

ARTICULO:

### Catalogue of the Cyphophthalmi of the World (Arachnida, Opiliones)

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## CATALOGUE OF THE CYPHOPHTHALMI OF THE WORLD (ARACHNIDA, OPILIONES)

Gonzalo Giribet

### Abstract:

A catalogue of the opilionid suborder Cyphophthalmi is provided. The suborder is currently divided into two infraorders, three superfamilies, and six families, based on the phylogenetic analyses of Shear (1980, 1993c). The family Sironidae is widely distributed in Europe, North America and Asia. The family Pettalidae shows a typical temperate Gondwanan distribution, with species in southern South America, southern Africa, Madagascar, Sri Lanka, Australia and New Zealand. The monogeneric family Troglisironidae is restricted to New Caledonia. The families Ogoveidae and Neogoveidae occur in tropical Africa and America, while the monogeneric family Stylocellidae is widespread in tropical southeast Asia. Distribution maps of all cyphophthalmid species (except the Japanese *Suzukielus sauteri*) are provided.

The group comprises 113 valid described species distributed in 26 genera. Numerous incorrect subsequent spellings are indicated. One species, *Siro gjorgjevici* Hadži, 1933, had up to seven spellings, with some authors listing simultaneously two different spellings as different species. Several possible taxonomic problems within the Cyphophthalmi are pointed out, with the aim of attempting a comprehensive phylogenetic analysis of all the species of the group in the near future.

**Key words:** Opiliones, Cyphophthalmi, Catalogue, World.

### Catálogo mundial de Cyphophthalmi (Arachnida, Opiliones)

#### Resumen:

Se presenta un catálogo crítico del suborden Cyphophthalmi (Opiliones). El suborden está dividido en dos infraórdenes, tres superfamilias y seis familias, de acuerdo con los análisis filogenéticos de Shear (1980, 1993c). La familia Sironidae está distribuida ampliamente por Europa, Norteamérica y Asia. La familia Pettalidae sigue una típica distribución gondwánica de clima templado, con especies representadas en Suramérica, Suráfrica, Madagascar, Sri Lanka, Australia y Nueva Zelanda. La familia monogénica Troglisironidae está restringida a Nueva Caledonia. Las familias Ogoveidae y Neogoveidae se encuentran distribuidas en África y América tropicales, mientras que la familia monogénica Stylocellidae se encuentra ampliamente distribuida en la zona tropical del sudeste asiático. La distribución de todos los Opiliones (excepto la especie japonesa *Suzukielus sauteri*) se ilustra en seis mapas de diferentes áreas del mundo.

El grupo comprende 113 especies válidas descritas repartidas en 26 géneros. Se señalan numerosas errores tipográficos en el deletreo de nombres de especies. Una especie, *Siro gjorgjevici* Hadži, 1933, presenta hasta siete deletreados distintos, hasta el punto que algunos autores han usado dos nombres simultáneamente considerándolos como dos especies distintas. Finalmente se proponen algunos posibles problemas taxonómicos en Cyphophthalmi, con la intención de emprender un análisis filogenético de todas las especies del grupo en el futuro.

**Palabras clave:** Opiliones, Cyphophthalmi, Catálogo mundial.

### Historical perspective

The Cyphophthalmi constitute the smallest of the four suborders of Opiliones (the other three being Eupnoi, Dyspnoi, and Laniatores according to Giribet *et al.*, 1999, 2001), composed of 113 described species distributed world-wide. The first cyphophthalmid was described by Latreille (1796: 185), although the description did not explicitly refer to any particular species:

#### G. XVIII. \*CIRON. SIRO.

Antennules longues, filiformes, de cinq articles. Mandibules alongées, plates, coudées, en pinces. Mâchoires ou lèvres inférieure formées par le prolongement des pièces servant d'insertion aux antennules.

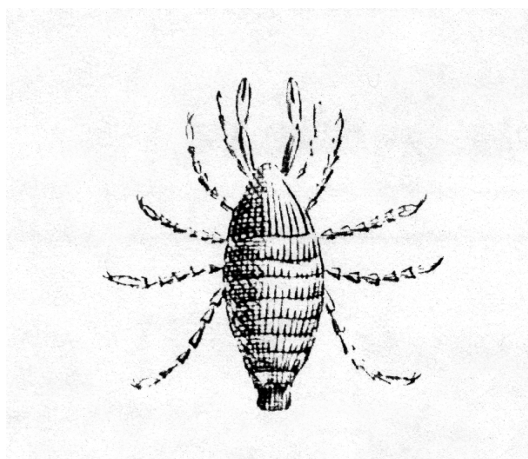


Figure 1. *Siro rubens* Latreille, 1804 as represented by Latreille (1806).

The first species, *Siro rubens*, was not formally described until eight years later by the same author (Latreille, 1804: 329):

#### HISTOIRE DES CIRONS. DIXIÈME GENRE.

CIRON ; *siro*

La longueur et la saillie des mandibules, l'isolement des yeux éloignent ce genre des autres de la même famille. La seule espèce qui me soit connue se trouve sous les pierres, au bas des arbres, et ressemble, au premier aspect, à la pince de Geoffroi, n° 1; le scorpion cancroïde de Fabricius.

Cet insecte n'a guère plus d'une ligne de longueur; son corps est ovale et rougeâtre. Je le nommerai *ciron rougeâtre* (*siro rubens*). Je ne crois pas qu'il ait été décrit. Je l'ai trouvé deus ou trois fois dans le Limousin.

In the same year, an opilionid named *Phalangium rubens* was described by Hermann (1804: 105) (also referred to as *P. rubicundum* in the same publication [Hermann, 1804: 97]).

#### 5. LE ROUGEATRE (RUBENS).

FAUCHEUR. Abdomen arrondi, rougeâtre-pâle à sa partie postérieure; pieds filiformes, monodactyles. (PHALANGIUM. Abdomine rotundato, postice pallide rubente; pedibus filiformibus, monodactylis. NOBIS.)

Il vit sous les mousses.

Il est de la grandeur du petit trombide macropède, de la forme du faucheur des murailles et du faucheur cornu; mais les pieds ne son pas sétacés. Il ressemble aux espèces voisines par la forme du corps et par les yeux noirs, rapprochés. Le corps est d'un coeuls pâle à la partie antérieure; les pieds son pâles de même, composés de trois articles basilaires curts, et ensuite de cinq autres, dont le second est le plus court, comme dans le faucheur des murailles et dans les araignées.

Les palpes extérieurs sont du double plus longs que le corps, et un peu plus courts que la première paire des pieds. Les palpes à pinces sont simples, comme dans le faucheur des murailles. Les pieds de la seconde paire son plus longs que tous les autres, ainsi que dans le dernier. La proportion des autres pieds est aussi la même que dans le faucheur des murailles et dans les espèces semblables.

Le corps est parsemé de poils blancs. Dans sa partie postérieure je ne vois point d'anneaux en haut, mais bien en bas.

Hermann also described a second species related to his *Phalangium rubens*, named *P. melanotarsum* (Hermann, 1804: 103, Plate V, fig. 2), whose illustration (if accurate) does not correspond to a species of Cyphophthalmi since it lacks the ozophores and has two median eyes near the front of the prosoma. The identity of "*Phalangium rubens*" remains unclear since I have not found any subsequent references to it in the literature. In the same publication Hermann described two species, *Acarus testudinarius* (pages 80-82, Pl. IX, fig. 1) and *Acarus crassipes* (page 80) that were erroneously interpreted by Lamarck (1838: 95) as belonging to the genus *Siro*.

The first illustration of *Siro rubens*, provided by Latreille (1806: Plate 6, fig. 2), was a fairly inaccurate representation of the animal by comparison with the contemporary artwork of other arachnologists such as Hermann. This original illustration of *Siro rubens* has been reproduced here in Fig. 1.

Following the initial description of *Siro rubens* a few more species descriptions were published (Joseph, 1868a; Simon, 1872; Westwood, 1874; Cambridge, 1875; Thorell, 1882, 1890; Karsch, 1884; Pocock, 1897). In 1904, Hansen and Sørensen published the first comprehensive treatment of the Cyphophthalmi, where they reviewed the entire suborder, and divided the single family Sironidae into what Shear (1980) later named Tropicophthalmi (= their Stylocellini) and Temperophthalmi (= their Sironini). They also described two new genera and seven species.

After Hansen and Sørensen, in the first quarter of the XX century, only five species were added to the list of Cyphophthalmi (Roewer, 1916; Hansen, 1921; Ewing, 1923; Hirst, 1925), including the first representatives for New Zealand, Japan, and North America. The next period yielded descriptions of a large number of species (Phillipps and Grimmitt, 1932; Davis, 1933, 1937; Hadži, 1933; Lawrence, 1931, 1933, 1939; Hinton, 1938; Kratochvíl, 1938, 1939, 1940, 1958; Roewer, 1942; Newell, 1943; Forster, 1948, 1952, 1955; Rosas Costa, 1950; Rafalski, 1955). The prolific work of three authors stands out: Kratochvíl in the Balkans (who described six species), Lawrence in South Africa (who described seven species), and Forster in New Zealand and Australia (who described 27 species and subspecies).

From the late 1950s to the early 1990s, the study of the Cyphophthalmi took an important step forward with the work of the French arachnologist Christian Juberthie, who completely rearranged the taxonomy of the group, described nine species, named six genera, and redescribed many other species. He also contributed to other aspects that had been mainly neglected such as biogeography, anatomy, physiology, behavior, etc. Juberthie's studies on the Cyphophthalmi set up the basis for modern studies of the group.

Contemporary to the early studies of Juberthie are relevant authors who undertook faunistic studies in different areas of the world, and others that described a few new species (Roewer, 1961; Hoffman, 1963; Lawrence, 1963; Martens, 1969) and subspecies (Gruber, 1969). The American arachnologist William Shear published his first description of two cyphophthalmids in 1977, and since then he has become the leading researcher in Cyphophthalmi, although sharing the leadership at the beginning of his

career with a still active Juberthie. Shear described 4 genera and 25 species of Cyphophthalmi (Shear, 1977, 1979a, 1979b, 1980, 1985, 1993a, 1993b, 1993c; Shear and Gruber, 1996), but most importantly, he conducted the first cladistic analysis of the suborder and established a new classification system, erecting three new families in his first analysis (Shear, 1980), followed by a fourth family (Shear, 1993c).

During the period of Juberthie–Shear, from the 1970s until the end of the century a few more species have been described (Hadzi, 1973; Todd Davies, 1977; Cantrell, 1980; Goodnight and Goodnight, 1980; Chemini, 1990; Legg, 1990; Rambla, 1991, 1994; Mitov, 1994), and the group is now well known from many points of view.

### Cyphophthalmid taxonomy

The Cyphophthalmi comprise six families, according to the arrangement of the group by Shear (1980, 1993c), divided into two infraorders, Temperophthalmi (with the single superfamily Sironoidea) and Tropicophthalmi, with the superfamilies Stylocelloidea and Ogoveoidea:

SUBORDER Cyphophthalmi Simon, 1879

INFRAORDER Temperophthalmi Shear, 1980

SUPERFAMILY Sironoidea Simon, 1879

FAMILY Troglósironidae Shear, 1993c

FAMILY Sironidae Simon, 1879

FAMILY Pettalidae Shear, 1980

INFRAORDER Tropicophthalmi Shear, 1980

SUPERFAMILY Stylocelloidea Hansen and Sørensen, 1904

FAMILY Stylocellidae Hansen and Sørensen, 1904

SUPERFAMILY Ogoveoidea Shear, 1980

FAMILY Ogoveidae Shear, 1980

FAMILY Neogoveidae Shear, 1980

The family Sironidae has a Laurasian distribution, with its peak of diversity in Europe, and is represented by eight genera and 32 species and subspecies in Europe, North America, Thailand, and Japan. Some undescribed members of this family have been reported from the Caucasus (Lange, 1969 [cited in Staręga, 1978]) and from the Balkans (Karaman *et al.*, 1994).

The Pettalidae constitutes the largest family, with nine recognized genera and 47 species and subspecies with typical temperate Gondwanan distributions. The genus *Chileogovea* is found in Chile, the genera *Purcellia*, *Parapurcellia* and *Speleosi* in South Africa, *Manangotria* is endemic to Madagascar, *Pettalus* is found in Sri Lanka, and the genera *Rakaia* and *Neopurcellia* are distributed in New Zealand and Queensland (Australia). The Troglósironidae is a monogeneric family containing six described species from New Caledonia. A member of the Sironoidea has also been found in southeast Asia (Bastawade, 1992).

The Stylocellidae, represented by the single genus *Stylocellus*, are restricted to tropical southeast Asia, including Thailand, the Malay Peninsula, Sumatra, Java, Borneo, Sulawesi, and Palawan Island (Philippines) (Shear, 1993; Schwendinger, pers. com. 2000). The group contains 24 described species, although many juveniles are known

from several new localities all over its range (see for example Suzuki, 1985; Martens, 1986).

Finally, the families Ogoveidae and Neogoveidae comprise two and three genera, respectively, distributed in tropical South America and Africa, and two undescribed species of Neogoveidae are known to me.

The fact that Cyphophthalmi are small Opiliones with low dispersal ability is reflected in the high degree of endemism of most described species. This may be in part due to the low effort invested into collecting and processing soil samples where the animals are found, but it is also true that many species are at least uncommon. Low dispersal together with the old age of the group has yielded a fragmented biogeographical occurrence, with the Tropicophthalmi clearly separated from the Temperophthalmi (Sironidae, Pettalidae and Troglósironidae). Unfortunately, their highly autapomorphic condition makes it difficult to establish a good outgroup for comparison, and therefore deciding whether the Temperophthalmi are monophyletic or paraphyletic with respect to the Tropicophthalmi requires more information. Many other taxonomic questions may emerge from the detailed study of this group of organisms.

The genera *Rakaia* and *Neopurcellia* (which in fact may constitute a single genus; see below) constitute an unprecedented radiation within the Cyphophthalmi, with 33 species and subspecies described from New Zealand and Queensland. This relationship of shared taxa between these two Gondwanan territories has been shown for other groups of arthropods (Edgecombe *et al.*, 2001). Other potential taxonomic problems are the affinities of *Parapurcellia*, the position of the “aberrant” species *Marwe coarctata* from a cave in Kenya, not assigned to any family (although clearly related to the other Sironoidea), or the even more enigmatic *Ankaratra franzi* from Madagascar. The position of *Troglosiro* is also uncertain, and has been extensively discussed in the literature (Shear, 1980; Juberthie, 1989; Shear, 1993c). Finally, Shear (1993c) erected the new family Troglósironidae for the six species of the genus inhabiting New Caledonia as a result of adding *Troglosiro* to his previous cladistic analysis (Shear, 1980) and discovering the genus to be the sister group of Sironidae + Pettalidae.

