India (Rajasthan).

Cueta mysteriosa (Gerstaecker, 1894)

Ethiopia, Southern Province, Addis Abeba, 320 km S, Weyto 6 km S, Str. nach Konso, 5.199782, 36.951193, 1600 m, 13.11.2010, 4 ex. — Addis Abeba SSW, Yabelo, 30 km NW, 5.006823, 37.832673, 1600 m, 12.11.2010, 5 ex., leg. de Freina. — Addis Abeba, 310 km SSW, Agere Maryam, 6 km S, 1800 m, 6.-7.11.2010, 1 ex., leg. de Freina.

Remarks: Its distribution extends tropical Africa, from Kenya to RSA, inhabiting humid sandy coastal regions such as coastal forest sand forest, and woodlands (Tippett 2022i).

Cueta punctatissima (Gerstaecker, 1894)

Angola, Cunene pr. Xangongo 10 km SW, 16.81625S 14.93257E, 30.1.2025. 6 ex., leg. Halada J. — **Central African Republic**, Boda SE Maikiki, 10 km NW, 4°18'29.5"N 17°29'39.1"E, 08.11.2012, 1♀, leg. Halada. — **Namibia**, Erongo reg. 30 km W-NW Omaruru, 21.36179S 15.67192E, 03.02.2025. 3 ex., leg. Halada J. — Erongo, Usakos, 25 km ENE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 1 ex., leg. Halada. — Khomas, Windhoek, 30 km SE, 22°35'S 17°20'E, 1880 m, 11.03.2014, 1 ex., leg. Halada. — Kunene reg. 35 km S Opuwo, 18.73555S 13.77129E, 1550 m, 12.02.2025. 1 ex., leg. Halada. — Oshana reg. Ondagwa 16 km S, 18.04735S 16.01001E, 16.01.2025. 6 ex., leg. Halada.

Remarks: A widely distributed species from central Africa to southern Africa and inhabits grassy savanna and woodland habitats (Tippett 2022j).

Cueta trivirgata (Gerstaecker, 1885)

Central African Republic, Boda SE Maikiki, 10 km NW, 4°18'29.5"N 17°29'39.1"E, 08.11.2012, 1 ex., leg. Halada. — **Namibia**, Erongo, Uis, 20 km NW, 21°04' 14°41'E, 530 m, 24.03.2014, 3 ex., and Harda, Rehoboth, 15 km S, 23°28'S 17°07'E, 20.03.2014, 3 ex., leg. Halada.

Remarks: Widespread in southern Africa (Botswana, Namibia, RSA) and inhabits a range of habitats from arid Karoo shrublands to dry savanna and grasslands (Tippett 2022k).

***Cueta* sp. 1**

Namibia, Erongo, Uis, 20 km NW, 21°04' 14°41'E, 530 m, 24.03.2014, 2 ex., leg. Halada. — Erongo, Gobabeb, 8 km W, 23°38'S 15°11'E, 430 m, 18.03.2014, 1 ex., leg. Halada. — Erongo, Usakos, 25 km ENE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 1 ex., leg. Halada. — Erongo reg. 30 km WNW Omaruru, 21.36179S 15.67192E, 3.2.2025. 11 ex., leg. Halada J. — Omusati reg. Swarbooisdrift 6 km SE, 17.36651S 13.89015E, 31.1.2025. 3 ex., leg. Halada. — Kunene reg. 35 km S Opuwo, 18.73555S 13.77129E, 1550 m, 12.2.2025. 3 ex., leg. Halada. — Usakos, 1.5 km E, 21°58'S 15°36'E, 900 m, 16.03.2014, 1 ex. — Khomas, Windhoek, 150 km NE, 23°16'S 16°19'E, 1600 m, 19.03.2014, 1 ex., leg. Halada. — Erongo, Karibib S, Tsoabis Campsite, 22°22'S 15°45'E, 720 m, 30.12.2015, 1 ex., leg. Mayr T. — Kunene, Sesfontein, Warmquelle, 19°08'S 13°49'E, 720 m, 27.12.2019, 4 ex., leg. Mayr T. — Damaraland, Uis, 3km NW, 1600 m, 21.01.1998, 2 ex., leg. de Freina. — **Republic of South Africa**, Westkap, Cederberg Region, Cederberg env, Leeurivier-Ufer (=Grotrivier-Ufer), 700 m, 22.-23.11.1998, 1 ex., leg. de Freina.

Remarks: It is found in several European collections, but as an undetermined or misidentified species. The description of the species by Mansell is in progress (comm. by e-mail) (Ábrahám 2024).

Nadus overlaeti (Navás, 1931)

Namibia, Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 1♂ 1♀, leg. Halada.

Remarks: Its distribution area extends to the wet woody savanna regions of tropical Africa, but it also inhabits river valleys and coastal areas (Dobosz et al. 2024).

Nesoleon boschimanus (Péringuey, 1910)

Namibia, Erongo, Usakos, 25 km E-NE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 4 ex., leg. Halada. — Erongo, Uis, 20 km NW, 21°04' 14°41'E, 530 m, 24.03.2014, 2 ex., leg. Halada. — Erongo reg. 30 km WNW Omaruru, 21.36179S 15.67192E, 3.2.2025. 1 ex., leg. Halada. — Erongo, Erongo Plateau Camp, 21°31'S 15°45'E 31.12.2019, 14♂ leg. Mayr T. — Tirasberge, Koiimasis Campsite, 25°55'S 16°15'E, 1300 m, 17.01.2016, 10 ex. — Spitzkoppe, 21°50'S 15°11'E, 31.12.2015, 2 ex., leg. Mayr T. — Damaraland, Uis, 3 km NW, 1600 m, 21.01.1998, 17 ex. — Western Cape, Cederberg, Citrusdal 18.03.1999, 14 ex., leg. de Freina. — **Republic of South Africa**, Western Cape, Cederbergregion, Clanwilliam (30 km ESE), Algeria NP, - 32.192377 18.898698, 600-700 m, 19.03.1999, 1 ex., leg. de Freina.

Remarks: It is widespread in Southern Africa, extending from Angola, Botswana, Namibia, South Africa and Zimbabwe. It can be found in a variety of habitat types, from open, arid shrublands to dry savanna woodlands in flat or mountainous areas (Tippett 2022l).

Tribe: **Myrmeleontini** Latreille, 1802

Euroleon coreanus Okamoto, 1926

Russia, Siberia, Tuva W. Ak-Sug valley, 51°25'N 90°52'E, 900 m, 1.-4.8.2000. 2 ex., leg. Kruger, Saldaitis.

Remarks: It has a wide distribution in the Eastern Palearctic from East Kazakhstan to the Korean Peninsula (Krivokhatsky et al. 2021), and the southern direction as far as the Yangtze River (China) (Wang et al. 2018). It is a pit-building species in protected microhabitats.

Euroleon parvus Hölzel, 1972

Kyrgyzstan, Jalal-Abad Oblasti, Tian Shan W Chaak Too, Umgebung Tash-Kömür, 890 m, 41°25'16.0"N 72°18'58"E, 04.08.2024, 4 ex., leg. Mayr T.

Remarks: The species is distributed in Central Asia and its drier peripheral areas, from the Eastern Caucasus (Dagestan) to Western China, and prefers protected, dry, and sandy microhabitats (Krivokhatsky et al. 2021).

Hagenomyia lethifera (Walker, 1853) (Fig. 5).

Angola, prov. Bié, Calucinga 35 km N, 11.025S 16.137E, 1695 m, 21.1.2025. 1 ex., leg. Halada J. — **Ethiopia**, Addis Abeba, (360 km S), Agere Maryam, 6 km S, 1800 m, 6./7.11.2010, 2♂, leg. de Freina.

Remarks: It is a widespread but not frequent species occurring in southern and eastern Africa (Abrahám 2024). New for the fauna of Ethiopia.

Hagenomyia tristis (Walker, 1853)

Angola, Cunene pr. Culondo 92 km SW, 16.20675S 16.85788E, 17.1.2025. 2 ex., leg. Halada. — **Ethiopia**, Southern Province, Addis Abeba (125 km SW), 5 km N Abelti at Omofluss, 2000 m, 28.10.2010, 1 ex., leg. de Freina. — **Namibia**, Otjiwarongo, Waterberg-Plateau, Nationalpark, 1600-1700 m, 8.-13.6.1996, 1 ex., leg. de Freina.

Remarks: It has a wide distribution in Africa, being a common species in subtropical and wooded savanna areas. It often flies in groups with *Banyutus lethalis* (Walker, 1853) (<https://www.gbif.org/species/5164437>).

Myrmeleon alcestris Banks, 1911

Namibia, Omusati reg. Swarbooisdrift 6 km SE, 17.36651S 13.89015E, 31.1.2025. 2 ex., leg. Halada. — Oshana reg. Ondagwa 16 km S, 18.04735S 16.01001E, 16.1.2025. 1 ex., leg. Halada. — Otjiwarongo, Waterberg-Plateau, Nationalpark, 1600-1700 m, 23.-25.1.1998, 1♂, leg. de Freina.

Remarks: It is widespread in South Africa, documented all provinces. The distribution also extends to Mozambique, Namibia, Botswana and Zimbabwe (Tippett 2022m) (<https://www.gbif.org/species/2100490>).

Myrmeleon cf. caliginosus Hölzel & Ohm, 1983

Angola, prov. Bié, Cuito 176 km E, 12.18790S 18.19249E, 1390 m, 20.1.2025. 1 ex., leg. Halada J. — Cunene pr. Culondo 92 km SW, 16.20675S 16.85788E, 17.1.2025. 1 ex., leg. Halada. — Cunene pr. Xangongo 10 km SW, 16.81625S 14.93257E, 30.1.2025. 1 ex., leg. Halada J. — **Namibia**, Erongo reg. 30 km WNW Omaruru, 21.36179S 15.67192E, 3.2.2025. 1 ex., leg. Halada J. — Erongo, Usakos, 25 km ENE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 1 ex., leg. Halada. — Erongo, Uis, 20 km NW, 21°04'S 14°41'E, 530 m, 24.03.2014, 1 ex., leg. Halada. — Omaheke, Gobabeb, 35 km W, 1480 m, 12.03.2014, 1 ex., leg. Halada.

