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An annotated list of the type specimens of Megaloptera, Neuroptera and Raphidioptera in the collection of the Muséum d'histoire naturelle de Genève

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Abstract: The Muséum d'histoire naturelle de Genève contains type specimens of fifty one species of neuropteroid insects; two species of Megaloptera, forty six species of Neuroptera and three species of Raphidioptera. These are listed, the label data and condition of the specimens is presented and the current nomenclatural combination is given.

Keywords: Lacewing - antlion - snakefly - alderfly - Geneva - type catalogue.

INTRODUCTION

The collection of neuropteroid insects held by the Muséum d'histoire naturelle de Genève (MHNG) is founded on the specimens collected and studied by François-Jules Pictet de la Rive (1809-1872), a pioneer in the study of several insect groups then classified with the Neuroptera (Hollier & Hollier, 2014) and the “godfather” of the MHNG (Sigris, 1995). Ironically, Pictet did not finish his planned work on the Neuroptera *sensu stricto* and it remains unpublished, although he described some fossil species from Baltic amber (Pictet-Baraban [sic] & Hagen, 1856).

One of Pictet's sons, Albert-Edouard Pictet-Mallet (1835-1879), continued his father's study of the Neuroptera and inherited his father's personal collection. Edouard (as he was known) was more a man of action than a savant, and although he published the results of his expedition to Spain with Rudolf Meyer-Dür (1812-1885) in 1859 (Pictet, 1865), his other work remained unfinished and unpublished (Saussure, 1879). Their joint collection was donated to the MHNG by Edouard's son Camille Pictet (1864-1893) in 1887 and the specimens were given standard MHNG labels with the acquisition code 620-48: some of the specimens thus labelled should have been in the MHNG collection already, and it is generally impossible to identify the specimens that belonged to the elder Pictet (Hollier, 2007). Some of Pictet's specimens were given to Hermann August Hagen (1817-1893) to study and are now deposited in the Museum für Naturkunde in Berlin (see Zwick, 1971) or in the Museum of Comparative Zoology of Harvard

University where Hagen ended his career as Professor of Entomology (see Aspöck & Aspöck, 1994).

The MHNG collection was enriched by specimens brought back from the expeditions of Henri de Saussure to Mexico and the Antilles in 1854-1856 and of Alois Humbert to Sri Lanka (then Ceylon) in 1858-1860. Further specimens were acquired by occasional exchanges, purchases and gifts, but most of the collection dates from the 19th century. A number of experts such as Robert McLachlan (1837-1904), Longinos Navás (1858-1931) and Peter Esben-Petersen (1869-1942) have left traces in the collection. More recently, Claude Poivre both studied specimens from the collection and donated others, and Bo Tjeder (1901-1992), Herbert Hölzel (1925-2008), Mervyn Mansell and Ulrike and Horst Aspöck have studied specimens in the collection.

ARRANGEMENT AND FORMAT

The species are listed alphabetically. The format for each is:

specific epithet Author, publication: page [*Original generic placement*].

Provenance as given in the original description, depository. Type series.

Number of specimens in the MHNG. Label data of specimen. Following the recommendation of Ohl & Oswald (2004) the condition of each specimen is noted. Other comments.

Currently valid combination

The nomenclature used in this paper follows Oswald (2018).

The following abbreviations are used in the list:
 BMNH Natural History Museum, London
 ISNB Institut Royal des Sciences Naturelles de Belgique, Bruxelles
 MCBS Museu de ciències naturals, Barcelona
 MCZC Museum of Comparative Zoology, Harvard University, Cambridge
 MHNG Muséum d'histoire naturelle de Genève
 MNHN Muséum national d'Histoire naturelle, Paris
 NHMB Naturhistorisches Museum, Basel
 NHMW Naturhistorisches Museum, Wein
 RMHN Naturalis Biodiversity Center, Leiden
 TMSA Transvaal Museum, Pretoria

CATALOGUE

MEGALOPTERA

latratus tonkinensis Weele, 1907a: 239-241, pl. 3, fig. 2 [*Neuromus*].

Tonkin, Leidener- und Genfer Museum. More than one specimen (only ♂ mentioned explicitly).

Two ♂ syntypes. A ♂ specimen with labels: "Tonkin, Mauson Montes, April.Mai, 2-3000', H. Fruhstorfer" [printed on white card]; "331" [handwritten on a square of white paper]; "Neuromus latratus, ML. subspecies tonkinensis v. d. W., type" [handwritten on white card]; "Syntypus" [printed on red paper]. Specimen set with wings folded.

A ♂ specimen with labels: "Tonkin, Mauson Montes, April.Mai, 2-3000', H. Fruhstorfer" [printed on white card]; "332" [handwritten on a square of white paper]; "Neuromus latratus tonkinensis Weele, type" [handwritten on white card with a printed border]; "Syntypus" [printed on red paper]. Specimen set with wings folded; the tip of the right antenna is missing. There are presumably other syntypes in the RMNH.

Neoneuromus tonkinensis (Weele, 1907)

nigripes Pictet, 1865: 52, pl. 4, figs 1-5 [*Sialis*].

San Ildefonso. Unspecified number of ♂ and ♀.

♂ lectotype, designated by Monserrat (2011: 159) and seven possible paralectotypes. A ♂ specimen with labels: "620 48 Granjas, Espagne, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Granjas, Juillet 1859" [printed on white card]; "2" [handwritten on a square of white paper]; "*Sialis nigripes* Pict." [handwritten on white paper]; "*S. nigripes* Pict" [handwritten on white paper]; "Lectotype designated by V. Monserrat, 2011" [handwritten on white paper]; "Lectotypus" [printed on red card]. Specimen set with wings roughly spread; the left antenna, right hind wing and left hind leg are missing. There is insect feeding damage to the thorax and abdomen.

The other specimens have locality labels of "Grenade" or "Andalusie" and may not be part of the type series if

Pictet only used the specimens from San Ildefonso for his description.

Sialis nigripes Pictet, 1865

NEUROPTERA

Ascalaphidae

junodi Weele, 1909: 73-74 [*Allocormodes*].

Transvaal (Genfer Museum und Sammlung Navás). One ♂ and two ♀.

One ♀ syntype. A ♀ specimen with labels: "Transvaal, Junod Miss., 624 25" [printed on pink paper]; "167" [handwritten on a square of white paper]; "Allocormodes Junodi vdW Type" [handwritten on white card with printed margin]; "Weele Typus" [handwritten on pink card with "Typus" and margin printed]. Specimen set with wings spread. Although the number on the data label has the same format as the MHNG acquisition register, the specimen does not correspond to the entry in the register.

Allocormodes junodi Weele, 1909

mexicanus Weele, 1909: 122-123 [*Colobopterus*].

Mexico und Honduras (Genfer Mus., Paris Mus., Stettiner Mus., Wiener Mus., Züricher Mus.). Two ♂ and three ♀. One ♂ syntype. A ♂ specimen with labels: "620 48, Cordova, Mexique, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Cordova, Mexique (t. chaudes)" [handwritten on white paper]; "160" [handwritten on a square of white paper]; "Colobopterus mexicanus Type vdW" [handwritten on white card with printed margin]; "Syntypus" [printed on red paper]. Specimen set with wings spread; the tip of the right antenna, the right front leg, the tarsi of the left front leg, the tarsi of the right middle leg and the entire left middle leg are missing. A set of tarsi have been glued to the left middle coxa. The hind legs, one lacking the last tarsal segment, are detached and glued to a card mount on the original pin. The locality label mentioning "t. chaudes" suggests that this specimen was probably collected on Saussure's expedition and not part of Pictet's collection.

Ameropterus mexicanus (Weele, 1909)

papio Tjeder, 1992: 80-84 [*Melambrotus*].

S. Africa, Cape Prov., Graaff Reinet. ♂ holotype, seven ♂ paratypes and four ♀ paratypes.

One ♂ paratype. A ♂ specimen with labels: "620 73, Cap b. sp., Brady coll." [handwritten on ruled white card]; "166" [handwritten on a square of white paper]; "var of *Melambrotus simia* M.L. det. v d Weele" [handwritten on white card with printed margin]; "Paratypus ♂, *Melambrotus papio* Tjed., Bo Tjeder 1968" [handwritten on red card with "Paratypus" printed]. Specimen set with wings spread: the right antenna and right front leg are missing and the right hind wing has a torn hind margin. Tjeder examined this specimen, which Weele (1909:

82) had identified and illustrated as *M. simia* McLachlan, and included it as a paratype of *M. papio*. The holotype is deposited in the TMSA.