Generic assignments may be also problematic within the Sironidae, where several monospecific genera have been named (six out of eight!), while the largest genus, *Siro*, is probably paraphyletic with respect to many of those genera. Almost certainly *Tranteeva paradoxa* Kratochvíl, 1958, is a member of the genus *Siro* as Shear (1980) and Juberthie (1991) already suggested, however no phylogenetic analysis has yet been done to demonstrate this.

Distinction between the southwest Pacific genera *Rakaia* and *Neopurcellia* may be also problematic. Forster (1955) distinguished *Neopurcellia* from *Rakaia* based on the bipartite tarsus IV of the male in *Neopurcellia* versus the entire tarsus in *Rakaia*. However, Juberthie (1989) described a species of “*Rakaia*” that has an intermediate state, with an entire tarsus but with the dorsal side divided. The existence of both states within other genera (*Siro*) and the intermediate state in *Rakaia daviesae*, may indicate that *Neopurcellia* is a synonym of *Rakaia*, as proposed earlier (but not formalized) by Juberthie (1989).

Obviously, these and other taxonomic problems can only be resolved by means of a phylogenetic analysis to the species level, which has not been attempted here. The Cyphophthalmi constitute an interesting group of organisms upon which to undertake evolutionary studies. The group

has been said to present a low rate of morphological change (Juberthie, 1970a), and the rate of molecular change among four species (two *Stylocellus*, one *Siro*, and one *Parasiro*) is among the lowest for arthropods that diverged at comparable ages (see Giribet *et al.*, 2001).

In this catalogue I have used the taxon names proposed by the authorities of the group, especially following the excellent work of Juberthie (1970) and Shear (1980). The intention of this catalogue is to provide a taxonomic background for undertaking systematic and evolutionary studies within this interesting group of soil arthropods. A phylogenetic study of the group will be presented in a future publication.

## The Catalogue

The first catalogue of the Cyphophthalmi was the comprehensive study of Hansen and Sørensen (1904), in which they listed and described all the known species. After that, local faunal lists, or lists of cave animals were compiled for a few of the species of Opiliones, until Rosas Costa (1950) compiled all the known species and published his "Sinopsis de los géneros de Sironidae" (Synopsis of the sironid genera). Later, Juberthie (1970a) provided a new catalogue together with a key to the genera of Cyphophthalmi, a comprehensive discussion of characters for cyphophthalmid taxonomy and a biogeographic section. Newer catalogues for North America (Shear, 1980; Cokendolpher and Lee, 1993), and Africa (Staręga, 1992) are available. Of interest to students of cave organisms is the compilation of Rambla and Juberthie (1994).

The new catalogue is presented by listing the six currently recognized families of Cyphophthalmi in the following order, according to Shear's classification: Sironidae, Pettalidae, Troglosironidae, Stylocellidae, Ogoveidae, and Neogoveidae. Within each family, the genera and species are listed alphabetically. Species citations are accompanied by relevant references, including the range of pages where the taxon was discussed, as well as the figure numbers where it was illustrated. The type locality is given with as much detail as possible, and adjusted to current geopolitical maps, accompanied by the distribution of the species (where more localities than the type locality are known). The location of the type material is also given. For this section, all the citations without an

asterisk correspond to direct observations of the specimens, or have been confirmed by the arachnological curators of the museums and institutions where they are deposited. Type material that have not been directly confirmed, and thus is based on publications, is indicated by an asterisk. Finally, I have attempted to compile the most comprehensive reference list on Cyphophthalmi.

For biogeographic purposes, distribution maps with the location of all the named species are provided (Figs. 2-7).

## Abbreviations:

AMNH: American Museum of Natural History, New York (USA).

AM: Australian Museum, Sydney (Australia).

BMNH: The Natural History Museum, London (UK).

BMNH: Booth Museum of Natural History, Brighton (UK).

CAS: California Academy of Sciences, San Francisco (USA).

CMNZ: Canterbury Museum, Christchurch (New Zealand).

CMS: Mitov collection, University of Sofia (Bulgaria).

DBAUB: Departament de Biologia Animal, Universitat de Barcelona, Barcelona (Spain).

FMNH: Field Museum, Chicago (USA).

MCSN: Museo Civico di Storia Naturale 'Giacomo Doria', Genova (Italy).

MCZ: Museum of Comparative Zoology, Harvard University, Cambridge (USA).

MHNG: Muséum d'Histoire naturelle, Genève (Switzerland).

MNH: Musée National d'Histoire naturelle, Paris (France).

MONZ: Museum of New Zealand Te Papa Tongarewa, Wellington (New Zealand).

MSNB: Museo Civico di Scienze Naturali, Bergamo (Italy).

MTSN: Museo Tridentino di Scienze Naturali, Trento (Italy).

NHMW: Naturhistorisches Museum Wien, Wien (Austria).

NMSA: Natal Museum, Pietermaritzburg (South Africa).

QM: Queensland Museum, Brisbane (Australia).

SAM: South African Museum, Cape Town (South Africa).

SMF: Senckenberg Museum, Frankfurt am Main (Germany).

USNM: U.S. National Museum (Smithsonian Institution), Washington D.C. (USA).

ZMB: Zoologischen Museen, Berlin (Germany).

ZMH: Zoologisches Institut und Museum, Universität Hamburg (Germany).

ZMS: Zoologischen Staatssammlung, München (Germany).

ZMUC: Zoologisk Museum, Bergens Universitet, Bergen (Germany).

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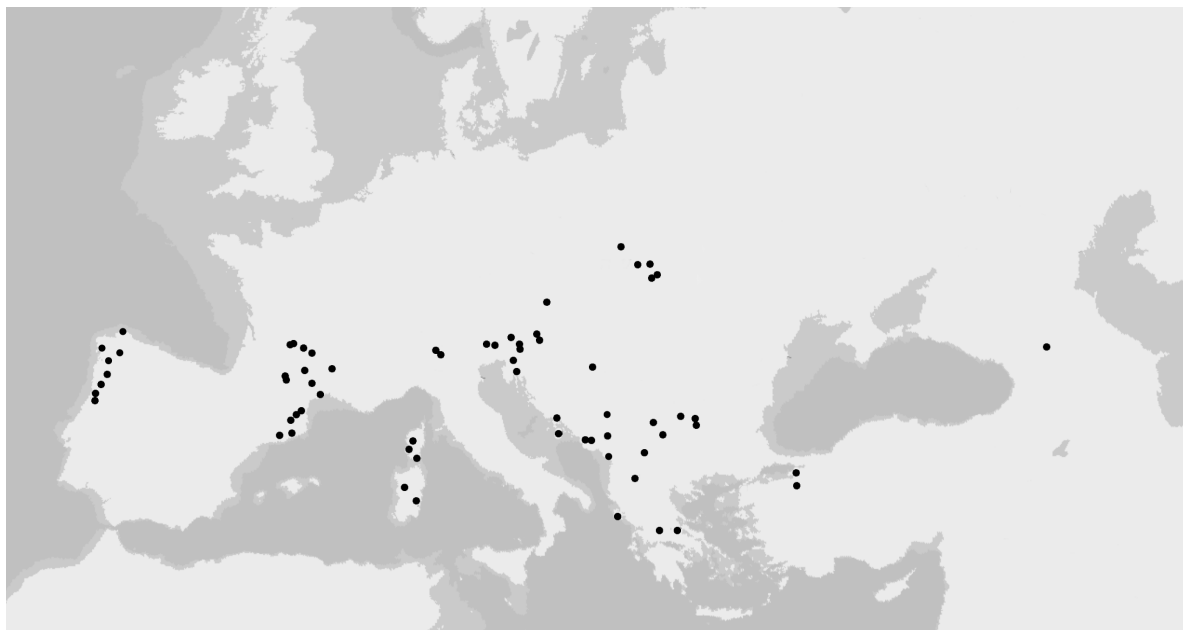


Fig. 2. Distribution of Sironidae (●) in Europe and Western Asia.

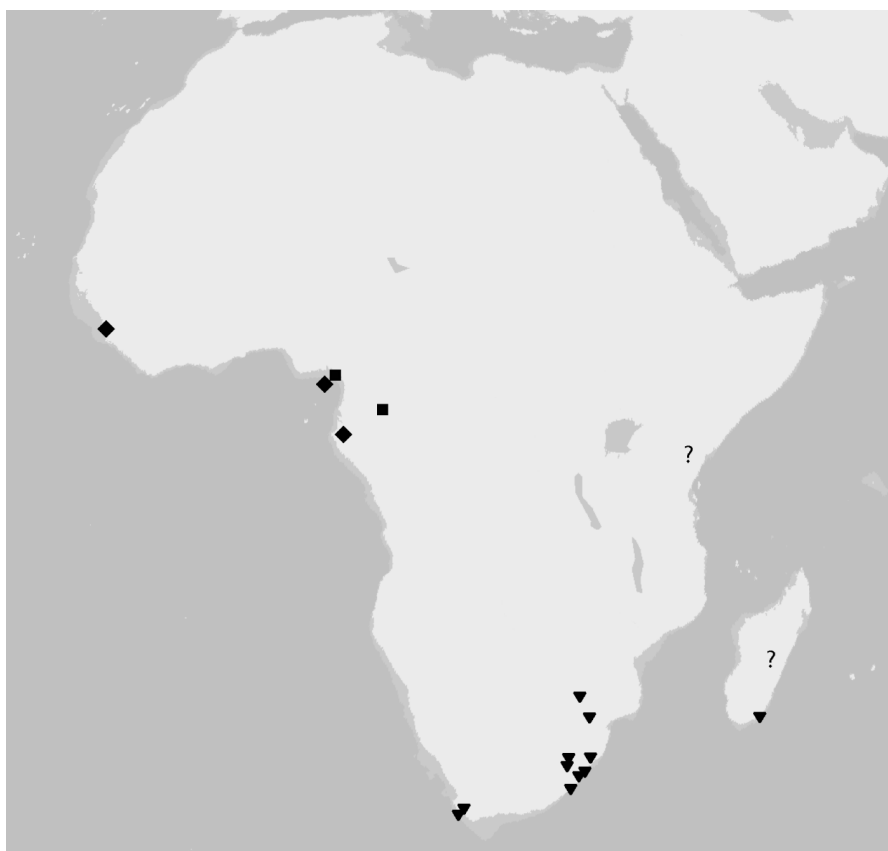
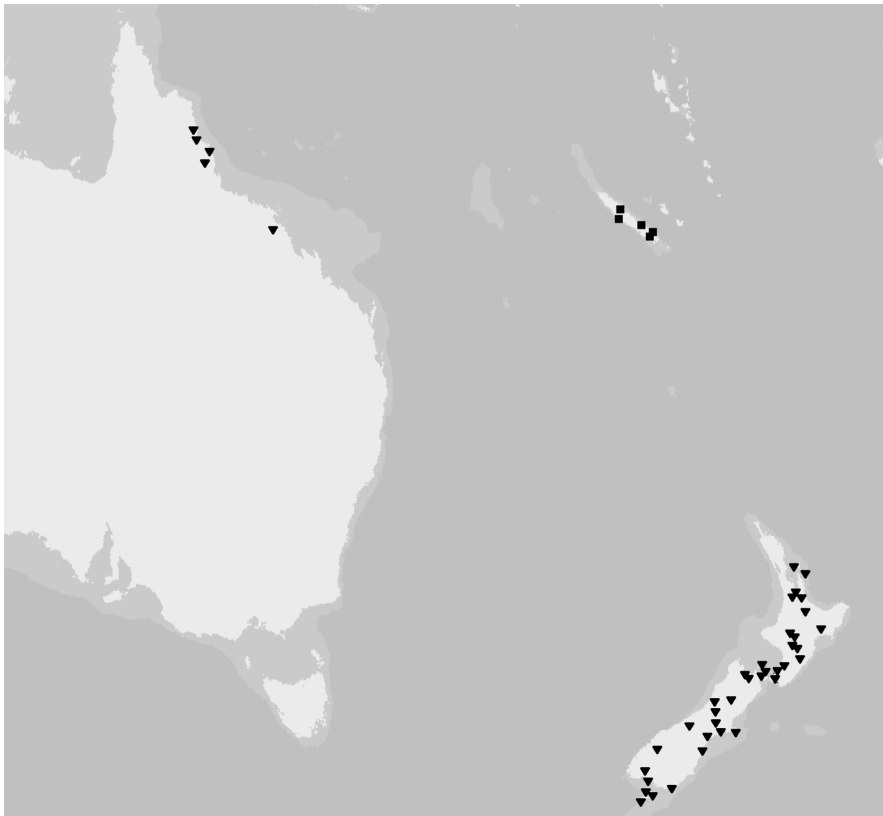


Fig. 3. Distribution of Pettalidae (▼), Ogoveidae (■), Neogoveidae (◆), and two species of uncertain affinities (?) in Africa.



**Figure 4.** Distribution of *Stylocellus* (▲), Pettalidae (▼), and Sironidae (●) in southeast Asia.



**Figure 5.** Distribution of Pettalidae (▼), and Troglósironidae (■) in the southwest Pacific.



**Figure 6.** Distribution of Pettalidae (▼), Ogoveidae (■), and Neogoveidae (◆) in South America and southern North America.



**Figure 7.** Distribution of Neogoveidae (◆) and Sironidae (●) in North America.

## Order OPILIONES Sundevall, 1833

### Suborder CYPHOPHTHALMI Simon, 1879

#### Family SIRONIDAE Simon, 1879

Type genus: *Siro* Latreille, 1796

#### Genus *Fangensis* Rambla, 1994

*Fangensis* Rambla, 1994: 109-110 (type species *Fangensis leclerci* Rambla, 1994).

#### *Fangensis leclerci* Rambla, 1994

*Fangensis leclerci* Rambla, 1994: 110-113, figs. 1-7, Plate I, figs. 1-8, Plate II, figs. 1-8, Plate III, figs. 1-8.

**Holotype:** Male (DBAUB\*), subterranean river of Tham Klaeb, Fang District (North of Chiang Mai) (Thailand).

**Distribution:** Thailand: Districts of Fang, San Kamphaeng, and Kanchanaburi.

#### Genus *Metasiro* Juberthie, 1960

*Siro* (partim) Davis, 1933: 49.

