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The first description of adult female of *Borboropactus asper* (O. P.-Cambridge, 1884) from Sri Lanka (Araneae: Thomisidae)

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Regillus, a new genus of spiders with *R. asper* as its type species, was described by O.P.-Cambridge (1884) from Ceylon (now Sri Lanka) on the basis of a subadult female. The genus was placed in Cryptothelidae (now considered a subfamily of Zodariidae) due to its similarity with *Cryptothele ceylonica* O.P.-Cambridge, 1877. However, the new genus had a different eye arrangement, differently shaped maxillae and six spinnerets instead of two (O.P.-Cambridge 1884). Soon after, Simon (1895) recognized that this genus belonged to Thomisidae and synonymised his *Borboropactus* Simon, 1884 with *Regillus*. When it was found that *Regillus* was a junior homonym of the name used by Macgillivray in 1839 (for kinglets) *Borboropactus* was revalidated. Since the original description *R. asper* was redescribed only once, by Simon (1895), who illustrated its leg, chelicera and labium-maxilla complex (Simon 1895: figs 1094–1096). Wunderlich (2004) transferred *Borboropactus* to a new family Borboropactidae, which was rejected by Benjamin *et al.* (2008) and Benjamin (2011). However, the type species was never studied in any detail.

While trying to redescribe *Cryptothele ceylonica*, a species known only from a subadult female, we (YM and MO), lacking females in our own material recently collected in Sri Lanka, went through the collections of the Zoological Museum, University of Turku and found numerous males and a single female collected by P.T. Lehtinen, and identified as *Cryptothele ceylonica*. While illustrating the female we noticed that its epigyne was rather different from that of *C. alluaudi* Simon, 1893 recently redescribed by us (Marusik & Omelko 2012). We became aware of our (and Lehtinen's) mistake when we started working on the written description of *C. ceylonica* and found strong spines on legs I and II, six spinnerets and eye arrangements different from that of *Cryptothele*. The habitus of the two genera, *Borboropactus* and *Cryptothele* (cf. Figs 1, 3) is so similar that it had been confused by O.P.-Cambridge, Lehtinen, and us.

The main goal of this work is to describe the adult female of *Borboropactus asper* for the first time and to compare it with other *Borboropactus* known from South East Asia.

Material studied here comes from the Muséum d'Histoire Naturelle, Genève (MHNG), Oxford University Museum of Natural History, Oxford (OUMNH) and Zoological Museum, University of Turku (ZMUT). The English of the final draft was kindly edited by Donald Buckle. All measurements are in mm. This project was supported in part by the Russian Foundation for Fundamental Research (grants # 11–04–01716 and 12–04–01548) to YMM and MMO and the Alexander von Humboldt Foundation to SPB.

Borboropactus asper (O. P.-Cambridge, 1884)

Figs 1-2, 4-8

Regillus asper O. P.-Cambridge, 1884: 204, plate 15, fig. 5 (juvenile). Regillus asper: Simon, 1895; 1055: figs 1094–1096.

Type material: Holotype: juvenile "Ceylon" [Sri Lanka], (OUMNH 0396.1) (examined). **Other material examined. SRI LANKA:** *Sabaragamuwa Province:* 1^Q Ratnapura District, Welladiya, moist grassy slope, 17 January 1969, P.T. Lehtinen (ZMUT, AA 5.810). *Central Province*: 1^Q Agrapathana, Agrabopath forest reserve, 800–1660 m, 8 March 2000, S.P. Benajmin & S. Nanayakara (MHNG).



FIGURES 1–6. *Borboropactes asper.* 1 female habitus, dorsal; 2 juvenile holotype, dorsal; 4–5 epigyne ventral (4 not macerated, 5 after maceration); 6 vulva, dorsal. *Cryptothele alluaudi.* 3 female from Seychelles, habitus dorsal. Abbreviations: *Et* epigynal tooth; *Po* pocket; *Se* septum; *Ul* upper loop.

Diagnosis. Epigyne of *B. asper* is most similar to those in *B. cinerascens* (Doleschall, 1859) known from Malaysia to the Philippines and New Guinea (Figs 9–10; Benjamin *et. al.* 2008: figs 8D-E, Benjamin 2011: figs 18D-E). *Borboropactus asper* has a wider and longer septum, a small pocket (1/2 of septal width in *B. asper*, and as wide as septum in *B. cinerascens*) and much larger upper loops of the insemination ducts.