Remarks: From a taxonomic point of view, it needs revision along with similar species and therefore its distribution is uncertain (Badano 2020).

Myrmeleon doralice Banks, 1911

Angola, Cunene pr. Culondo 92 km SW, 16.20675S 16.85788E, 17.1.2025. 1 ex., leg. Halada. — **Namibia**, Oshana reg. Ondagwa 16 km S, 18.04735S 16.01001E, 16.1.2025. 1 ex., leg. Halada. — Tirasberge, Koiimasis Campsite, 25°55'S 16°15'E, 1300 m, 17.01.2016, 2 ex., leg. Mayr T. — **Republic of South Africa**, Westkap, Cederberg region, Leeurivier-Ufer (=Grotrivier-Ufer), 500-700 m, 20.03.1999, 1 ex., leg. de Freina.

Remarks: The majority of the faunistic data is located in the southern half of the African continent (Botswana, Namibia, South Africa, Zambia, Zimbabwe), where it is found in dry savannas and scrublands. It is a new record for the fauna of Angola. (<https://www.gbif.org/species/2100584>).

Myrmeleon fasciatus (Navás, 1912)

Egypt, Dschanub Sina, Taba, 35 km S, 5 m, 6-10.11.1995, 1 ex., leg. Oswald. — Maghreb, **Tunisia** mer, Tataouine, Jebel Dahar, 4 km W Chenini, 32°54'N 10°13'E, 500 m, 11.04.2007, 2♀, leg. Hoppe & Rudolf.

Remarks: It is a widespread and frequent species in the desert area from Morocco to the Arabian Peninsula (Abrahám 2017).

Myrmeleon formicarius Linnaeus, 1767

Uzbekistan, Chatkal-Gebirge, Bolshoy Chimgan Mts. Turbaza (=Unterkunft), 2500 m, 02.06.1982, 1 ex., leg. Weidenhoffer.

Remarks: It is a species distributed throughout the entire Palearctic from the Atlantic to the Pacific Ocean (Aspöck et al. 1980, Krivokhatsky 2011). It inhabits temperate broadleaf mixed forests.

Myrmeleon hyalinus Olivier, 1811

Morocco, Agadir, 29.5.-19.6.1983, 1 ex., leg. Ströhle. — **Tunisia** mer, Jebel Dahar, 30 km W Chenini, Steinwüste, 800 m, 2.5.2008, LF, 1 ex., leg. Hoppe & Lange.

Remarks: The morphologically diverse species was separated into subspecies by Hölzel (1987). He also outlined the distribution of the taxa. The species needs further microtaxonomic and genetic studies to clarify the distribution of the taxa. It has a wide distribution in the Mediterranean and the Sahara region, and its area extends to Central Asia in the north, and Pakistan in the south (Hassan et al. 2022, Suryanarayanan et al. 2025a).

Myrmeleon noacki Ohm, 1965

Iran, Esfahan, Aliyudars, 40 km SW, 35°17'N 50°03'E, 225 m, 21.05.2014, 2 ex., leg. Halada.

Remarks: Its distribution extends from the Balkans to southwest Asia (Pakistan) (Akhtar et al. 2018). Mediterranean in Europe and xeric shrubland in Asia. It is a rare species.

Myrmeleon sp. 1

Thailand, Ranong (25 km W), Koh Chang Insel, Westküste, 30 m, 8.-9.5.2002, 1 ex., leg. Görgner & Ihle.

Remarks: It needs further revision to be able to identify the taxon.

Tribe: **Dendroleontini** Banks, 1899

Cymothales spectabilis Esben-Petersen, 1916

Republic of South Africa, Western Cape, Cederberg-Region, Clanwilliam (30 km ESE), Algeria NP, -32.192377 18.898698, 600-700 m, 19.03.1999, 1♀, leg. de Freina.

Remarks: Its distribution is in the southern and south-eastern regions of Africa (DRC, Kenya, Mozambique, RSA, Zimbabwe) (Mansell 1987).

Tribe: **Nemoleontini** Banks, 1911

Banyutus lethalis (Walker, 1853)

Angola, Malanje prov. 55 km NE Malanje, 9.16425S 16.51046E, 1600 m, 11./23.1.2025. 1 ex., leg. Halada J. — Huila prov. Matala 32 km S, 14.9403S 15.1281E, 1200 m, 27.1.2025. 1 ex., leg. Halada J. — prov. Bié, Cuito 176 km E, 12.18790S 18.19249E, 1390 m, 20.1.2025. 1 ex., leg. Halada J.

Remarks: This species is frequent in dry savanna regions in southern and eastern Africa, extending from Kenya to RSA (Tippett 2022n). The occurrence in Madagascar needs to be confirmed.

Banyutus pulverulentus (Rambur, 1842) (Fig. 6).

Republic of South Africa, Western Cape, Swellendam, Langeberge Südhang Marloth, Nature Reserve, 350-400 m, 13.03.1999, 2 ex., leg. de Freina. — Western Cape, Cederberg-Region, Clanwilliam (30 km E-SE), Algeria NP, 32.192377 18.898698, 600-700 m, 23.-24.11.1998, 3 ex., leg. de Freina.

Remarks: It is found exclusively in southern Africa. Reports of its occurrence in India are erroneous. (Suryanarayanan et al. 2022).

Creoleon cinerascens (Navás, 1912)

Morocco, Souss-Massa, AntiAtlas, Tata, 45 km W, Imitek W, 600 m, 10.04.1997, 1 ex., LF, leg. Hoppe.

Remarks: It is a common and widespread species in the SW Palaearctic region from Morocco to the Arabian Peninsula (Ábrahám 2017). It prefers dry sandy deserts, coastal dunes, and dry rocky grasslands and scrublands.

Creoleon diana (Kolbe, 1897)

Namibia, Omaheke or, Gobabis, 35 km W, 22°23'S 18°39'E, 1480 m, 12.03.2014, 1 ex., leg. Halada. — **Republic of South Africa**, Kwa Zulu-Natal, Drakensberge Region S, Himewille, Cobham Nat. Reserve, 1600-1800 m, 26.-27.11.1999, 1 ex., leg. de Freina.

Remarks: This species is considered to be one of the largest within the genus *Creoleon*. Its distribution area is south-east and east Africa. It inhabits semi-deserts, dry grassy savannas and scrublands. (<https://www.gbif.org/species/2098565>).

Creoleon ermineus (Fabricius, 1798) (Fig. 7).

Tunisia mer, Jebel Dahar, 30 km W Chenini, Steinwüste, 800 m, 2.5.2008, LF, 1 ex., leg. Hoppe & Lange

Remarks: It has a widespread distribution across the Sahara region, extending through the Arabian Peninsula and reaching the eremial area of Western Asia to India (Ábrahám & van Harten 2014, Suryanarayanan et al. 2025a).

Creoleon lugdunensis (Villers, 1789)

Morocco, Mittlerer Atlas, Ifrane, 1700 m, 25.07.1975, 1 ex., leg. Groß. — Ifrane, Tizi n' Tarhettene, (= Tretten) Pass, 1900 m, 26.07.1975, 1 ex. — Ifrane, Jbel Mischliffen, 26.07.1975, 1 ex., leg. Groß. — Hoher Atlas, Straße nach Oukaimeden, 2300 m, 02.06.1975, 2 ex., leg. Groß.

Remarks: It is a locally common species, distributed primarily in the western half of Southern Europe and in the Atlas Mountains in Africa (Aspöck et al. 2001). It inhabits Mediterranean dry grasslands and scrublands.

Creoleon mortifer (Walker, 1853)

Namibia, Khomas, Windhoek, 30 km SE, 22°35'S 17°20'E, 1880 m, 11.03.2014, 1 ex., leg. Halada. — Spitzkoppe, 21°50'S 15°11'E, 1100 m, 31.12.2015, 2 ex., leg. Mayr T. — Khoma-Hochland, Windhoek (75 km NE), Karivo, 1700 m, 6.-7.5.1996, 1 ex., leg. de Freina.

Remarks: The published distribution data for the species (Stange 2004) requires complete revision. The known data certainly seem to be valid only in southern Africa. In this area, it is a fairly common species that occupies various habitats, ranging from forests and savannas to arid scrublands and semideserts. (Tippett 2022o).

Creoleon neurasthenicus (Navás, 1913)

Israel, Sinaiwüste, Eilat, 5 km N, Rodet Wadi N, 100 m, 01.05.1987, 1 ex., leg. de Freina. — **Maghreb, Morocco**, Hoher Atlas, Tizi N-Tacheddirt env, 2300 m, 8.-10.8.1978, 1 ex., leg. Groß. — AntiAtlas, Souss-Massa, Tata, 15 km S, Tigezmirt, 20 km W, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe. — AntiAtlas, Tiggane, Tata, 15 km S, 400 m, 09.04.1997, LF, 1 ex., leg. Hoppe. — Souss-Massa, Tata, 45 km W, Imitek W, 600 m, 10.04.1997, LF, 1 ex., leg. Hoppe. — Hoher Atlas, Tizi N-Tacheddirt env, 2300 m, 8.-10.8.1978, 1 ex., leg. Groß. — AntiAtlas, Souss-Massa, Tata, 15 km S, Tigezmirt, 20 km W, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe.

Remarks: This species has a wide distribution in arid areas from North Africa (Morocco), across the Middle East and the Arabian Peninsula to SW Asia (Pakistan) (Ábrahám 2017).

Creoleon nubifer (Kolbe, 1897)

Ethiopia, Addis Abeba, (360 km S), Agere Maryam, 6 km S, 1800 m, 6.-7.11.2010, 1 ex., leg. de Freina.

Remarks: Its distribution area is unclear (Angola, Namibia, Madagascar, West Africa) (Prost & Popov 2021). Based on the collection material, its range certainly extends from Ethiopia to RSA in East Africa (<https://www.gbif.org/species/2098644>).

