

Symphytognathidae (Arachnida, Araneae), a new spider family for the granitic islands of Seychelles

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Abstract: Two new symphytognathid species, *Anapistula seychellensis* n. sp. and *Patu silho* n. sp. are described. No members of the family Syphytognathidae has ever been recorded from the Seychelles before.

Introduction

The family Symphytognathidae includes tiny, lungless, orb- or sheet-web weaving spiders, among them are the smallest known spiders (the male of *Patu digua* Forster & Platnick, 1977 with a total length of 0.37 mm is the world's smallest known spider). Forster & Platnick (1977) have redelimited the family on the basis of synapomorphic characters and restricted it to include only those spiders which have (1) the chelicerae fused wholly or in part, (2) the female pedipalp reduced or absent, (3) the labium wider than long, and (4) the sternum broadly truncate posteriorly.

The family is widespread in the tropics of the southern hemisphere but due to their minute size they have rarely been collected. At present some 25 species (6 genera) are known but only three of them have been recorded from Africa (Griswold 1987, Baert & Jocque 1992).

All measurements cited below are in millimetres.

Genus *Anapistula* Gertsch, 1941

Anapistula Gertsch, 1941: 2. - Type species by original designation *Anapistula secreta* Gertsch, 1941 from Panama (Barro Colorado Isl.).

Diagnosis: Eyes in diads and pars cephalica only slightly elevated.

Description: The genus has been well described by Forster & Platnick (1977).

Anapistula seychellensis, new species (Figs. 1-4)

Type: Female holotype from Seychelles; Silhouette, Mon Plaisir, in litter, 20.12.1993, Justin Gerlach legend. Deposited in the Zoological Museum, University of Turku (MZT AA 0.290).

Diagnosis: *Anapistula seychellensis* is closely related to *A. benoiti* Forster & Platnick, 1977 from Zaire and *A. caecula* Baert & Jocque, 1993 from Côte-d'Ivoire. It differs from the first mentioned species by the much smaller spermathecae and longer lateral branches connecting them to the median duct and

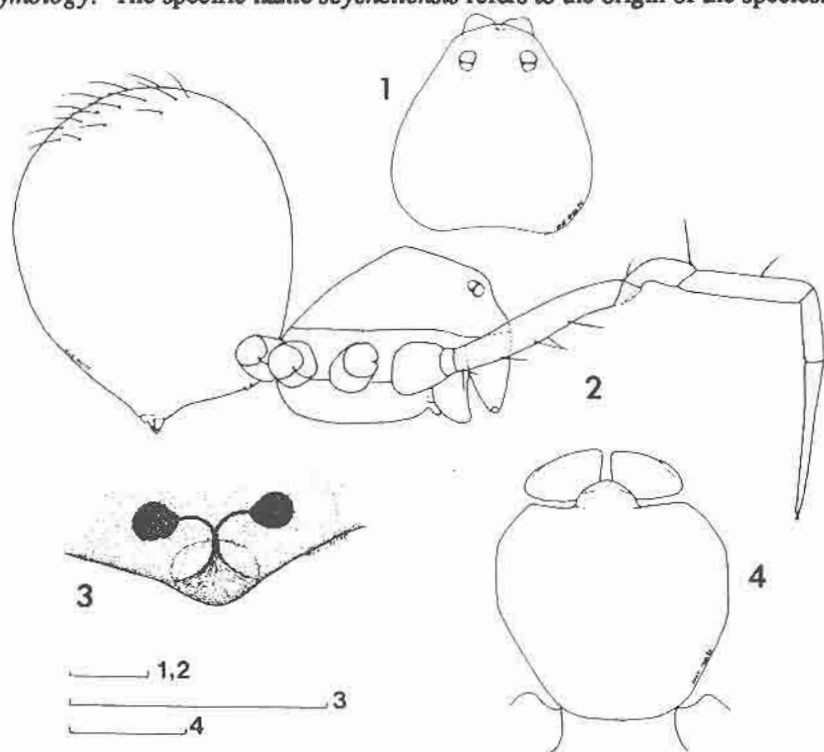
from the second one by the almost spherical spermathecae; the corresponding structures of *A. caecula* are kidney-shaped.

Male: Unknown.

Female: Total length, not including chelicerae, 0.64. Carapace 0.27 long, 0.22 wide. Abdomen 0.36 long, 0.36 wide, 0.42 high. Cephalothorax and legs pale brown. Abdomen somewhat pear-shaped, whitish; its sides and dorsum mottled with grey and clothed sparsely with long grey setae standing on brown spots. Four eyes in two diads. Sternum broadly truncate between hind coxae. Cheliceral teeth undiscernable. Legs fairly short and stout with some projecting macrosetae. Palp completely absent. Epigyne with two relatively small spermathecae connected by fairly long lateral branches to the short median duct, the first half of which is broadly conical.