Description. Female (from Welladiya): Total length 8.16. Cephalothorax: carapace 3.95 long and 3.37 wide. Carapace uniformly brown, covered with whitish curled hairs and dirt. Abdomen light brown, without pattern, covered with dense whitish clavate hairs and sparse dark clavate hairs. General colouration brown. Holotype juvenile has relatively larger clavate hairs but smaller size (3.67 mm). Legs prograde. Spination: leg I: femur with 1 dorsal, 1 dorso-prolateral and 2 prolateral spines, ventrally with two rows of small (short) spines, each row with more than 10 spines; tibia with 5 proventral and 4 retroventral spines; metatarsus with 3 pairs of ventral spines. Leg II: 1 prolateral and 4 pairs of ventral spines; metatarsus with 3 pairs of ventral spines. Spines on leg I much stronger than on leg II. Tibia of all legs with 2 dorso-retrolateral trichobothria in basal 1/3; metatarsi I–II and IV with 2 dorso-retrolateral trichobothria close to centre; metatarsus III with 3 trichobothria. Metatarsi of all legs flattened dorso-ventrally. Femur I with shallow prolateral notch (Fig. 1) which allows legs to approach each other.

Leg segments length:

	Fe	Pt	Ti	Mt	Та	Total	
Ι	3.3	1.5	3.05	1.75	0.75	10.35	
II	2.1	0.95	1.75	13	0.65	6.75	
III	2.15	1.0	1.8	1.7	0.8	7.45	
IV	2.55	1.0	1.7	1.7	0.8	7.75	



FIGURES 7–10. Borboropactes asper: 7 epigyne, ventral; 8 vulva, dorsal. B. cinerascens. 9 epigyne, ventral; 10 vulva, dorsal. Abbreviations: Et epigynal tooth; Po pocket; Se septum; Ul upper loop.

Epigyne as in Figs 4–8; with massive trunk-like septum (*Se*) bearing a small pocket (*Po*) near the tip, pocket width = $\frac{1}{2}$ of septum width; epigynal teeth (*Et*) well sclerotized; insemination duct long, making several loops in different planes; upper loops (*Ul*) larger (wider) than lower.

Distribution. The exact type locality is unknown. According to O.P.-Cambridge (1884) "A single example was received many years ago, from Ceylon, from Mr. G. H. K. Thwaites". Bonnet (1955) indicates its distribution as "Ceylan, Inde" (=Sri Lanka and India). This species was reported from India by Reimoser (1934), however, this record most likely refers to other *Borboropactes* or *Cryptothele*. So far it is known from two bordering provinces, Sabaragamuwa and Central in Sri Lanka.

Remarks. There might be more than one species of the genus in Sri Lanka. However, the only described species from the island is based on a juvenile. The validities of taxa based on juvenile specimens are generally difficult to assess in Thomisidae, and in *Borboropactus* particularly. Thus, instead of considering this name as *nomen dubium* we link it to the most common species found in the island.

References

- Benjamin, S.P. (2011) Phylogenetics and comparative morphology of crab spiders (Araneae: Dionycha, Thomisidae). *Zootaxa*, 3080, 1–108.
- Benjamin, S.P., Dimitrov, D., Hormiga, G. & Gillespie, R.G. (2008) Family ties: molecular phylogeny of crab spiders (Araneae: Thomisidae). *Cladistics*, 24, 708–722.

http://dx.doi.org/10.1111/j.1096-0031.2008.00202.x

Bonnet, P. (1955) Bibliographia araneorum. Les Fréres Douladoure, Toulouse, 2 (1), pp. 1–918.

Cambridge, O.P.- (1884) On two new genera of spiders. *Proceedings of the Zoological Society of London*, 1884, 196–205.

http://dx.doi.org/10.1111/j.1096-3642.1884.tb02819.x

- Marusik, Y.M. & Omelko, M.M. (2012) Redescription of *Cryptothele alluaudi* Simon, 1893 (Araneae). *Arthropoda* Selecta, 21, 183–186.
- Reimoser, E. (1934) Araneae aus Süd-Indien. Revue suisse de zoologie, 41, 465-511.
- Simon, E. (1895) Histoire naturelle des araignées. Roret, Paris, 1, 761-1084.
- Wunderlich, J. (2004) The new spider (Araneae) family Borboropactidae from the tropics and fossil in baltic amber. *Beiträge zur Araneologie*, 3, 1737–1746.