*Parasiro* (partim) Hinton, 1938: 332.

*Metasiro* Juberthie, 1960a: 235 (type species *Siro americanus* Davis, 1933); Juberthie, 1970a: 1382; Shear, 1980: 12-13.

*Floridogovea* Hoffman, 1963: 137-138 (type species *Siro americanus* Davis, 1933). Synonymized by Shear (1980: 12)<sup>1</sup>.

#### *Metasiro americanus* (Davis, 1933)

*Siro americanus* Davis, 1933: 49-51, figs. 1-10.

*Parasiro americanus*: Hinton, 1938: 332-333; Rosas Costa, 1950: 142; Juberthie, 1958: 164.

*Metasiro americanus*: Juberthie, 1960a: 235-240, figs. 1-13; Juberthie, 1970a: 1384, fig. 4e, 7b, 9, 12c, 13; Shear, 1980: 13-14, fig. 26; Cokendolpher and Lee, 1993: 5.

*Floridogovea americana*: Hoffman, 1963: 138, figs. 15-20.

**Holotype:** Male (AMNH\*), in the ravine at “Camp Torreya” [near Rock Bluff], Liberty Co., Florida (USA).

**Paratypes:** Three vials with more than 50 males and females (AMNH).

**Distribution:** USA: Florida, Georgia and South Carolina (Shear, 1980).

#### Genus *Odontosiro* Juberthie, 1961

*Odontosiro* Juberthie, 1961a: 512 (type species *Odontosiro lusitanicus* Juberthie, 1961); Juberthie, 1970a: 1382.

#### *Odontosiro lusitanicus* Juberthie, 1961

*Odontosiro lusitanicus* Juberthie, 1961a: 512-518, figs. 1-10.

*Odontosiro lusitanicus*: Rambla, 1967: 3; Juberthie, 1970a: 1385, fig. 4h, 12b; Rambla, 1974: 48-49; Rambla and Fontarnau, 1984: 146.

**Syntypes:** One male, two females and one juvenile (MNHN\*), Guimarães<sup>2</sup> (Portugal).

**Distribution:** Northwest of the Iberian Peninsula, including the provinces of Pontevedra and León in Spain, and the type locality in Portugal (Rambla and Fontarnau, 1984).

#### Genus *Paramiopsalis* Juberthie, 1962

*Paramiopsalis* Juberthie, 1962a: 267 (type species *Paramiopsalis ramulosus* Juberthie, 1962).

*Siro* (partim) Kraus, 1961: 333.

#### *Paramiopsalis ramulosus* Juberthie, 1962

*Paramiopsalis ramulosus* Juberthie, 1962a: 267-275, figs. 1-20.

[*Paramiopsalis ranulosus*: Rambla, 1967: 3 (incorrect subsequent spelling)]

*Siro duricorius*: Kraus, 1961: 333 [partim<sup>3</sup>].

*Paramiopsalis ramulosus*: Gruber, 1969: 82; Rambla, 1974: 48-49; Rambla, 1975: figs. 27b, 29; Rambla and Fontarnau, 1984: 145-151, Plate I, figs. 1-12, Plate II, figs. 1-8.

**Syntypes:** Four males, two females, and three juveniles (MNHN\*), Pessegueiro<sup>4</sup>, Aveiro (Portugal).

**Distribution:** Northwest of the Iberian Peninsula, including the provinces of La Coruña, Pontevedra and León in Spain, and the type locality in Portugal (Rambla and Fontarnau, 1984).

<sup>1</sup> Shear (1980) was the first to list the genus *Floridogovea* as a synonym of *Metasiro*, and even though he did not explicitly propose the new synonymy (as he did for other taxa in the same article, i.e. *Brasilogovea*), I consider him to be the one synonymizing *Floridogovea*.

<sup>2</sup> Juberthie only mentioned that the specimens were collected from Guimarães by Goiffat in the North of Portugal. There are two localities in the North of Portugal named Guimarães, one in the province of Braga, and another in the province of Viseu.

<sup>3</sup> Kraus (1961: 333) mentioned the presence of *Siro duricorius* from Lovios (province of Orense, Galicia, Spain), although the exemplar corresponds to *Paramiopsalis ramulosus*, as correctly identified by Gruber (see Rambla and Fontarnau, 1984: 146-147).

<sup>4</sup> There are two localities named ‘Pessegueiro’ in the Aveiro province.



**Genus *Parasiro* Hansen and Sørensen, 1904***Cyphophthalmus* (partim) Simon, 1872: 239.*Siro* (partim) Simon, 1879: 144; Davis, 1933: 49.*Parasiro* Hansen and Sørensen, 1904: 110-111 (type species *Cyphophthalmus corsicus* Simon, 1872); Roewer, 1923: 54; Roewer, 1926: 266; Hinton, 1938: 332; Juberthie, 1970a: 1382, figs. 2a, 2b, 4c, 12a.*Parasiro coiffaiti* Juberthie, 1956*Parasiro coiffaiti* Juberthie, 1956b: 394-398, figs. 1-18.*Parasiro coiffaiti*: Juberthie, 1957: 334; Juberthie, 1958: 164, fig. 19; Juberthie, 1961b: 107, fig. 5; Kraus, 1961: 333; Juberthie, 1964; Juberthie, 1965: 387; Juberthie, 1970a: 1385, figs. 5a, 6a, 9; Rambla, 1974: 48-49; Rambla, 1975: figs. 27a, 33, 37, 44a, 50; Juberthie, 1976; Rambla and Fontarnau, 1984: 146; Rambla, 1986: 177, fig. 137.7; Giribet *et al.*, 1999: 298.**Unspecified material:** (MNHN\*) from the province of Girona (Spain). [The type locality is unspecified, and an unknown locality of the province of Girona, “Porto de Santigoso” is listed first].**Distribution:** Spain: Provinces of Girona and Barcelona; France: Pyrénées-Orientales (see Juberthie 1956, 1957, 1958; Rambla, 1974, 1986; Rambla and Fontarnau, 1984).*Parasiro corsicus* (Simon, 1872)*Cyphophthalmus corsicus* Simon, 1872: 240-241, Plate XII, fig. 20.*Cyphophthalmus corsicus*: Cambridge, 1875: 389.*Siro Corsicus*: Thorell, 1882-1883: 24 (fig.).*Siro corsicus* Simon, 1879: 146, Plate XXII, figs. 9-11; Karsch, 1884: 145.*Parasiro corsicus* Hansen and Sørensen, 1904: 111-112, Plate V, figs. 2a-2q; Roewer, 1923: 54-55, fig. 59; Juberthie, 1958: 163-164, figs. 7-11, 15-18; Rosas Costa, 1950: 143; Rafalski, 1958: 522; Juberthie, 1970a: 1385, fig. 7c.**Syntypes:** (MNHN\*), Corsica [côte de Porto-Vecchio; locality unspecified] (France).

One male and one female from the Simon coll. (BMNH 02.11.18.89), Corsica.

**Distribution:** Corsica: côte de Porto-Vecchio.*Parasiro minor* Juberthie, 1958*Parasiro minor* Juberthie, 1958: 159-163, figs. 1-6, 12-14.*Parasiro minor*: Brignoli, 1968: 260-264, figs. 1-12; Juberthie, 1970a: 1385.**Syntypes:** Two males and four females (MNHN 2246 bis\*), Corsica [locality not specified] (France).**Distribution:** Corsica: Corse-du-Sud (Juberthie, 1958); Sardinia: Nuoro and Oristano (Brignoli, 1968).**Genus *Siro* Latreille, 1796***Siro* Latreille, 1796: 185 (type species *Siro rubens* Latreille, 1804); Latreille, 1806: 142; Lamarck, 1838: 94-95; Simon, 1879: 144-145; Hansen and Sørensen, 1904: 107-108; Roewer, 1923: 52-53; Roewer, 1926: 266; Hinton, 1938: 331; Juberthie, 1970a: 1383; Staręga, 1976: 57; Martens, 1978: 60-61; Shear, 1980: 3-5.*Cyphophthalmus* (partim) Joseph, 1868a: 241-250 (type species *Cyphophthalmus duricorius* Joseph, 1868); Joseph, 1868b: 269-272; Simon, 1872: 239; Thorell, 1876: 468-469. Synonymized by Bedel and Simon (1875).*Holosiro* Ewing, 1923: 388 (type species *Holosiro acaroides* Ewing, 1923); Roewer, 1926: 266; Hinton, 1938: 331. Synonymized by Newell (1947).*Neosiro* Newell, 1943: 416-418 (type species *Neosiro kamiakensis* Newell, 1943); Rosas Costa, 1950: 142; Hoffman, 1963: 133; Juberthie, 1969: 1383; Juberthie, 1970a: 1383. Synonymized by Shear (1980: 3).*Siro* (*Geosiro*) Rafalski, 1958: 535.*Siro acaroides* (Ewing, 1923)*Holosiro acaroides* Ewing, 1923: 388-390, fig. 1, Plate XXXIX.*Holosiro acaroides*: Roewer, 1926: 266-267, figs. 3a-d.*Siro acaroides*: Newell, 1947: 354-362, Plate I, figs. 1-14, Plate II, figs. 15-31; Rosas Costa, 1950: 145; Hoffman, 1963: 136, fig. 14; Juberthie, 1970a: 1386; Shear, 1980: 10-12, figs. 18-20; Shultz, 1989: 26 (and subsequent pages), figs. 3b, 7b, 11b; Cokendolpher and Lee, 1993: 5; Shultz, 1998; Shultz, 2000: fig. 8.**Holotype:** Female (whereabouts unknown; according to Ewing [1923] and Roewer [1926] type material in USNM\*), Foothills of Coast Range Mountains, Benton Co., Oregon (USA).**Distribution:** USA: From Northern California north along the coast and through the foothills of the Coast Ranges to the Olympic Peninsula (Shear, 1980).*Siro beschkovi* Mitov, 1994*Siro beschkovi* Mitov, 1994: 276-281, figs. 1-25.**Holotype:** Male (CMS\*), Cave “Haidoushka peshtera” (UTM – KH 69) near Devensti-Dorf, Lovech (Bulgaria), 140-200 m.**Paratypes:** One male and one female (Cokendolpher coll., Lubbock, USA); one male (ZSM\*); 12 males, 4 females, 2 juveniles (CMS\*), same locality as holotype.*Siro carpaticus* Rafalski, 1956*Siro carpaticus* Rafalski, 1956: 49-52.*Siro carpaticus*: Rafalski, 1958: 524-533; figs. 1, 3, 4, 6-8, 10-14, 18-21; Gruber, 1969: 82; Juberthie, 1970a: 1386; Staręga, 1976: 57-61, figs. 82-86; Martens, 1978: 66-68, figs. 39, 69-75; Mašan, 1998: 650.*Siro* (*Geosiro*) *carpaticus*: Rafalski, 1960: 5; Staręga, 1966: 146.**Holotype:** Male (whereabouts unknown), western slopes of Mt. Hnatowe Berdo, Wetlina, Bieszczady Mts, Polish Eastern Carpathians (Poland), 750 m.

**Distribution:** East Carpathians: Poland: regions of Wojewodztwo Podkarpackie and Wojewodztwo Swietokrzyskie (Rafalski, 1956; Martens, 1978); Slovakia: Východné Karpaty mountains (Mašan, 1998).

*Siro duricorius duricorius* (Joseph, 1868)

*Cyphophthalmus duricorius* Joseph, 1868a: 241-250, Plate I, figs. 1-12.

*Cyphophthalmus duricorius*: Joseph, 1868b: 269-272, Plate I, figs. 13-17; Simon, 1872; Cambridge, 1875: 389.

*Siro duricorius*: Bedel and Simon, 1875: 132; Simon, 1879: 146-147, Plate XXII, fig. 15; Joseph, 1882: 20; Karsch, 1884: 145; Hamann, 1896: 215; Hansen and Sørensen, 1904: 109-110, Plate IV, figs. 3a-b, Plate V, figs. 1a-o; Roewer, 1923: 53-54, fig. 58; Hadži, 1926/27: 2-4, Pl. I, figs. 1-11; Hadži, 1928: 6; Kolosváry, 1929: 82, fig. 2; Wolf, 1934-38: 621; Kratochvíl, 1938: 59; Kratochvíl, 1946: 168; Rafalski, 1956: 50; Janczyk, 1956: 477-521, figs. 1-28; Hölzel, 1958; Kratochvíl, 1958: 373; Rafalski, 1958: figs. 2, 5, 9, 15-17; Juberthie, 1965: 387; Rambla, 1967: 3; Juberthie, 1968: figs. 9d-f; Gruber, 1969: 81; Juberthie, 1970a: 1386, fig. 13; Moritz, 1971: 196; Rambla, 1974: 48-49; Dumitrescu, 1975: figs. 1-3; Schuster, 1975: 285-288, fig. 1; Martens, 1978: 61-66, figs. 38, 50-68; Martens, 1979: figs. 1-23; Martens *et al.*, 1981: 16, 19-22, figs. 1, 15; Novak *et al.*, 1984: 187; Eisenweis and Wichard, 1985: 72, fig. 52, Table 26, figs. a-f, Table 27, figs. a-f; Martens, 1986, figs. 1f, 12g; Juberthie, 1991: fig. 2a; Mitov, 1994: 281; Rambla and Juberthie, 1994: 216; Karaman *et al.*, 1994: fig. 2; Alberti, 1995: fig. 2; Weygoldt, 1996: 487, fig. 674; Shultz, 1998.

*Siro cyphopselaphus* Joseph, 1881; Joseph, 1882: 20, Plate I, fig. 15 (type locality: Cave “God jama bei Ober-Skril”, Krain province, Austria); Karsch, 1884: 146; Hamann, 1896: 215; Hansen and Sørensen, 1904: 112; Roewer, 1923: 54; Wolf, 1934-38: 621; Rosas Costa, 1950: 145. Synonymized by Novak and Gruber (2000).

*Siro duricorius duricorius*: Kratochvíl, 1938: 64, figs. 1-4; Cooreman, 1950: 201; Rosas Costa, 1950: 146; Rafalski, 1958: 522; Gruber, 1969: 82; Juberthie, 1971: 866; Novak and Gruber, 2000.

