



Redescription of the orb-weaving spider *Gasteracantha geminata* (Fabricius, 1798) (Araneae, Araneidae)

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The orb-weaving spider genus *Gasteracantha* Sundevall, 1833 (Araneidae) is notable for its pronounced sexual size dimorphism. *Gasteracantha* females are characterized by having a highly sclerotized “spiny” abdomen varying in relative size and number of spines, as well as abdomen dorsally and ventrally provided with varying numbers of sigillae (Cambridge 1879). The genus currently includes 70 described species and 31 subspecies (World Spider Catalog 2014). The Oriental species *Gasteracantha geminata* (Fabricius, 1798) was originally described from Ramnad (now known as Ramanathapuram) in Tamilnadu State of Southern India based on an unspecified number of female specimen(s). The female of this species has been described and illustrated several times by various authors. Its male is only known from the description of Simon (1895). Simon’s original description of the male of *G. geminata* was supported by two simple but beautiful and informative illustrations: a retrolateral view of the cephalothorax and a dorsal view of the abdomen (Simon 1895, figs. 886, 887). However we lack a clear and detailed description of the male genitalia. The present paper provides detailed redescription of *G. geminata* and illustrations of the male pedipalp.

The specimens were studied using a Zeiss Stemi 2000-C stereomicroscope. All measurements are in millimetres (mm) and were taken using an ocular micrometer. Length of palp and leg segments are given as: total (femur, patella, tibia, metatarsus (except palp), tarsus). Drawings were made by the aid of a drawing tube attached to the microscope. The microphotographic images were taken with a Leica DFC295 digital camera attached to Leica M205 C stereomicroscope with the software package Leica Application Suite (LAS), version 4.3.0. The specimens are deposited in a reference collection housed at the Division of Arachnology, Department of Zoology, Sacred Heart College, Thevara, Cochin, Kerala, India (ADSH).

Abbreviations used: ALE—anterior lateral eye, AME—anterior median eye, PLE—posterior lateral eye, PME—posterior median eye.

Taxonomy

Araneidae Clerck, 1757

Gasteracantha Sundevall, 1833

Gasteracantha geminata (Fabricius, 1798)

Aranea geminata Fabricius, 1798: 292 (Description of ♀ (Ramanathapuram, 9°22'14.12"N, 78°50'00.44"E; 10.67 m))

Gasteracantha geminata C. L. Koch, 1837: 16, fig. 260 (Description and illustration of ♀).

Plectana geminata Walckenaer, 1841: 158.

Gasteracantha connata Butler, 1873: 168 (Description of ♀)

Gasteracantha rimata O. P.-Cambridge, 1879: 282, pl. 26, fig. 3 (Description and illustration of ♀)

Gasteracantha geminata Simon, 1895: 836, figs. 883-887 (Description of ♂ and illustrations of ♂ & ♀). Pocock, 1900: 233, fig. 79 (Description and illustration of ♀). Dahl, 1914: 267, fig. 11 (Illustration of ♀). Tikader, 1982: 53, figs. 107-110 (Description and illustration of ♀). Kim *et al.*, 2013: 175, figs. 1-8 (Description and illustration of ♀).

Material examined. India, Kerala, Alappuzha, Pathiramanal Island (9°37'07.11"N, 76°23'04.95"E), 0 m, Pradeep M.S.

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