Creoleon plumbeus (Olivier, 1811)

Kyrgyzstan, Jalal-Abad Oblasti, Tian Shan W Chaak Too, Tash-Kömür env., 890 m, 41°25'16.0"N 72°18'58"E, 04.08.2024, 2 ex., leg. Mayr T.

Remarks: It is known only in the Palearctic, with a range extending from Central Europe to Northwestern China (Suryanarayanan et al. 2024). It may be locally common in dry grasslands.

***Creoleon* sp. 1**

Ethiopia, Addis Abeba, (360 km S), Agere Maryam, 6 km S, 1800 m, 6.-7.11.2010, 2♀, leg. de Freina.

Remarks: The genus *Creoleon* from East Africa requires taxonomic revision, and its published distribution data need re-evaluation to accurately identify the taxon.

Deutoleon lineatus (Fabricius, 1798)

Mongolia or, Zentral-Aimak, Ulan Bator, Bag Daul, 11.07.1983, 1♀, leg. Salk U. — **Russia**, Siberia, Tuva, Kizyl env. 28.6.1998. 2 ex., leg. Kruger & Saldaitis.

Remarks: Its distribution extends from Eastern Europe (Eastern Romania, Ukraine, the South Ural Mts.) through Central Asia to the Pacific Ocean (Krivokhatsky 2011). Its habitat is temperate grasslands.

Distoleon annulatus (Klug in Ehrenberg, 1834)

Morocco, AntiAtlas, Col de Kerdous, Südseite, 150 m, 05.11.1990, 2 ex., leg. de Freina. — Agadir, 200 m, 2.-16.12.1979, 1 ex., leg. Ströhle.

Remarks: Its distribution extends to the Mediterranean areas. It is widespread in North Africa, from the Canary Islands to Egypt, and is a common species. In southern Europe, it has been sporadically recorded from Portugal through Malta, Crete, Greece and Cyprus to the Middle East (Israel) and has also been documented in Iraq and Iran. In the southern part of the Caucasus (Kačirek & Šumpich 2024). The species prefers dry, semi-desert or dry Mediterranean habitats (Acevedo et al. 2013).

Distoleon asiricus Hölzel, 1983 (Fig. 8).

Yemen, Sana'a, Bab el Shanb, 28.05.1982, 1 ex., leg. Naumann.

Remarks: This species has been documented only in the Arabian Peninsula (Aspöck et al. 2001). It inhabits semi-arid deserts and xeric shrublands.

Geyria lepidula (Navás, 1912)

Morocco, Drâa-Tafilalet, Tinerhir (30 km E), Ksar-es-Souk, 1200 m, 14.08.1975, 2 ex., leg. Groß.

Remarks: It was recorded in the Saharan zone from Morocco to the Arabian Peninsula (Hölzel 1987). Its area expands to SW Asia: Iran, S Pakistan (Ábrahám 1917), and NW India (Rajasthan) (Ghosh 1981). It inhabits semiarid deserts and xeric shrublands.

Macronemurus elegantulus McLachlan, 1898

Morocco, Drâa-Tafilalet, Boudnib, 5 km W, Qued Guir, 800 m, 28.03.1999, 1 ex., leg. Hoppe. — Drâa-Tafilalet,

Tinerhir (30 km E), Ksar-es-Souk, 1200 m, 14.08.1975, 3 ex., leg. Groß. — Souss-Massa, AntiAtlas, Tata, 14 km S, Tiggane S, 400 m, 09.04.1997, 2 ex., leg. Bauer & Hoppe. — Tata, 15 km S, Tigezmirt, 20 km W, E, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe.

Remarks: A North African endemic species found in the Atlas Mountains from Morocco to Tunisia (Ábrahám 2017). Its habitat is dry mountain grasslands and scrublands and dry river valleys.

Macronemurus euanthe Banks, 1911

Angola, prov. Bié, Calucinga 35 km N, 11.025S 16.137E, 1695 m, 21.1.2025. 1 ex., leg. Halada J. — Cunene pr. Xangongo 10 km SW, 16.81625S 14.93257E, 30.1.2025. 1 ex., leg. Halada J. — **Namibia**, Okavango, Rundu, 20 km S, 18°13'N 19°43'E, 1120 m, 28.03.2014, 1 ex., leg. Halada.

Remarks: Distribution data for the central belt of southern Africa (Botswana, DRC, Malawi, Namibia, RSA, Zimbabwe) can be found (<https://www.gbif.org/species/2097572>).

Macronemurus tinctus Kolbe, 1897

Ethiopia, Addis Abeba, 310 km S-SW, Agere Maryam, 6 km S, 1800 m, 6.-7.11.2010, 1 ex., leg. de Freina. — **Namibia**, Khomas, Windhoek, 30 km SE, 22°35'S 17°20'E, 1880 m, 11.03.2014, 1 ex. — Omaheke or, Gobabis, 35 km W, 22°23'S 18°39'E, 1480 m, 12.03.2014, 1 ex. — Harda, Rehoboth, 15 km S, 23°28'S 17°07'E, 1400 m, 20.03.2014, 3 ex. — Otjozondupa, Okahandja, 14 km NE, 21°49'S 16°58'E, 1480 m, 14.03.2014, 3 ex., all leg. Halada. — **Republic of South Africa**, Mpumalanga, Lydenburg, 5 km SW, 25°04'S 30°26'E, 1550 m, 17.-21.12.2009, 3 ex., leg. de Freina.

Remarks: It is a widespread species in southern and eastern Africa, from Kenya to RSA (<https://www.gbif.org/species/2097544>).

Mesonemurus eberti Hölzel, 1972

Kyrgyzstan Talas Oblasti, Tian-Shan West, Chatkal, Chandlash Gebiet, Straße Kara-Buura Pass, 1700 m, 42°20'06.0"N 71°36'22"E, 31.07.2024 5 ex., leg. Mayr T. — Talas Oblasti, Tian-Shan W, Talas Umg. Chong-Kara-Buura, 1200 m, 42°28'40.0"N 71°32'21"E, 30.07.2024, 1 ex., leg. Mayr T.

Remarks: Typically, an eremial Central Asian (Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) species (Krivokhatsky et al. 2015).

Mesonemurus guentheri Hölzel, 1970

Kyrgyzstan Talas Oblasti, Tian-Shan W, Talas Umg. Chong-Kara-Buura, 1200 m, 42°28'40.0"N 71°32'21"E, 30.07.2024, 6 ex., leg. Mayr T.

Remarks: In Central Asia, its distribution extends from Astrakhan region (South Russia) and the West Kazakhstan region to Mongolia and West China (Krivokhatsky 2011).

It is a locally common species in sandy areas, dry steppes, and semi-deserts.

Mesonemurus harterti Navás, 1920

Morocco, Souss-Massa, AntiAtlas, Tata, 15 km S, Tigezmirt, 20 km W, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe. — **Tunisia** mer, Tataouine, Jebel Dahar, 4 km W Chenini, 32°54'N 10°13'E, 5 m, 11.04.2007, LF, 1 ex., leg. Hoppe & Rudolf.

Remarks: It is widespread in arid areas in North Africa and West Asia (Aspöck et al. 2001), but local populations are small. The species is associated with semiarid desert and xeric shrubland habitats.

Neuroleon chloranthe (Banks, 1911)

Angola, Cunene pr. Xangongo 10 km SW, 16.81625S 14.93257E, 30.1.2025. 2 ex., leg. Halada J. — **Republic of South Africa**, Western Cape, Cederbergregion, Clanwilliam (30 km E-SE), Algeria NP, -32.192377 18.898698, 600-700 m, 23.-24.11.1998, 3 ex., leg. de Freina. — 16.03.1999, 2 ex., leg. de Freina. — Westkap, Cederberg region, Cederberg env, Leeurivier-Ufer (=Grotrivier-Ufer), 500-700 m, 20.03.1999, 1 ex., leg. de Freina.

Remarks: Its distribution is restricted to southern Africa (Namibia, RSA, Botswana, Zimbabwe) (<https://www.gbif.org/species/2099459>). It is first documented in the fauna of Angola.

Neuroleon leptaleus (Navás, 1912)

Tunisia, Tataouine, 41 km S, Bir Tetlathine S, 32°37'N 10°18'E, 275 m, 19.04.2007, LF, 1 ex., leg. Hoppe.

Remarks: This is a typical eremial species, occurring in North Africa, West Asia (Israel, Saudi Arabia) (Aspöck et al. 2001), and Middle Asia (Turkmenistan, Uzbekistan) (Krivokhatsky 1995).

Obus elizabethae (Banks, 1911)

Namibia Helmeringhausen W, Tirasberge, Koiimasis Campsite, 25°55'S 16°15'E, 1300 m, 17.01.2016, 1 ex., leg. Mayr T. — **Republic of South Africa**, Western Cape, Cederberg-Region, Leeurivier-Ufer (=Grotrivier-Ufer), 500-700 m, 20.03.1999, 2 ex., leg. de Freina. — Western Cape, Cederberg-Region, Clanwilliam (30 km E-SE), Algeria NP, -32.192377 18.898698, 600-700 m, 16.03.1999, 1 ex., leg. de Freina. — Western Cape, Swellendam, Bontebok NP, -34.103431 20.536879 m, 13.-23.3.1999, 1 ex., leg. de Freina.

Remarks: Its distribution area extends to southwestern Africa (Namibia, RSA) (Stange 2004) (<https://www.gbif.org/species/2099083>).

