Tetragnathid spiders of Seychelles (Araneae, Tetragnathidae)

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Abstract: Ten tetragnathid species are reported from the granitic Seychelles. The male of *Leucauge argyrescens* Benoit, 1978 is described for the first time. The following synonyms are presented: *Leucauge russelsmithi* Locket, 1980 = *Leucauge argyrescens* Benoit, 1978 n. syn., *Tetragnatha modesta* Hirst, 1911 = *Tetragnatha ceylonica* O. Pickard-Cambridge, 1869 n. syn., *Tetragnatha foliifera* Simon, 1898 and *Tetragnatha grenda* Roberts, 1983 = *Tetragnatha demissa* L. Koch, 1872 n. syn. and *Tetragnatha infuscata* Benoit, 1978 = *Tetragnatha boydi* O. Pickard-Cambridge, 1898 n. syn.. Also two new combinations are established, viz. *Mesida thorellii* (Blackwall, 1877) n. comb. and *Tylorida mornensis* (Benoit, 1978) n. comb. Finally the single loose chelicera found among detritus and considered by Benoit (1978a) to belong to some theraphosid is represents a femlae *Nephila inaurata* right chelicera.

Key words: Araneaea, Spiders, Seychelles, Tetragnathidae.

Introduction

The tetragnathids are small to large (2-50mm) entelegyne orbweb spiders. For the most part their bodies are elongated with long and slender legs. There are eight eyes in two rows. Maxillae distincly longer than broad. Their chericerae are of great size and often markedly elongated in males; hence they are often called big-jawed spiders. In the male palp there is a separate sclerite hinged with the proximal end of the cymbium and usually called the paracymbium. The same term is also used in this study although it is not thought that it is necessarily homologous with the paracymbium found in the family Linyphiidae. Similarly the term conductor is here used as a functional term without taking any postion as to its homology with the same kind of structure in other families. The inner structures below the epigyne are commonly called vulva or vulval structures. This terminology is however misleading and instead I have used the alternative term adnexae.

The Tetragnathidae are a fairly large family with some 50 genera and about 9000 species. Most tetragnathids live in grassy places and are particularly common on the boders of swamps and corresponding habitats. The Seychellian tetragnathids can be placed in three subfamilies; viz. Nephilinae, Leucauginae, and Tetragnathinae. Females of the Nephilinae are the largest of all the orb weavers, often more than 5 centimetres long and with legs that sometimes span 20 cm. On the other hand the males are conspicuously small dwarfs. Condington *et al*. (1997) have suggested that this dimorphism is due to the female gigantism rather than male dwarfism. Nephilines are remarkable for the strength of the silk they spin and are rightly known as the silk spiders. Their great round webs of golden silk, which are sometimes more than one meter in diameter, are often made high in trees, electric wires etc. Leucacini species have a more or less silvery abdomen with patterns of red, green and gold marks. They also have relatively large vertical or almost horizontal webs which they spin in vegatation in damp places. Members of Tetragnathinae are characterized by the significantly elongated bodies and chelicerae and long, slender legs; but there are also species which have almost globose abdomens such as those belonging to the genus *Dyschiriognatha* Simon,

1893. *Tetragnatha* spp. usually construct horizontally inclined orbwebs, near or above streams and ponds. The webs are short-lived as they are taken down and digested daily or even more frequently. Members of *Dyschiriognatha* are mainly found in the lower litter layer. Interestingly almost all tetragnathids have kleptoparasites on their webs (see Saaristo 2000). At present, ten tetragnathid spesies are known from Seychelles.

New island records presented in this paper are indicated by an asterisk.

subfamily Nephilinae

Genus *Nephila* Leach, 1815

Nephila inaurata (Walckenaer, 1842); palm spider (Fig. 1)

Epeira inaurata Walckenaer, 1842: 94 (Df).
Epeira madagascariensis Vinson, 1863: 191, 311, pl. 7, f. 1 (Df).
Nephila inaurata, Simon 1864: 276.
Nephila inaurata seychellensis Canard, 1975: 778 (Df).
Nephila inaurata, Saaristo 1978: 119, f. 203-210 (mf).
Gen. sp. ign., Benoit 1978a: 418, f. 5G-H.
Nephila inaurata madagascariensis, Benoit 1978b: 673 (= *ssp. seychellensis*).
N.B. For more references see Plactnick (2003).