**Syntypes:** Three specimens (ZMB 4189\*), Cave “Jama pod Predjamskin gradom” at the village of Predjama (Slovenia) (see Martens, 1978; Novak *et al.*, 1984).

**Distribution:** Slovenia, Austria, Croatia, Bosnia-Herzegovina, and Italy.

*Siro duricorius bithynicus* Gruber, 1969

*Siro duricorius bithynicus* Gruber, 1969: 75-80, figs. 1a, c, d, 2a, c, 3a, c, e, g, i, k.

*Siro duricorius bithynicus*: Juberthie, 1970a: 1386.

**Holotype:** Male (NHMW 19.722), Uludağ Milli Parki, Bursa (Turkey), ca. 800 m.

**Distribution:** Turkey: Uludağ Milli Parki, several localities between 800-1800 m.

*Siro duricorius bolei* Hadži, 1973

*Siro duricorius bolei* Hadži, 1973: 4-5, fig. 1.

*Siro duricorius bolei*: Karaman, 1993: 23-24<sup>5</sup>

**Type:** Female (whereabouts unknown), Cave “Vilina pećina”, near Gornji Stoliv in Boka Kotorska, Montenegro (Yugoslavia).

*Siro duricorius corfuanus* Kratochvíl, 1938

*Siro duricorius corfuanus* Kratochvíl, 1938: 66-68, figs. 5-8.

*Siro duricorius corfuanus*: Rosas Costa, 1950: 146; Rafalski, 1958: 522; Gruber, 1969: fig. 1e; Juberthie, 1970a: 1386.

**Types:** (Kratochvíl coll., whereabouts unknown), Corfu Island (exact locality not specified) (Greece).

*Siro duricorius yalovensis* Gruber, 1969

*Siro duricorius yalovensis* Gruber, 1969: 80-82, figs. 1b, f, g, 2b, d, g, h, 3b, d, f, h, j, l.

*Siro duricorius yalovensis*: Juberthie, 1970a: 1386.

**Holotype:** Male (NHMW 19.724), Yalova<sup>6</sup> (Turkey), ca. 900 m.

*Siro eratoae* Juberthie, 1968

*Siro eratoae* Juberthie, 1967c (nomen nudum).

*Siro eratoae* Juberthie 1968: 549-557, figs. 1-8, 9a-9c; Juberthie, 1970a: 1386, fig. 6b; Juberthie, 1991: figs. 2b, 3a.

**Syntypes:** One male and one female (MNHN\*), Timfristós, Fthiotis (Greece).

**Distribution:** Greece: Fthiotis; Evvoia (Likhás).

*Siro exilis* Hoffman, 1963

*Siro exilis* Hoffman, 1963: 132-136, figs. 1-13.

*Siro exilis*: Juberthie, 1970a: 1386; Shear, 1974: 110-111; Shear, 1980: 5-7, figs. 1-3; Murphree, 1988: 239-240, figs. 1, 2; Cokendolpher and Lee, 1993: 5.

**Holotype:** Male (SMF 12931), Blacksburg, Montgomery Co., Virginia (USA).

**Paratypes:** one female (SMF 12932); two males and one female (USNM 2809\*); two males (AMNH), same locality as holotype.

**Distribution:** USA: Montane district along the border of Virginia and West Virginia (Hoffman, 1963; Shear, 1980).

*Siro gjorgjevici gjorgjevici* Hadži, 1933

*Siro gjorgjevici* Hadži, 1933: 41-49, figs. 1-5.

[*Siro Đorđevići*: Kratochvíl, 1938: 59, 65, figs. 9, 10 (incorrect subsequent spelling)].

<sup>5</sup> According to Karaman (1993) this specimens may correspond to *Siro minutus* Kratochvíl, 1937, although he also mentions the possibility of it constituting a new species. However, the material of *S. duricorius bolei* is missing.

<sup>6</sup> There are two localities named Yalova in Turkey.

*Siro Gjorgjevič*: Kratochvíl, 1940: 90.

[*Siro Gjorgjevič*: Kratochvíl, 1946: 169 (incorrect subsequent spelling)]

[*Siro dordevici*: Rosas Costa, 1950: 145; Juberthie, 1991: 267 (incorrect subsequent spelling<sup>7</sup>)].

*Siro gjorgjevič*: Rosas Costa, 1950: 146; Rafalski, 1958: 522; Juberthie, 1970a: 1386; Juberthie, 1991: 267, fig. 2d, 3b; Karaman, 1993: 24; Karaman *et al.*, 1994: 117, fig. 7; Mitov, 1994: 281; Rambla and Juberthie, 1994: 217.

[*Siro gjordjevič*: Kratochvíl, 1958: 373 (incorrect subsequent spelling)].

**Syntypes**: Three males (whereabouts unknown) and two females (one missing, one at Novak coll.), Rašče (near Skopje) (F.Y.R.O. Macedonia).

*Siro gjorgjevici klisurae* Hadži, 1973

*Siro gjorgjevici klisurae* Hadži, 1973: 5-6, fig. 2.

**Types**: (whereabouts unknown), Cave near Klisura, Serbia (Yugoslavia).

*Siro kamiakensis* (Newell, 1943)

*Neosiro kamiakensis* Newell, 1943: 418-421, Plate I, figs. 1-5, Plate II, figs 6-12.

*Neosiro kamiakensis*: Newell, 1947: 364; Rosas Costa, 1950: 142; Hoffman, 1963: 136; Juberthie, 1970a: 1385.

*Siro kamiakensis*: Shear, 1980: 7-8, figs. 4-8; Cokendolpher and Lee, 1993: 5.

**Types**: Series of males and females, originally in Newell coll. (whereabouts unknown), Kamiak Butte, 9 miles North of Pullman (ca. 46°50'N), Whitman Co., Washington (USA), 3650 feet.

**Distribution**: USA: Washington and Idaho (Shear, 1980).

*Siro minutus* Kratochvíl, 1938

*Siro minutus* Kratochvíl, 1938: 74-76, figs. 11-13, 22, 26-28.

*Siro minutus*: Kratochvíl, 1940: 90, fig. 4.2; Kratochvíl, 1946: 168; Rosas Costa, 1950: 146; Kratochvíl, 1958: 373; Rafalski, 1958: 522; Juberthie, 1970a: 1386; Juberthie, 1991: fig. 2b; Karaman, 1993: 20-24, figs. 1-3; Rambla and Juberthie, 1994: 217.

**Type**: Male (Kratochvíl coll., whereabouts unknown), Unnamed cave near Mali Ora, East of Konavljsko polje, surrounding Gruda, Dalmatia (Croatia).

**Distribution**: Croatia and Montenegro.

*Siro montenegrinus* Hadži, 1973

*Siro montenegrinus* Hadži, 1973: 6-7, figs. 3, 4.

*Siro montenegrinus*: Rambla and Juberthie, 1994: 217.

**Types**: (whereabouts unknown), Montenegro (Yugoslavia).

*Siro noctiphilus* Kratochvíl, 1940

*Siro noctiphilus* Kratochvíl, 1940: 86-90, figs. 1-3, 4.1.

*Siro noctiphilus*: Kratochvíl, 1946: 169; Rosas Costa, 1950: 146; Kratochvíl, 1958: 373; Rafalski, 1958: 522; Juberthie, 1970a: 1386; Karaman, 1993: 24; Mitov, 1994: 281; Rambla and Juberthie, 1994: 217.

**Types**: [Kratochvíl (1940) based his description on a male and a female, but the number of specimens was not specified], Cave Vranjača, Kotlenice, Dalmatia (Croatia).

*Siro ohridanus* Hadži, 1973

*Siro ohridanus* Hadži, 1973: 9-11, figs. 6, 7.

**Types**: (whereabouts unknown), Cave near Ohrid (F.Y.R.O. Macedonia).

*Siro rubens* Latreille, 1804

*siro rubens* Latreille, 1804: 329.

*Siro rubens*: Latreille, 1806: 143, Plate 6, fig. 2; Lamarck, 1838: 95; Simon, 1879: 145-146, Plate XXII, figs. 12-14; Karsch, 1884: 145; Hansen and Sørensen, 1904: 108-109, Plate IV, figs. 2a-2d; Roewer, 1923: 53, fig. 57; Rosas Costa, 1950: 146; Juberthie, 1956a: 2860-2861, figs. 1, 2; Juberthie, 1957: 331-334; Kratochvíl, 1958: 373; Rafalski, 1958: 522; Juberthie, 1960b; Grassé *et al.*, 1961: 518, fig. 480b; Juberthie, 1961b: 107, figs. 1-4; Juberthie, 1961c: 533-537, fig. 1a; Juberthie, 1963: 167-168, fig. 1; Juberthie, 1964: several pages, figs. 9-11, 16, 28, 29, 31, 34; Juberthie, 1965: figs. 2, 3; Juberthie, 1967a: figs. 1-3, Table I, figs. 1-4; Juberthie, 1967b: 155-169, figs. 1-8; Juberthie, 1970a: 1386, figs. 1, 2c, 2d, 3, 4a, 7a, 8a, 9, 10d, 12d, 13; Juberthie, 1976; Juberthie and Manier, 1976: fig. 1; Juberthie *et al.*, 1976: 137-147, figs. 1-7; Juberthie and Manier, 1978: figs. 1, 3; Baccetti, 1979: 614, fig. 11.8; Martens *et al.*, 1981: 16, figs. 21a, 21b; van der Hammen, 1985: 4 (and subsequent pages), figs. 1, 5, 8, 13-16, 20, 22, 25-29; Weygoldt, 1996: 487; Shultz, 1998; Giribet *et al.*, 1999: 298.

**Syntypes**: One male and one female (MNHN\*), Brive [Brive-la-Gaillarde], Corrèze, Limousin (France) (Juberthie, 1967: 157).

**Distribution**: France: South and Southeast to the Massif Central: Cantal, Corrèze, Aveyron, Tarn, Tarn-et-Garonne, Haute-Garonne, Hérault (Juberthie, 1957).

*Siro serbicus* Hadži, 1973

*Siro serbicus* Hadži, 1973: 8-9, fig. 5.

*Siro serbicus*: Karaman *et al.*, 1994: 117, figs. 3, 9; Rambla and Juberthie, 1994: 217.

**Types**: (whereabouts unknown), near Niš, Serbia (Yugoslavia).

**Distribution**: Yugoslavia: Karstic regions of East and Central Serbia (Karaman *et al.*, 1994).

<sup>7</sup> Rosas Costa (1950) and Juberthie (1991) listed this species as two different species, *S. gjorgjevici* and *S. dordevici*.

*Siro silhavyi* Kratochvíl, 1938*Siro Šilhavyi* Kratochvíl, 1938: 71-74, figs. 16, 17, 23-25.*Siro Šilhavyi*: Kratochvíl, 1946: 168.*Siro šilhavyi*: Kratochvíl, 1958: 373.*Siro silhavyi*: Rosas Costa, 1950: 146; Juberthie, 1970a: 1386, fig. 9; Mitov, 1994: 281; Rambla and Juberthie, 1994: 217.*Siro Silhavyi*: Rafalski, 1958: 522.**Types:** One male and one female in Kratochvíl coll. (whereabouts unknown); several specimens in Šilhavý coll. (whereabouts unknown), Cave “Vilina pećina”, near Gruda, Dalmatia (Croatia).*Siro sonoma* Shear, 1980*Siro sonoma* Shear, 1980: 8-10, figs. 9-17.*Siro sonoma*: Cokendolpher and Lee, 1993: 5.**Holotype:** Male (CAS Nr. 13720\*), Jenner, Sonoma Co., California (USA).**Paratypes:** One female (CAS Nr. 13720\*); several females (CAS\*); two females (AMNH), same locality as holotype.*Siro teyrovskiyi* Kratochvíl, 1938*Siro Teyrovskiyi* Kratochvíl, 1938: 68-71, figs. 14, 15, 18-21.*Siro Teyrovskiyi*: Kratochvíl, 1940: 90; Kratochvíl, 1946: 168.*Siro teyrovskiyi*: Kratochvíl, 1958: 373.*Siro teyrovskiyi*: Rosas Costa, 1950: 146; Juberthie, 1970a: 1386; Juberthie, 1991: fig. 2c; Mitov, 1994: 281; Rambla and Juberthie, 1994: 217.*Siro Teyrovskiyi*: Rafalski, 1958: 522.**Types:** (Kratochvíl coll., whereabouts unknown), Cave “Velika spilja”, 1 Km West of Blato, Korčula, Dalmatia (Croatia).*Siro valleorum* Chemini, 1990*Siro valleorum* Chemini, 1990: 182-186, figs. 1-16.**Holotype:** Male (MSNB\*), slope of Mt. Alben near Baite Sedernello, Colzate, Province of Bergamo (Italy).**Paratypes:** Six males and seven females (MSNB\*); three males and three females (MTSN\*); one male and one female (NHMW\*); one male and one female (SMF\*), same locality as holotype.**Distribution:** Italy: provinces of Bergamo and Brescia (Lombardy).**Genus *Suzukielus* Juberthie, 1970a***Suzukielus* Juberthie, 1970a: 1382, 1384 (type species *Miopsalis sauteri* Roewer, 1916); Juberthie, 1970b: 564.*Miopsalis* Roewer, 1916: 6. Synonymized by Juberthie (1970a, b).*Suzukielus sauteri* (Roewer, 1916)*Miopsalis sauteri* Roewer, 1916: 6-7, fig. 1.*Miopsalis sauteri*: Roewer, 1923: 48, fig. 51; Moritz, 1971: 209.*Suzukielus sauteri*: Juberthie, 1970a: 1386, fig. 4b; Juberthie, 1970b: 564-569, figs. 1-4; Suzuki and Ohru, 1972: 43, fig. 2; Juberthie, 1976: Pl. I, figs. 1-5.**Lectotype:** Male (SMF RI/1280) Yamanaka<sup>8</sup>, Suruga (Japan), 1100-2000 m.**Paralectotypes:** Male and female (SMF 24979 [ex RI/1280]), same locality as holotype.**Distribution:** Japan: from Izu Peninsula (Shizuoka Prefecture) to western part of Kanagawa and Tokyo prefectures (Suzuki and Ohru, 1972).**Genus *Tranteeva* Kratochvíl, 1958***Tranteeva* Kratochvíl, 1958: 374-375 (type species *Tranteeva paradoxa* Kratochvíl, 1958).[*Trentevea*: Juberthie, 1970a: 1383; Juberthie, 1991: 263 (incorrect subsequent spelling)].*Tranteeva paradoxa* (Kratochvíl, 1958)*Tranteeva paradoxa* Kratochvíl, 1958: 375-377, figs. 1-10.[*Trentevea paradoxa*: Juberthie, 1970a: 1386; Juberthie, 1991: 264-266, figs. 2f, 3a-c, 4, Plate I, figs. 1-4, Plate II, figs. 5-10, Plate III, figs. 11-12 (incorrect subsequent spelling)].*Tranteeva paradoxa*: Gruber, 1969: 82; Rambla and Juberthie, 1994, fig. 2.**Holotype:** Male (whereabouts unknown), Ružova pešćera, near Gradešnica (Bulgaria).**Distribution:** Bulgaria: caves of Balkan Mountains (Stara Planina), north of the line formed between Teteven and Troyan (Vasiljovska Planina) (Juberthie, 1991).