Obus infirmus Navás, 1929

Angola, Cunene pr. Xangongo 10 km SW, 16.81625S 14.93257E, 30.1.2025. 1 ex., leg. Halada J. — **Namibia**,

Damaraland, Uis, 3 km NW, 1600 m, 21.01.1998, 2 ex., leg. de Freina. — Erongo, Erongo Plateau Camp, 21°31'S 15°45'E, 31.12.2019, 2♂. — Erongo reg. 30 km WNW Omaruru, 21.36179S 15.67192E, 3.2.2025. 1 ex., leg. Halada J. — Erongo, Usakos, 25 km E-NE, 21°52'S 15°19'E, 1100 m, 17.03.2014, 1 ex., leg. Halada. — Karibib SE, Otjimbingwe env, 22°22'S 15°14'E, 715 m, 01.01.2020, 2 ex., leg. Mayr T. — Kunene, Sesfontein, Warmquelle, 19°08'S 13°49'E, 720 m, 27.12.2019, 1 ex., leg. Mayr T. — Namaqualand, Springbuck river, 20°24'S 13°15'E, 670 m, 22.12.2020, 3 ex., leg. Mayr T. — Namib-Wüste, Blutkoppe, 22°50'S 15°22'E, 720 m, 17.12.2019, 3 ex., leg. Mayr T. — Okahirongo E, Purros, Purros Bush Campsite, 18°44'S 12°56'E, 300 m, 26.12.2019, 1 ex., leg. Mayr T. — Omusati reg. Swarbooisdrift 6 km SE, 17.36651S 13.89015E, 31.1.2025. 4 ex., leg. Halada. — Oshana reg. Ondagwa 16 km S, 18.04735S 16.01001E, 16.1.2025. 2 ex., leg. Halada.

Remarks: A morphologically variable, common taxon. So far, its distribution data have only been documented from Angola, Namibia and RSA (Ábrahám 2024).

Pseudoformicaleo gracilis (Klug in Ehrenberg, 1834)

Morocco, Souss-Massa, AntiAtlas, Tata, 15 km S, Tigezmirt, 20 km W, 800 m, 16.04.1998, 1 ex., leg. Bauer & Hoppe.

Remarks: Its range extends from Morocco to Pakistan, covering the southern part of the Palaearctic region (Aspöck et al. 2001). Towards the south, its distribution extends to the Arabian Peninsula and into Africa. It also occurs in the dry regions of Kenya (Ábrahám & Giacomino 2020) and Benin (Prost et al. 2022).

Tribe: **Megistopini** (Banks, 1927)

Dominikon lagopus (Gerstaecker, 1894)

Iran, Lorestan, Aligudars, 40 km SW, 225 m, 21.05.2014, 2 ex., leg. Halada.

Remarks: It is a widespread species in Western Asia, SE Turkey and Iran (the Alborz and the Zagros Mountains) (Krivokhatsky et al. 2022). Its larvae are associated with hollow trees, and its habitat is temperate broadleaf, mixed forests.

Megistopus flavicornis (Rossi, 1790)

Morocco, Hoher Atlas, Ourika-Tal, 1200 m, 29.5.-19.6.83, 1 ex., leg. Ströhle.

Remarks: Its distribution includes the Mediterranean and continental climate areas of Europe. Its range extends to North Africa (Morocco), western Asia (Turkey, Israel, Syria), and known from the Caucasus via the northern Iranian mountains to Central Asia (Turkmenistan, Tajikistan) (Aspöck et al. 1980, 2001).

Acknowledgement

The first author of the paper expresses his gratitude to the collectors, who after their collecting trips, have donated their Myrmeleontidae material after their successful collecting trips to the EFMEA collection during the last half century, namely: Anonymus, Balázs B.; Bauer; Betti G.; Churkin; de Freina J.; Eckweiler W.; Görgner E.; Groß J.;

Halada J.; Hoppe H.; Ihle; Junge G.; Huber K.; Huemer P.; Kautt P. & V. Weiß; Lange; Lencina J. L.; Mayr T.; Mi-atlenski J.; Mühle H.; Murzin I.; Naumann C.; Oswald R.; Salk U.; Ströhle M.; Weidenhoffer, S.

The authors would like to thank Bálint Csernák and Péter Horváth of Hungary for taking the excellent photographs and editing the photo tables.

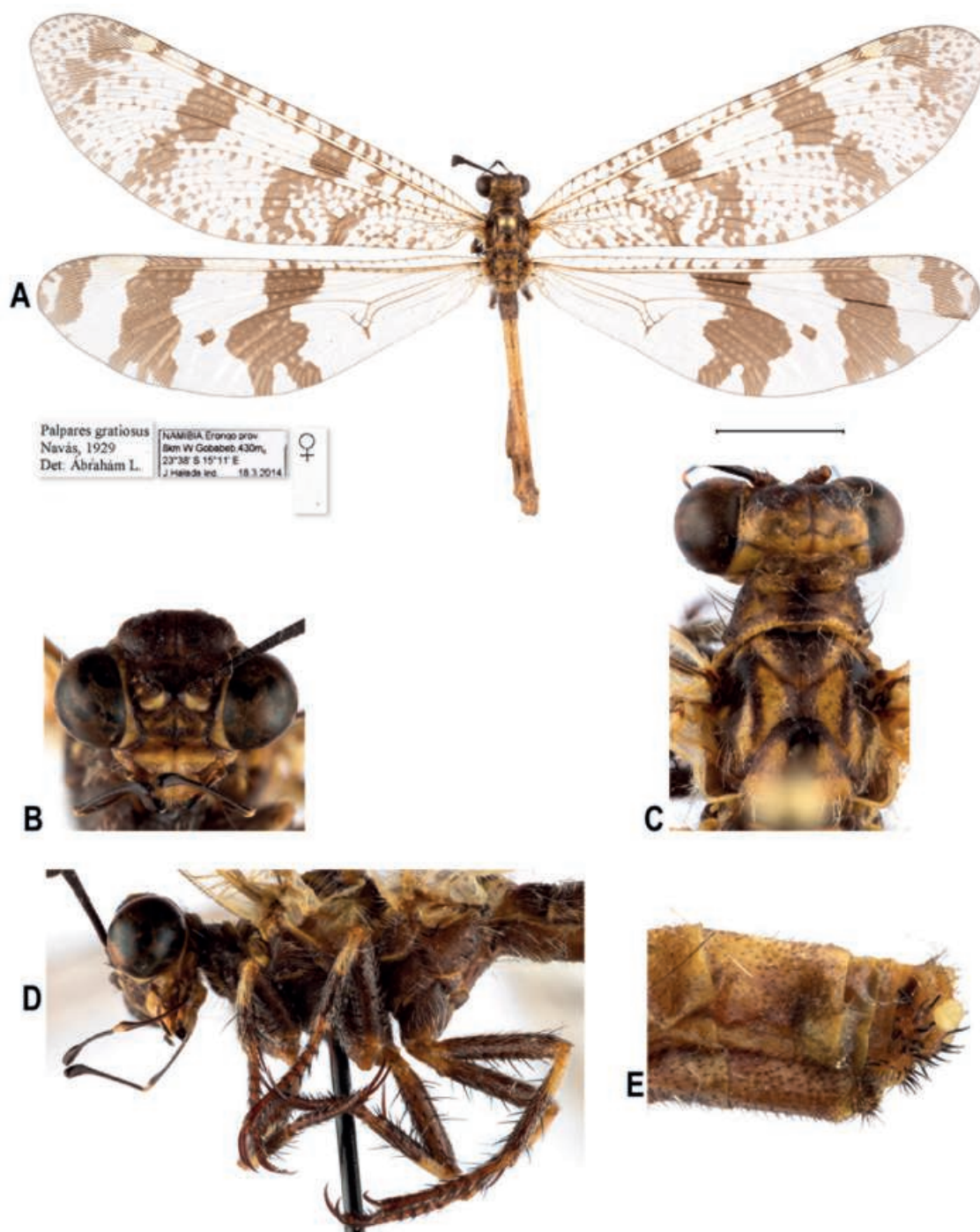


Fig. 1. *Palpares graciosus* Navás, 1929 A – female habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax in dorsolateral view, D – legs in lateral view, E – tip of abdomen in lateral view (different scales)

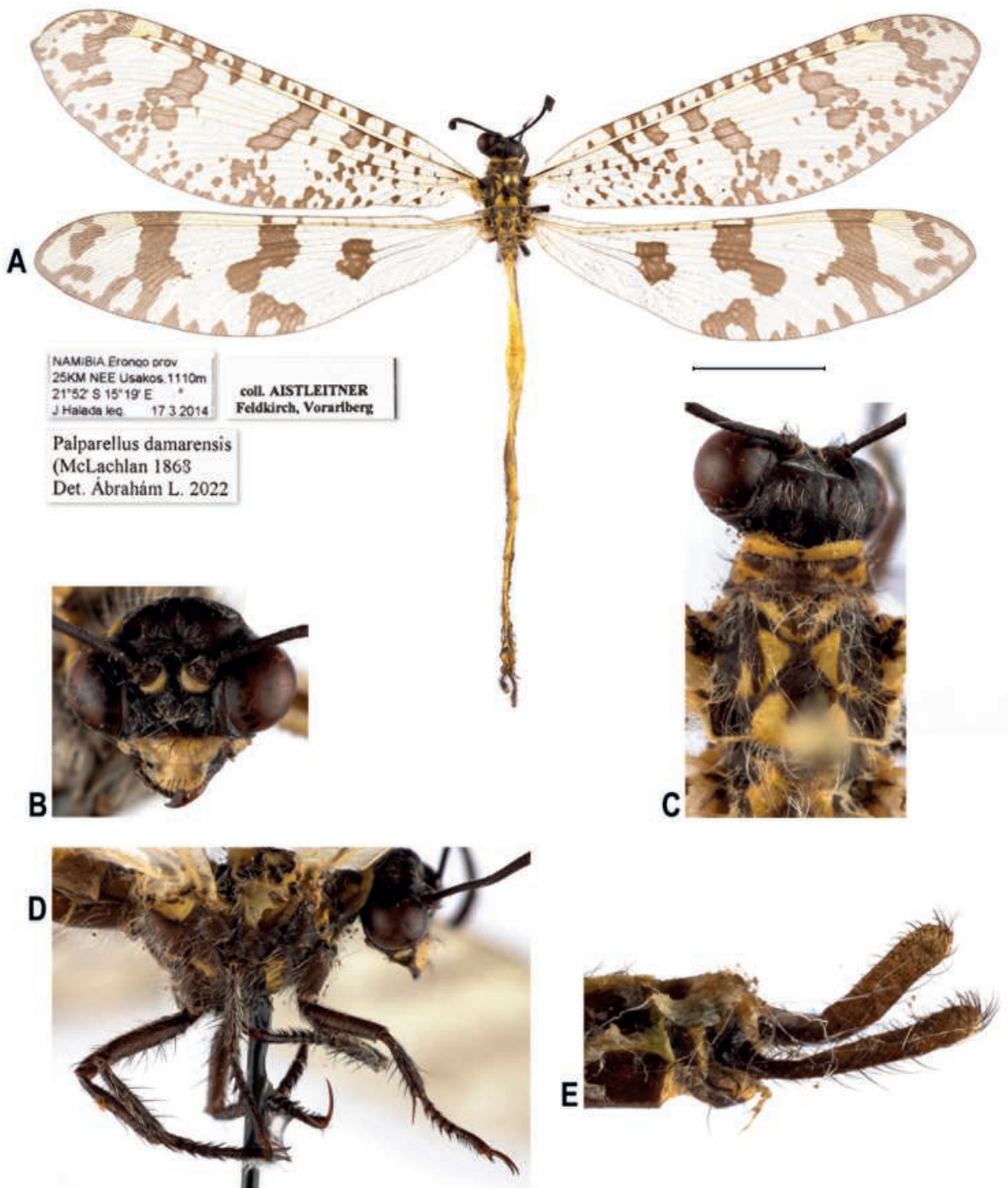


Fig. 2. *Palparellus damarensis* (McLachlan, 1868) A – male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax in dorsolateral view, D – legs in lateral view, E – tip of abdomen in lateral view (different scales)

