

## **Diversity of goblin spider Genus *Brignolia* (Family: Oonopidae ) in Sri Lanka**

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### **Abstract**

The goblin spider genus *Brignolia* (Dumitrescu & Georgescu, 1983) currently contains thirty one species found in Borneo, India, Mauritius, Nepal, Philippines, Seychelles, Sri Lanka, Thailand, USA, Vietnam and the West Indies. However, prior to our study five species of *Brignolia* were known from Sri Lanka, *Brignolia ambigua*, *B. nigripalpis*, *B. ratnapura*, *B. sinharaja* and *B. trichinalis*. Heavily sclerotized palps with dorsal depression are key characters that define this genus. This study is an island wide survey of the genus *Brignolia*.

Field visits were conducted in 115 sites in all provinces of Sri Lanka. Litter samples were sifted and left over night in a Winkler extractor. The collected specimens were examined using an Olympus SZX 7 stereomicroscope. Left male palps were immersed in few drops of Kaiser's glycerol, slide mounted, observed and illustrated with an Olympus BX51 compound microscope attached with a drawing tube.

Of the 258 collected goblin spider specimens, 46 specimens (21 males and 25 females) were *Brignolia*. One male specimen from Monaragala District, eight specimens (four males, four females) from Badulla District and three (2 males, 1 female) from Nuwara Eliya District were identified as *B. ratnapura*. Their body size is 1.26-1.44 mm. They are equipped with a rounded, dorsally sclerotized protrusion on the palp. One male specimen (Body length: 1.30 mm) collected from Matale District was identified as *B. ambigua* because of their short, distally expanded, blunt tipped, palpal bulb. Both of these species are endemics. Male specimen (Body length: 1.34 mm) with dorsally directed palpal bulb was recognized as *Brignolia nigripalpis*. It was collected from Kandy District with three female specimens. *B. parumpunctata* was reported for the first time in Sri Lanka. Palpals of *B. ratnapura* and *B. parumpunctata* were more similar to each other. However, the dorsal protrusion is more coiled in *B. parumpunctata* than the later. Two new species were discovered from Kandy and Badulla Districts.

All nominal species of the goblin spider genus *Brignolia* from Sri Lanka will be described based on our new material in a future publication

**Key words:** Diversity, *Brignolia*, Oonopidae, Sri Lanka