Material examined: Aldabra, Picard, 1m1subad.m1subad.f1juv., Dec. 2000, P. Matyot leg. (MZT AA 2.240); Alphonse, 1m, 08.04.2001, J. Gerlach leg. (MZT AA 2.149); Aride, 3m1f3juvs., 1975, M. Mühlenberg leg. (MZT AA 0.228-0.230), 1m9juvs., 27.-28.02. 1999, J.Cadbury & E. Andrews leg. (MZT AA 1.266-1.267), and litter sampling, 2juvs., July-November 2000, John Bowler leg. (MZT AA 2.136); Bijoutier, 1m, 08.04.2001, J. Gerlach leg. (MZT AA 2.196); Bird, sweeping., 2juvs., March 2000, Hill & Vel/ BLG leg. (MZT AA 1.832); Cerf, 1juv., 11.12.2001, J. Gerlach leg. (MZT AA 2.310); Cocos, 1juv., 22.03.2002, J. Gerlach leg. (MZT AA 2.308); Conception (#194), sweeping., 4juvs., Febr. 2000, Hill & Vel/ BLG leg. (MZT AA 2.089); Cousin, 4m, 30.03.1978, Hugh Watkins leg., M. Saaristo det. (MZT AA 0.231) and 4m, 1978, H. Watkins leg. (MZT AA 0.231-0.232); Cousine, web, buildings, 1subad.m 1fjuv., 10.10.1996, O. Bourquin leg. (MZT AA 0.383) and from web, 1f, 16.05.1997, P. Hitchins leg. (MZT AA 0.388); Curieuse, sweeping., 2m25juvs., January 2000, Hill & Vel/ BLG leg. (MZT AA 1.830-1.831, 2.083); Denis, sweeping., 2m25juvs., Oct. 1999 – April 2000, (MZT AA 1.-1.813, 2.091-2.093); Felicite, sweeping., 19juvs., Nov. 1999, Hill & Vel/ BLG leg. (MZT AA 1.821-1.827) and 1juv., 24.03.2002, J. Gerlach leg. (MZT AA 2.291); Grande Soeur, 1juv., 22.03.2002, J. Gerlach leg. (ZT AA 2.327); Isle aux Vaches Marines, 1juv., 5.4.2003, J. Gerlach leg. (MZT AA 2.389); Mahé: various places, 15mm7ff, 27.-30.10.1975, M. Saaristo leg., 1subad., 12.07.1994, J. Gerlach leg., and 6m, Jan. 1999, M. Saaristo, P. Matyot and M. Kirkpatrik leg. (MZT AA 0.039, AA 0.233, and AA 0.539-0.541); Marianne, sweeping., 1subad.m.81juvs., 23.10. 1999, Hill & Vel/ BLG leg. (MZT AA 1.814-1.820, 2.340); North, sweeping., 2m1f30juvs., May 1999 – Jan. 2000, Hill & Vel/ BLG leg. MZT AA 1.833, 2.084-2.090, 2.115) and 1m, 30.07.2000, J. Gerlach leg. (MZT AA 1.352); Round Is. (Praslin), 2juvs., March 2002, J. Gerlach leg. (MZT AA 2.280, 2.406); Silhouette, La Passe , 1m, 19.01.1999, M. Saaristo leg. (MZT AA 0.542) and *Pisonia* forest, from stomach of *Nesomantis thomasetti*, 1juv., 08.08.1990, J. Gerlach leg. (MZT AA 2.141); St. Pierre, 1juv., Oct. 2001, J. Gerlach leg. (MZT AA 2.396); St. Francois, 1m, 08.04.2001, J. Gerlach leg. (MZT AA 2.200); Therese, sweeping., 14juv., Sept. 1999, Hill & Vel/ BLG leg. (MZT AA 1.828-1.829).

Diagnosis: The adult female is easily recognized by its huge size, total lengh: 28.3 - 30.7mm, and golden web. The size difference of the two sexes is very great. Total length: m = 3.7-6.9mm, f = 28.3-30.7mm; length of carapace: m = 1.9-3.2mm, f = 10.0-13.3mm. The male is recognized by having long, slightly S-shaped conductor inclosing the whip-like embolus. The conductor is ca.1.5 times the diametr of the bulbus and it can be observed with the naked eye; also the subadult males are easily reconizable due to the conspicous cone-like elevation of the developing palp.

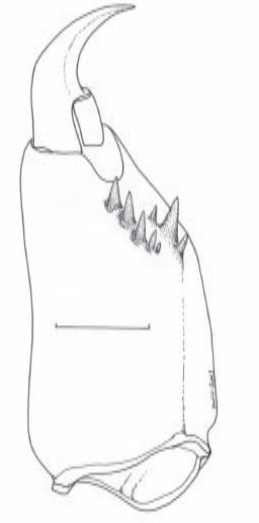
Description: The species has been well described by Saaristo (1978).

Distribution: The female of this species is the most handsome and conspicuous Seychelles spider and locally known as the palm spider. In suitable places it is very abundant. Its is known from Madagascar, Rodriguez, Mauritius, Aldabra atoll and found on the following Seychelles islands: Alphonse (*), Aride (Bowler *et al.* 1999), Bijoutier (*), Bird (*), Cerf (*), Cocos (*),Conception (*),Cousin (*), Cousine (Saaristo 1999), Curieuse (Benoit 1978b), Denis (*), Felicite (*), Frégate (Benoit 1978b), Grande Soeur (*), Isle aux Vaches Marines (*), La Digue (Benoit 1978b), Mahé (Simon 1898: *N. madagscariensis*), Hirst 1911, Benoit 1978b, Saaristo 1978, 1999), Marianne (*), North (*), Praslin (Hirst 1911), Benoit 1978b), Round Is. (Praslin) (*), St. Francois (*), Silhouette (Hirst 1911, Benoit 1978b, Saaristo 1999) and Therese (*). In addition it has been observed on Anonyme, Islette, Rat, Round (Mahe) and St. Anne (J. Gerlach pers. comm.).

Remarks: The female of *N. inaurata* hangs head-down in the middle of its web accompanied seceral dwarf males. Further there are usually numerous cleptoparasitic *Argyrodes* specimens (often of more than one species) around the perimeter of the web.

Discussion: I have not been able to study the differences between the nominal species *N. inaurata* and *N. i. madagancaries* and have treated them as a single taxon.

Benoit (1978a: 418, Fig. 5G-H) described a single chelicera found loose among litter considering it to belong to some mygalomorphid spider. It was collected on Mahé, Morne Blanc. I have seen this sample (MRAC 143.091) and there is no doubt that it belonged to a female of *N. inaurata* (Fig. 1).



Figs. 1-4. *Nephila inaurata* (Walckenaer, 1841). - 1: Right female chelicera from behind; a loose chelicera from Mahé, believed by Benoit (1978a) to belong some mygalomorphid spider (MRAC 143.091). – Scale bar = 0.2 mm. - Orig.

Genus *Nephilengys* C. L. Koch, 1872

Nephilengys cruentata (Fabricius, 1775)

Aranea cruentata Fabricius, 1775: 439 (Df).
Nephilengys cruentata, Simon, 1887: 271.
Nephilengys cruentata, Saaristo, 1978: 120, f. 211-223 (mf).
Nephilengys cruentata, Roberts, 1983: 284, f. 222-224 (m).
N.B. For more references see Platnick (2003).