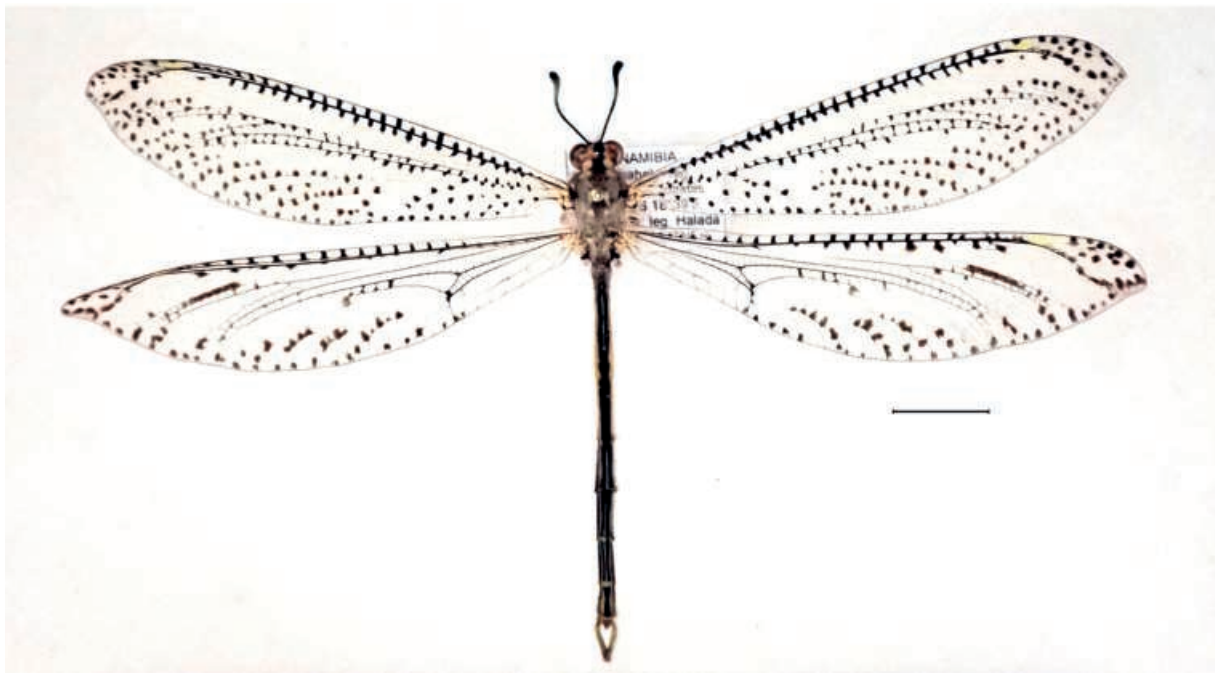


Fig. 3. Paratype male of *Pseudopalparex parvopunctatus* Ábrahám, 2023 (Scale: 10 mm)



Fig. 4. Habitus of *Stenares hyaena* (Dalman, 1823) (Scale: 10 mm)

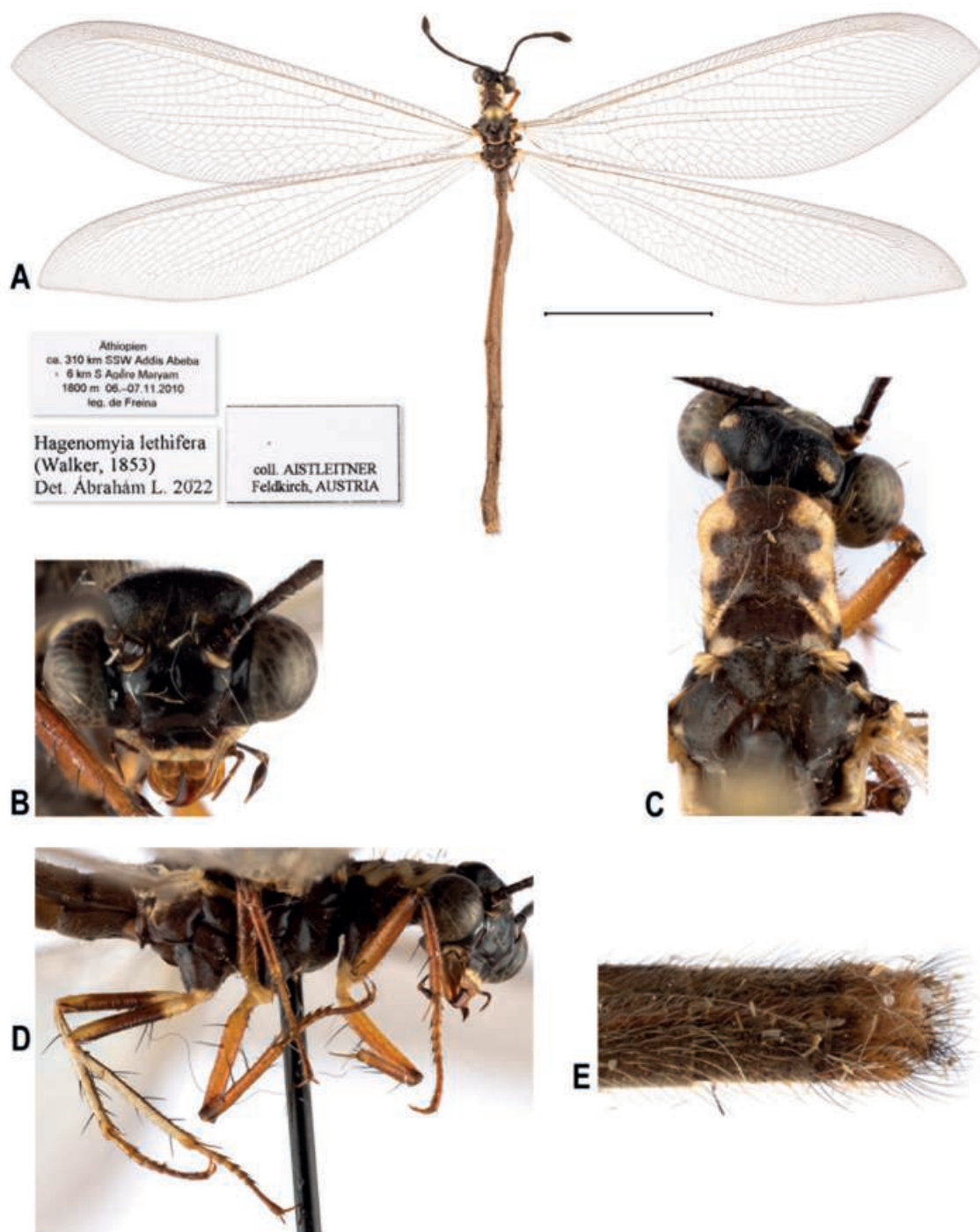


Fig. 5. *Hagenomyia lethifera* (Walker, 1853) A – male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax in dorsolateral view, D – legs in lateral view, E – tip of abdomen in lateral view (different scales)