<sup>8</sup> Exact location of “Yamanaka” in Shizuoka Prefecture is unclear, but the most hopeful candidate is “Yamanaka-Shinden” in Mishima city, which is located on the southwestern slope of the Caldera mountains of Hakone. According to Suzuki and Ohru (1972) the type locality is “Mt. Fuji”, probably because they thought that Yamanaka represents “Lake Yamanaka”, a famous lake located in the foot of Mt. Fuji, and “1100-2000 m” in Roewer’s original description does not contradict his idea. However, *Suzukielus sauteri* has never been collected from Mt. Fuji and the vicinities since the original description.

**Family PETTALIDAE Shear, 1980**Type genus: *Pettalus* Thorell, 1876**Genus *Austropurcellia* Juberthie, 1988***Austropurcellia* Juberthie, 1988: 133 (type species *Austropurcellia scoparia* Juberthie, 1988).*Austropurcellia scoparia* Juberthie, 1988*Austropurcellia scoparia* Juberthie, 1988: 133-139, figs. 1-14.**Holotype:** Male (MNHN\*), 2Km North of Mount Lewis via Julatten, NE Queensland (Australia), 1000 m.**Paratypes:** Three males and five females (MNHN\*), same locality as holotype.**Genus *Chileogovea* Roewer, 1961***Chileogovea* Roewer, 1961: 99 (type species *Chileogovea oedipus* Roewer, 1961); Juberthie, 1970a: 1383; Shear, 1980: 25; Shear, 1993b: 74-75.*Chileogovea jocasta* Shear, 1993*Chileogovea jocasta* Shear, 1993b: 74-77, figs. 1-10.**Holotype:** Male (AMNH\*), Monumento Nacional Contulmo, Provincia de Malleco, Región IX (Araucanía, Chile), 300 m.**Paratypes:** Female (AMNH); seven males and nine females (AMNH), same locality as holotype. Female (AMNH), same locality as holotype, but from 425 m elevation. Thirty-two males and twenty-five females, Pata de Gallina, Provincia de Arauco, Región VIII (Región de Bío-bío) (Chile), 560 m.*Chileogovea oedipus* Roewer, 1961*Chileogovea Oedipus* Roewer, 1961: 100, figs. 1-9.*Chileogovea oedipus*: Juberthie, 1970a: 1384, fig. 4g, 7d, 9, 11a; Juberthie and Muñoz-Cuevas, 1970: 110-117, figs. 1-7; Cekalović, 1968: 6; Cekalović, 1985: 8; Shear, 1993b: 77-78, figs. 11-16.**Holotype:** Male (ZMH\*), Chepu (42°23' S, 73°38' W), west coast of Isla de Chiloé, Región de los Lagos (Chile), 850 ft.**Paratypes:** Male, and two females (ZMH\*), same locality as holotype.**Distribution:** Chile: Regions of Bío-bío, Araucanía, and de Los Lagos (Shear, 1993b).**Genus *Manangotria* Shear and Gruber, 1996***Manangotria* Shear and Gruber, 1996: 184-185 (type species *Manangotria taolanaro* Shear and Gruber, 1996).*Manangotria taolanaro* Shear and Gruber, 1996*Manangotria taolanaro* Shear and Gruber, 1996: 185-186, figs. 13-26.**Holotype:** Male (NHMW 17318\*), Franz's Sample 45 (Shear and Gruber, 1996), Col de Manangotry, near Tôlanaro, Toliara Province (Madagascar), 630 m.**Paratypes:** Two females (NHMW 17318\*), same locality as holotype.**Genus *Neopurcellia* Forster, 1948***Neopurcellia* Forster, 1948: 111 (type species *Neopurcellia salmoni* Forster, 1948); Juberthie, 1970a: 1383.*Neopurcellia capricornia* Todd Davies, 1977*Neopurcellia capricornia* Todd Davies, 1977: 61-63, figs. 1-12.**Holotype:** Male (QM W5765\*), Finch Hatton (21°09' S 148°39E), Queensland (Australia).**Paratype:** Female (QM W5766\*), same locality as holotype.*Neopurcellia florensis* Forster, 1948*Neopurcellia florensis* Forster, 1948: 111, 117-119, figs. 106-113.*Neopurcellia florensis*: Rosas Costa, 1950: 141; Juberthie, 1970a: 1384.**Holotype:** Male (MONZ vial DM 2/111 plus slide 4/39), Flora Camp, Nelson (South Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/112\*); males and females (MONZ vial DM 2/113\*), same locality as holotype.*Neopurcellia minutissima* Forster, 1948*Neopurcellia minutissima* Forster, 1948: 111, 115-116, figs. 99-105.*Neopurcellia minutissima*: Rosas Costa, 1950: 141; Juberthie, 1970a: 1384.**Holotype:** Male (MONZ vial DM 2/76 plus slide 4/21), Marokopa River, near Piripiri, Waikato (North Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/77\*); males and females (MONZ vials DM 2/78, 2/89, 2/90, 2/91\*), same locality as holotype.**Distribution:** North Island of New Zealand: regions of Waikato, Taranaki, and Manawatu-Wanganui (Forster, 1948, 1952).*Neopurcellia salmoni* Forster, 1948*Neopurcellia salmoni* Forster, 1948: 111, 113-115, figs. 90-98.*Neopurcellia salmoni*: Rosas Costa, 1950: 142; Juberthie, 1970a: 1384, fig. 5b; Rambla, 1975: fig. 44b.

**Holotype:** Male (MONZ vial DM 2/48 and slide 4/10), Falls Creek, Homer District, Lake Howden (44°49' S 168°08' E), Fiordland National Park (South Island, New Zealand)<sup>9</sup>.

**Paratype:** Female (MONZ vial DM 2/49\*), same locality as holotype.

**Distribution:** South Island of New Zealand: NW coast of the Southland region (Forster, 1948, 1952).

### Genus *Parapurcellia* Rosas Costa, 1950

*Purcellia* (partim) Lawrence, 1933, 1939.

*Parapurcellia* Rosas Costa, 1950 (type species *Purcellia fissa* Lawrence, 1939); Juberthie, 1970a: 1382, fig. 4d.

#### *Parapurcellia fissa* (Lawrence, 1939)

*Purcellia fissa* Lawrence, 1939: 226-228, figs. 1c, 2c, 3d.

*Parapurcellia fissa*: Rosas Costa, 1950: 137; Kauri, 1961: 11; Juberthie, 1970a: 1385; Staręga, 1992: 331.

**Syntypes:** Five males and eight females (NMSA 1119), Port St. Johns, Transkei, Eastern Cape Province (South Africa).

#### *Parapurcellia monticola* (Lawrence, 1939)

*Purcellia monticola* Lawrence, 1939: 229, figs. 2e, 3e, 4b.

*Parapurcellia monticola*: Rosas Costa, 1950: 137; Kauri, 1961: 11; Juberthie, 1970a: 1385; Staręga, 1992: 331.

**Syntypes:** Four males and five females (NMSA 1838), Cathkin Peak Forest Reserve, Drakensberg Mts., Kwazulu-Natal Province (South Africa), 2000 m.

**Distribution:** South Africa: Kwazulu-Natal Province: Cathkin Peak Forest Reserve (type material), Cathedral Peak (NMSA 6093), Champagne Castle Hotel (NMSA 4143, 6076, 6125) (Lawrence, 1939; Staręga, 1992).

#### *Parapurcellia rumpiana* (Lawrence, 1933)

*Purcellia rumpiana* Lawrence, 1933: 212-215, figs. 1a-f, Plate XII, figs 1, 2.

*Purcellia rumpiana*: Lawrence, 1939: 225-226, figs. 1b, 2b, 3b.

*Parapurcellia rumpiana*: Rosas Costa, 1950: 137; Kauri, 1961: 11; Juberthie, 1970a: 1385, fig. 7e, 10b, 10c; Dumitrescu, 1975; Staręga, 1992: 331.

**Syntypes:** Two females (NMSA unlabeled vial), Botanical gardens of Pietermaritzburg, Kwazulu-Natal Province (South Africa).

**Distribution:** South Africa: Kwazulu-Natal Province: Pietermaritzburg (type material, and NMSA 44, 52, 2793, 2805, 7655, 7677), Sweet Waters (NMSA 863) (Lawrence, 1939; Dumitrescu, 1975; Staręga, 1992).

#### *Parapurcellia silvicola* (Lawrence, 1939)

*Purcellia silvicola* Lawrence, 1939: 228-229, figs. 2d, 3c, 4a.

*Parapurcellia silvicola*: Rosas Costa, 1950: 137; Kauri, 1961: 11; Juberthie, 1970a: 1385; Staręga, 1992: 331.

**Syntypes:** Six males and two females: four specimens collected by W.G. Rump in 1935 (NMSA 45), one specimen collected by W.G. Rump in 1936 (NMSA 1068), and three specimens [no collector label, but probably collected by Lawrence] (NMSA, no catalog number), Nkandhla Forest Reserve, Kwazulu-Natal Province (South Africa).

**Distribution:** South Africa: Kwazulu-Natal Province: Nkandhla Forest Reserve (type material and NMSA 4069); Ngoye Forest (NMSA 6041) (Lawrence, 1939; Staręga, 1992).

### Genus *Pettalus* Thorell, 1876

*Cyphophthalmus* (partim) Cambridge, 1875.

*Pettalus* Thorell, 1876: 469 (type species *Cyphophthalmus cimiciformis* Cambridge, 1875); Karsch, 1884: 144; Pocock, 1897: 288-289; Hansen and Sørensen, 1904: 101-102; Roewer, 1923: 50; Roewer, 1926: 265; Hinton, 1938: 332; Juberthie, 1970a: 1383.

#### *Pettalus brevicauda* Pocock, 1897

*Pettalus brevicauda* Pocock, 1897: 289-290, figs. 4, 4a.

*Pettalus brevicauda*: Hansen and Sørensen, 1904: 104-105, Plate III, figs. 3a-g; Roewer, 1923: 51, figs. 54, 55; Rosas Costa, 1950: 143; Juberthie, 1970a: 1385, figs. 3b, 4f, 9, 10a.

**Holotype:** (BMNH, no Register No.), Pundaluoya (Sri Lanka). An additional juvenile individual from Pundaluoya (BMNH, no Register No.).

#### *Pettalus cimiciformis* (Cambridge, 1875)

*Cyphophthalmus cimiciformis* Cambridge, 1875: 388-389, Plate XIII, fig. 3a-e.

*Pettalus cimiciformis*: Thorell, 1876: 469; Hansen and Sørensen, 1904: 102-103, Plate III, figs. 2a-2i; Roewer, 1923: 50, fig. 53; Rosas Costa, 1950: 143; Juberthie, 1970a: 1385.

**Holotype:** Male (BMNH, no Register No.), Sri Lanka.

### Genus *Purcellia* Hansen and Sørensen, 1904

*Purcellia* Hansen and Sørensen, 1904: 105 (type species *Purcellia illustrans* Hansen and Sørensen, 1904); Roewer, 1923: 51; Roewer, 1926: 265; Lawrence, 1931: 346; Hinton, 1938: 332; Juberthie, 1970a: 1384.

<sup>9</sup> Forster erroneously listed the type locality as Anita Bay. The label data for vial 2/48 give the locality as Lake Howden.

*Purcellia illustrans* Hansen and Sørensen, 1904*Purcellia illustrans* Hansen and Sørensen, 1904: 106-107, Plate III, figs. 4a-c, Plate IV, figs. 1a-v.*Purcellia illustrans*: Roewer, 1923: 51-52, fig. 56; Lawrence, 1931: 346-348, figs. 1a-h; Phillipps and Grimmett, 1932: 740; Lawrence, 1933: 215; Lawrence, 1939: figs. 1a, 2a, 3a; Rosas Costa, 1950: 143-144; Lawrence, 1953: 63, 340, figs. 94e, 94f; Kauri, 1961: 10-11; Juberthie, 1970a: 1385, fig. 7f; Staręga, 1992: 331.**Types:** (ZMUC\*), Table Mountain, Cape Peninsula, Western Cape Province (South Africa).**Cotypes:** Two males, one female, three juveniles (BMNH 10.9.19.1-6) Table Mountain, Cape Peninsula, Western Cape Province (South Africa).**Distribution:** South Africa: Western Cape Province (Hansen and Sørensen, 1904; Lawrence, 1931; Kauri, 1961; Staręga, 1992).*Purcellia peregrinator* Lawrence, 1963*Purcellia peregrinator* Lawrence, 1963: 278-279, fig. 1g.*Purcellia peregrinator*: Juberthie, 1970a: 1385; Staręga, 1992: 332.**Holotype:** Male (NMSA, no catalog number), Mariepskop Forest, Pilgrim's Rest District, Mpumalanga (South Africa), 1400 m.*Purcellia transvaalica* Lawrence, 1963*Purcellia transvaalica* Lawrence, 1963: 276-278, figs. 1a-f.*Purcellia transvaalica*: Juberthie, 1970a: 1385; Staręga, 1992: 332.**Syntypes**<sup>10</sup>: one male and one female (NMSA, no catalog number);**Syntypes**<sup>11</sup>: one male and two females (NMSA, no catalog number), Hanglip Forest near Louis Trichardt, North Transvaal Province (South Africa).**Genus *Rakaia* Hirst, 1925***Purcellia* (partim) Phillipps and Grimmett, 1932: 740.*Rakaia* Hirst, 1925: 1972 (type species *Rakaia antipodiana* Hirst, 1925); Hinton, 1938: 333; Roewer, 1942: 277; Forster, 1948: 81; Juberthie, 1970a: 1383, fig. 3.*Rakaia antipodiana* Hirst, 1925*Rakaia antipodiana* Hirst, 1925: 1972-1273, figs. 2, 3a-d.*Rakaia antipodiana*: Forster, 1948: 91-93, figs. 25-32; Rosas Costa, 1950: 144; Juberthie, 1970a: 1385, figs. 8b, 11b.**Types:** Male and a female "hypotypes" (MONZ vials 2/43, 2/44), Rakaia Gorge, Mount Algidus, Canterbury (South Island, New Zealand).**Distribution:** South Island of New Zealand, Canterbury (Forster, 1948, 1952).*Rakaia arctica* Cantrell, 1980*Rakaia arctica* Cantrell, 1980: 241-243, figs. 1-10.**Holotype:** Male (QM S334\*), Cooper Creek ca 21 Km N of Daintree River, Queensland (Australia).**Paratypes:** Male and three females (QM ANIC\*), Noah Creek (16.07S 145.25E), Queensland (Australia).**Distribution:** Australia: North Queensland, Cairns region.*Rakaia calcarobtusa calcarobtusa* Forster, 1952*Rakaia calcarobtusa* Forster, 1952: 186-187, figs. 14-19.*Rakaia calcarobtusa*: Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/119), Levin, Manawatu-Wanganui (North Island, New Zealand).*Rakaia calcarobtusa westlandica* Forster, 1952*Rakaia calcarobtusa westlandica* Forster, 1952: 187-189, figs. 20-26.**Holotype:** Male and paratype female (CMNZ A.16), Woodpecker Bay, Westland (New Zealand).**Paratypes:** Female (CMNZ A.16<sup>12</sup>); one male (MONZ vial DM 2/142), same locality as holotype.*Rakaia crypta* Forster, 1948*Rakaia crypta* Forster, 1948: 107-109, figs. 74-81.*Rakaia crypta*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/385 and slide 4/120), Te Aroha Mountain, Waikato (North Island, New Zealand), 1000 m.**Paratypes:** Female (MONZ vial DM 2/87); several females (MONZ vials 2/88, 2/97\*), same locality as holotype.