Melambrotus papio Tjeder, 1992

Berothidae

ferruginea Handschin, 1935: 701-703 [*Trichoberothes*]. [Australia] Burnside Station, N.T. Twelve specimens (including ♂ and ♀).

One ♀ syntype. A ♀ specimen with labels: "Marrakai, N.T., May 1931, HANDSCHIN" [printed on white card]; "Trichoberothes ferruginea E.H., Paratype" [handwritten on pinkish paper]; "Syntypus" [printed on red paper]. The specimen is set with wings folded, mounted on a micropin fixed to a section of pith on the main pin; the end of the left antenna is missing and the left hind leg is detached and glued to a card mount on the original pin. The locality on the label does not match that given in the original description, but it is geographically very close to it. No holotype was designated in the original description and so the specimens are all syntypes despite the labels affixed by Handschin. The other syntypes are in the NHMB.

Trichoberothes ferruginea Handschin, 1935

Chrysopidae

geniculata Pictet, 1865: 62, pl. 7, figs 5-8 [*Chrysopa*].

Les bords de Darro, près de Grenade. One specimen (sex unspecified).

♂ holotype. A ♂ specimen with labels: "620 48, Grenade, Espagne, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Grenade Juin 1859" [printed on white card]; "60" [handwritten on a square of white paper]; "Chrysopa geniculata Ed. Pictet" [handwritten on white paper]; "Chrysopa viridana Schn. det. H. Hölzel 1971" [handwritten on white card with "Chrysopa", "det. H. Hölzel" and margin printed]; "Holotypus" [printed on red card]; "Muséum Genève, Holotypus ♂ Chrysopa geniculata Pictet 1865" [handwritten on white card with "Muséum Genève" and margin printed]. Specimen set with wings folded; as noted by Hölzel (1973: 67) the head, prothorax and the left wings are missing. The left front leg and both middle legs are also lost.

A junior synonym of *Chrysopa viridiana* Schneider, 1845

granadensis Pictet, 1865: 69, pl. 6, figs 5-8 [*Chrysopa*]. Environs de Grenade. One specimen (sex unspecified).

♂ holotype. A ♂ specimen with labels: "620 48, Grenade, Espagne, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Grenade Juin 1859" [printed on white card]; "Chrysopa granadensis Ed Pictet" [handwritten on white paper]; "Ch. granadensis Pict." [handwritten on white paper]; "Holotypus" [printed on red card]; "Muséum Genève, Holotypus ♂ Chrysopa granadensis Pictet 1865" [handwritten on white card with "Muséum Genève" and margin printed]. Specimen set with wings folded; the left forewing is lost and the

right forewing is detached and glued to a card mount on the original pin. Part of the tibia and the tarsi of the left hind leg are lost. As noted by Hölzel (1973: 72) there are two other specimens collected by Pictet placed under this name, but these have Navás' identification labels and are not part of the type series.

Pseudomallada granadensis (Pictet, 1865)

guadarramensis Pictet, 1865: 65-66, pl. 6, figs 1-4 [*Chrysopa*].

San Ildefonso, Sierra Guadarrama. One specimen (sex unspecified).

♀ holotype. A ♀ specimen with labels: "620 48 Granjas, Espagne, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Granjas Juillet 1859" [printed on white card]; "71" [handwritten on a square of white card]; "Chrysopa guadarramensis Ed Pictet" [handwritten on white paper]; "Holotypus" [printed on red card]; "museum Genève, Holotype ♀, Chrysopa guadarramensis Pictet 1865" [handwritten on white card with "Muséum Genève" and margin printed]. Specimen set with wings roughly folded; most of both antennae, the tarsi of the left hind leg and the entire right hind leg are lost. This specimen was examined by Hölzel (1973: 81). *Nineta guadarramensis* (Pictet, 1865)

meyeri Pictet, 1865: 62-63, pl. 8, figs 5-8 [*Chrysopa*].

Eaux-Bonnes, Pyrénées. Unspecified series.

♀ lectotype (designated by Hölzel, 1973: 69) and one paralectotype without abdomen. A ♀ specimen with labels: "629 48, Pyrénées, Espagne, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Pyrénées, Juillet 1859" [printed on white card]; "96" [handwritten on a square of white paper]; "Chrysopa meyeri Ed Pictet" [handwritten on white paper]; "Ch. Meyeri Pict" [handwritten on white paper]; "Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971" [handwritten on white card with "det. H. Hölzel 1971" printed]; "Lectotypus Chrysopa meyeri Pictet 1865, H. Hölzel 1971" [handwritten on red card]; "Muséum Genève, Lectotypus ♀, Chrysopa meyeri Pictet 1865" [handwritten on white card with "Muséum Genève" and margin printed]. Specimen set with wings roughly folded; both antennae, the right forewing and the tarsi of both middle legs are missing.

A specimen with labels: "629 48, Pyrénées, Espagne, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Pyrénées, Juillet 1859" [printed on white card]; "94" [handwritten on a square of white paper]; "Ch. Meyeri Pict" [handwritten on white paper]; "vorgefunden als: meyeri Pictet H. Hölzel 1971" [typewritten on white card with "meyeri Pictet" handwritten]; "Chrysotropia ciliate (Wesmael), det. H. Hölzel 1971" [handwritten on white card with "det. H. Hölzel 1971" printed]; "Paralectotype of C. meyeri Pictet, 1865 Hollier 2016" [handwritten on orange card]. Specimen set with wings roughly spread; as noted by

Hölzel, the abdomen is missing. The end of the right antenna is missing, the left antenna is detached but stuck to the left front and middle legs, the right front leg, which lacks the tarsi, is detached but stuck to the right antenna, the right middle leg and left hind leg are lost and the right hind leg lacks the tarsi. McLachlan (1880: 62) noted before Hölzel (1973) that the type specimens were not conspecific.

A junior synonym of *Pseudomallada flavifrons nigropunctatus* (Pictet, 1865)

monticola Pictet, 1865: 70, pl. 7, figs 1-4 [*Chrysopa*].

Eaux-Bonnes. Unspecified series.

♀ lectotype (designated by Hölzel, 1973: 69), one ♂ paralectotype and one paralectotype without abdomen. A ♀ specimen with labels: “629 48, Pyrénées, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Pyrénées, Juillet 1859” [printed on white card]; “96” [handwritten on a square of white paper]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 197” printed]; “Lectotypus ♀ *Chrysopa monticola* Pictet 1865, H. Hölzel 1971” [handwritten on red card]; “Muséum Genève, Lectotypus ♀, *Chrysopa monticola* Pictet 1865” [handwritten on white card with “Muséum Genève” and margin printed]. Specimen set with wings roughly folded; the left antenna is lost and there is some insect feeding damage.

A ♂ specimen with labels: “629 48, Pyrénées, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Pyrénées, Juillet 1859” [printed on white card]; “92” [handwritten on a square of white paper]; “Ch. monticola Pict.” [handwritten on white paper]; “*Chrysopa monticola*” and “Ed Pictet” [handwritten on opposite sides of a piece of white paper]; “vorgefunden als: *monticola* Pictet H. Hölzel 1971” [typewritten on white card with “meyeri Pictet” handwritten]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 197” printed]; “Paralectotype of *C. monticola* Pictet, 1865, Hollier 2016” [handwritten on orange card]. Specimen set with wings roughly folded; as Hölzel noted, the head and prothorax are missing. About a third of the right hind wing is lost.

A specimen with labels: “629 48, Pyrénées, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Pyrénées, Juillet 1859” [printed on white card]; “86” [handwritten on a square of white paper]; “Ch. monticola Pict.” [handwritten on white paper]; “vorgefunden als: *monticola* Pictet H. Hölzel 1971” [typewritten on white card with “meyeri Pictet” handwritten]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 197” printed]; “Paralectotype of *C. monticola* Pictet, 1865, Hollier 2016” [handwritten on orange card]. Only the head and prothorax remain, with the forewings glued to the latter. The right antenna and left front leg are missing.