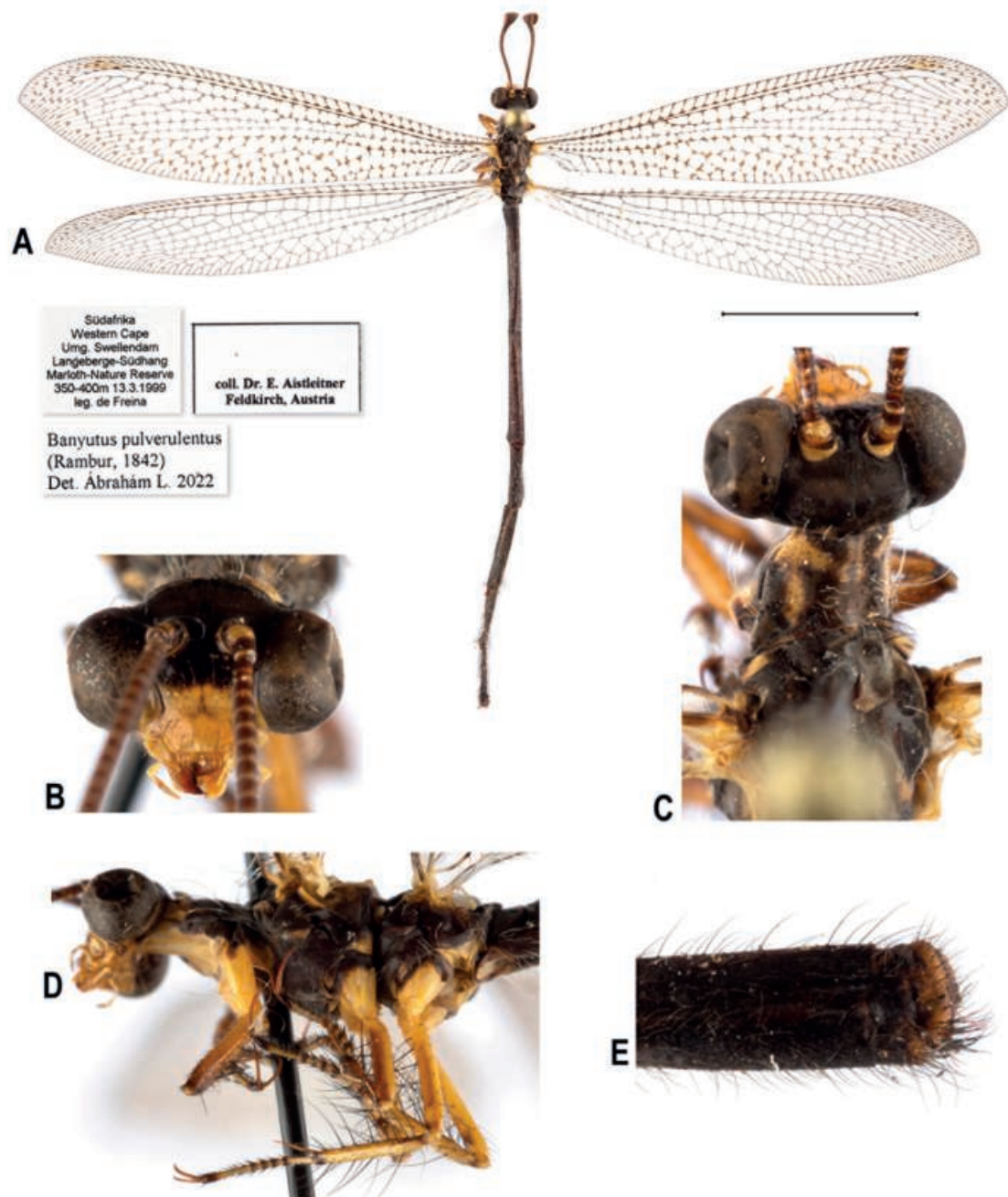


Fig. 6. *Banyutus pulverulentus* (Rambur, 1842) A – male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax in dorsalview, D – legs in lateral view, E – tip of abdomen in lateral view (different scales)

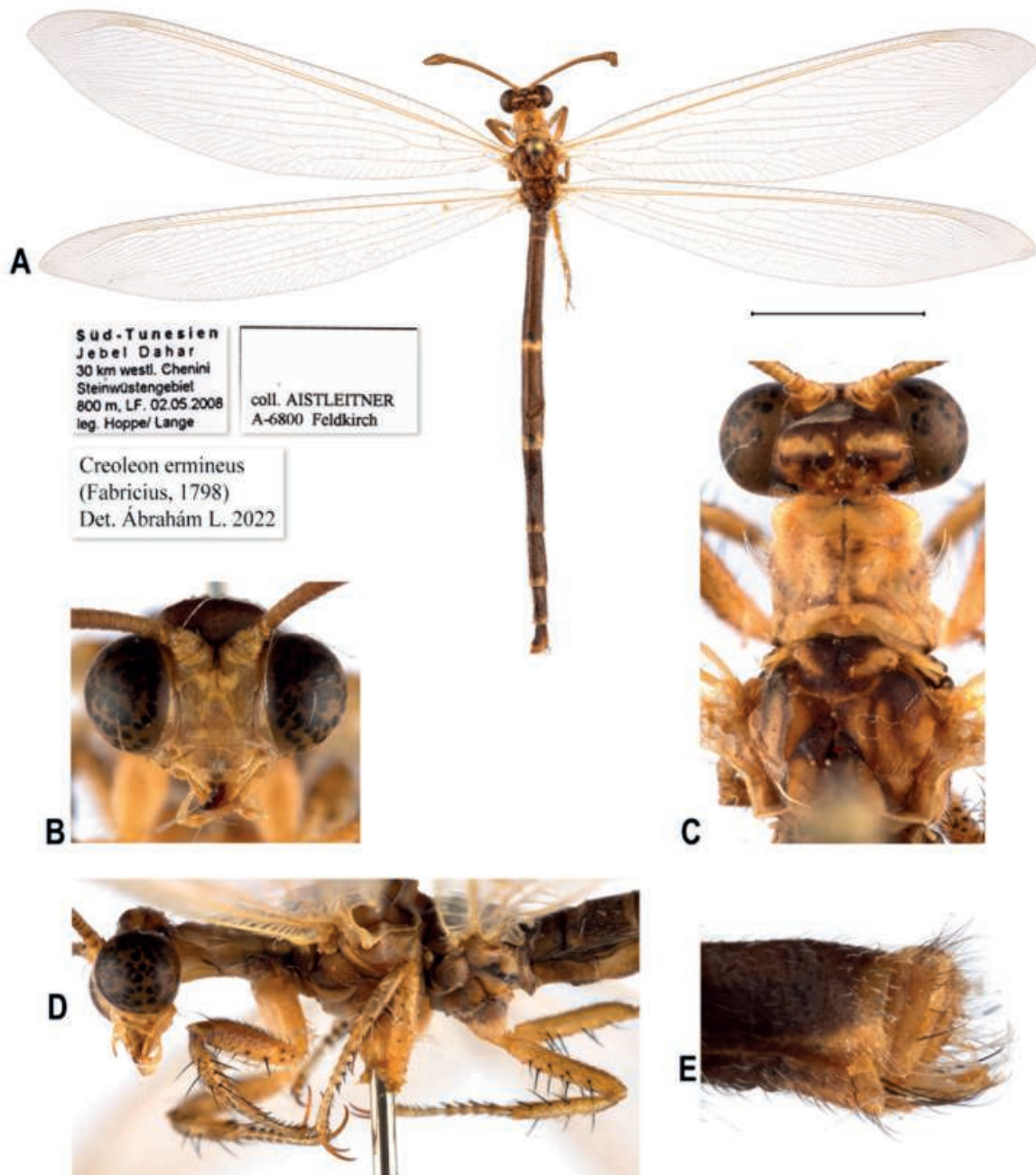


Fig. 7. *Creoleon ermineus* (Fabricius, 1798) A – male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax in dorsolateral view, D – legs in lateral view, E – tip of abdomen in lateral view (different scales)

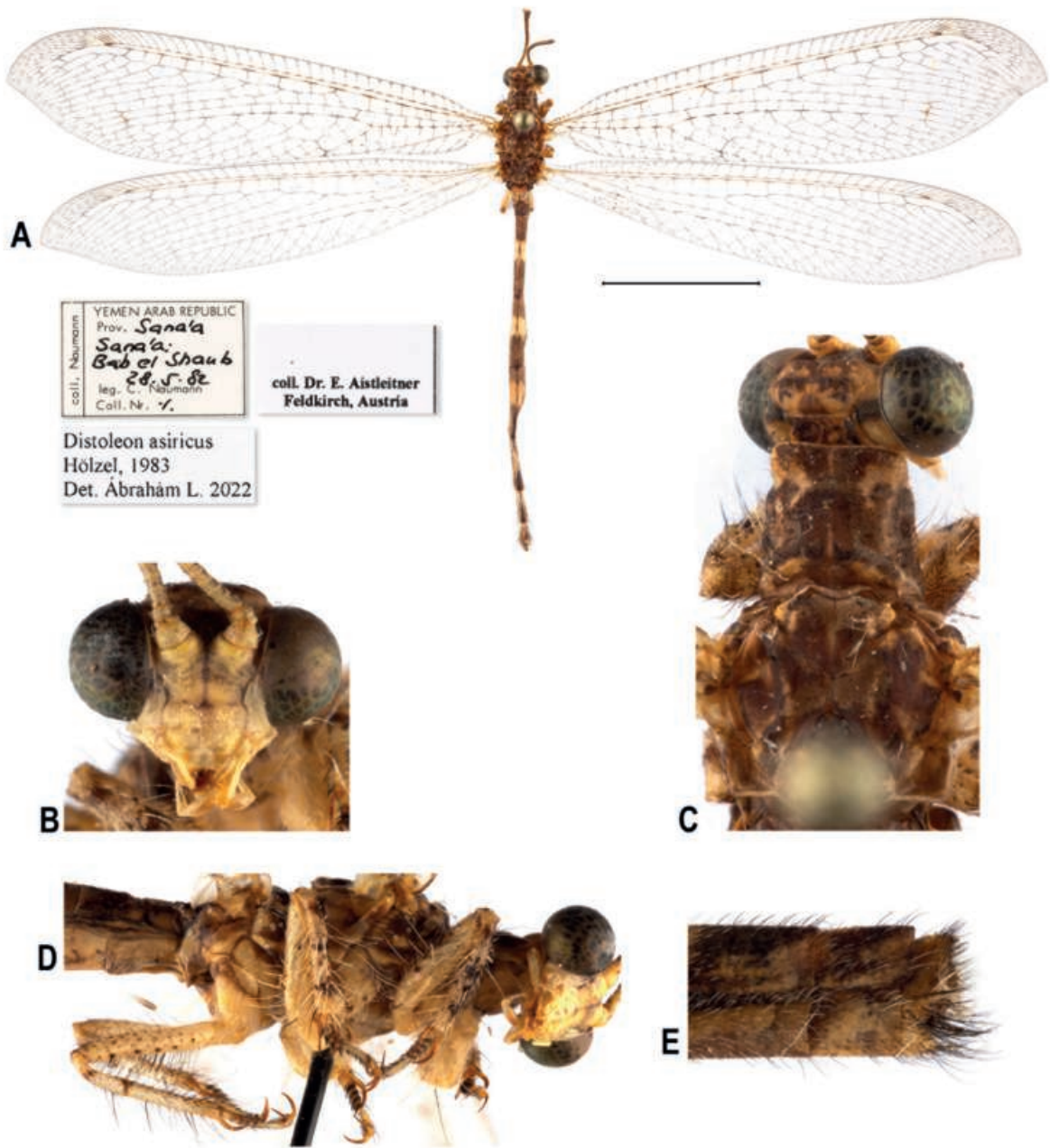


Fig. 8. *Distoleon asiricus* (Hölzel, 1983) A – male habitus (Scale: 10 mm), B – head in frontal view, C – head, thorax in dorsalview, D – legs in lateral view, E – tip of abdomen in lateral view (different scales)