<sup>10</sup> Lawrence designated both specimens as holotypes, but according to the ICZN a holotype must be a single specimen (Art. 73). By designating more than one specimen as holotype, Lawrence effectively created a type series: syntypes (Art. 73.2).

<sup>11</sup> Lawrence designated these specimens as paratypes, but since the holotype assignment was erroneous, the entire type series receives the status of syntype.

<sup>12</sup> In the same vial as the holotype.

*Rakaia daviesae* Juberthie, 1989*Rakaia daviesae* Juberthie, 1989: 499-503, figs. 1-7.**Holotype:** Male (QM S6441\*), Graham Range (17°17'S 145°57'E) (near Bellenden Ker), NE Queensland (Australia).**Paratypes:** Female (QM S6442\*); two males and three females (QM S6443\*), same locality as holotype.*Rakaia denticulata denticulata* Forster, 1948*Rakaia denticulata* Forster, 1948: 101-103, figs. 57-65.*Rakaia denticulata*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/53 and slide 4/13), Starvation Ridge, Nelson (South Island, South Island, New Zealand)**Paratypes:** Males and females (MONZ vial DM 2/54, 2/99\*), same locality as holotype.**Distribution:** South Island of New Zealand: Starvation Ridge (type locality); Leslie Valley.*Rakaia denticulata major* Forster, 1948*Rakaia denticulata major* Forster, 1948: 103, fig. 59.**Holotype:** Male (MONZ vial DM 2/44 and slide 4/6), Arthurs Pass, West Coast (South Island, New Zealand).**Paratypes:** Male (MONZ vial DM 2/110\*), same locality as holotype.*Rakaia dorothea* (Phillipps and Grimmett, 1932)*Purcellia dorothea* Phillipps and Grimmett, 1932: 740, fig. 6.*Rakaia dorothea*: Forster, 1948: 85-87, figs. 9-16; Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Lectotype**<sup>13</sup>: Male (MONZ vial 2/5 and slide 4/28), Khandallah, Wellington (North Island, New Zealand).**Paralectotypes:** Female (MONZ vial 2/98); one male and one female (MONZ vial 2/6).**Distribution:** North Island of New Zealand, Wellington: Days Bay, Plimmerton, Gollans Valley, Kapiti Island; Wainui Valley; Waimarino (Forster, 1948).*Rakaia granulosa* Forster, 1952*Rakaia granulosa* Forster, 1952: 200-203, figs. 67-74.*Rakaia granulosa*: Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/114 and slide 4/48), Taniwha Stream, east of Te Kauwhata, Waikato (North Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/115\*); males and females (CMNZ A.39\*), same locality as holotype.**Distribution:** North Island of New Zealand: Waikato (Taniwha Stream; type locality); Wanawatu-Wanganui (Ohingaiti, Upper Rangitikei; Vinegar Hill, near Taihape; Chateau Tongariro).*Rakaia healyi* Forster, 1948*Rakaia healyi* Forster, 1948: 103-107, figs. 66-73.*Rakaia healyi*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/65 and slide 4/24), Ship's Cove, Queen Charlotte Sounds, Marlborough (South Island, New Zealand) [label data for the Holotype has Ship's Cove].**Paratype:** Female (MONZ vial DM 2/66\*), same locality as holotype.**Distribution:** South Island of New Zealand, Marlborough, Queen Charlotte Sounds: Ship's Cove and Endeavour Inlet (Forster, 1948).*Rakaia inerma inerma* Forster, 1948*Rakaia inerma* Forster, 1948: 109-111, figs. 82-89.*Rakaia inerma*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385, fig. 9.**Holotype:** Male (MONZ vial DM 2/45 and slide 4/7), Lake Waikare-iti, Manawatu-Wanganui (North Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/47\*); males and females (MONZ vial DM 2/46\*), same locality as holotype.**Distribution:** North Island of New Zealand, Manawatu-Wanganui: Lake Waikare-iti; Desert Road, Waiouru (Forster, 1948); Horopito (Forster, 1952); Chateau Tongariro (Forster, 1952).*Rakaia inerma stephenensis* Forster, 1952*Rakaia inerma stephenensis* Forster, 1952: 194-196, figs. 43-50.**Holotype:** Male (MONZ vial DM 2/144), Stephen Island, Cook Strait, Marlborough (South Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/145\*); males and females (CMNZ A.37\*), same locality as holotype.*Rakaia isolata* Forster, 1952*Rakaia isolata* Forster, 1952: 205-207, figs. 83-88.*Rakaia isolata*: Juberthie, 1970a: 1385.**Holotype:** Male (CMNZ A.14), Lake Janet, Mount Grey, Canterbury (South Island, New Zealand).

<sup>13</sup> Phillipps & Grimmett stated that type material is from Wellington and Rotorua; by default they are referring to syntypes. However, Forster (1948) clearly stated there was a holotype, despite Phillipps & Grimmett not designating one. Where a syntype is erroneously designated as a holotype, it is in truth a lectotype.



*Rakaia lindsayi* Forster, 1952*Rakaia lindsayi* Forster, 1952: 207-209, figs. 89-94.*Rakaia lindsayi*: Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/160 and slide 4/172), Big South Cape Island, Stewart Island, Southland (South Island, New Zealand).**Paratype:** Male (CMNZ A.36\*), same locality as holotype.*Rakaia longitarsa* Forster, 1952*Rakaia longitarsa* Forster, 1952: 192-194, figs. 35-42.*Rakaia longitarsa*: Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/796), Governor's Bush, Mount Cook, Canterbury (South Island, New Zealand).**Paratype:** Female (MONZ vial DM 4/172\*), same locality as holotype.*Rakaia magna magna* Forster, 1948*Rakaia magna* Forster, 1948: 83-85, figs. 1-8.*Rakaia magna*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.*Rakaia magna magna*: Forster 1952: 182, figs. 10-13.**Holotype:** Male (MONZ vial DM 2/73 and slide 4/19), Kapiti Island, Wellington (North Island, New Zealand).**Paratypes:** Males and females (MONZ vials DM 2/74, 2/84, 2/85\*).**Distribution:** North Island of New Zealand, Wellington: Kapiti Island; Stokes Valley, Akatarawa; Mangarei, Wairapara (Forster, 1948).*Rakaia magna australis* Forster, 1952*Rakaia magna australis* Forster, 1952: 182-186, figs. 1-9.**Holotype:** Male (CMNZ A.21), Kiwi Valley, off Lewis Pass (South Island, New Zealand).**Paratypes:** Female (CMNZ A.22\*); males and females (CMNZ\*); one male and one female (MONZ vial DM 2/147\*).**Distribution:** South Island of New Zealand, between the regions of Canterbury and West Coast: Kiwi Valley (type locality); Lewis Pass; Moana.*Rakaia media media* Forster, 1948*Rakaia media* Forster, 1948: 88-91, figs. 17-24.*Rakaia media*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/101 and slide 4/32), Mamaku Bush, Bay of Plenty (North Island, New Zealand).**Paratypes:** Female (MONZ vials 2/102\*); several specimens (MONZ vials 2/103-106\*).**Distribution:** North Island of New Zealand: Bay of Plenty (Mamaku Bush; type locality); Manawatu-Wanganui (Ohingaita, Upper Rangitikei; Chateau Tongariro); Hawke's Bay (Lake Waikaremoana) (Forster, 1948, 1952).*Rakaia media insula* Forster, 1952*Rakaia media insula* Forster, 1952: 203-205, figs. 75-82.**Holotype:** Male (CMNZ A.33), Little Barrier Island, Auckland (North Island, New Zealand).**Paratypes:** Female (CMNZ A.33); male (MONZ vial DM 2/148\*), same locality as holotype.*Rakaia pauli* Forster, 1952*Rakaia pauli* Forster, 1952: 189-191, figs. 27-34.*Rakaia pauli*: Juberthie, 1970a: 1385; Forster and Forster, 1973: fig. 19; Forster and Forster, 1999: fig. 3.7b.**Holotype:** Male (MONZ vial DM 2/116 and slide 4/50), Keley's Bush, Waimate (44°44'S 171°03'E), Canterbury (South Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/117\*); males and females (MONZ vial DM 2/118\*); males and females (CMNZ A.38\*).**Distribution:** South Island of New Zealand, Canterbury: Keley's Bush (type locality); Geraldine.*Rakaia solitaria* Forster, 1948*Rakaia solitaria* Forster, 1948: 95-97, figs. 41-48.*Rakaia solitaria*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/107 and slide 4/37), Opouawa Gully, West Wairarapa, Wairarapa (North Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/108\*); males and females (MONZ vial DM 2/109\*), same locality as holotype.*Rakaia sorenseni sorenseni* Forster, 1952*Rakaia sorenseni* Forster, 1952: 196-198, figs. 51-58.*Rakaia sorenseni*: Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/123 and slide 4/116), Longwood Range, near Orepuki, Southland (South Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/124\*); males and females (CMNZ A.35, A.18\*).**Distribution:** South Island of New Zealand, Southland: Longwood Range (type locality); Lake Monowai.

*Rakaia sorenseni digitata* Forster, 1952*Rakaia sorenseni digitata* Forster, 1952: 198-200, figs. 59-66.**Holotype:** Male (CMNZ A.19), Chaslands, Otago (South Island, New Zealand).**Paratypes:** Female (CMNZ A.20\*); one male (MONZ vial DM 2/146\*), same locality as holotype.*Rakaia stewartiensis* Forster, 1948*Rakaia stewartiensis* Forster, 1948: 99-101, figs. 49-56.*Rakaia stewartiensis*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/63), Halfmoon Bay and Fern Gully, Stewart Island, Southland (South Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/64\*); one male and one female (MONZ vial DM 2/100\*).**Distribution:** South Island of New Zealand, Southland: Stewart Island (type locality); Codfish Island (Forster, 1952).*Rakaia tumidata* Forster, 1948*Rakaia tumidata* Forster, 1948: 93-95, figs. 33-40.*Rakaia tumidata*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/50 and slide 4/11), Cuvier Island, Hauraki Gulf (North Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/52\*); several specimens (MONZ vial DM 2/51\*), same locality as holotype.*Rakaia uniloca* Forster, 1952*Rakaia uniloca* Forster, 1952: 209-211, figs. 95-102.*Rakaia uniloca*: Juberthie, 1970a: 1385.**Holotype:** Male (MONZ vial DM 2/167 [cannot be located]), Motuara Island, Marlborough Sounds, Marlborough (South Island, New Zealand).**Paratypes:** Female (MONZ vial DM 2/168\*); males and females (MONZ vial DM 2/169\*); one male and one female (CMNZ A.40\*), same locality as holotype.*Rakaia woodwardi* Forster, 1955*Rakaia woodwardi* Forster, 1955: 355-357, figs. 1-7.*Rakaia woodwardi*: Cantrell, 1980: 241.**Holotype:** Male (QM\*), Clump Point, Great Dividing Range, Queensland (Australia).**Paratypes:** Female (QM\*); two specimens (AM KS 6848); (CMNZ\*), same locality as holotype.**Distribution:** Australia: Great Dividing Range in Queensland: Clump Point (type locality); Tully Falls (17°45'S 145°41'E).**Genus *Speleosiro* Lawrence, 1931***Speleosiro* Lawrence, 1931: 348 (type species *Speleosiro argasiformis* Lawrence, 1931); Hinton, 1938: 332; Juberthie, 1970a: 1383.*Speleosiro argasiformis* Lawrence, 1931*Speleosiro argasiformis* Lawrence, 1931: 348-351, figs. 2a-d.*Speleosiro argasiformis*<sup>14</sup>: Wolf, 1934-38: 621; Rosas Costa, 1950: 147; Lawrence, 1953: 63; Kauri, 1961: 11; Juberthie, 1970a: 1386, figs. 2e, 2f, 3; Juberthie, 1971: 866-870, figs. 2-6; Rambla, 1975: fig. 27c; Staręga, 1992: 332.*Spelaeosiro argasiformis*: Rambla and Juberthie, 1994: 217.**Holotype:** Female (SAM-ENW B001473), Wynberg Caves in Table Mountain, near Cape Town, Western Cape Province (South Africa).**Distribution:** South Africa: Western Cape Province: Wynberg Caves in Table Mountain (SAM-ENW B001473, NMSA).

<sup>14</sup> Rosas Costa (1950) erroneously listed Roewer (1931b: 158, fig. 6) as a citation for *Speleosiro argasiformes*. This is in fact a mistake, since that citation corresponds to the Triaenonychid *Ceratontia chelipus*.