Material examined: Aldabra, Picard, 1f, Dec. 2000, P. Matyot leg. (MZT AA 2.239); Conception, 2juvs., Febr. 2002, P. Matyot leg. (MZT AA 2.238) and 1m, 07.10.2002, J. Gerlach leg. (MZT AA 2.373); Mahé: various places, 4mm7ff, 27. & 30.10.1975, M. Saaristo leg. and 4f, Jan. 1999, M. Saaristo, P. Matyot and M. Kirkpatrik leg. (MZT AA 0.040, 0.532 and 0.533); Marianne, 1subad.f, Oct. 1999, P. Matyot leg. (MZT AA 2.225) and 1f, 21.03.2002 M. Hill leg. (MZT AA 2.338); Silhouette: several places, 2m,1subad.m,1f,4subad.f, 1990 and Jan. 1999, M. Saaristo and J. Gerlach leg (MZT AA 0.234 and 0.235 and 0.534-0.538).

Diagnosis: The female of this large species (TL = ca.1.8mm) can be recognized by having 2 pairs of smallish, clear white spots on the other wise blackish venter of its abdomen that is somewhat elongated and angulate. Male like the female but much smaller and abdomen is covered by a dorsal scutum.

Description: The species has been well described by Saaristo (1978).

Distribution: This fairly large pantropical species has been found on the following islands: Aldabra (*),Conception (*), Curieuse (Benoit 1978b), Frégate (Benoit 1978b), Mahé (Simon 1898, Hirst 1911, Saaristo 1978), Marianne (*), Praslin (Hirst 1911) and Silhouette (Simon 1898, Hirst 1911, Benoit 1978b), and observed on Grande Soeur (J. Gerlach pers. comm.).

Remarks: Contrary to the previous species the female of *N. cruentata* is hiding in a ratger large, cup-like retreat near the top of the web. In the retreat there is also one or more males.

Subfamily Laucaucinae

Genus *Leucauge* White 1841

Discussion: This genus is once again an example of a vast basket containing a large number of species; according to Platnick (2003) 983 species. However, its type species, *Linyphia argyrobapta* White, 1841 from Brazil, has never been even adequately described. In fact, after its original description and its transference by Petrunkevitch (1911: 355) to *Leucauge*, it has appered only in catalogues like Bonnet (1957), Roewer (1942) and Platnick (2003). The only exception is Levi (1980) who states: "The specimens of *L. argyrobapta* (White) are lost. The identity of the species is not known". Thus, at present, it is also impossible to diagnose the genus *Leucauge*. Inspite of this several genera have been synonymized with *Leucauge* although it clearly remains as a *nomen dubium* until a neotype for *L. argyrobapta* has been selected and well described. While studying numerous representatives of *Leucauge* from the Old World I have become to the conclusion that several genera are involved and that certain old synonyms must be revalited and new ones are needed.

In the Seychelles three *Leucauge* species have been recorded. Two of them can be easily placed in existing genera, viz. *Tylorida* Simon, 1894 and *Mesida* Kulczynski, 1911.

On the other hand, the generic affinity of the third one is not clear. At the present stage of our knowledge of the old wolrd Leucaucinae it seems preferable not to describe any new genera and it is here treated as a member of *Leucauge*.

Leucauge argyrescens Benoit, 1978. (Figs. 2-7)

Leucauge argyrescens Benoit, 1978b: 671, f.3E-F (Df).
Leucauge russelsmithi Locket, 1980: 122, f. 15-25 (Dmf). **NEW SYNONYMY.**
Leucauge argyrescens, Locket 1980: 122, f. 26-28 (f).

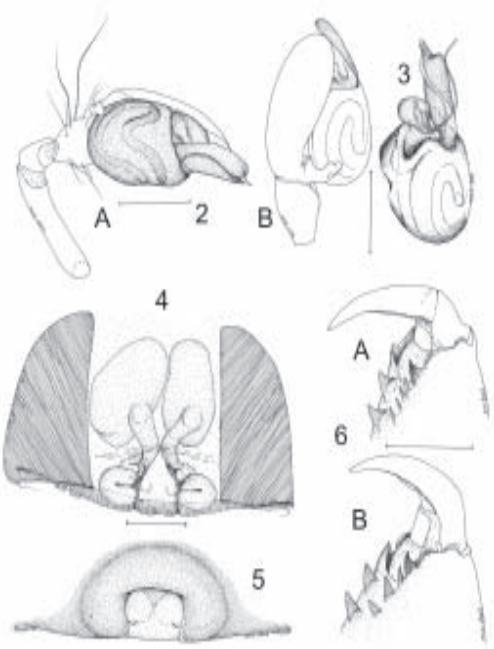
Material examined: Aride, 1juv., June 1999, J. Bowler leg. (MZT AA 1.296); Cousin, 2f13j., 1978, H. Watkins leg. (MZT AA 0.241-0.244); Curieuse, sweeping., 3f1juv., January 2000, Hill & Vel/ BLG leg. (MZT AA 1.796-1.798); Denis (# 149), sweeping., 8m29f45juvs., April 2000, Hill & Vel/ BLG leg. (MZT AA 1.781-1.790, 1.803-1.805); Felicite, sweeping., 10juvs., Nov. 1999, Hill & Vel/ BLG leg. (MZT AA 1.794-1.795); Mahé, La Reserve, 1m, 01.01.1999 and path between Le Niol and Mare aux Cochons, 3f, 02.01.1999, M. Saaristo, P. Matyot and M. Kirkpatrik leg. (MZT AA 0.521 and 0.522); Marianne, sweeping., 1f7juvs., 23.10. 1999, Hill & Vel/ BLG leg. (MZT AA 1.791-1.793, 2.082); North, sweeping., 2m3f16juvs., May 1999, Hill & Vel/ BLG leg. (MZT AA 1.799-1.802); Silhouette, *Pisonia* forest (A15), 2f, 1990, J. Gerlach leg., Jardin Marron, 5f, 20.01.1999, Chemin Montagne Possee, 9f, Belle Vue, 4f, 18.01.1999 and La Passe, 4f, 19.01.1999 M. Saaristo and J. Gerlach leg. (AA 0.240 and 0.523-0.531).

Diagnosis: This rather small species (TL = 2.5–3.5mm) can be distinguished by the more or less globose abdomen having a blackish venter with 3 pairs small silvery spots. Abdomen dorsally two-coloured, anterior half pale, posterior one dark; both parts decorated with two pairs of silvery spots.

