

Studies on some rare spiders of the family Zodariidae from India

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Summary

Three new species of spider are described in this paper of the family Zodariidae from India. The new species belong to the genera *Storena* Walck. and *Lutica* Marx.

Introduction

The spiders of the family Zodariidae are very little known from our Indian fauna. Even the *Fauna of British India, Arachnida*, by Pocock (1900), *Spiders of Burma*, by Thorell (1895) and *Malaysian Spiders* by Workman (1896) contain no reference to this family. Simon (1905, 1906) described *Storena redimita* and *S. nilgherina*. Subsequently Gravely (1921) described a new genus and a new species *Hermipoides arjuna* and *Storena birenifer* respectively along with the report of *Suffucia cingulata* Simon of the family Zodariidae from India. The genus *Lutica* is recorded here for the first time from India.

While examining the spider collection made by one of us (BHP) from Gujarat and another collection by B. Goswami from West Bengal, we came across three new species of spiders of the family Zodariidae, which are described in this paper. These spiders are found under stones or dead leaves on the ground.

All the type specimens will in due course be deposited in the collection of the Zoological Survey of India, Calcutta.

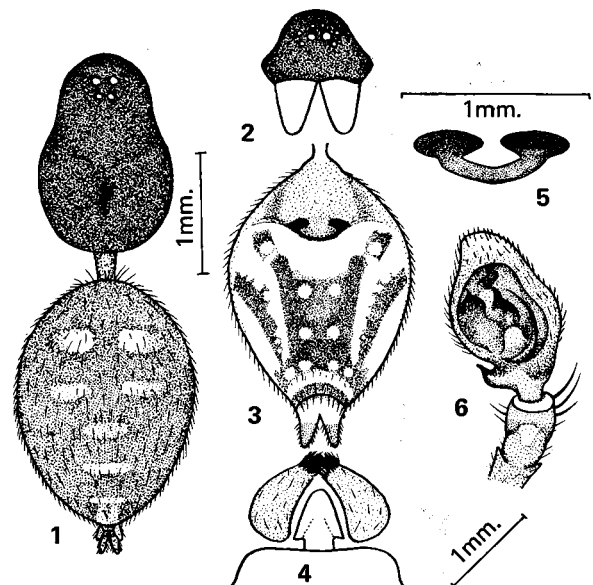
Storena indica sp. nov.

General: Cephalothorax light reddish-brown, abdomen deep brown, legs light green. Total length 7.8 mm. Cephalothorax 3.2 mm long, 2.1 mm wide;

abdomen 4.0 mm long, 3.0 mm wide.

Cephalothorax: Longer than wide, narrowing in front, anterior margin round and smooth, practically without hairs except for a few spine-like hairs on the cephalic region. Middle of cephalothorax provided with a conspicuous fovea. Eyes pearly white, two rows, four eyes in each row, both rows procurved but posterior row strongly procurved and equal in size. Anterior median eyes larger than others; lateral eyes nearly contiguous. Posterior median eyes closer to each other than to the posterior laterals, as in Figs. 1, 2. Legs long and strongly clothed with hairs and spines. Legs formula 4312. Sternum heart-shaped and pointed behind, clothed with thick hairs. Labium and maxillae small as in Fig. 4. Male slightly smaller than female, palp as in Fig. 6.

Abdomen: Longer than wide and pointed behind, clothed with fine hairs. Anterior dorsal side of abdomen provided with two pairs of conspicuous white patches and posterior end provided with two inconspicuous white transverse marks as in Fig. 1. Ventral side pale with two longitudinal deep brown marks as in Fig. 3. The anterior spinnerets long and other two pairs of spinnerets comparatively short as in Figs. 1, 3. Epigyne as in Fig. 5.



Figs. 1-6: *Storena indica* sp. nov. 1 Dorsal view of female, legs omitted; 2 Eyes, front view; 3 Ventral side of abdomen of female; 4 Labium and maxillae; 5 Epigyne; 6 Male palp.

Holotype: One female, *paratype* one female, *allotype* one male in spirit.

Type-locality: Pavagadh, Dist. Panchmahals, Gujarat, India, Coll. B. H. Patel, 10.9.1972. Paratype and allotype, Vallabh Vidyanagar, Dist. Kaira, Gujarat, India, Coll. B. H. Patel, 26.7.1971.

This species resembles *Storena birenifer* Gravelly but it is separated as follows: (i) Anterior dorsal side of abdomen provided with two pairs of conspicuous white patches whereas in *S. birenifer* dorsal side of abdomen provided with three pairs of white patches. (ii) Epigyne and male palp also structurally different.

Storena gujaratensis sp.nov.

General: Cephalothorax and legs reddish-brown, abdomen brown. Total length 6.4 mm. Carapace 3.5 mm long, 3.0 mm wide; abdomen 2.5 mm long, 2.0 mm wide.

