

## Araneidae of Buxa Tiger Reserve, West Bengal

Sumana SAHA<sup>1)</sup>, Vivekanand BISWAS<sup>2)</sup>, Subhash Chandra MAJUMDER<sup>3)</sup>  
and Dinendra RAYCHAUDHURI<sup>1)</sup>

**Abstract** This paper deals with 5 araneid species from Buxa Tiger Reserve, West Bengal, of which *Neoscona raydakensis* is described as new to science. Other species, *Argiope pulchella* THORELL, *Gasteracantha diadestia* THORELL, *Gasteracantha kuhli* C. L. KOCH and *Neoscona pavida* (SIMON) are reported as new from Buxa forest.

Further scanning of spiders of Buxa Tiger Reserve (SAHA, BISWAS & RAYCHAUDHURI, 1994) reveals the existence of 5 araneid species from the area of survey. These include a new species, *Neoscona raydakensis*. Rest of the species are new record from the area of survey. Materials are now in the deposition of Entomology Laboratory, Department of Zoology, Calcutta University.

Abbreviation: B.T.R.: Buxa Tiger Reserve.

### *Argiope pulchella* THORELL

*Argiope pulchella* THORELL, 1881, Ann. Mus. civ. Stor. nat. Genova, 18: 74; TIKADER, 1982, Fauna of India, Spiders: Araneae: Araneidae, pt. 1, Zool. Surv. India, Calcutta: 129–131.

*Material examined.* 5♀, 5. IV. 1993, South Raydak, B.T.R., Jalpaiguri, West Bengal.

### *Gasteracantha diadestia* THORELL

*Gasteracantha diadestia* THORELL, 1887, Ann. Mus. civ. Stor. nat. Genova, 25: 225; TIKADER, 1982, Fauna of India, Spiders: Araneae: Araneidae, pt. 1, Zool. Surv. India, Calcutta: 61–63.

*Material examined.* 1♀, 5. IV. 1993, South Raydak, B.T.R., Jalpaiguri, West Bengal.

### *Gasteracantha kuhli* C. L. KOCH

*Gasteracantha kuhli* C. L. KOCH, 1838, Die Arachniden, 4: 20; TIKADER, 1982, Fauna of India, Spiders: Araneae: Araneidae, pt. 1, Zool. Surv. India, Calcutta: 59–61.

*Material examined.* 3♀, 6. IV. 1993, South Raydak, B.T.R., Jalpaiguri, West Bengal.

1) Entomology Laboratory, Department of Zoology, University of Calcutta, 35, Ballygunge Circular Road, Calcutta-700019, India

2) Department of Zoology, Govt. P.C. College, Bagerhat-9301, Bangladesh (address for communication)

3) Zoological Survey of India, Canning, West Bengal, India

Accepted May 11, 1995

Bengal.

*Neoscona pavida* (SIMON)

*Araneus pavidus* SIMON, 1906, Ann. Soc. ent. Fr., 75: 309.

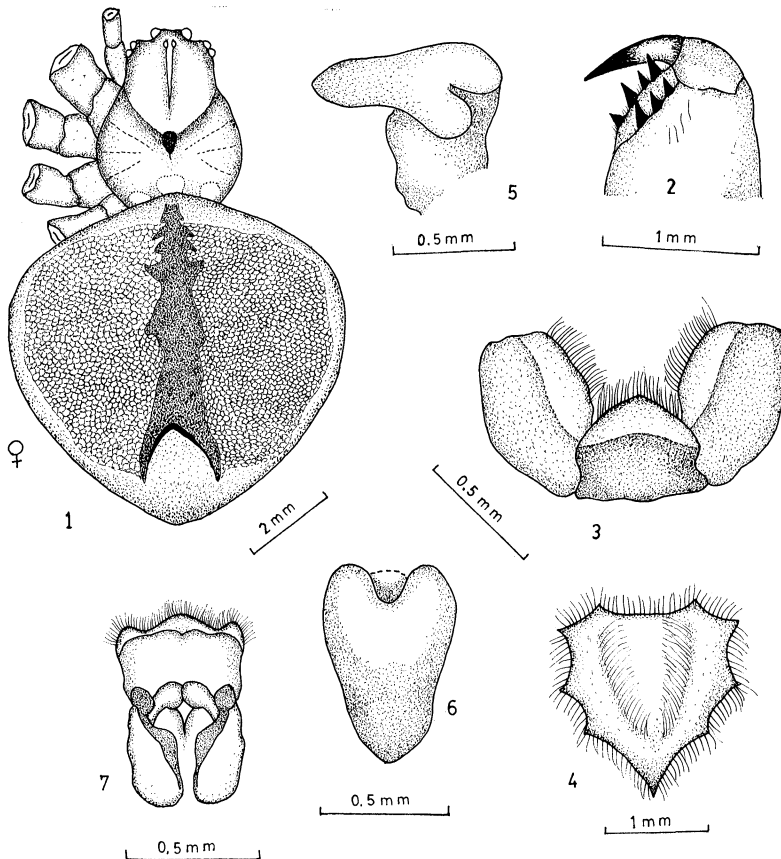
*Neoscona pavida*: TIKADER, 1982, Fauna of India, Spiders: Araneae: Araneidae, pt. 1, Zool. Surv. India, Calcutta: 276-277.