Description: Male (female well described by Benoit (1978b)) much like female but smaller and legs relatively longer. Segments of male palp not elongated. Cymbium unmodified. Paracymbium small, its apex slightly notched. Seminal duct inside tegulun rather thick, forming one large loop. Conductor relatively large, apical end of the embolar groove drawn out into a small pointed extension. Basal part of embolic complex bulbous, bearing a long, thread-like embolus.

Distribution: The species has been found on the following islands: Aride (*), Cousin (*), Curieuse (Saaristo & Hill 2002), Cousin (*), Felicite (Saaristo & Hill 2002), Mahé (Benoit 1978b and Saaristo 1999), Marianne (Saaristo & Hill 2002), North (Saaristo & Hill 2002), Praslin (Benoit 1978b) and Silhouette (Saaristo 1999).

Discussion: When describing a new *Leucage* species, viz. *Leucage russelsmithi* Locket,1980 from the Comoro Islands he (Locket 1980) compared it with *L. argyrescens* of which only the female was known at that time. He (Locket 1980) found some differencens between these two species such as sternum colouration, epigynum shape and dentation of of the inner margin of the chelicera. However, both sternum colouration and epigynum shape of *L. argyrescens* are variable and two females from Cousin also had only three small teeth on the inner margin of their chelicerae, as in *L. russelsmithi*; in addition the male palps of these two species seems to be identical. On these grounds I consider *L. argyrescens* and *L. russelsmithi* to be conspecific.



Figs. 2-6. *Leucauge argyrescens* Benoit, 1978. – 2: Right male palp ectally (A) and dorsally (B). 3: Bulbus ventrally. – 4: Adnexae dorsally. 5: Epigyne ventrally. – 6: Apex of right chelicera of female from Silhouette (A) and Cousin (B). Scale bars = 0.2 mm. - Orig.

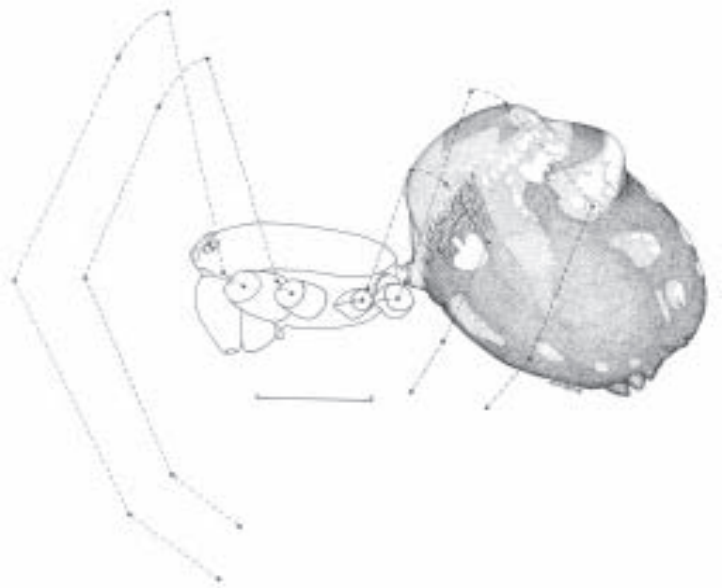


Fig. 7. *Leucauge argyrescens* Benoit, 1978. – Female sinistrolaterally. - Scale bar = 2.0 mm. - Orig.

Genus *Mesida* Kulczynski, 1911

Mesida thorellii (Blackwall, 1877) **n. comb.** (Figs. 8-14)

Tetragnatha thorellii Blackwall, 1877: 21, pl. 2, f. 15 (Df).

Argyropeira thorelli, Simon 1893: 278.

Leucauge thorelli, Benoit 1978b: 668, f. 3A-B (f,Dm).

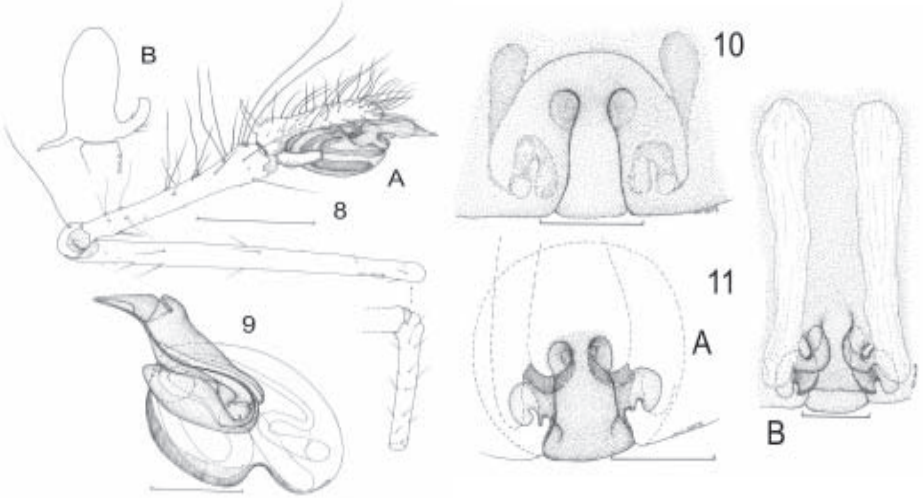
Material examined: La Digue, 1f, 20.10.2001, J. Gerlach leg. (MZT AA 2.287); Mahé, La Reserve, 1m3f, 01.01.1999 and path between Le Niol and Mare aux Cochons, 1f, 02/01/1999, M. Saaristo, P. Matyot and M. Kirkpatrik leg. (MZT AA 0.519 and 0.520), Silhouette: *Pisonia* forest, 3m2f1juv., 1990, La Passe, 3m5f 13.,15., and 19.01.1999, Belle Vue, 1m8f, 14.01.1999, Jardin Marron, 8f, 20.01.1999, and Chemin Montagne Possee, 10f, 12.01.1999, M. Saaristo and J. Gerlach leg. (MZT AA 0.236, 0.237, 0.506-0.518, and 1.032), Chemin Montagne Possee, sweep netting *Clidemia/Ipomoea macrantha/ Asystasia*, 2m, 13.07.2000, J. Gerlach leg., M. Saaristo det. (MZT AA 1.354), peak beyond Mt. Corgat, *Gynura* sweep netting, 1m, 08.07.2000, J. Gerlach leg., M. Saaristo det. (MZT AA 1.355), and Jardin Marron, Malaise trap, 4m1f, Sept. 2000-Aug. 2001, R. & J. Gerlach leg. (MZT AA 2.259)

Diagnosis: This medium-sized (TL = 4-5mm) can be recognized by its elongated abdomen with silvery dorsum and characteristic dark posterior spots. Segments of male palp conspicuously elengated; cymbium with long, erect spine-like posterodorsal apophysis. Epigyne long and narrow; adnexae with a pair of long, narrow weakly sclerotisized sacs.