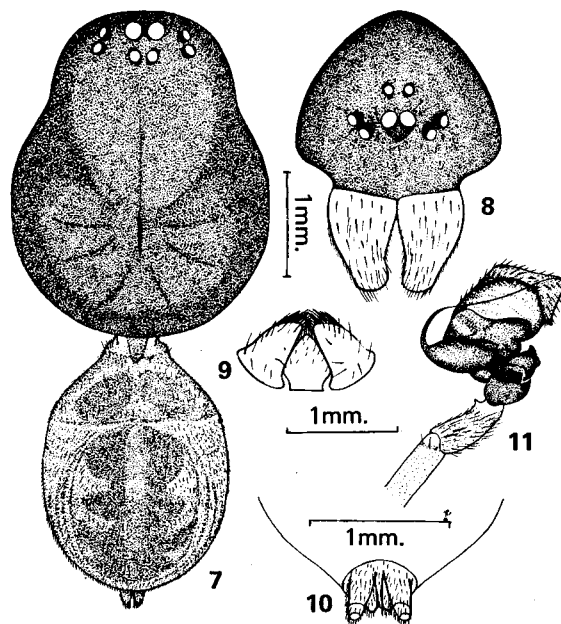
Cephalothorax: Longer than wide, narrowing in front, anterior margin round and smooth, practically without hairs, except for some pubescence on the cephalic region. Middle of cephalothorax provided with conspicuous fovea. Eyes pearly white, two rows, four eyes in each row, both rows procurved but posterior row strongly procurved and posterior lateral eyes slightly larger than medians. Anterior median eyes larger than others, lateral eyes contiguous. Posterior median eyes closer to each other than to the posterior laterals as in Figs. 7, 8, 9. Legs long and strongly clothed with hairs and spines. Legs formula 4123. Sternum heart-shaped and pointed behind, clothed with fine hairs. Labium and maxillae small, upper margin of maxillae provided with a tuft of scopulae as in Fig. 9. Male palp as in Fig. 11.

Abdomen: Longer than wide, clothed with fine hairs. Dorsal side darker than ventral side. The anterior spinnerets long and other two pairs of spinnerets comparatively short as in Fig. 10.

Holotype: One male in spirit.

Type-locality: Napad, Dist. Kaira, Gujarat, India. Coll. B. H. Patel, 23.7.1972.

This species resembles *Storena indica* sp.nov. but it is separated as follows: (i) Dorsal side of abdomen uniform deep brown in colour but in *S. indica* dorsal side of abdomen provided with two pairs of conspicuous white patches. (ii) Male palp also structurally different.



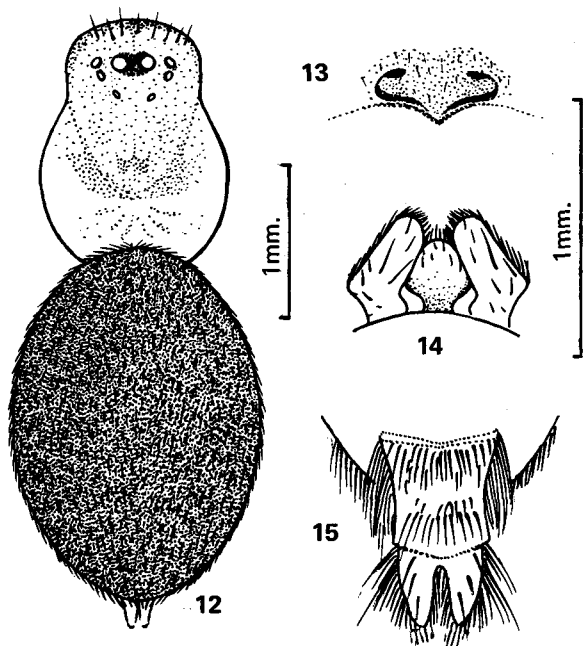
Figs. 7-11: *Storena gujaratensis* sp.nov. 7 Dorsal view of male, legs omitted; 8 Eyes, front view; 9 Labium and maxillae; 10 Spinnerets; 11 Male palp.

Lutica bengalensis sp.nov.

General: Cephalothorax and legs reddish-brown, abdomen deep brown. Total length 4.0 mm. Cephalothorax 1.8 mm long, 1.2 mm wide; abdomen 2.4 mm long, 1.8 mm wide.

Cephalothorax: Longer than wide, cephalic region slightly higher with rounded margin and provided with light brown patches as in Fig. 12. Eyes pearly white except anterior medians. Anterior row straight or slightly procurved, anterior medians conspicuously larger than others and encircled by deep brown patches. Posterior row strongly procurved and posterior medians widely separated and closer to adjacent laterals. Lateral eyes contiguous. Legs long and moderately strong, clothed with fine hairs. Legs formula 4132. Sternum heart-shaped, pointed behind, clothed with fine hairs. Labium and maxillae as in Fig. 14.

Abdomen: Globular, slightly pointed behind, strongly overlapping cephalothorax in front. Dorsal side uniform deep brown colour but ventral side uniform pale colour. The anterior pair of spinnerets conspicuously long and other two pairs not developed



Figs. 12-15: *Lutica bengalensis* sp. nov. 12 Dorsal view of female, legs omitted; 13 Epigyne; 14 Labium and maxillae; 15 Spinnerets.

properly. Epigyne as in Fig. 13.

Holotype: One female, *paratype* one female in spirit.

Type-locality: Bhowanipur, Calcutta, India. Coll. B. Goswami, 4.5.1974.

This species resembles *Lutica maculata* Marx from America but is separated as follows: (i) Dorsal side of

abdomen uniform deep brown colour but in *L. maculata* dorsal side of abdomen decorated with black and white dots. (ii) Cephalothorax with some markings but in *L. maculata* cephalothorax uniform in colour. (iii) Epigyne also structurally different.

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