A junior synonym of *Pseudomallada flavifrons nigropunctatus* (Pictet, 1865)

nigropunctata Pictet, 1865: 60-61, pl. 8, figs 1-4 [*Chrysopa*].

Environs de Grenade. Many specimens (sex unspecified). Lectotype without abdomen (designated Hölzel, 1973: 69) and one paralectotype without abdomen. A specimen with labels: “620 48, Espagne, Coll. Pictet” [numerals handwritten on printed ruled card]; “115” [handwritten on a square of white card]; “Ch. nigropunctatus Pictet” [handwritten on white paper]; “Ch. flavifrons Br. v. nigropunctatus E.P., Long. Navás det.” [handwritten on white card with “Long. Navás det.” printed]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 197” printed]; “Lectotypus *Chrysopa nigropunctata* Pictet 1865, H. Hölzel 1971” [handwritten on red card]; “Muséum Genève, Lectotypus, *Chrysopa nigropunctata* Pictet 1865” [handwritten on white card with “Muséum Genève” and margin printed]. Specimen set with wings roughly folded; as Hölzel noted, the abdomen is missing. There is insect feeding damage to the thorax; the left antenna, both hind legs and the left hind wing are also lost.

A specimen with labels: “620 48, Espagne, Coll. Pictet” [numerals handwritten on printed ruled card]; “124” [handwritten on a square of white card]; “*Chrysopa nigropunctata* Ed Pictet” [handwritten on white paper]; “Ch. nigropunctatus Pictet” [handwritten on white paper]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 197” printed]; “Paralectotype *Chrysopa nigropunctata* Pictet, 1865 Hollier 2016” [handwritten on orange card]. Specimen set with wings roughly folded; as Hölzel noted, the abdomen is missing. There is insect feeding damage to the thorax; the head, prothorax, both front legs and the right middle leg are lost. Hölzel mentions another specimen, once in McLachlan’s collection and now in the BMNH, which might be a paralectotype.

Pseudomallada flavifrons nigropunctatus (Pictet, 1865)

picteti McLachlan, 1880: 63 [*Chrysopa*].

Replacement name proposed for *C. thoracica* Pictet, 1865, a junior homonym of *C. thoracica* Walker, 1853. For the type specimens see *C. thoracica*.

Pseudomallada picteti (McLachlan, 1880)

riparia Pictet, 1865: 69-70, pl. 7, figs 9-12 [*Chrysopa*].

Les bords du Xenil; Eaux-Bonnes. More than one specimen (sex unspecified).

Lectotype without abdomen (designated by Hölzel, 1973: 69) and one paralectotype without abdomen. A specimen with labels: “620 48, Grenade, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Grenade Juin 1859” [printed on white card]; “*Chrysopa riparia* Ed Pictet” [handwritten on

white paper]; “Ch. riparia Pict.” [handwritten on white paper]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 1971” printed]; “Lectotypus *Chrysopa riparia* Pictet 1865, H. Hölzel 1971” [handwritten on red card]; “Muséum Genève, Lectotypus, *Chrysopa riparia* Pictet 1865” [handwritten on white card with “Muséum Genève” and margin printed]. Specimen set with wings roughly folded; as Hölzel noted, the abdomen is lost. The head is missing, there is insect feeding damage to the thorax, the right hind wing is missing and both forewings lack the ends.

A specimen with labels: “620 48, Grenade, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “99” [handwritten on a square of white paper]; “Ch. riparia Pict.” [handwritten on white paper]; “vorgefunden als: *riparia* Pictet, H. Hölzel 1971” [typed on white card with “*riparia* Pictet” handwritten]; “Anisochrysa flavifrons (Brauer) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 1971” printed]; “Paralectotype *Chrysopa riparia* Pictet, 1865 Hollier 2016” [handwritten on orange card]. There is evidence of insect feeding damage on the thorax, and everything apart from the head, part of the prothorax, the right front leg and the right front wing is lost. Part of a detached wing is glued to the museum data label.

A junior synonym of *Pseudomallada flavifrons nigropunctatus* (Pictet, 1865)

thoracica Pictet, 1865: 67, pl. 6, figs 9-12 [*Chrysopa*].

Environs de Grenade. Unspecified series.

♂ lectotype (designated by Hölzel, 1973: 74) and a ♂ paralectotype. A ♂ specimen with labels: “620 48, Espagne, Coll. Pictet” [numerals handwritten on printed ruled card]; “116” [handwritten on a square of white card]; “Ch. prasina Burm. v. Picteti McLach., Long. Navás det.” [handwritten on white card with “Long. Navás det.” printed]; “Anisochrysa picteti McL (= *thoracica* Pictet), det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 1971” printed]; “Lectotypus ♂, *Chrysopa Thoracica* Pictet 1865, H. Hölzel 1971” [handwritten on red card]. Specimen set with wings roughly folded; much of the left antenna and the entire right forewing are missing.

A ♂ specimen with labels: “620 48 Granjas, Espagne, Coll. Pictet” [handwritten on ruled white card with “Espagne, Coll. Pictet” printed]; “Granjas Juillet 1859” [printed on white card]; “102” [handwritten on white paper]; “*Chrysopa thoracica* Ed Pictet” [handwritten on whitish paper, somewhat torn]; “Ch. microcephala Brauer” [handwritten on white paper]; “vorgefunden als: *thoracica* Pictet, H. Hölzel 1971” [typed on white card with “*thoracica* Pictet” handwritten]; “*Cunctochrysa albolineata* (Killington) det. H. Hölzel 1971” [handwritten on white card with “det. H. Hölzel 1971” printed]; “Paralectotype of *C. thoracica* Pictet, 1865, Hollier 2016” [handwritten on orange card]. Specimen

set with wings roughly folded; the right antenna, the right forewing and about two thirds of the left forewing are missing.

It is unfortunate that the specimen most clearly from the type locality belongs to a species different from the lectotype. McLachlan (1880: 63), who examined a single specimen collected by Pictet, recognised that the name *C. thoracica* Pictet was a junior homonym of *C. thoracica* Walker, 1853 and proposed the replacement name *C. picteti*.

Replaced by *Pseudomallada picteti* (McLachlan, 1880)

vulgaris mista Navás, 1913c: 279-280 [*Chrysopa*].

Turkestan; Fergana, 1800 m, Dr Weber-Bauler (Mus. Genevae). Unspecified series.

One ♀ syntype. A ♀ specimen with labels: “Turkestan oriental., Fergana, Alt. 1800 m, Dr Weber-Bauler” [printed on white paper with “1800 m” handwritten]; “Ch. vulgaris Sch., var. mista Nav., Navás S.J. det.” [handwritten on white card with “Navás S.J. det.” printed]; “Typus” [handwritten on pink paper]. Specimen set with wings spread; most of the left antenna and the right middle leg are lost. All of the wings are tattered along the hind margin. Because the type series was unspecified, the specimen should be regarded as a syntype.

A junior synonym of *Chrysoperla carnea* (Stephens, 1836)

Dilaridae

anatolicus Aspöck, Liu & Aspöck, 2015:127-130 [*Dilar*].

Kizilçahamam, Asia minor. ♂ Holotype, eight ♂ paratypes and two ♀ paratypes.

One ♂ paratype. A single ♂ specimen with labels: “620 48 Taurus, Asia min. Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “*Dilar syriacus* Nav. ♂” [handwritten by Navas on white card]; “Paratype of *Dilar anatolicus* U. Aspöck & X. Liu & H. Aspöck 2015” [printed on red card]. The specimen lacks the head, prothorax and front legs, the tibia and tarsi of the right middle leg and the entire right hind leg. The abdomen is detached and cleared, and stored in a microtube on a separate pin with its own printed identification label. The holotype is in the Aspöck collection in Vienna and will eventually be deposited in the NHMW.

Dilar anatolicus Aspöck, Liu & Aspöck, 2015

fuscus Aspöck, Liu & Aspöck, 2015: 131-132 [*Dilar*].

Süd-west-Anatolien-Exp., Prov. Aydin, Nazilli-Beydag. ♀ holotype, three ♀ paratypes.