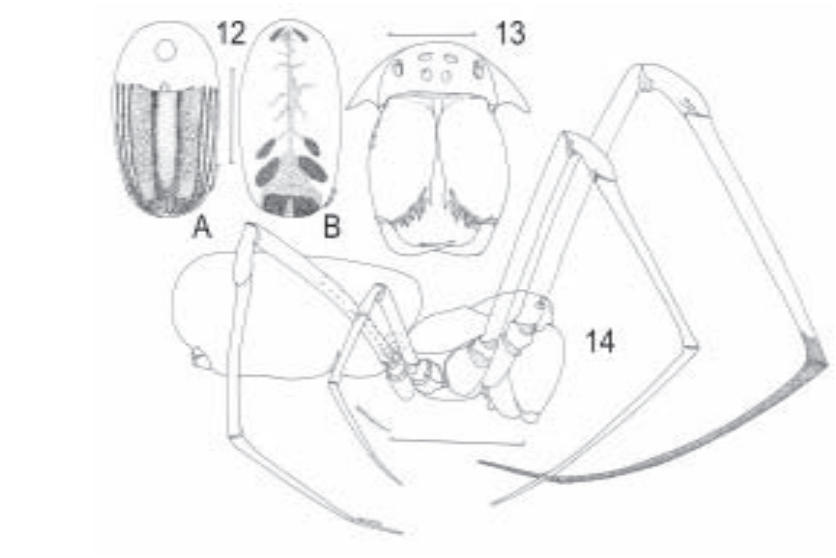
Description: The species has been well described by Benoit (1978b).

Distribution: This endemic species has been found on La Digue (*), Mahé (Simon 1893, Benoit 1978b, Saaristo 1999), Praslin (Benoit 1978b) and Silhouette (Benoit 1978b, Saaristo 1999).

Discussion: The species is here placed in *Mesida* as its secondary genitalia are similar to those of the type species of that genus, viz. *Mesida humilis* Kulczynski, 1911.



Figs. 8-11. *Mesida thorellii* (Blackwall, 1877) - 8: Right male palp ectally (A) and cymbium dorsally (B) - 9: Bulbus mesially - 10: Epigyne (type specimen) ventrally - 11: Adnexae ventrally (A) & dorsally (B) - Scale bars 8=0.5mm, 9=0.2mm, 10-11=0.2mm.



Figs. 12-14. *Mesida thorellii* (Blackwall, 1877) - 12: Ventral (A) and dorsal (B) colour pattern of female abdomen - 1: Carapace and chelicerae of female frontally - 14: Female dextrolaterally – Scale bars; 12 = 1.2 mm, 13 = 1.0 mm, 14 = 2.0 mm. - Orig.

Genus *Tylorida* Simon, 1894

Tylorida mornensis (Benoit, 1978) **n. comb.** (Figs. 15-18)

Leucauge mornensis Benoit 1978b: 669, f. 3D-C (Dmf).

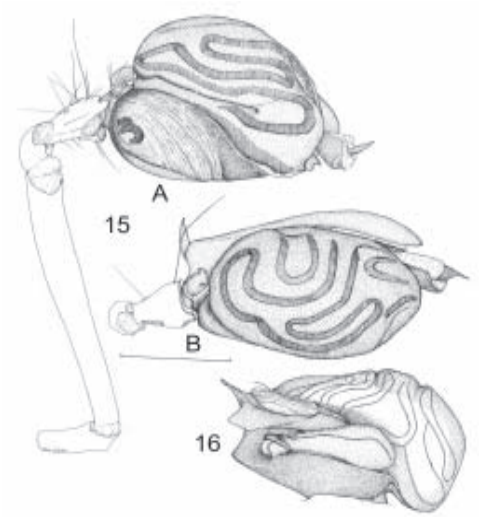
Material examined: Silhouette, *Pisonia* forest 4m4f2j., 1990, J. Gerlach leg. (MZT AA 0.238), Jardin Marron, 1m1f, 13.01.1999 and La Passe, 1subad.m2f 19.01.1999, M. Saaristo leg. (MZT AA 0.238, 0.239, 0.504, and 0.505), and *Pisonia* forest sweep netting, 1m2juv., 06.07. 2000, J. Gerlach leg., M. Saaristo det. (MZT AA 1.353).

Diagnosis: This is fairly large (TL = 5-7mm) dark coloured species. Abdomen globose, dorsally with dark, median saw-edged stripe, ventrally with a blackish hourglass-shaped figure. Tarsus of the male palp conspicuously elongated; cymbium with erect posterodorsal apophysis; seminal duct inside the prominent tegulun long and tortuous. Epigynal plate transverse oval, decorated by the trasparent meanandering tubes of adnexae.

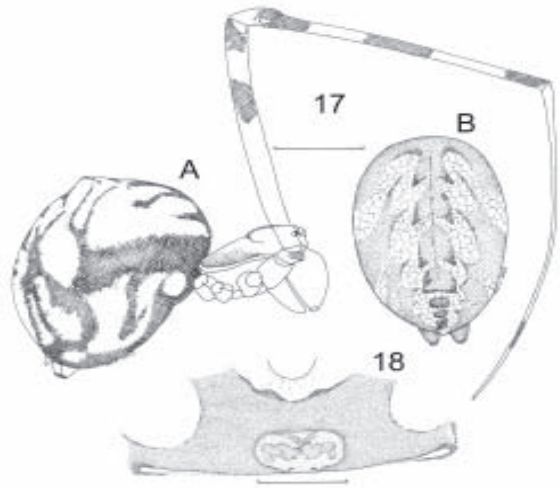
Description: The species has been well described by Benoit (1978b).