Distribution: Known only from Silhouette, Seychelles.

Etymology: The specific name *seychellensis* refers to the origin of the species.



Figs. 1-4. *Anapistula seychellensis* n. sp. Original figure. Scale bar = 0.1 mm.

1). Female cephalothorax dorsally. 2). Female dextrolaterally. 3). Epigyne dorsally. 4). Sternum, labium, maxillae and hind coxae ventrally.

Genus *Patu* Marples, 1951

Patu Marples, 1951: 47. - Type species by original designation *Patu vitiensis* Marples, 1951 from Fiji.

Diagnosis: Chelicerae fused only near their base, six eyes in diads, and pars cephalica elevated.

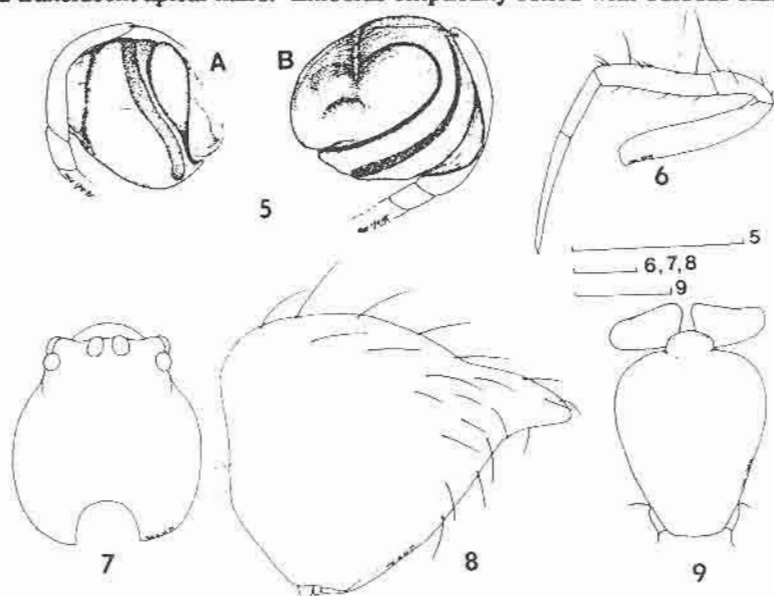
Description: The genus has been well described by Forster & Platnick (1977).

Patu silho, new species (Figs. 5-9)

Types: Male holotype and female paratype from Seychelles; Silhouette, Mon Plaisir, in litter, 20.12.1993, Justin Gerlach legend. Deposited in the Zoological Museum, University of Turku (MZT AA 0.289).

Diagnosis: *Patu silho* may be easily recognized by the pointed posterior protuberance on the globose abdomen.

Male: General appearance as in female (described below). Size somewhat smaller but exact measurements impossible as the specimen has suffered some damage during collection. Palpal cymbium long and narrow with one (or two) long, curved and translucent apical hairs. Embolus elliptically coiled with bulbous basal part.



Figs. 5-9. *Patu silho* n. sp. Original figure. Scale bar = 0.1mm.

5). Right male palp laterally (A) and mesially (B). 6). Left leg I of female laterally. 7). Carapace of female dorsally. 8). Abdomen of female laterally. 9). Sternum, labium, maxillae and hind coxae ventrally.

Female: Total length, not including chelicerae, 0.76. Carapace 0.31 long, 0.25 wide. Abdomen 0.47 long, 0.33 wide, 0.42 high. Carapace, sternum, labium and endites shining brownish black. Chelicerae black. Legs blackish except the proximal parts of metatarsi and tarsi pale, giving them a somewhat annulated appearance. Six eyes in three diads. Palp completely absent. Sternum pear-shaped, truncate between hind coxae. Cheliceral teeth undiscernable. Legs fairly short and stout with some projecting macrosetae; the one at the patella apex is extremely long. Abdomen globose with pointed posterior protuberance; blackish except for a large pale area on the underside of the posterior protuberance, clothed sparsely with long dark hairs.

Distribution: Known only from Silhouette, Seychelles.

Etymology: The specific name *silho* refers to the island of origin, Silhouette.

Discussion: It is quite possible that *Patu silho* is not a "real" *Patu* although the shape of the embolus is in some agreement with that of *P. vitiensis*. I have compared *P. silho* with a female of *P. vitiensis* from Fiji, Vitilevu, Longani (MZT, P.T. Lehtinen leg.) and its somatic characters are totally different to those of *P. silho*. However, the present material is so scanty that no SEM studies were possible. Therefore, it has been thought best to retain the wide generic concept of *Patu* as presented by Forster & Platnick (1977).

References

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