One ♀ paratype. A single ♀ specimen with labels: “620 48 Asia min. Coll. Pictet” [handwritten on ruled white card with “Asia min.” and “Coll. Pictet” printed]; “*Dilar syriacus* Nav. ♀ Cotypus” [handwritten by Navas on white card]; “Paratypus ♀ *Dilar fuscus* U. Aspöck & X. Liu & H. Aspöck, 2015” [printed on red card]. The specimen lacks the left antenna, the last tarsal segment

of the left front leg, the middle and hind legs and the right hind wing. The abdomen is detached and cleared, and stored in a micro-tube on a separate pin with its own printed identification label. Navás (1909) described *D. syriacus* from a single damaged ♂ and so this ♀ cannot be part of his type series despite his label. The holotype is in the Aspöck collection in Vienna and will eventually be deposited in the NHMW.

Dilar fuscus Aspöck, Liu & Aspöck, 2015

nevadensis Rambur, 1838: pl. 9, figs 4-5 [*Dilar*].

[Andalusie]. Unspecified number of ♂ and ♀.

One ♂ syntype. A single ♂ specimen with labels: “620 48, S. Nevada, Espagne, Coll. Pictet” [handwritten on ruled white card with “Espagne” and “Coll. Pictet” printed]; “*D. nevadensis* Rmb. Serr. Nevada” [handwritten on white card]; “M Rambur” [handwritten on white paper]; “*Dilar* (mihi) nevadensis (mihi) S. Nevada” [handwritten on white paper]; “Syntypus” [printed on red paper]. The specimen has lost most of the left antenna, the entire right antenna, about half of the left front wing, most of the right front and hind wings, the last tarsal segment of the right middle leg and the end of the abdomen. The original publication is the illustration of a ♂ and ♀ without a description (see Higgins, 1958). Rambur (1842: 445-446) gave a description and noted “J’ai rencontré assez communément ce curieux Névroptère, aux environs de Grenade, dans les petits bois des parties élevées de la Sierra Nevada, pendant l’été” and that the size was variable. According to Navás (1908-1909: 632) there are syntypes of both sexes in the ISNB.

Dilar nevadensis Rambur, 1838

Mantispidae

aphavexelte Aspöck & Aspöck, 1994: 110-112 [*Mantispa*].

O-Samothraki, Anomeria, Griechenland. ♂ holotype, 55 ♂ paratypes and 49 ♀ paratypes.

Two ♂ paratypes and three ♀ paratypes. A ♀ specimen with labels: “V-C 18.6.-20.7.” [handwritten on white card]; “*Mantispa styriaca*” [handwritten on white card]; “*Perlamantispa icterica* (Pictet, 1865) ♀ néotype dét. C. POIVRE, 1981” [handwritten on white card with “dét. C. POIVRE, 19” printed]; “Paratypus ♀ *Mantispa aphavexelte* U. Aspöck & H. Aspöck 1994” [handwritten on red card]. Specimen set with wings spread; the right antenna is missing and the tip of the right front wing is detached and glued to a card mount secured on the original pin. This specimen was collected by H. K. Daicker in Cannet-des-Maures (Var, France). Poivre (1982c: 669) designated this specimen as the neotype of *M. perla icterica* Pictet, but part of the original type series exists and the designation is therefore invalid.

The other paratypes are in three vials in alcohol, with some parts mounted on nine microscopic slides: (1) a slide with antennae and sclerite and the handwritten labels “Forêt dom. de Palayson (Var), (à côté du Muy),

VII.1977, Y. Séméria” and “*Perlamantispa icterica* ♂ antennes, col, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (2) a slide with dissected mouthparts and the handwritten labels “Forêt dom. de Palayson (Var), (à côté du Muy), VII.1977, Y. Séméria” and “*Perlamantispa icterica* ♂, labium, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (3) a slide with a head and the handwritten labels “Forêt dom. de Palayson (Var), VII.1977, Y. Séméria” and “*Perlamantispa icterica* ♂, tête, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (4) a slide with two wings and the handwritten labels “Forêt dom. de Palayson (Var), 15.VII.1977, Y. Séméria” and “*Perlamantispa icterica* ♂, ailes droites, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (5) a slide with ♂ genitalia and the handwritten labels “Forêt dom. de Palayson (Var), 15.VII.1977, Y. Séméria” and “*Perlamantispa perla icterica* ♂ genitalia, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (6) a slide with ♂ genitalia and the handwritten labels “Forêt dom. de Palayson (Var), VII.1977, Y. Séméria” and “*Perlamantispa perla icterica* ♂ genitalia, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (7) a slide with cleared abdominal parts and the handwritten labels “Forêt dom. de Palayson (Var), 15.VII.1977, Y. Séméria” and “*Perlamantispa perla icterica* ♂ tergites et sternites abdominaux, organ d’Eltingham, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; (8) a slide with two legs and the handwritten labels “Forêt dom. de Palayson (Var), 15.VII.1977, Y. Séméria” and “*Perlamantispa perla icterica* ♀, P2-P3 gauches, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”; and (9) a slide with terminalia and the handwritten labels “Forêt dom. de Palayson (Var), VII.1977, Y. Séméria” and “*Perlamantispa icterica* ♀, terminalia, dét. POIVRE 1982, M.A. 2” and the printed label “Paratype M. aphavexelte Asp.”

The three vials each have the handwritten label “*Perlamantispa icterica* (Pictet, 1865) 2♂, 5♀ [sic], Dét. C. POIVRE, 1982, Forêt domaniale de Palayson (Var), 15-18.VII.1977, leg. Y. Séméria, Dét. par erreur *P. perla* (cf. POIVRE, 1981, p. 159)” and the printed label “Paratype M. aphavexelte Asp.” One vial contains the fragments of two ♂, one lacking the terminalia, the other lacking the head, right wings and abdomen. The second vial contains a ♀ with the abdomen and legs detached. The third vial contains an intact ♀. The holotype is in the Aspöck collection in Vienna and will eventually be deposited in the NHMW.

Mantispa aphavexelte Aspöck & Aspöck, 1994

austroafrica Poivre, 1984: 642-645 [*Perlamantispa*].

Afrique méridionale. One ♀.

♀ holotype. The ♀ holotype is mounted on four microscopic slides: (1) a slide with the head and the

handwritten labels “Afrique méridionale, Delalande, Coll. Pictet dét. C. Poivre 1983” and “Perlamantispa austroafrica, holotype ♀, tête, M.A. 2”; (2) a slide with the antennae and dissected mouthparts and the handwritten labels “Afrique méridionale, Delalande, Coll. Pictet dét. C. Poivre 1983” and “Perlamantispa austroafrica, holotype ♀, labium, antennes, sclérites cerv., M.A. 2”; (3) a slide with two wings and the handwritten labels “Afrique méridionale, Delalande, Coll. Pictet dét. C. Poivre 1983” and “Perlamantispa austroafrica, holotype ♀, ailes droites face tergale, M.A. 2”; (4) a slide with the terminalia and the handwritten labels “Afrique méridionale, Delalande, Coll. Pictet dét. C. Poivre 1983” and “Perlamantispa austroafrica, holotype ♀, terminalia, M.A. 2”. The three remaining fragments are stored dry in a glass vial secured through the cork stopper. The pin has the labels: “620 44 Afr. mérid, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Afrique Delalande” [handwritten on a circle of white paper]; “Perlamantispa austroafrica holotype ♀ dét. C. Poivre 1983” [handwritten on white card with “dét. C. Poivre 19” printed]; “Holotypus” [printed on red card]. The vial contains the prothorax, right front leg, mesothorax and middle legs, the metathorax, left hind wing and hind legs and a section of abdomen.

Sagittalaria austroafrica (Poivre, 1984)

bitschi Poivre, 1982a: 181-183 [*Sagittalaria*].

Côte d’Ivoire, Lamto. ♂ holotype, one ♂ paratype and one ♀ paratype.

♂ holotype, one ♂ paratype and one ♀ paratype. The ♂ holotype is mounted on six microscopic slides: (1) a slide with head, prothorax and front legs and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi Poivre, tête thorax I, holotype ♂, M.A. 2”; (2) a slide with the antennae and dissected mouthparts and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi Poivre, labium, antennes, col, holotype ♂, M.A. 2”; (3) a slide with the meso- and metathorax thorax and legs and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi Poivre, holotype ♂, thorax II-III, M.A. 2”; (4) a slide with the wings and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi Poivre, holotype ♂, M.A. 2”; (5) a slide with the cleared abdomen and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi Poivre, holotype ♂, abdomen, M.A. 2”; (6) a slide with the terminalia and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi Poivre, holotype ♂, terminalia, M.A. 2”.