Distribution: At present it seems that *T. mornensis* may be endemic to Seychelles where it has been found on the following islands: Mahé (Benoit 1978b) and Silhouette (Saaristo 1999).

Discussion: The species was originally described in *Leucauge* but comparison with the type species of *Tylorida*, viz. *T. striata* (Thorell, 1877) revealed that the male and female secondary genital organs of the two species are almost identical. However, while *T. striata* is almost unicolourly yellowish with some silvery spots and black bands on legs *T. mornensis* is a much darker species. It is also almost twice the size of *T. striata*.



Figs. 15-16. *Tylorida mornensis* (Benoit, 1978). - 15 = Male palp ectally (A) and dorsally (B). - 16 = Bulbus ventrally. – Scale bar = 0.5 mm. - Orig



Figs. 17-18. *Tylorida mornensis* (Benoit, 1978). - 17: Female dextrolaterally (A), abdomen of dorsally (B). - 18: Epigyne ventrally. - Scale bars; 17=2.0mm, 18=0.5mm. - Orig.

subfamily Tetragnathinae

Remarks: The females of this subfamily have a much reduced epigyne consisting of only a very weakly sclerotized transverse plate which has openings leading to the adnexae on both sides. The abdominal area between this plate and the booklung openings is slightly elevated, forming a longitudinal ridge. Its length and width is more or less species specific. The adnexae consist of a large, very weakly chitinized median bag bearing well-sclerotized seminal receptaculae on either side. Further along the dorsal side duct opens, this arises from an unpaired median bladder.

Genus *Dyschiriognatha* Simon, 1893

Dyschiriognatha argyrostilba (O. Pickard-Cambridge, 1876) (Figs. 19-20)

Pachygnatha argyrostilba O. Pickard-Cambridge, 1876: 573, pl. LIX, f. 8 (Dmf).
Dyschiriognatha argyrostilba, Simon 1893: 324.
Pachygnatha (Dyschiriognatha) argyrostilba, Pavesi 1895a: 504.
Dyschiriognatha atlantica Holm, 1969: 62, f. 1-5 (Dm).
Dyschiriognatha sanctahelenensis Holm, 1969: 62. **Nomen nudum.**
Dyschiriognatha atlantica, Benoit 1977: 160, f. 69a-e (m).
Dyschiriognatha argyrostilba, Bosmans & Bosselaers 1994: 346, f. 132-147 (mf = *atlantica*).

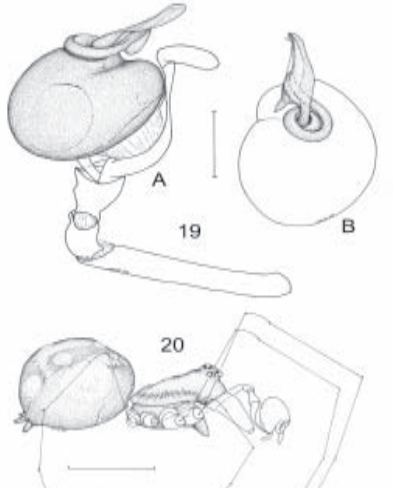
Material examined: Aride, 1m, 21.08.1975, J. Rowley leg. (MZT AA 0.245).

Diagnosis: This small (TL = 2-2.5mm) species with a spherical abdomen is easily recognized by having the tracheal spiracle positioned ¼ of the way from spinnerets to booklung spiracles.

Description: The species has been well described by Bosmans & Bosselaers (1994).

Distribution: According to Bosmans & Bosselaers (1994) the species is known from Egypt, Ethiopia, Cameroon, Zaire and St Helena island. In Seychelles the species has so far only been found on Aride (Bowler *et al*. 1999).

Discussion: D. atlantica was originally described from a single male specimen collected from St. Helena. It is evident that Holm (1969) aimed at first to describe the species under the name *Dyschiriognatha sanctahelenensis* as that name is used in a list of the *Dyschiriognatha* species from the Atlantic region just before the formal description of the species as *D. atlantica*! Accordingly *D. sanctahelenensis* must be considered as nomen nudum.



Figs. 19-20. *Dyschiriognatha argyrostilba* (O. Pickard-Cambridge, 1876) – 19: Right palp ectally (A), bulbus fontally (B) - 20: Male dextrolaterally – Scale bars; 19=0.2mm, 18=1.0mm. - Orig.

It should be noted that the very long, thin and hardly chitinized stylus of the embolus as figured by Holm (1969: Fig. 5) is an artefact (see also Bosmans & Bosselaers 1994: 347). In my specimen there is a similar structure, although it is much shorter. It is probably some kind of hardened seminal fluid pressed out of the embolus, probably due to the preserving liquid.

Genus *Tetragnatha* Latreillei, 1804

N.B. Allometric growth seems to affect both the form and size of the chelicera and its tooth.

Tetragnatha boydi O. Picard-Cambridge, 1898 (Figs. 21, 25)

Tetragnatha boydi O. Pickard-Cambridge, 1898: 389, pl. 31, f. 4 (Df).
Tetragnatha mandibulata, Saaristo 1978: 121, f. 224-231 (f, misidentification).
Tetragnatha infuscata Benoit, 1978b: 667, f. 2D-E (Dm). **NEW SYNONYMY.**
Tetragnatha boydi, Okuma 1983: 70, f. 1A-L (mf); Okuma 1988b: 208, f. 20A-L (mf); Okuma & Dippenaar-Schoeman 1988: 223, f. 4A-L (mf); Okuma 1992: 221, f. 1A-L (mf).