**Family TROGLOSIRONIDAE Shear, 1993**Type genus: *Troglosiro* Juberthie, 1979**Genus *Troglosiro* Juberthie, 1979***Troglosiro* Juberthie, 1979: 222 (type species *Troglosiro aelleni* Juberthie, 1979); Shear, 1993c: 82.*Troglosiro aelleni* Juberthie, 1979*Troglosiro aelleni* Juberthie, 1979: 222-229, figs. 1-6.*Troglosiro aelleni*: Shear, 1993c: 85-86, fig. 26; Rambla and Juberthie, 1994: 217.**Holotype:** Male (MHNG\*), d'Adio Cave (Grotte de Ninrin-Reu), Mount Adio, near Poya (21°22'S 165°08'E) (New Caledonia), 200 m.**Paratype:** Male (MHNG\*), same locality as holotype.*Troglosiro juberthiei* Shear, 1993*Troglosiro juberthiei* Shear, 1993c: 86-87, figs. 17-25.**Holotype:** Male (MNHN\*), Riviere Bleue (New Caledonia), 280 m.**Paratypes:** Female (MNHN\*); one vial with six males (AMNH); one vial with one female (AMNH), same locality as holotype.**Distribution:** New Caledonia: Riviere Bleue (Tillier Station 250d, Plot VI I; 22°06'13''S 166°39'16''E).*Troglosiro ninqua* Shear, 1993*Troglosiro ninqua* Shear, 1993c: 90, figs. 36-43.**Holotype:** Male (MNHN\*), Mt. Ninqua (Tillier Station 288; 21°44'24''S 166°09'03''E) (New Caledonia), 1000 m.**Paratypes:** Female (MNHN\*), same locality as holotype.*Troglosiro platnicki* Shear, 1993*Troglosiro platnicki* Shear, 1993c: 87-90, figs. 27-35.**Holotype:** Male (MNHN\*), Riviere Bleue (Tillier Station 250k, plot VI X; 22°06'13''S 166°39'16''E) (New Caledonia), 160 m.**Paratypes**<sup>15</sup>: Male (AMNH), wet forest along Riviere Bleue (New Caledonia), 280 m.; male (AMNH) Mt. Dzumac (New Caledonia).**Distribution:** New Caledonia: Riviere Bleue, same coordinates and altitude as type collection: Tillier Stations 250c, plot VI 0; 250h, plot VI 0; Riviere Bleue (Tillier Station 251d, plot VII 0; 22°05'59''S 166°40'01''E), 170 m; Riviere Bleue, 280 m.*Troglosiro raveni* Shear, 1993*Troglosiro raveni* Shear, 1993c: 82-84, figs. 1-8.**Holotype:** Male (MNHN\*), Col des Roussettes (New Caledonia), 490 m.**Paratypes:** Female (MNHN\*); female (AMNH), same locality as holotype.*Troglosiro tillierorum* Shear, 1993*Troglosiro tillierorum* Shear, 1993c: 84-85, figs. 9-16.**Holotype:** Male (MNHN\*), Bobeitio (Tillier Station 16a; 20°57'13''S 165°01'01''E) (New Caledonia), 350 m.**SIRONOIDEA INCERTAE SEDIS****Genus *Marwe* Shear, 1985***Marwe* Shear, 1985: 2 (type species *Marwe coarctata* Shear, 1985).*Marwe coarctata* Shear, 1985*Marwe coarctata* Shear, 1985: 2-5, figs. 1-8.*Marwe coarctata*: Staręga, 1992: 333; Rambla and Juberthie, 1994: 217.**Holotype:** Male (AMNH\*), Cobra Cavern, Tiva River Region, Tsavo East National Park (Kenya).**Paratypes:** Female (AMNH); female (Shear coll.); two immature specimens collected with types (AMNH), same locality as holotype.<sup>15</sup> Shear (1993c) listed only the holotype as type material, although the specimens from the AMNH are labeled as paratypes.

**Family STYLOCELLIDAE Hansen and Sørensen, 1904**

Type genus: *Stylocellus* Westwood, 1874

**Genus *Stylocellus* Westwood, 1874**

*Stylocellus* Westwood, 1874: 200 (type species *Stylocellus sumatranus* Westwood, 1874); Pocock, 1897: 290-291; Roewer, 1926: 263.

*Leptopsalis*: Thorell, 1882-1883: 23-24 (type species *Leptopsalis beccarii* Thorell, 1882); Karsch, 1884. Synonymized by Thorell (1890/91a: 106).

*Stylocellus collinsi* Shear, 1993

*Stylocellus collinsi* Shear, 1993a: 181-182, figs. 40-49.

**Holotype:** Male (BMNH[E] 1999.167), Gunung Mulu National Park, 4<sup>th</sup> Division, Baram District, Sarawak (Malaysia).

**Paratypes:** Five males (BMNH[E] 1999.167), same locality as holotype; male and two females from "Site C", Gunung Mulu National Park (BMNH[E] 1999.167).

**Distribution:** Borneo: Gunung Mulu National Park.

*Stylocellus dumoga* Shear, 1993

*Stylocellus dumoga* Shear, 1993a: 177, figs. 1-9.

**Holotype:** Male (BMNH[E] 1999.168), Gunung Poniki (00°40'N, 124°24'E), Dumoga Bone National Park, Sulawesi Utara, Sulawesi (Indonesia), 900 m.

**Paratypes:** Two females (BMNH[E] 1999.168), same locality as holotype.

*Stylocellus gryllospecus* Shear, 1993

*Stylocellus gryllospecus* Shear, 1993a: 179-180, figs. 30-39.

*Stylocellus gryllospecus*: Rambla and Juberthie, 1994: 217.

**Holotype:** Male (BMNH[E] 1999.169), Cricket Cave (limestone cave), near Deer Cave, Mulu National Park, Gunung Mulu (04°02'N, 114°15'E), Sarawak, Borneo (Malaysia).

**Paratypes**<sup>16</sup>: Two males and two females (BMNH[E] 1999.169), same locality as holotype.

*Stylocellus hillyardi* Shear, 1993

*Stylocellus hillyardi* Shear, 1993a: 177-178, figs. 10-19.

**Holotype:** Male (BMNH[E] 1999.170), Gunung Poniki (00°40'N, 124°24' E), Dumoga Bone National Park, Sulawesi Utara, Sulawesi (Indonesia), 900 m.

*Stylocellus javanus* (Thorell, 1882)

*Leptopsalis Javana* Thorell, 1882-1883: 30-32, Plate IV, figs. 10, 11.

*Leptopsalis javana*: Karsch, 1884: 145.

*Stylocellus Javanus*: Thorell, 1891: 671; Hansen and Sørensen, 1904: 98.

*Stylocellus javanus*: Roewer, 1923: 47; Rosas Costa, 1950: 140; Shear, 1979b: 357.

**Type:** (MCSN\*), Tcibodas (Java, Indonesia).

[Male (BMNH 56.102), Java.]

*Stylocellus kinabalu* Shear, 1993

*Stylocellus kinabalu* Shear, 1993a: 184, figs. 69-78.

**Holotype:** Male (AMNH\*), Mount Kinabalu, Kinabalu National Park, Sabah, Borneo (Malaysia), 1500 m.

*Stylocellus laevichelis* Roewer, 1942

*Stylocellus laevichelis* Roewer, 1942: 278.

*Stylocellus laevichelis*: Rosas Costa, 1950: 140; Shear, 1979b: 357.

**Type:** Male (Roewer Collection Nr. 7721/22\*), Malakka [Melaka?, Negeri Melaka] (Malaysia).

*Stylocellus leakeyi* Shear, 1993

*Stylocellus leakeyi* Shear, 1993a: 185, figs. 79-87.

**Holotype:** Male (BMNH[E] 1999.171), Gunung Silum, Sabah, Borneo (Malaysia), 440 m.

**Paratype:** Male (BMNH[E] 1999.171), same locality as holotype at 880 m. There is also one juvenile in the same collection.

*Stylocellus lionotus* Pocock, 1897

*Stylocellus lionotus* Pocock, 1897: 291-292, fig. 3.

*Stylocellus lionotus*: Hansen and Sørensen, 1904: 97; Roewer, 1923: 46; Rosas Costa, 1950: 140; Shear, 1979b: 360.

**Holotype:** Male (BMNH 95.7.20.23), Sandakan, Sabah (Malaysia).

*Stylocellus modestus* Hansen and Sørensen, 1904

*Stylocellus modestus* Hansen and Sørensen, 1904: 93-94, Plate II, figs. 2a-f.

*Stylocellus modestus*: Roewer, 1923: 45, fig. 46; Rosas Costa, 1950: 141; Shear, 1979b: 357.

**Type:** (MNHN\*), Bua-Kraeng, Sulawesi (Indonesia).

<sup>16</sup> Shear listed one male and three female paratypes in the original description of the species (Shear, 1993: 179), but the paratypes are in fact two males and two females, as he labeled in the specimen vials.

*Stylocellus mulu* Shear, 1993*Stylocellus mulu* Shear, 1993a: 182-183, figs. 50-59.**Holotype:** Male (BMNH[E] 1999.172), Gunung Mulu National Park, 4<sup>th</sup> Division, Baram District, Sarawak, Borneo (Malaysia), 1650 m.**Paratypes:** Four females (BMNH[E] 1999.172), same locality as holotype; male and female (BMNH[E] 1999.172) from "Zonation Site H" (Collins, 1980).**Distribution:** Borneo: Gunung Mulu National Park: type locality and "Zonation Site H (Collins, 1980)" Gunung Mulu National Park, 1650 m [this may correspond to the same site as the holotype locality].*Stylocellus pangrango* Shear, 1993*Stylocellus pangrango* Shear, 1993a: 183-184, figs. 60-68.**Holotype:** Male (AMNH\*), Gunung Pangrango, Gunung Gede Pangrango National Park, Jawa Barat, Java (Indonesia), 2000 m. [three immature specimens (AMNH)].*Stylocellus pocockii* Hansen and Sørensen, 1904*Stylocellus Pocockii* Hansen and Sørensen, 1904: 97-98, Plate II, figs. 5a-d.*Stylocellus pocockii*: Roewer, 1923: 46-47, fig. 49.*Stylocellus pococki*: Rosas Costa, 1950: 141; Shear, 1979b: 357, 360.**Holotype:** Female (BMNH no Register No.), Sabah (Malaysia).*Stylocellus sabah* Shear, 1993*Stylocellus sabah* Shear, 1993a: 185-186, figs. 88-97.**Holotype:** Male (BMNH[E] 1999.173), Gunung Sabah, Sabah, Borneo (Malaysia), 440 m.**Paratype:** Male (BMNH[E] 1999.173), same locality as holotype.*Stylocellus sedgwicki* Shear, 1979*Stylocellus sedgwicki* Shear, 1979b: 359-360, figs. 1-11.**Holotype:** Male (AMNH\*), Penang Island (Malaysia).*Stylocellus silhavyi* Rambla, 1991*Stylocellus silhavyi* Rambla, 1991: 228-231, figs. 1-3, Plates I-III, figs. 1-24.*Stylocellus silhavyi*: Rambla, 1989: 340; Shear, 1993: 180; Rambla and Juberthie, 1994: 217.**Holotype:** Male (DBAUB\*), Cobweb Cave, Gunung Mulu National Park, Sarawak, Borneo (Malaysia).**Paratype:** Female (DBAUB\*), same locality as holotype.*Stylocellus spinifrons* Roewer, 1942*Stylocellus spinifrons* Roewer, 1942: 277, Plate XX, figs. 5a-c.*Stylocellus spinifrons*: Rosas Costa, 1950: 141; Shear, 1979b: 357.**Type:** Female (Roewer coll. Nr. 5338/12\*), Sarawak [exact locality not specified] (Malaysia).*Stylocellus sulcatus* Hansen and Sørensen, 1904*Stylocellus sulcatus* Hansen and Sørensen, 1904: 94-95, Plate II, figs. 3a-h.*Stylocellus sulcatus*: Loman, 1905: 34; Roewer, 1923: 45-46, fig. 47; Roewer, 1931a: 518; Rosas Costa, 1950: 141; Shear, 1979b: 357.**Types:** (Simon coll., MNHN\*; Roewer coll.), Monte Gédé, Tjibodas [Cibadak?], Jawa Barak, Java (Java Occidental).*Stylocellus sumatranus* Westwood, 1874*Stylocellus sumatranus* Westwood, 1874: 200, Plate XXXVII, figs. 7, 7a, 7b.*Leptopsalis Beccarii* Thorell, 1882/83: 25-30, Plate IV, figs. 1-9. [Type locality of *Leptopsalis beccarii* Thorell, 1882/83: Berg Singalang (Sumatra, Indonesia); MCSN\*]. Synonymized by Thorell (1890/91a: 106).*Leptopsalis beccarii*: Karsch, 1884: 145.*Stylocellus Sumatranus*: Thorell, 1890/91a: 106; Thorell 1891: 670, 671, 766-767; Hansen and Sørensen, 1904: 96-97, Plate II, figs. 4a-c.*Stylocellus Beccarii*: Hansen and Sørensen, 1904: 90-91, Plate I, figs. 1a-z.*Stylocellus sumatranus*: Roewer, 1923: 46, fig. 48; Rosas Costa, 1950: 141; Juberthie, 1963: 167; Shear, 1979b: 357.*Stylocellus beccarii*: Roewer, 1923: 43-44, figs. 42, 43; Rosas Costa, 1950: 140; Shear, 1979b: 357.**Types:** (Mus. Reg. Lugdun and Mus. Hopeiano Oxoniae\*), Sumatra (Indonesia) [exact locality unknown].*Stylocellus tambusisi* Shear, 1993*Stylocellus tambusisi* Shear, 1993a: 178-179, figs. 20-29.**Holotype:** Male (BMNH[E] 1999.174), locality uncertain, probably Tambusisi Damar, Tambusisi Mountains, Sulawesi Tengah, Sulawesi (Indonesia), although it could also be Morowali.*Stylocellus tarumpitao* Shear, 1993*Stylocellus tarumpitao* Shear, 1993a: 186-188, figs. 98-109.**Holotype:** Male (AMNH\*), S. Tarumpitao Point (9°03'N, 117°38'E), Ransang, Island of Palawan (Philippine Islands), 100 m.*Stylocellus thorellii* Hansen and Sørensen, 1904*Stylocellus Thorellii* Hansen and Sørensen, 1904: 91-92, Plate I, figs 2a-d.*Stylocellus thorellii*: Roewer, 1923: 44, fig. 44.