The paratypes are in alcohol with the label “*Sagittalaria bitschi* Poivre, paratypes ♂ et ♀, Côte d’Ivoire, Lamto, XII.1975, J. Bitsch”. The terminalia of the ♀ is mounted on a slide with the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Sagittalaria bitschi

Poivre, paratype ♀, terminalia, M.A. 2”. The container of this slide is glued to the lid of the jar containing the paratypes. The ♀ paratype lacks the right front leg and the right hind leg from the middle of the femur.

Sagittalaria bitschi Poivre, 1982

condei Poivre, 1982a: 183-187 [*Cercomantispa*].

Côte d’Ivoire, Adiopodoumé. ♂ holotype, two ♂ paratypes, six ♀ paratypes and one damaged paratype.

One ♂ paratype and three ♀ paratypes. A ♂ with labels: “COTE D’IVOIRE, Loc: Forêt du Banco, Date: X-1963, P. GRIVEAUD” [printed on white card with “X-1963” handwritten]; “O.R.S.T.O.M., I.D.E.R.T., Adiopodoumé” [printed on white card]; “Cercomantispa condei Poivre, 1981, paratype ♂, det. C. Poivre, 1981” [handwritten on white card with “det. C. Poivre, 19” printed]; “Paratypus” [printed on orange card]. Specimen set with left wings spread and right wings folded; the left middle leg is missing.

Three ♀ specimens in alcohol, with the handwritten label “Cercomantispa condei Poivre, Côte d’Ivoire, Lamto, XII.1975, J. Bitsch, paratypes ♀”. One specimen lacks the entire abdomen; a second lacks about half of the abdomen. The holotype is in the MNHN.

Cercomantispa condei Poivre, 1982

decellei Poivre, 1982a: 187-191 [*Cercomantispa*].

Côte d’Ivoire, Lamto. ♂ holotype, fifteen ♂ paratypes and four ♀ paratypes.

♂ holotype, ten ♂ paratypes and four ♀ paratypes. The holotype is mounted on six microscopic slides: (1) a slide with the head and pronotum and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Cercomantispa decellei Poivre, holotype ♂, tête, notum, M.A. 2”; (2) a slide with the antennae and dissected mouthparts and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Cercomantispa decellei Poivre, holotype ♂, labium, col, antennes, M.A. 2”; (3) a slide with the legs and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Cercomantispa decellei Poivre, holotype ♂, M.A. 2”; (4) a slide with the wings and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Cercomantispa decellei Poivre, holotype ♂, M.A. 2”; (5) a slide with the terminalia and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Cercomantispa decellei Poivre, holotype ♂, terminalia, M.A. 2”; (6) a slide with the cleared abdomen and the handwritten labels “Côte d’Ivoire, Lamto, XII.1975, J. Bitsch” and “Cercomantispa decellei Poivre, holotype ♂, abdomen, M.A. 2”.

The paratypes are in alcohol with a handwritten label “Cercomantispa decellei Poivre, Paratypes (10♂♂, 4♀♀), Côte d’Ivoire, Lamto, XII.1975, J. Bitsch”. Most of the specimens are loose in a large tube but one ♂ and one ♀ are separated into smaller vials in the main tube. The head of the separate ♂ is mounted on a microscopic slide with the handwritten labels “Côte d’Ivoire, Lamto, XII.1975,

J. Bitsch" and "*Cercomantispa decellei* Poivre, paratype ♂, M.A. 2", the antennae and cervical sclerite are loose in the vial. The separate ♀ has the abdomen detached and the terminalia are mounted on a microscopic slide with the handwritten labels "Côte d'Ivoire, Lamto, XII.1975, J. Bitsch" and "*Cercomantispa decellei* Poivre, paratype ♀, terminalia, M.A. 2", the left antenna is malformed. One of the ♂ has lost the right front leg.
Cercomantispa decellei Poivre, 1982

delamarei Poivre, 1982a: 175-178 [*Sagittalata*].

Côte d'Ivoire, Forêt du Banco. ♂ holotype, one ♂ paratype and seven ♀ paratypes.

One ♂ paratype and two ♀ paratypes. A ♂ with labels: "COTE D'IVOIRE, Loc: Forêt du Banco, Date: X-1963, P. GRIVEAUD" [printed on white card with "X-1963" handwritten]; "O.R.S.T.O.M., I.D.E.R.T., Adiopodoumé" [printed on white card]; "*Sagittalata delamarei* Poivre, 1981, paratype ♂, det. C. Poivre, 1981" [handwritten on white card with "det. C. Poivre, 19" printed]; "Paratypus" [printed on orange card]. Specimen set with left wings spread and right wings folded; the tip of the left antenna is missing.

A ♀ with labels: "COTE D'IVOIRE, Loc: Forêt du Banco, Date: X-1963, P. GRIVEAUD" [printed on white card with "X-1963" handwritten]; "O.R.S.T.O.M., I.D.E.R.T., Adiopodoumé" [printed on white card]; "*Sagittalata delamarei* Poivre, 1981, paratype ♂, det. C. Poivre, 1981" [handwritten on white card with "det. C. Poivre, 19" printed]; "Paratypus" [printed on orange card]. Specimen set with left wings spread and right wings folded; the left antenna, left front leg, and right hind leg are lost.

A ♀ specimen in alcohol with labels: "COTE-D'IVOIRE: Abidjan: Adiopodoumé, à la lumière. 18.-23.III.1977, leg. I. Löbl (27)" [typewritten on thin white card]; "*Sagittalata delamarei* Poivre, paratype ♀, déterminé Poivre, 22.V.1979" [handwritten on white paper].

The holotype is in the MNHN.

Sagittalata delamarei Poivre, 1982

hauseri Poivre, 1982b: 11-13 [*Mantispa*].

Yougoslavie (Istrie), Rovinj. ♀ holotype.

♀ holotype. A ♀ specimen in alcohol, with dissected parts mounted on two slides: (1) a side with the antennae and dissected mouthparts and the handwritten labels "Yougoslavie (Istrie) Station Ju-74/1, 14.VI.1974, B. Hauser" and "*Mantispa hauseri* Poivre, Holotype ♀ Maxilles, labium, antennes, col. M.A. 2"; (2) a slide with the right wings and the handwritten labels "Yougoslavie (Istrie) Station Ju-74/1, 14.VI.1974, B. Hauser" and "*Mantispa hauseri* Poivre, Holotype ♀ Ailes droites. M.A. 2". The rest of the specimen is in two vials placed in a larger tube accompanied by a handwritten label "*Mantispa hauseri* Poivre, Holotype ♀, Station Ju-74/1: Yougoslavie (Istrie) Pinède proche de la mer près Rovinj, 14.VI.1974, B. Hauser." The head is in one vial, the rest of the body in the other, with the locality code "Ju74/1"

typed on a strip of card. The container holding the slides is glued to the lid of the jar containing the rest of the specimen.

A junior synonym of *Mantispa styriaca* (Poda, 1761)

ivoiriensis Poivre, 1982b: 5-8 [*Pseudoclimaciella*].

Côte d'Ivoire, Forêt du Banco. ♂ holotype, seven ♂ paratypes and four ♀ paratypes.

One ♂ paratype and one ♀ paratype. A ♂ specimen with labels: "COTE D'IVOIRE, Loc: Forêt du Banco, Date: X-1963, P. GRIVEAUD" [printed on white card with "X-1963" handwritten]; "O.R.S.T.O.M., I.D.E.R.T., Adiopodoumé" [printed on white card]; "*Pseudoclimaciella ivoiriensis* Poivre, 1981, paratype ♂, det. C. Poivre, 1981" [handwritten on white card with "det. C. Poivre, 19" printed]; "Paratypus" [printed on orange card]. Specimen set with left wings spread and right wings folded; the right middle leg is missing.