Material examined: Mahé: Anse Louis, male holotype of *T. infuscata*, 24.6.1972, P.L.G. Benoit & J.J. van Mol leg. (MRAC 143.319), mangrove thicket near the Reef Hotel, 1f2juvs., 24.10.1975, M. Saaristo leg. (MZT AA 0.041), and a brook near Mare aux Cochons, 1m2juvs., 02.01.1999, M. Saaristo, P. Matyot and M. Kirkpatrik leg. (MZT AA 0.497); North, hand collecting, 1m, May 1999, coll. BirdLife leg. (MZT AA 1.838); Silhouette, La Passe in assocation with *Nephila*, 2m5f, 10.01.1999, M. Saaristo & J. Gerlach leg. (MZT AA 0.496), mangrove, 1f, 15.01.1999, M. Saaristo & J. Gerlach leg. (MZT AA 0.498), near Dauban house, under *Casuarina* bark, 1f, 14.01.1999, M. Saaristo leg. (MZT AA 0.499), and 2f, Feb. 1993, J. Gerlach leg. (MZT AA 0.500).

Diagnosis: The male of this large (TL = 9-12mm), handsome *Tetragnatha* species can be recognized by the distinctive straight, flap-like apical part of the conductor and the female by the long, narrow epigyne; adnexae, which reach about half away of the length of the epigyne, with a pair of very small, spherical seminal receptaculae. The female is further characterized by a small, basal cusp on the fangs.

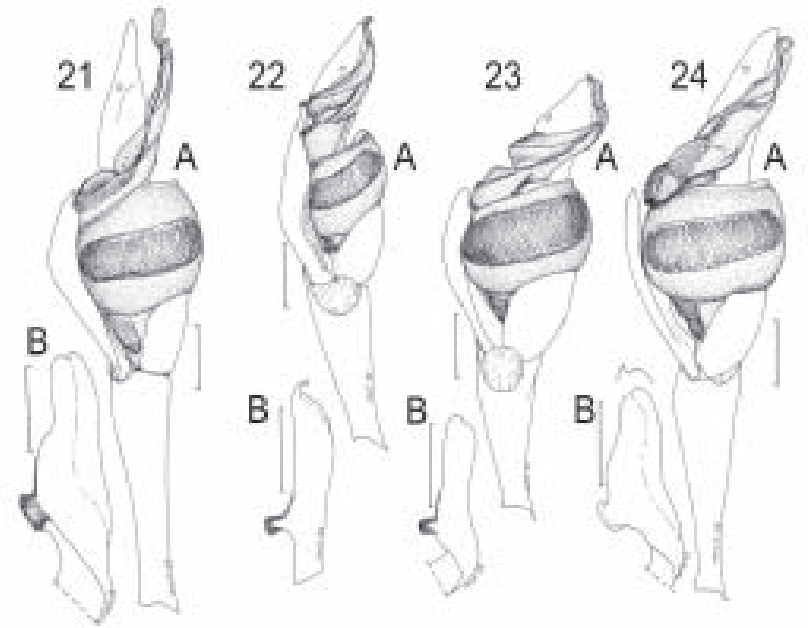
Description: Well described e.g by Okuma & Dippenaar-Schoeman (1988).

Distribution: This is a wide spread species and found from Mexico to Brazil, Sardinia, Africa, and Nepal (Platnick 2003). In Seychelles it has been recorded from the following islands: Mahé (Saaristo 1978, 1999: *T. mandibulata*, Benoit 1978b: *T. mandibulata*), North (Saaristo & Hill 2002: *T. mandibulata*), Praslin (Hirst 1911: *T. mandibulata*, Benoit 1978b: *T. mandibulata*) and Silhouette (Saaristo 1999: *T. mandibulata*).

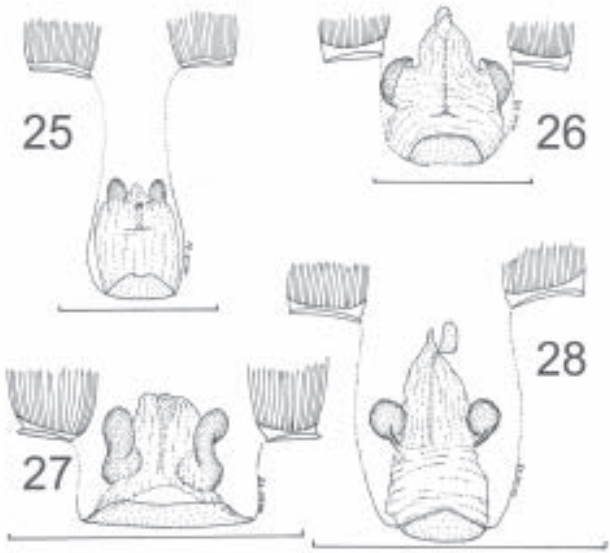
Tetragnatha ceylonica O. Pickard-Cambridge, 1869 (Figs. 22, 26)

Tetragnatha ceylonica O. Pickard-Cambridge, 1869: 394, pl. 13, f. 83-88 (Dmf).
Tetragnatha modesta Hirst, 1911: 383, f. 2 (Df). **NEW SYNONYMY.**
Tetragnatha modesta, Benoit 1978b: 666, f. 2A-C (mf).
Tetragnatha ceylonica, Okuma 1987: 48, f. 6A-I (mf); Okuma 1988a: 170, f. 3A-L (mf); Okuma & Dippenaar-Schoeman 1988: 227, f. 5A-L (mf); Barrion & Litsinger 1995: 513, f. 315a-g, 316a-m (mf); Song, Zhu & Chen 1999: 221, f. 125K, P-S (mf).

N.B. For more references see Platnick (2003).



Figs. 21-24. Male palp (A) and paracymbium (B). – 21: *Tetragnatha boydi* O. Pickard-Cambridge, 1898. – 22 = *T. ceylonica* O. P.-Cambridge, 1869. – 23: *T. demissa* L. Koch, 1872. – 24: *T. nigricularis* Simon, 1897. – Scale bars = 0.2 mm. - Orig.



Figs. 25-28. Adnexae of female. – 25: *Tetragnatha boydi* O. Pickard-Cambridge, 1898. – 26 = *T. ceylonica* O. P.-Cambridge, 1869. – 27: *T. demissa* L. Koch, 1872. – 28: *T. nigricularis* Simon, 1897. – Scale bars; 25 = 1.0 mm, 26-28 = 0.5 mm. - Orig.