*Stylocellus thorelli*: Rosas Costa, 1950: 141; Shear, 1979b: 357.

**Types:** (MCSN\*), Monte Singalang, Sumatra (Indonesia).

*Stylocellus weberii* Hansen and Sørensen, 1904

*Stylocellus sumatranus* Loman, 1892: 26 (Not *Stylocellus sumatranus* Westwood, 1874). Synonymized by Hansen and Sørensen (1904: 92).

*Stylocellus weberii* Hansen and Sørensen, 1904: 92-93, Plate II, figs. 1a-e.

*Stylocellus weberii*: Roewer, 1923: 44-45, fig. 45; Rosas Costa, 1950: 141.

*Stylocellus weberi*: Rosas Costa, 1950: 141; Shear, 1979b: 357.

**Types:** (Mus. Amsterdam\*), Maninjau, Sumatera Barat, Sumatra (Indonesia).

### Family OGOVEIDAE Shear, 1980

Type genus: *Ogovea* Roewer, 1923

#### Genus *Huitaca* Shear, 1979

*Huitaca* Shear, 1979a: 238-240 (type species *Huitaca ventralis* Shear, 1979a).

*Huitaca ventralis* Shear, 1979

*Huitaca ventralis* Shear, 1979a: 240-242, figs. 1-10.

**Holotype:** Male (MCZ 14835), 30 Km South of Chinácota, Provincia Norte de Santander (Colombia), 320 m.

**Paratypes:** Male and three<sup>17</sup> juveniles (MCZ 30323), same locality as holotype.

#### Genus *Ogovea* Roewer, 1923

*Ogovia* Hansen and Sørensen, 1904: 99-100; Hansen, 1921: 38-39.

*Ogovea* Roewer, 1923: 48 (type species *Ogovia grossa* Hansen and Sørensen, 1904); Roewer, 1926: 263. Replacement name<sup>18</sup>.

*Ogovea grossa* (Hansen and Sørensen, 1904)

*Ogovia grossa* Hansen and Sørensen, 1904: 100-101, Plate II, figs. 6a-b, Plate III, figs. 1a-g.

*Ogovea grossa*: Roewer, 1923: 49, fig. 52; Roewer, 1926: 263; Juberthie, 1969: 88-91, figs. 8-10; Staręga, 1992: 331.

**Holotype:** Female (MNHN 14992\*), locality not precised, River Ogooué (Congo).

*Ogovea nasuta* (Hansen, 1921)

*Ogovia nasuta* Hansen, 1921: 39-44, Plate III, figs. 4a-c, Plate IV, figs. 1a-f.

*Ogovea nasuta*: Roewer, 1926: 263-264, figs. 1a-d; Staręga, 1992: 331.

**Holotype:** Female (MCSN\*), Musola, Bioko [Fernando Poó] (Equatorial Guinea), 400-500 m.

### Family NEOGOVEIDAE Shear, 1980

Type genus: *Neogovea* Hinton, 1938

#### Genus *Metagovea* Rosas Costa, 1950

*Metagovea* Rosas Costa, 1950: 130-131 (type species *Metagovea disparunguis* Rosas Costa, 1950).

*Metagovea disparunguis* Rosas Costa, 1950

*Metagovea disparunguis* Rosas Costa, 1950: 131-136, figs. 1-17.

**Holotype:** Male (Rosas Costa collection\*, whereabouts unknown), Rionegro, Departamento de Antioquía (Colombia).

*Metagovea oviformis* Martens, 1969

*Metagovea oviformis* Martens, 1969: 114-116, figs. 21-34.

**Holotype:** Male (SMF 23959, slides SMF 23959 a/b), Reserva Ducke, Manaus, State of Amazonas (Brazil).

**Paratypes:** Female (SMF 23960, slides 23960 a/b); two juveniles (SMF 23961-2), same locality as holotype.

*Metagovea philipi* Goodnight and Goodnight, 1980

*Metagovea philipi* Goodnight and Goodnight, 1980: 130-131, figs. 1-17.

*Metagovea philipi*: Rambla and Juberthie, 1994: 217.

**Holotype:** Male (AMNH\*), Los Taxos Cave (3°6'S, 78°12'W), Morona Santiago Province (Ecuador).

**Paratypes:** Eight males, five females, and two juveniles (AMNH); several specimens (University of Edinburgh\*), same locality as holotype.

#### Genus *Neogovea* Hinton, 1938

*Siro* (partim) Davis, 1937: 133.

*Neogovea* Hinton, 1938: 333-334 (type species *Neogovea immsi* Hinton, 1938); Hoffman, 1963: 137; Shear, 1977: 166-168; Morales Soto, 1980: 36; Shear, 1980: 14-15.

<sup>17</sup> Shear (1979) mentioned that one male and one juvenile paratypes were deposited at the MCZ accompanying the holotype, however, the tube labeled as "paratypes" contains one male and three juveniles.

<sup>18</sup> According to Neeve's Nomenclator Zoologicus (3:398) the name is preoccupied by *Ogovia* Holland 1892 Entomologist 24, Suppl., 95.- Lep.

*Sirula* Goodnight and Goodnight, 1942: 1 (type species *Siro kartabo* Davis, 1937). Synonymized by Shear (1977: 166).

*Brasilogovea* Martens, 1969: 112 (type species *Brasilogovea microphaga* Martens, 1969). Synonymized by Shear (1980: 15).

*Neogovea immsi* Hinton, 1938

*Neogovea immsi* Hinton, 1938: 334-338, figs. 1-16.

*Neogovea immsi*: Hoffman, 1963: 137; Martens, 1969: 110-111, figs. 1-8; Shear, 1977: 168; Martens, 1986: figs. 12d-f.

**Holotype:** Male (BMNH 1938.4.26.1), Punta dos Indios (4°03'N 51°37'W), Amapá (Brazil). 6-7 October 1937.

**Paratypes:** Female (BMNH 1938.4.26.2); one male and three females<sup>19</sup> (BMNH 1941.1.9.1-4), same locality as holotype.

*Neogovea kamakusa* Shear, 1977

*Sirula kartabo* Goodnight and Goodnight, 1942: 1 (partim; record from Kamakusa; the juvenile from Tukeit is a *Neogovea* but cannot be placed as to species. Not *Siro kartabo* Davis).

*Neogovea kamakusa*: Shear, 1977: 171-172; Shear, 1980: 10-15, figs. 21-25.

**Holotype:** Male (AMNH\*), Kamakusa (5°55'N 59°55'W), Essequibo District (Guyana).

*Neogovea kartabo* (Davis, 1937)

*Siro kartabo* Davis, 1937: 133-134, Plate I, figs. 1-12.

*Sirula kartabo*: Goodnight and Goodnight, 1942: 1 (partim); Rosas Costa, 1950: 147.

*Neogovea kartabo*: Hoffman, 1963: 137; Shear, 1977: 168-171, figs. 1-9.

**Holotype:** Male (AMNH\*), Kartabo, Berbice District (Guyana).

**Paratypes:** Males and females (AMNH\*), same locality as holotype.

*Neogovea mexasca* Shear, 1977

*Neogovea mexasca* Shear, 1977: 172-175, figs. 16-24.

*Neogovea mexasca*: Morales Soto, 1980: 36-37; Shear, 1980: 15-17, figs. 21-25; Cokendolpher and Lee, 1993: 5; Rambla and Juberthie, 1994: 217; Kury and Cokendolpher, 2000.

**Holotype:** Female (AMNH\*), Cueva del Nacimiento del Río San Antonio, 10 Km SSW of Acatlán, Oaxaca (Mexico, NORTH AMERICA).

**Paratypes:** Nine males and five females (AMNH), same locality as holotype.

**Distribution:** México: Oaxaca: Cueva del Nacimiento del Río San Antonio (type material), and Cueva de la Finca, 10 Km SW of Acatlán.

*Neogovea microphaga* (Martens, 1969)

*Brasilogovea microphaga* Martens, 1969: 112-114, figs. 9-20.

*Neogovea microphaga*: Shear, 1980: 15.

**Holotype:** Male (SMF 23963, slide SMF 23963), Lago di Janauacá, ca. 50 Km SW of Manaus, State of Amazonas (Brazil).

**Paratype:** Juvenile (SMF 23964), same locality as holotype<sup>20</sup>.

**Genus *Paragovia* Hansen, 1921**

*Paragovia* Hansen, 1921: 44-46 (type species *Paragovia sironoides* Hansen, 1921); Roewer, 1926: 264; Rosas Costa, 1950; Juberthie, 1969; Shear, 1980; Legg, 1990.

*Paragovia* Hinton, 1938: 333.

*Metagovea* (partim) Juberthie, 1969: 80.

*Ogovea* Pabs-Garnon, 1977 (not *Ogovea* Roewer, 1923).

*Paragovia gabonica* (Juberthie, 1969)

*Metagovea gabonica* Juberthie, 1969: 80-88, figs. 1-7.

*Metagovea gabonica*: Shear, 1980: 26; Staręga, 1992: 330.

*Paragovia gabonica*: Legg, 1990: 114.

**Holotype:** Male (MNHN\*); penis in Juberthie Collection, Laboratoire Souterrain du C.N.R.S., Moulis), Station 146 (Juberthie, 1969), Bélinga, Ogooué-Ivindo Province (Gabon).

**Distribution:** Gabon: Ogooué-Ivindo Province: Bélinga (Juberthie's Stations 146, 147, 170), Makokou (Juberthie's Station 12).

*Paragovia pabsgarnoni* Legg, 1990

*Ogovea grossa*: Pabs-Garnon, 1977.

*Paragovia pabsgarnoni* Legg, 1990: 117-120, figs. 11-19, Plates 1-11.

**Holotype:** Male (BMNHB 400857\*), Botanical Reserve of Fourah Bay College, University of Sierra Leone (Sierra Leone).

**Paratypes:** Female (BMNHB 400858\*); male on SEM stub (BMNHB 412079\*); juveniles (BMNHB 400859-64\*), same locality as holotype.

<sup>19</sup> Hinton (1938) mentioned the presence of eight paratypes at the BMNH collection, but only five were located.

<sup>20</sup> Martens (1969: 112) listed the paratype juvenile as from Igarape Acú, Igapó, State of Pará (Brazil), although in the label of the specimen lists the same locality as the holotype.

*Paragovia sironoides* Hansen, 1921*Paragovia sironoides* Hansen, 1921: 46-49, Plate IV, figs. 2a-l.*Paragovia sironoides*: Roewer, 1926: 265, figs. 2a-d; Rosas Costa, 1950: 140; Legg, 1990: 116-117, figs. 1-10; Staręga, 1992: 331.**Holotype:** Male (MCSN\*), Punta Frailes, Bioko [Fernando Poó] (Equatorial Guinea), 400-600 m.**Paratype:** Female (MCSN\*), Basilé, Bioko [Fernando Poó] (Equatorial Guinea).

## NEOGOVEIDAE OF UNCERTAIN GENERIC DESIGNATION

?Gen. *enigmaticus* Martens, 1969?Gen. *enigmaticus* Martens, 1969: 116-118, figs. 35-41.**Holotype:** Female (SMF 23965, slide SMF 23965), Tauaí, Rio Jufarí, Parque Nacional do Rio Branco, between the States of Amazonas and Roraima (Brazil).**Paratypes:** Female and juvenile (SMF\*), same locality as holotype.

## INCERTAE SEDIS

**Genus *Ankaratra* Shear and Gruber, 1996***Ankaratra* Shear and Gruber, 1996: 183 (type species *Ankaratra franzi* Shear and Gruber, 1996).*Ankaratra franzi* Shear and Gruber, 1996*Ankaratra franzi* Shear and Gruber, 1996: 183-184, figs. 1-9.**Holotype:** Male (NHMW 17317\*), Massif de l'Ankaratra [exact locality not specified], Antananarivo Province (Madagascar).

## NOMINA DUBIA

*Miopsalis pulicaria* Thorell, 1890*Miopsalis pulicaria* Thorell, 1890/91b: 381.*Miopsalis pulicaria*: Hansen and Sørensen, 1904: 99; Roewer, 1923: 47-48, fig. 50; Roewer, 1926: 263; Shear, 1979b: 356-357.**Type:** (MCSN\*), Pulu Pinang [Pinang Islands], Pinang (Malaysia).*Rakaia collaris* Roewer, 1942*Rakaia collaris* Roewer, 1942: 277, Plate XX, figs. 4a-c.*Rakaia collaris*: Rosas Costa, 1950: 144; Juberthie, 1970a: 1385.**Type:** Female (Roewer coll. Nr. 1603/6\*), Akaroa, Banks Peninsula, Canterbury (South Island, New Zealand).

## NOMINA NUDA

*Siro ere* sp.n.: Karaman *et al.*, 1994: 117, figs. 5, 8.From some mountains in the vicinity of Užice, Serbia (Yugoslavia) (Karaman *et al.*, 1994: 117).*Siro martensi* sp. n.: Karaman *et al.*, 1994: 117, fig. 1.From the South Dalmatia (Croatia), South Bosnia-Herzegovina and northern part of the coast of Montenegro (Yugoslavia) (Karaman *et al.*, 1994: 117).*Siro zetae* sp. n.: Karaman *et al.*, 1994: 117, fig. 4.From the Zeta river valley near Danilovgrad, Montenegro (Yugoslavia) (Karaman *et al.*, 1994: 117).

## OTHER MATERIAL

Several unidentified specimens have been cited in the literature or have been made available to me from the AMNH. I have included them in this final section because they contribute to widen the distribution ranges of many families.

*Siro* sp.: from the Caucasus (Lange, 1969 [cited in Staręga, 1978]).

Sironidae sp.: Shear, 1980: 3. One female of a probable new species from California (USA, NORTH AMERICA).

*Stylocellus* sp.: Suzuki, 1985: 70. Two immature specimens from Doi Suthep, Chiang Mai Province (Thailand).*Stylocellus* sp.: Martens, 1986: figs. 12a-c. Kuala Lumpur (Malaysia).

Sironoidea sp.: Bastawade, 1992: 268, figs. 1-5. One female from 5-6 Km NW of Mião, Arunāchal Pradesh (India).

Neogoveidae sp.: Seventeen females from Lara, Cordillera de Mérida (Venezuela) (AMNH).

Neogoveidae sp.: One female from Arima, Trinidad (Trinidad and Tobago) (AMNH).



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