A ♀ specimen with labels: "COTE D'IVOIRE, Loc: Forêt du Banco, Date: X-1963, P. GRIVEAUD" [printed on white card with "X-1963" handwritten]; "O.R.S.T.O.M., I.D.E.R.T., Adiopodoumé" [printed on white card]; "*Pseudoclimaciella ivoiriensis* Poivre, 1981, paratype ♀, det. C. Poivre, 1981" [handwritten on white card with "det. C. Poivre, 19" printed]; "Paratypus" [printed on orange card]. Specimen set with left wings spread and right wings folded. The holotype is in the MNHN.

Pseudoclimaciella ivoiriensis Poivre, 1982

ndjallai Poivre, 1981: 81-84 [*Cercomantispa*].

Cameroun, Ngoekele-Yaounde. ♂ holotype.

♂ holotype. The holotype is mounted on six microscopic slides: (1) a slide with the antennae and mouthparts and the handwritten labels "NGOEKELE-YAOUNDE, CAMEROUN, XII.1976, M. Ndjalla" and "*Cercomantispa ndjallai* POIVRE Holotype ♂, labre, labium, antennes, col. M.A. 2"; (2) a slide with the front legs and head and the handwritten labels "YAOUNDE – CAMEROUN" and "*Cercomantispa ndjallai* POIVRE Holotype ♂"; (3) a slide with the wings and the handwritten labels "NGOEKELE-YAOUNDE, CAMEROUN, XII.1976, M. Ndjalla" and "*Cercomantispa ndjallai* POIVRE Holotype ♂, M.A. 2"; (4) a slide with three legs and the handwritten labels "NGOEKELE-YAOUNDE, CAMEROUN, XII.1976, M. Ndjalla" and "*Cercomantispa ndjallai* POIVRE Holotype ♂, P2-P3, M.A. 2"; (5) a slide with part of the abdomen and the handwritten labels "NGOEKELE-YAOUNDE, CAMEROUN, XII.1976, M. Ndjalla" and "*Cercomantispa ndjallai* POIVRE Holotype ♂, tergites 3-6, M.A. 2"; (6) a slide with the Terminalia and the handwritten labels "NGOEKELE-YAOUNDE, CAMEROUN, XII.1976, M. Ndjalla" and "*Cercomantispa ndjallai* POIVRE Holotype ♂, terminalia, M.A. 2". The rest of the specimen is in alcohol with the handwritten label "corps intestine: *Cercomantispa ndjallai*, Holotype ♂, NGOEKELE-YAOUNDE, CAMEROUN, XII.1976, M. Ndjalla".

Cercomantispa ndjallai Poivre, 1981

perla icterica Pictet, 1865: 58, pl. 4, figs 6-8 [*Mantispa*]. San Ildefonso. Unspecified series.

Two ♀ syntypes. A ♀ with labels: “620 48 Granjas, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Granjas Juillet 1859” [printed on white card]; “Probable syntype of *M. perla icterica* Pictet, Hollier 2011” [handwritten on red paper]. Specimen set with wings folded; the tips of the right wings are missing.

A ♀ with labels: “620 48 Granjas, Espagne, Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Granjas Juillet 1859” [printed on white card]; “Probable syntype of *M. perla icterica* Pictet, Hollier 2011” [handwritten on red paper]. Specimen set with wings roughly folded; the tip of the left antenna is missing.

These specimens are illustrated in Monserrat (2014). There is a further syntype, originally from Hagen's collection, in the MCZC. Aspöck & Aspöck (1994) referred to the latter as the holotype and if this is considered an inadvertent lectotype designation the specimens in the MHNG are paralectotypes. Poivre (1982c: 669) designated a neotype, but this is clearly invalid because part of the original type series exists. He was correct in identifying the specimens as distinct from *Mantispa perla* however, and his invalid neotype and the associated specimens later became paratypes of *Mantispa aphavexelte* Aspöck & Aspöck, 1994 (see above).

A junior synonym of *Mantispa perla* (Pallas, 1772)

semeriai Poivre, 1981: 78-81 [*Sagittalata*].

Cameroun, Gachiga. ♀ holotype.

♀ holotype. A ♀ specimen in alcohol with dissected parts on five microscopic slides: (1) a slide with the terminalia and the handwritten labels “Gachiga (Garoua) Nord Cameroun, X.1976 M. Ndjalla” and “*Sagittalata semeriai* Holotype ♀, Terminalia, Poivre, M.A. 2””; (2) a slide with the middle and hind legs and the handwritten labels “Gachiga (Garoua) Nord Cameroun, X.1976 M. Ndjalla” and “*Sagittalata semeriai* Holotype ♀, P2-P3, Poivre, M.A. 2””; (3) a slide with the wings and the handwritten labels “Gachiga (Garoua) Nord Cameroun, X.1976 M. Ndjalla” and “*Sagittalata semeriai* Holotype ♀, Poivre, M.A. 2””; (4) a slide with the antenna and dissected mouthparts and the handwritten labels “Gachiga (Garoua) Nord Cameroun, X.1976 M. Ndjalla” and “*Sagittalata semeriai* Holotype ♀, Poivre, M.A. 2””; (5) a slide with the front legs and the front of the head with the eyes, and the handwritten label “*Sagittalata semeriai* Holotype ♀, Cameroun”. The prothorax and part of the abdomen are in alcohol together with the handwritten labels “Pron – abd. *Sagittalata semeriai* Holotype ♀, Gachiga (Garoua) N. Cameroun X.1976” and “*Sagittalata semeriai* n.sp. ♀”.

Sagittalata semeriai Poivre, 1981

Myrmeliontidae

additus Navás, 1914: 642 [*Macronemurus*].

Sur de Túnez (Mus. de Ginebra). Unspecified number of ♂.

One ♂ syntype. A ♂ with labels: “TUNIS SUD” [printed on pink paper]; “*Macronemurus additus* ♂ Nav., Navás S.J. det.” [handwritten on white card with “Navás S.J. det.” printed]; “Typus” [handwritten on pink paper]. Specimen set with wings spread; the left middle leg is missing. The abdomen is laterally compressed. Since the type series was unspecified, the specimen should be regarded as a syntype.

A junior synonym of *Macronemurus elegantulus* McLachlan, 1898

antennata Navás, 1914: 644-645 [*Creagris*].

Desierto de Kosseir, Coll. Pictet (Mus. de Ginebra). One damaged ♂ and two ♀.

One ♂ syntype and one syntype without abdomen. A ♂ specimen with labels: “620 48, Kosseir, Afr. trop., Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Desert de Kosseir” [handwritten on white card]; “*Creagris antennata* Nav. Navás S.J. det.” [handwritten on white card with “Navás S.J. det.” printed]; “Typus” [handwritten on pink card]. Specimen set with wings spread; the left antenna and the tarsi of the right front leg are missing. The left forewing is tattered and lacks the tip.

A specimen with labels: “620 48, Kosseir, Afr. trop., Coll. Pictet” [handwritten on ruled white card with “Coll. Pictet” printed]; “Desert de Kosseir” [handwritten on white card]; “*Creagris antennata* Nav. Navás S.J. det.” [handwritten on white card with “Navás S.J. det.” printed]; “Typus” [handwritten on pink card]. Specimen set with wings spread; only two segments of the abdomen remain. There is insect feeding damage to the head and thorax, and the left eye is missing.

Creoleon antennata (Navás, 1914)

carinifrons Esben-Petersen, 1936: 204-206 [*Navasius*]

[Belgian Congo] Chinkolobwe. One specimen (unspecified sex).

Holotype of unknown sex. A specimen with labels: “Ht Katanga, Chinkolobwe, 19-10-30, J. Romieux” [handwritten on white card with “Ht Katanga” and “J. Romieux” printed]; “*Navasius carinifrons* n.sp. det. Esben-Petersen” [handwritten on white card with “det. Esben-Petersen” and margin printed]; “TYPE” [printed on pink card]. Specimen set with wings spread; the left antenna, the last tarsal segment of the left front leg and both middle legs and most of the abdomen are missing. Esben-Petersen usually gave the sex of his types and so it is probable that the end of the abdomen had been lost when the species was described, although Mansell (1985) refers to the holotype as ♀.

Banksisus carinifrons (Esben-Petersen, 1936)

carli Navás, 1913a: 265-266 [*Palpares*].

Sénégal. One damaged specimen.