*Material examined.* 1♀, 5. IV. 1993, South Raydak, B.T.R., Jalpaiguri, West Bengal.

*Neoscona raydakensis* n. sp.

(Figs. 1-8)

*Description.* Female (holotype). Measurements (in mm): body length 7.4;



Figs. 1-7. *Neoscona raydakensis* n. sp., female holotype.—1. Whole body. 2. Chelicerae. 3. Maxillae and labium. 4. Sternum. 5. Epigyne (lateral view). 6. Epigyne (ventral view). 7. Internal genitalia.

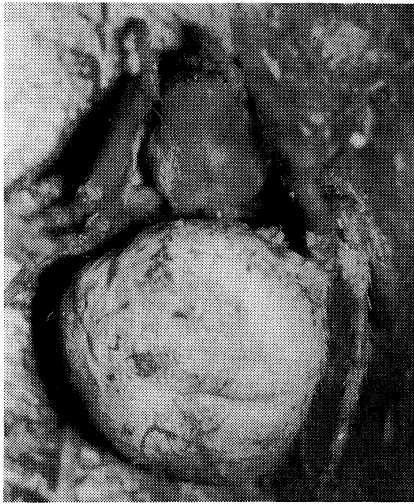


Fig. 8. *Neoscona raydakensis* n. sp., female holotype (body length 7.4 mm).

Table 1. Length of legs of ♀ holotype of *Neoscona raydakensis* n. sp. (in mm).

Leg	Femur	Patella & Tibia	Metatarsus	Tarsus	Total
I	2.2	1.2	1.4	3.5	8.3
II	2.4	1.3	2.3	3.1	9.1
III	1.8	0.7	1.1	1.4	5.0
IV	2.6	1.1	1.8	2.8	8.3

carapace length 2.5; carapace width 2.1; abdomen length 4.9; abdomen width 4.9; legs as in Table 1.

Cephalothorax brown, posteriorly a little paler, oval, longer than wide, posteriorly broad and with fine silky pubescence; cervical furrows deep and distinct; cephalic region raised; posteriorly with deep fovea; radii distinct extending up to the margin. Eyes pearly white with circular black bands, anterior row of eyes strongly recurved, anteromedians raised and connected, posterior row of eyes nearly straight, lateral eyes of both the rows closely placed; ocular quad posteriorly narrowing. Chelicerae dark brown, robust, inner margin with 3 and outer margin with 4 teeth, of these, teeth on outer margin alternately larger; maxillae and labium pale-brown, distally more paler or whitish, maxillae anteriorly broad and scopulate; labium wide at middle, anteriorly narrowing and scopulate; sternum typically heart-shaped, with spines and pubescence. Legs pale brown, with dark brown bands; leg formula 2143.

Abdomen white, subtriangular, overhanging the cephalothorax, with brown long band, reticulate (Fig. 1); dorsal hairs small, spiny, arising from reddish sockets; epigyne and internal genitalia as in Figs. 5–7.

*Remarks.* Having abdomen subtriangular, weakly constricted epigynal scape and cephalic region without any V-shaped patch, the present species appears to be the closest ally of *Neoscona rumpfi* (THORELL) (TIKADER, 1982). It however stands distinct in the morphology of epigynum and internal genitalia. Further, abdomen and cephalothorax in particular are not decorated as in *N. rumpfi*. It may also be related to *Neoscona mukerjei* TIKADER because of the simili in the dorsal decoration of abdomen besides epigyne. But evident median constriction in the epigyne separates it from that of *N. mukerjei*.

*Etymology.* Species has been named after the type locality.

*Material examined.* Holotype: ♀, 6. IV. 1993, South Raydak, B.T.R., Jalpaiguri, West Bengal.

#### Acknowledgements

Authors remain thankful to the authorities of Buxa Tiger Reserve for providing necessary facilities and to the Head of the Department of Zoology, University of Calcutta for kindly permitting us to carry out the work. The first author (S. SAHA) expresses her sincere gratitude to CSIR, New Delhi (Ref. No. 9/28(264)/90-EMR-I) for the Senior Research Fellowship.

#### References

- SAHA, S., V. BISWAS & D. RAYCHAUDHURI, 1994. Heteropodidae and Lycosidae of Buxa Tiger Reserve, West Bengal. *Acta arachnol.*, **43**: 43-48.
- TIKADER, B. K. 1982. Araneidae. In: *The Fauna of India: Spiders*, **2**(1), pp. 1-293. Zool. Surv. India.