Material examined: Mahé: Anse à la Mouche, 1m1f, 01.-15.07.1972, P.L.G. Benoit & J.J. van Mol leg. (MRAC 148.512); Silhouette, La Passe, in assocation with *Nephila*, 1m, 10.01.1999, M.Saaristo & J.Gerlach leg. (MZT AA 0.490), 1m1subad.m, 18.01.1999, J.Gerlach leg. (MZT AA 0.491) and mangrove, 1f, 15.01.1999, M.Saaristo & J.Gerlach leg. (MZT AA 0.492)

Diagnosis: The male is well distinguished by the apically hooked paracymbium and the hook-like apex of the conductor. The female epigyne is about as wide as long; adnexae, which reach behibd the level openings of the booklungs, with a pair of cup-like seminal receptaculae.

Description: Well described e.g by Okuma & Dippenaar-Schoeman (1988).
Distribution: South Africa, Sri Lanka to Philippines, New Britain (Platnick 2003). In Seychelles recorded from Mahé (Hirst 1911, Benoit 1978b as *T. modesta*) and Silhouette (Hirst 1911 and Saaristo 1999 as *T. modesta*).

Tetragnatha demissa L. Koch, 1872 (Figs. 23 27)

Tetragnatha demissa L. Koch, 1872: 185, pl. 16, f. 1 (Df).
-"-, Keyserling, 1887: 221, pl. 20, f. 3 (Dm).
Tetragnatha foliifera Simon, 1898: 377 (Df). **NEW SYNONYMY**.
-"-, Hirst 1911: 381.
Tetragnatha quadridens Dondale, 1966: 1175, f. 4A-E (Dmf).
Tetragnatha foliifera, Benoit 1978b: 665, f. 1D (f).
Tetragnatha marginata, Saaristo 1978: 124, f. 232-241 (mf, missidentification; S *T. quadridens* with *T. marginata* Thorell, rejected by Okuma 1987).
Tetragnatha demissa, Okuma 1987: 50, f. 7A-K (mf = *quadridens*).
Tetragnatha grenda Roberts, 1983: 247, f. 103-113 (Dmf).**NEW SYNONYMY**.
Tetragnatha demissa, Okuma & Dippenaar-Schoeman 1988: 227, f. 6A-M (mf)

Material examined: Aldabra, Picard, 1m1juv., Dec. 2000, P. Matyot leg. (MZT AA 2.242); Conception, sweeping, 1f1juv., Sept. 1999, coll. BirdLife leg. (MZT AA 1.610); Cousin, sweeping, 1f3juvs., March 2000, coll. BirdLife leg. (MZT AA 1.836) and sweeping, 5juvs., Dec. 1999, coll. BirdLife leg. (MZT AA 1.837); Cousine W-end "pedestal", coconut leaves, 1f, 23.01.1999, M. Saaristo leg. (MZT AA 0.495); Mahé, yard of the Reef Hotel, from *Casurarina* bushes, 1m1f1juv., 24.10.1975, M. Saaristo leg. (MZT AA 0.042); Silhouette, La Passe, among leaves of bushes in front of Gerlachs, 1m, 15.01.1999, M. Saaristo leg. (MZT AA 0.493) and tortoise enclousures, 1m, 18.01.1999, J. Gerlach leg. (MZT AA 0.494); St. Francois, 1m1f2juvs., 08.04.2001, J. Gerlach leg. (MZT AA 2.204).

Diagnosis: The male of this species is well distinguished by the slightly S-like curved apex of the conductor. The female epigyne is distimctly wider than long; adnexae, which reach well behind the level openings of the booklungs, with a pair large, S-like curved seminal receptaculae.

Description: Well described e.g by Okuma & Dippenaar-Schoeman (1988).

Distribution: South Africa, Australia to Tonga (Platnick 2003). In Seychelles recorded from Aldabra (*), Conception (*), Cousin (Saaristo & Hill 2002: *T. marginata*), Cousine (Saaristo 1999: *T. marginata*), Mahé (Hirst 1911: *T. foliifera*, Saaristo 1978: *T. marginata*, Benoit 1978b: *T. foliifera*), Silhouette (Simon 1898: *T. foliifera* Hirst 1911: *T. foliifera*, Saaristo 1999: *T. marginata*) and St. Francois (*).

Tetragnatha nigricularis Simon, 1898 (Figs. 24, 28)

Tetragnatha nigricularis Simon, 1898: 377 (Df).

-"-, Benoit 1978b: 663, f. 1A-C (f,Dm).

Material examined: Mahé, Morne Séchellois, allotype male of *T. nigricularis*, 13.-17.7.1972, P.L.G. Benoit & J.J. van Mol leg. (MRAC 148.511) and a brook near Mare aux Cochons, 2m1f7juvs., 02.01.1999, M. Saaristo, P. Matyot and M. Kirkpatrik leg. (MZT AA 0.485); Silhouette, La Passe, among boulders of reservoir river, 3m11f2juvs., 19.01.1999, M. Saaristo leg. (MZT AA 0.483-0.484), boulders behind the dam, 5f3juvs., 15.01.1999, M. Saaristo leg. (MZT AA 0.486), and beating grass and bushes before the dam, 1f, 15.01.1999, M. Saaristo leg. (MZT AA 0.489), Jardin Marron, 2f, 20.01.1999, M. Saaristo leg. (MZT AA 0.487), and Belle Vue River (200 m elevation), 3f, 14.01.1999, M. Saaristo leg. (MZT AA 0.488).

Diagnosis: The male of this species is well distinguished by the small, flap-like laterally pointing apex of the conductor. The female epigyne is about twice as long as wide; adnexae, which reach about the level of the booklungs openings, with a pair spherical seminal receptaculae.

Description: Well described by Benoit (1978b).

Distribution: This seems to be an endemic species found on the following islands: Curieuse (Benoit 1978b), Félicité (Hirst 1911), Mahé (Simon 1898, Hirst 1911, Benoit 1978b, Saaristo 1999), Praslin (Hirst 1911) and Silhouette (Hirst 1911, Saaristo 1999).

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