Holotype (sex unknown). A specimen with labels: "620 48, Senegal, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Sen." [handwritten on white card]; "Palpares Carli Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Typus" [handwritten on pink card]; "Palpares latipennis, Prost det. 1995, syn. nouvelle" [handwritten on white card]. Specimen set with wings spread; there is insect feeding damage to the head and thorax. The right antenna, the eyes, the right middle leg and right hind leg are missing, as is the end of the abdomen. The specimen has been reinforced with glue near the pin.

A junior synonym of *Parapalpares latipennis* (Rambur, 1842)

cinnamomea Navás, 1913c: 276-277 [*Creagris*].

Ceylan, Voy. Humbert (Mus. Genevae). Unspecified series.

Three syntypes, all lacking part of the abdomen. A specimen with labels: "600 53, Ceylan, Voy. Humbert" [handwritten on ruled white card]; "Creagris cinnamomea Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Typus" [handwritten on pink card]. Specimen set with wings spread; the tarsi of the left front leg, the entire right front leg and both middle legs are lost, the end of the abdomen is missing, as is the tip of the right forewing.

A specimen with labels: "600 53, Ceylan, Voy. Humbert" [handwritten on ruled white card]; "Creagris spec" [handwritten (by Weele?) on white card with printed margin]; "Creagris cinnamomea Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Syntypus" [printed on red paper]. Specimen set with wings spread; both antennae, the tarsi of the right front leg and the tip of the abdomen are lost.

A specimen with labels: "600 53, Ceylan, Voy. Humbert" [handwritten on ruled white card]; "Creagris cinnamomea Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Syntypus" [printed on red paper]. Specimen set with wings spread; there is feeding damage to the thorax, and only the head, prothorax and part of the mesothorax with the left front wing remain.

Creoleon cinnamomeus (Navás, 1913)

elegantulus Esben-Petersen, 1936: 203-204 [*Navasius*].

[Belgian Congo] Chinkolobwe. One ♂.

♂ holotype. A ♂ specimen with labels: "Ht Katanga, Chinkolobwe, 18-9-30, J. Romieux" [handwritten on white card with "Ht Katanga" and "J. Romieux" printed]; "Navasius elegantulus n.sp. ♂ det. Esben-Petersen" [handwritten on white card with "det. Esben-Petersen" and margin printed]; "TYPE" [printed on pink card]. Specimen set with wings spread; the left antenna and all of the right legs are lost. The abdomen has been broken and roughly repaired with glue.

Bankisus elegantulus (Esben-Petersen, 1936)

homsii Navás, 1913b: 47-48 [*Myrmeleon*].

Argentina: Buenos Aires, Col. Pictet (Mus. de Ginebra). Unspecified series.

One ♀ syntype. A ♀ with labels: "620 48 Buenos Ayres, Argentina, Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Buenos Ayres, coll. Meyer-Dür" [handwritten on white paper]; "Myrmeleon inconspicuus Rbr." [handwritten (by Wheele?) on white card with printed margin]; "Myrmeleon Homsii Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Typus" [handwritten on pink card]. Specimen set with wings spread. Since the type series was unspecified, this specimen should be regarded as a syntype.

Myrmeleon homsii Navás, 1913

insperatus Navás, 1914: 633-634 [*Myrmelon*].

Cabo de Buena Esperanza, col. Pictet (Mus. de Ginebra). Unspecified series.

One ♀ syntype. A ♀ with labels: "620 48 Cap b. sp., Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "[Illegible], C.b.sp., Tollin[?]" [handwritten on white card]; "Myrmeleon insperatus Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Typus" [handwritten on pink card]. Specimen set with wings spread; the left antenna is lost. Since the type series was unspecified, this specimen should be regarded as a syntype.

Myrmeleon insperatus Navás, 1914

kabulensis Hölzel, 1972: 58-59 [*Distoleon*].

Afghanistan: 10km nördl. Kabul. ♂ holotype, nine ♂ paratypes and seven ♀ paratypes.

One ♀ paratype. A ♀ specimen with labels: "Asie mineure, Vilayet: Elâziz, Ergani-Maden, 12.8.39, J. Romieux" [handwritten on white card with "Asie mineure" and "J. Romieux" printed]; "Paratypus ♀ Distoleon kabulensis H. Hölzel 1972" [handwritten on red card with "Paratypus" printed]. Specimen set with wings spread; the tarsi of the right hind leg are missing.

Distoleon kabulensis Hölzel, 1972

laticollis Navás, 1913c: 278-279 [*Formicaleo*].

Syria, Mr. Simon (Mus. Genevae). Unspecified number of ♀.

One ♀ syntype. A ♀ specimen with labels: "603 30, Syrie, M^r Simon" [handwritten on ruled white card]; "Formicaleo laticollis Nav. Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Typus" [handwritten on pink card]. Specimen set with wings spread; about half of the left hind wing is lost. The abdomen is flattened dorsoventrally. Hölzel (1982: 264) refers to this specimen as the holotype, which may constitute a lectotype designation.

Distoleon laticollis (Navás, 1913)

nigriventris Navás, 1913c: 278 [*Nelees*].

Turkestan; Fergana, Dr Scobelev & Dr Weber-Bauler (Mus. Genevae). Unspecified series.

One ♀ syntype. One ♀ specimen with labels: “Turkestan oriental., Fergana, Alt., Dr Weber-Bauler” [printed on white paper]; “*Nelees nigriventris* Nav. Navás S.J. det.” [handwritten on white card with “Navás S.J. det.” printed]; “Typus” [handwritten on pink card]. Specimens set with wings spread; the tip of the left antenna is missing. Since the type series was unspecified, this specimen should be regarded as a syntype.

Neuroleon nemausiensis nigriventris (Navás, 1913)

oculata Navás, 1926: 80 [*Neriga*].

Congo belga, Mus. de Ginebra. Unspecified number of ♀.

One ♀ syntype. A ♀ with labels: “Baudet, d’après lui à Brazzaville” [handwritten on white paper]; “*Neriga oculata* ♀ Nav. P. Navás S.J. det.” [handwritten on grey card with “P. Navás S.J. det.” printed]; “Typus” [handwritten on pink card]; “=*Stiphronura inclusa* (Wlk. 1853), det. W. Markl 1952” [handwritten on white card with “det. W. Markl” printed]. Specimen set with wings spread; the body is laterally compressed and the abdomen has been reattached with glue. *Stiphronura inclusa* is a species from Southeast Asia, and the locality label is therefore doubtful (Krivokhatsky, 1997).

A junior synonym of *Stiphronura inclusa* (Walker, 1853)

pardaloides Weele, 1907b: 257, pl. 9, fig. 5 [*Palpares*].

[Madagascar] Muséum Paris: Cote Ouest: entre Morondova et Mahabo, Grandidier; Moevarana, Bastard; Makaraingo, Escoffre. Musée de Genève: Majunga, Voeltzkow. Many specimens (both sexes).

One ♀ syntype. A ♀ specimen with labels: “Dr Voeltzkow, Orthoptera [sic], Majunga 12.5.90 Madagascar” [handwritten on white paper]; “19” [handwritten on a square of white card]; “*Palpares pardaloides* vdW typus det. v. d. Weele” [handwritten on white card with “det. v. d. Weele” printed]; “Syntypus” [printed on red paper]. Specimen set with wings spread; both antennae are missing. Saussure published accounts of the Orthoptera, Hymenoptera and Myriapoda collected by the Voeltzkow expedition, and this specimen was apparently sent to him in error.

Palpares pardaloides Weele, 1907

romieuxi Esben-Petersen, 1936: 201-202 [*Formicaleo*].

[Belgian Congo] Chinkolobwe. One ♀.

♀ holotype. A ♀ specimen with labels: “Ht Katanga, Chinkolobwe, 17-10-30, J. Romieux” [handwritten on white card with “Ht Katanga” and “J. Romieux” printed]; “*Formicaleo distinctus romieuxi* n.sp. det. Esben-Petersen” [handwritten on white card with “det. Esben-Petersen” and margin printed]; “TYPE” [printed on pink card]. Specimen set with wings spread; the right middle

and hind legs are lost. The abdomen is laterally flattened and has been repaired with glue.

Distoleon romieuxi (Esben-Petersen, 1936)

scolius strigatus Esben-Petersen, 1936: 200-201 [*Formicaleo*].