References

- ACEVEDO, F., MONSERRAT, V. J., BADANO, D. 2013. Comparative description of larvae of the European species of *Distoleon* Banks: *D. annulatus* (Klug, 1834) and *D. tetragrammicus* (Fabricius, 1798) (Neuroptera, Myrmeleontidae). *Zootaxa* 3721:488–494. <https://doi.org/10.11646/zootaxa.3721.5.4>
- AISTLEITNER, E. 1973. *Ascalaphus libelluloides* Schaeffer 1763 in Westösterreich (Neuroptera, Ascalaphidae). *Nachrichtenblatt der Bayerischen Entomologen* 22: 125–127.
- AISTLEITNER, E. 1980. Die Arten des Genus *Libelloides* Tjeder, 1972, der Iberischen Halbinsel (Neuroptera, Planipennia, Ascalaphidae). *Taxonomie, Arealkunde, Phaenologie, Habitatwahl* (3. Beitrag zur Kenntnis der Entomofauna der Iberischen Halbinsel). *Entomofauna* 1: 234–297.
- AISTLEITNER, E. 1981. Eine neue Unterart von *Libelloides longicornis* (L.) aus den Südstalpen (Neuropteroidea, Planipennia, Ascalaphidae). *Entomofauna* 2: 191–202.
- AISTLEITNER, E. 1982a. Der Schmetterlingshafte *Libelloides coccajus* (Denis & Schiffermüller, 1776), ein charakteristisches Insekt des Vorarlberger Oberlandes. *Vorarlberger Oberland, Kulturinformationen Rheticus Gesellschaft* 2:53–59.
- AISTLEITNER, E. 1982b. *Libelloides jungei* sp. n. eine neue Ascalaphide aus der Türkei (Neuroptera, Planipennia, Ascalaphidae). *Entomofauna* 3: 209–216.
- AISTLEITNER, E. 2007. Zur Taxonomie und Chorologie des Schmetterlingshaften *Libelloides lacteus* (Brulle, 1832) (Neuroptera, Ascalaphidae) [=The taxonomy and chorology of the owlfly *Libelloides lacteus* (Brulle, 1832) (Neuroptera, Ascalaphidae)]. *Entomofauna* 28: 357–368.
- AISTLEITNER, E. 2015. Zur Taxonomie und Chorologie des Betischen Schmetterlingshaften *Libelloides baeticus* (Rambur, 1842) mit Beschreibung einer neuen Unterart (Neuroptera, Ascalaphidae). *Linzer Biologische Beiträge* 47:1287–1302. <https://doi.org/10.5281/zenodo.5282238>
- AISTLEITNER, E. 2019. Schmetterlingshafte der Westpaläarkt. – faunistische und phaenologische Aufzeichnungen und Anmerkungen (Neuropterida, Planipennia, Ascalaphidae). *Mitteilungen der Münchner Entomologischen Gesellschaft* 109:117–137.
- AISTLEITNER, E. 2020: Studien über Schmetterlingshafte: die Taxa *Libelloides longicornis* (Linnaeus, 1758) und *L. macaronius* (Scopoli, 1763) in den Südalpen und den angrenzenden Dinariden (Neuroptera, Ascalaphidae). *Nachrichtenblatt der Bayerischen Entomologen* 69:50–59.
- AISTLEITNER, E. & ÁBRAHÁM, L. 2023a. Nemopterid faunistic data from the EFMEA collection (Neuroptera: Nemopteridae). *Mitteilungen der Münchner Entomologischen Gesellschaft* 113:21–28.
- AISTLEITNER, E. & ÁBRAHÁM, L. 2023b. Owlfly data from the EFMEA collection (Neuroptera: Myrmeleontidae: Ascalaphinae). *Mitteilungen der Münchner Entomologischen Gesellschaft* 113:3–19.
- AISTLEITNER, E. & ÁBRAHÁM, L. 2023c. To the knowledge of owlfly and antlion fauna of Cape Verde (Neuroptera: Myrmeleontidae). *Natura Somogyiensis* 41:5–20. <https://doi.org/10.24394/NatSom.2023.41.5>
- AISTLEITNER, E. & ÁBRAHÁM, L. 2024. European antlion data from the EFMEA collection (Neuroptera: Myrmeleontidae). *Natura Somogyiensis* 44:41–50. <https://doi.org/10.24394/NatSom.2024.44.41>
- AISTLEITNER, E. & HÖLZEL, H. 2012. Zur Kenntnis der Schmetterlingshafte, Florfliegen und Ameisenjungfern (Neuropterida: Ascalaphidae, Chrysopidae, Myrmeleontidae) der Kapverden (Cabo Verde). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 64:119–124.
- AISTLEITNER, E. & LENCINA GUTIÉRREZ, F. 2020. On the knowledge of the lacewing fauna in the Spanish province of Albacete (I) (Neuroptera, Nemopteridae, Ascalaphidae). *Mitteilungen des Internationalen Entomologischen Verein* 43:97–116.
- AISTLEITNER, E., ÁBRAHÁM, L. & LENCINA-GUTIERREZ, F. 2025. Faunistic data to the Spanish antlion fauna from EFMEA collection (Neuroptera: Myrmeleontidae). *Nachrichtenblatt der bayerischen Entomologen* 74 (1/2):7–15.
- AKHTAR, S.; ASHFAQ, M., ZIA, A., ALI, S., ALI, G. M., FARHATULLA, ZAFAR, Y. 2018. First report and redescription of five species of genus *Myrmeleon* (Neuroptera: Myrmeleontidae) from Pakistan. *Journal of Biodiversity and Environmental Sciences* 13:180–190.
- AKOUDJIN, M., MICHEL, B. 2011. A new species of *Palpares* Rambur (Neuroptera: Myrmeleontidae) with an identification key to the species of West Africa. *Zootaxa* 2792:33–40. <https://doi.org/10.11646/zootaxa.2792.1.3>
- ASPÖCK, H., ASPÖCK, U., HÖLZEL, H. [& RAUSCH, H.] 1980. Die Neuropteren Europas. 2 vol. Goecke and Evers, Krefeld, West Germany. v. 1: 495 pp.; v.2: 355 pp.
- ASPÖCK, H.; HÖLZEL, H. & ASPÖCK, U. 2001. Kommentierter Katalog der Neuropterida (Insecta: Raphidioptera, Megaloptera, Neuroptera) der Westpaläarktis. *Denisia* 02, Linz, 606 Seiten.
- ÁBRAHÁM, L. 2017. New data to the Moroccan *Myrmeleontiformia* (Nemopteridae, Myrmeleontidae, Ascalaphidae) fauna. *Natura Somogyiensis* 30:75–138. <https://doi.org/10.24394/NatSom.2017.30.75>
- ÁBRAHÁM, L. 2020. The Börzsöny lacewing collection I. (Neuroptera: Osmylidae, Mantispidae, Hemerobiidae, Chrysopidae, Nemopteridae, Myrmeleontidae: Ascalaphinae). *A Kaposvári Rippl-Rónai Múzeum Közleményei* 07:35–54. <https://doi.org/10.26080/krrmkozl.2020.7.35>
- ÁBRAHÁM, L. 2021. *Nohoveus zigan* (H. Aspöck et al. 1980). – a new record for the Greek antlion fauna (Neuroptera: Myrmeleontidae). *Natura Somogyiensis* 37:43–48. <https://doi.org/10.24394/NatSom.2021.37.43>
- ÁBRAHÁM, L. 2023. Description of a new *Pseudopalpares* species from southern Africa (Neuroptera: Myrmeleontidae). *Natura Somogyiensis* 41:39–56. <https://doi.org/10.24394/NatSom.2023.41.39>