[Belgian Congo] Chinkolobwe. One damaged specimen. ♂ holotype. A ♂ specimen with labels: “Ht Katanga, Chinkolobwe, 27-10-30, J. Romieux” [handwritten on white card with “Ht Katanga” and “J. Romieux” printed]; “*Formicaleo scolius* var. *strigatus* n.v. det. Esben-Petersen” [handwritten on white card with “det. Esben-Petersen” and margin printed]; “TYPE” [printed on pink card]. Specimen set with wings spread; the left middle leg is missing and the right forewing lacks the tip. The abdomen is detached; it had been repaired with glue and a pin but is now in several pieces and has been glued to a card mount with its own label: “Holotypus *F. scolius strigatus* E.P., 1936?, Hollier 2016” [handwritten on red paper]. It is not clear why Esben-Petersen did not give the sex unless the abdomen reattached to the specimen was not part of the original.

A junior synonym of *Distoleon scolius* (Navas, 1914)

transvaalensis Navás, 1914: 638-639 [*Cueta*].

Transvaal, Junod Miss. (Mus. de Ginebra). One ♂.

♂ holotype. A ♂ specimen with labels: “Transvaal, Junod Miss^e, 624 25” [printed on pink paper]; “*Cueta transvaalensis* Nav. Navás S.J. det.” [handwritten on white card with “Navás S.J. det.” printed]; “Typus” [handwritten on pink card]. Specimen set with wings spread; the last tarsal segment of the right middle leg is missing. Although the number on the data label has the same format as the MHNG acquisition register, the specimen does not correspond to the entry in the register. *Cueta transvaalensis* Navás, 1914

RAPHIDIOPTERA

balesdenti Poivre, 1991: 126-128 [*Subilla*].

Col de la Pousterle, Briançon, Hautes-Alpes. ♀ holotype and one ♀ paratype.

♀ holotype and one ♀ paratype. The ♀ holotype is partly mounted on two microscopic slides: (1) a slide with fragments of the antennae and the handwritten labels “Col de la Pousterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent” and “~~Raphidia~~ (*Subilla*) *balesdenti* n.sp. holotype ♀, antennes gche. MA 2”; (2) a slide with the left wings and the handwritten labels “Col de la Pousterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent” and “~~Raphidia~~ (*Subilla*) *balesdenti* n.sp. holotype ♀, ailes gauches, MA 2”. The rest of the specimen is in alcohol with labels: “*Subilla balesdenti* n. sp. holotype et paratype ♀♀, Dét. C. POIVRE, 1991. Ancien sous-genre élevé au rang de genre par Aspöck, 1986” [handwritten on white paper]; “Raphidies, col de la Pousterle, août 71” [handwritten on white

paper]; "Raphidia flavipes ♀♀ dét. B. Condé, 1971: leg. Mme Balesdent" [handwritten on white paper]; "Raphidia (Subilla) balesdenti n. sp. Col de la Pouterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent" [handwritten on white paper]; "Raphidia (Subilla) balesdenti n. sp. holotype" [handwritten on white paper]. The end of the abdomen is detached. Parts of the ♀ paratype are mounted on three microscopic slides: (1) a slide with the wings and the handwritten labels "Col de la Pouterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent" and "Raphidia (Subilla) balesdenti n.sp. paratype ♀, ailes, MA 2"; (2) a slide with the legs and the handwritten labels "Col de la Pouterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent" and "Raphidia (Subilla) balesdenti n.sp. holotype [sic] ♀, P1, P2, P3 gche. MA 2"; (3) a slide with part of the seventh sternite and the handwritten labels "Col de la Pouterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent" and "Raphidia (Subilla) balesdenti n.sp. paratype ♀, 2 morceaux du 7^e sternite, MA 2". The rest of the specimen is in alcohol in a second jar with labels: "Subilla balesdenti n. sp. holotype et paratype ♀♀, Dét. C. POIVRE, 1991. Ancien sous-genre élevé au rang de genre par Aspöck, 1986" [handwritten on white paper]; "Raphidies, col de la Pouterle, août 71" [handwritten on white paper]; "Raphidia flavipes ♀♀ dét. B. Condé, 1971: leg. Mme Balesdent" [handwritten on white paper]; "Raphidia (Subilla) balesdenti n. sp. Col de la Pouterle, VALLOUISE (H.-Alpes), août 1971 M. et Mme Balesdent" [handwritten on white paper]; "Raphidia (Subilla) balesdenti n. sp. paratype" [handwritten on white paper]. The head and the end of the abdomen are detached, and the left legs are missing (having been slide mounted).

A junior synonym of *Dichrostigma flavipes* (Stein, 1863)

laufferi Navas, 1915: 867-869, fig. 11 [*Raphidia*].

Escorial, leg. Lauffer. More than one ♂ and ♀.

One ♂ and one ♀, both probably paralectotypes. A ♂ specimen with labels: "Escorial, Lauffer" [printed on white card]; "Raphidilla Laufferi Nav. P. Navás S.J. det." [handwritten on white card with "P. Navás S.J. det." printed]; "Coll. gén., *Raphidia laufferi*" [typewritten on white card]; "Raphidia (F.) laufferi Nav., H. et. U. Aspöck det. 1972" [handwritten on white card with "H. et. U. Aspöck det. 19" printed]; "Paralectotypus" [printed on orange card]. Specimen set with wings spread; most of the left antennae is missing. The thorax has split where the pin is inserted and has been roughly repaired with glue.

A ♀ specimen with labels: "Escorial 1915, Lauffer" [handwritten on white card]; "Raphidilla Laufferi Nav. P. Navás S.J. det." [handwritten on white card with "P. Navás S.J. det." printed]; "Coll. gén., *Raphidia laufferi*" [typewritten on white card]; "Raphidia (F.) laufferi Nav., H. et. U. Aspöck det. 1972" [handwritten on white card with "H. et. U. Aspöck det. 19" printed]; "Paralectotypus"

[printed on orange card]. Specimen set with wings spread; most of the right antenna, the tibia and tarsi of the right front leg, the entire left front and both middle legs and the tarsi of the right hind leg are lost. The specimen is broken where the pin was inserted, and the metathorax, together with the hind wings and hind legs, and abdomen are glued to a card mount secured on the original pin.

The lectotype, designated by Aspöck *et al.* (1991: 325), is in the MCBS. The specimens in the MHNG are from the type locality and were collected by Lauffer, but it is impossible to say whether they formed part of the type series.

Harrraphidia laufferi (Navás, 1915)

physodes Navás, 1913c: 281-282, fig. 9 [*Raphidia*].

Asia minor; Taurus, Col. Pictet (Mus. Genevae). Unspecified number of ♂.

One ♂ syntype. A ♂ specimen with labels: "620 48 Taurus, Asie min., Coll. Pictet" [handwritten on ruled white card with "Coll. Pictet" printed]; "Raphidia physodes ♂ Nav., Navás S.J. det." [handwritten on white card with "Navás S.J. det." printed]; "Typus" [handwritten on pink card]; "Coll. gén., *Raphidia physodes*" [typewritten on white card]; "Holotypus *Raphidia physodes* NAVAS, 1914 [sic] H. et U. Aspöck vid. 1972" [handwritten on red card]. Specimen set with wings spread; both antennae are lost. The specimen has split where the pin was inserted; the head, prothorax and front legs and mesothorax, middle legs and front wings are still on the pin, while the rest of the specimen is in a glass tube secured through the cork stopper on the original pin. The type series was unspecified; Aspöck *et al.* (1991) refer to this specimen as the holotype without justification which may constitute a lectotype designation.

Subilla physodes (Navás, 1913)

The MHNG collection may contain syntypes of *Sialis fuliginosus* Pictet, 1836 but the specimens from Pictet's collection have been relabelled and it is impossible to positively identify any specimens as syntypes (Pictet illustrated adults of both sexes and larvae) as part of the type series. McLachlan (1880: 63-64) gave the name *Chrysopa lineolata* to three specimens (sex unspecified) from "Grenade" and "Eaux-Bonnes, Pyrénées" which Pictet (1865: 68) had identified as *C. clathrata* Schneider, 1845 and redescribed. No specimens identifiable as these syntypes could be located in the MHNG collection [*C. lineolata* is a junior synonym of *Pseudomallada flavifrons* (Brauer, 1851)].

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