- ÁBRAHÁM, L. 2024. The Börzsöny lacewing collection II. (Neuroptera: Myrmeleontidae: Myrmelontinae). *A Kaposvári Rippel-Rónai Múzeum Közleményei* 09:35–50. <https://doi.org/10.26080/krrmkozl.2024.9.35>
- ÁBRAHÁM, L. & DOBOSZ, R. 2011. Contribution to the antlion and owl-fly fauna of Madagascar with description new taxa (Neuroptera: Myrmeleontidae, Ascalaphidae). *Natura Somogyiensis* 19:109–138. <https://doi.org/10.24394/NatSom.2011.19.109>
- BADANO, D. 2020. Larval morphology of three Afrotropical pit-building antlions of the genus *Myrmeleon* Linnaeus (Neuroptera, Myrmeleontidae). *Israel Journal of Ecology and Evolution* 2020: 63–72.
- DOBOSZ, R.; ÁBRAHÁM, L. & BĄKOWSKI, M. 2024. *Nadus overlaeti* (Navás, 1931) redescribed. – new to the fauna of Mozambique, Namibia and Tanzania (Neuroptera: Myrmeleontidae). *Zootaxa* 5529(3):583–592. <https://doi.org/10.11646/zootaxa.5529.3.9>
- GÜSTEN, R. 2002. Antlion assemblages (Neuroptera: Myrmeleontidae) of two arid habitats in Tunisia. Sziráki, G. (editor). *Neuropterology 2000. Proceedings of the Seventh International Symposium on Neuropterology. Meeting: 6-9 August 2000, Budapest, Hungary. Acta Zoologica Academiae Scientiarum Hungaricae* 48(Suppl. 2):99–120.
- GÜSTEN, R. 2003. A checklist and new species records of Neuropterida (Insecta) for Tunisia. *Kaupia: Darmstädter Beiträge zur Naturgeschichte* 12:129–149.
- HASSAN, M. A., ZHENG, Y.-C., LIU, X.-Y. 2022. Taxonomic notes on the antlion tribe Myrmeleontini Latreille (Neuroptera, Myrmeleontidae, Myrmeleontinae) from Pakistan, with description of a new species. *European Journal of Taxonomy* 831:1–44. <https://doi.org/10.5852/ejt.2022.831.1867>
- HÖLZEL, H. 1987. Revision der Distoleonini. I. Die Genera *Macronemurus* Costa, *Geyria* Esben-Petersen und *Mesonemurus* Navás (Planipennia, Myrmeleontidae). *Entomofauna* 8:369–410.
- INSOM, E.; TERZANI, F. 2024. Some Neuroptera of the Horn of Africa from the Museum of Zoology of the University of Rome “La Sapienza” (Neuroptera: Chrysopidae, Mantispidae, Ascalaphidae, Myrmeleontidae). *Fragmenta Entomologica, Roma* 56:39–52.
- KAČÍREK, A. & ŠŮMPICH, J. 2024. An annotated checklist of the Myrmeleontidae of Armenia (Neuroptera). *Zoology in the Middle East* 70(1):46–62. <https://doi.org/10.1080/09397140.2024.2314337>
- KERIMOVA, I. G. & AYDEMİR, M. 2024. New data on the lacewing fauna of Azerbaijan with special emphasis on mantidflies and antlions (Neuroptera: Mantispidae, Myrmeleontidae). *Oriental Insects*, 59(2):1–30. <https://doi.org/10.1080/00305316.2024.2438911>
- KRIVOKHATSKY, V. A. 1995. Antlions of the subgenus *Ganussa* (genus *Neuroleon*) from Middle Asia (Neuroptera: Myrmeleontidae). *Zoosystematica Rossica* 4:301–306.
- KRIVOKHATSKY, V. A. 2011. Муравьиные львы (Neuroptera: Myrmeleontidae) России [=Antlions (Neuroptera: Myrmeleontidae) of Russia]. Товарищество Научных Изданий КМК [=KMK Scientific Press], Санкт-Петербург [=St. Petersburg]. 334 pp.
- KRIVOKHATSKY, V., DOBOSZ, R., ÁBRAHÁM, L. 2022. The new antlion genus *Dominikon* gen. nov. with the description of a new species, *Dominikon aspoecki* sp. nov. (Neuroptera: Myrmeleontidae). *Zootaxa* 5196:94–114. <https://doi.org/10.11646/zootaxa.5196.1.4>
- KRIVOKHATSKY, V. A., DOBOSZ, R., KHABIEV, G. N. 2015. Муравьиные львы и аскалафы (Neuroptera: Myrmeleontidae, Ascalaphidae) Киргизии [=Antlions and owlflies (Neuroptera: Myrmeleontidae, Ascalaphidae) of Kyrgyzstan]. *Энтомологическое Обозрение* [=Entomologicheskoe Obozrenie; =Entomological Review, Leningrad] 94:803–818. <https://doi.org/10.1134/S0013873815090092>
- KRIVOKHATSKY, V. A., ILYINA, E. V. & KERIMOVA, I. 2021. Contribution to the knowledge of antlions of the genus *Euroleon* Esben-Petersen, 1918 (Neuroptera: Myrmeleontidae) with new records and synonymy. *Caucasian Entomological Bulletin* 7(2):315–323. <https://doi.org/10.23885/181433262021172-315323>
- LETARDI, A. 2014. Note on some antlions from Mozambique (Neuroptera, Myrmeleontidae). *Biodiversity Data Journal* 2(e1050):1–5. <https://doi.org/10.3897/BDJ.2.e1050>
- MANSELL, M. W. 1987. The antlions of southern Africa (Neuroptera: Myrmeleontidae): genus *Cymothales* Gerstaecker, including extralimital species. *Systematic Entomology* 12:181–219. <https://doi.org/10.1111/j.1365-3113.1987.tb00195.x>
- MANSELL, M. W. 1996. The antlions of southern Africa (Neuroptera: Myrmeleontidae): genus *Palparellus* Navás, including extralimital species. *African Entomology* 4:239–267.
- MANSELL, M. W. 2002. Southern African biomes and the evolution of Palparini (Neuroptera: Myrmeleontidae). *Acta Zoologica Hungarica*, 48 (Suppl. 2):177–192.
- MANSELL, M. W. 2018. Antlions of southern Africa: *Syngenes Kolbe*, 1897, with descriptions of two new species and comments on extra-limital taxa (Neuroptera: Myrmeleontidae: Acanthaclisini). *Zootaxa* 4497:346–380. <https://doi.org/10.11646/zootaxa.4497.3.2>
- MANSELL, M. W., OSWALD, J. D. 2025. Neuropterida of South Africa. Lacewing Digital Library, Research Publication No. 7. <https://lacewing.tamu.edu/SouthAfrica/Main>. Last accessed: 18.12.2025.
- MARKL, W. 1953. Eine neue Myrmeleonidengattung und Art aus Südwestafrika (Neuroptera). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 26:277–280.
- MICHEL, B. & LETOURMY, P. 2007. Characterisation of a west African Myrmeleontinae assemblage (Neuroptera Myrmeleontidae): first evidence of a relationship between adult occurrences and climatic conditions. *Tropical Zoology* 20:197–209.
- PROST, A. 2010. Patterns of distribution of the Palparini (Neuroptera: Myrmeleontidae: Palparinae) in the northern half of Africa: faunal transitions and regional overlaps. Pp. 257–266. In: Devetak, D.,

- Lipovšek, S. & Arnett, A. E. (editors). Proceedings of the 10th International Symposium on Neuropterology. Meeting: 22-25 June 2008, Piran, Slovenia. University of Maribor, Maribor, Slovenia. 307 pp.
- PROST, A. 2019. The genus *Nosa* Navás, 1911 (Neuroptera, Myrmeleontidae, Palparinae). Pp. 129–143. In: Weihrauch, F., Frank, O., Gruppe, A., Jepson, J. E., Kirsch, L. & Ohl, M. (editors). Proceedings of the XIII International Symposium of Neuropterology. Meeting: 17-22 June 2018, Laufen, Germany. Osmylus Scientific Publishers, Wolnzach, Germany. 297 pp.
- PROST, A. & POPOV, A. 2021. A first comprehensive inventory of Ascalaphidae, Palparidae, and Myrmeleontidae (Insecta: Neuroptera) of North-eastern Nigeria with description of two new species and an overview of genus *Bankisus* Navás. *Historia Naturalis Bulgarica* 43(5):51–77. <https://doi.org/10.48027/hnb.43.051>
- PROST, A., PÉRU, L. & COACHE, A. 2022. Névroptères du Bénin et du Togo (Insecta Neuroptera). *Entomologiste* 78:33–64.
- SIMON, D. 1985. Observations on *Nophis teillardi* Navás (Neuroptera: Myrmeleontidae), with description of the larva. *Israel Journal of Entomology* 19:171–179.
- SURYANARAYANAN, T. B.; BIJOY, C.; ÁBRAHÁM, L. 2022. Redescription of *Banyutus cubitalis* (Navás, 1914) (Neuroptera, Myrmeleontidae) and key to antlion genera in tribe Nemoleontini from India. *Zootaxa* 5182:64–74. <https://doi.org/10.11646/zootaxa.5182.1.4>
- SURYANARAYANAN, T. B., ÁBRAHÁM, L. & BIJOY, C. 2024. Revision of the species of *Creoleon* Tillyard, 1918 (Neuroptera: Myrmeleontidae) known from India. *Oriental Insects* 58:679–707. <https://doi.org/10.1080/00305316.2024.2355248>
- SURYANARAYANAN, T. B., ÁBRAHÁM, L. & BIJOY, C. 2025a: Preliminary revision on the antlion genus *Myrmeleon* Linnaeus, 1767 (Neuroptera, Myrmeleontidae) known from India. *Journal of Asia-Pacific Biodiversity* 18: 427–456. <https://doi.org/10.1016/j.japb.2025.01.009>
- SURYANARAYANAN, T. B., ÁBRAHÁM, L. & BIJOY, C. 2025b. Redescription of three antlions (Neuroptera: Myrmeleontidae) from Kerala part of the Western Ghats and key to antlion genera in tribe Palparini, India. *Journal of Insect Biodiversity and Systematics* 11(3):663–691. <https://doi.org/10.61186/jibs.11.3.663>
- STANGE, L. A. 2004. A systematic catalog, bibliography and classification of the world antlions (Insecta: Neuroptera: Myrmeleontidae). *Memoirs of the American Entomological Institute* 74:[iv]+565.
- TIPPETT, R. M. 2022a. *Palpares elegantulus*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/08/17/palpares-elegantulus/>
- TIPPETT, R. M. 2022b. *Palpares immensus*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/07/26/palpares-immensus/>
- TIPPETT, R. M. 2022c. *Palpares speciosus*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/08/09/palpares-speciosus/>
- TIPPETT, R. M. 2022d. *Palpares sobrinus*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/08/10/palpares-sobrinus/>
- TIPPETT, R. M. 2022e. *Palparidius capicola*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/08/03/palparidius-capicola/>
- TIPPETT, R. M. 2022f. *Centroclisis brachygaster*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/10/21/centroclisis-brachygaster/>
- TIPPETT, R. M. 2022g. *Centroclisis maligna*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/10/12/centroclisis-maligna/>
- TIPPETT, R. M. 2022i. *Nannoleon michaelsoni*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/08/08/nannoleon-michaelsoni/>
- TIPPETT, R. M. 2022j. *Cueta mysteriosa*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/11/11/cueta-mysteriosa/>
- TIPPETT, R. M. 2022k. *Cueta punctatissima*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/11/18/cueta-punctatissima/>
- TIPPETT, R. M. 2022l. *Cueta trivirgata*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/11/17/cueta-trivirgata/>
- TIPPETT, R. M. 2022m. *Nesoleon boschimanus*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/11/24/nesoleon-boschimanus/>
- TIPPETT, R. M. 2022n. *Myrmeleon alcestris*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/11/09/myrmeleon-alcestris/>
- TIPPETT, R. M. 2022o. *Banyutus lethalis*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/07/28/banyutus-lethalis/>
- TIPPETT, R. M. 2022p. *Creoleon mortifer*. Biodiversity and Development Institute, Cape Town. Available online at <http://thebdi.org/2022/11/29/creoleon-mortifer/>