

SAC-SPIDERS OF BANGLADESH : GENUS *CHEIRACANTHIUM* KOCH (ARANEAE : CLUBIONIDAE)

V. BISWAS* AND D. RAYCHAUDHURI

Entomology Laboratory, Department of Zoology, University of Calcutta,
35, Ballygunge Circular Road, Kolkata-700 019, India

INTRODUCTION

'Sac-spiders' (Family : Clubionidae) are one of the common predators of insect pests in the crop-fields and gardens. Very little informations are available on this group of spiders in Bangladesh (Chowdhury & Pal, 1984; Biswas, *et. al.*, 1993; Okuma, *et. al.*, 1993; Begum & Biswas, 1997; Biswas & Raychaudhuri, 1994) although a great number of works took place in Indian Sub-continent and elsewhere (Pocock, 1900; Caporiacco, 1935; Tikader, 1962, '75, '76, '81; Tikader & Biswas, 1981; Singh, 1970; Biswas, 1984; Majumder & Tikader, 1991; Dondale & Redner, 1982; Comstock, 1965; Kaston, 1948; Locket & Millidge, 1951; Patel & Patel, 1973; Platnick & Shadab, 1974a, b; Reiskind, 1969; Roberta, 1985; Paik, 1985, '90; Chen & Zhang, 1989; Koh, 1989; Yaginuma, 1986).

Majumder and Tikader (1991) made a revisional study on the family Clubionidae of India and described 84 species with their distribution and biological note. The present paper deals with 4 (four) species of the genus *Cheiracanthium* Koch from Bangladesh of which *C. tagorei* is described as new to science.

Genus *Cheiracanthium* Koch, 1839

1839. *Cheiracanthium* Koch, *Die Arachn.* Schster Band : 9.

Type species : *Cheiracanthium punctorium* Villers.

Distribution ASIA; AUSTRALIA; EUROPE; SOUTH AMERICA.

Key to the species

1. Abdomen cylindroid-oval (Fig. 20); antero-median eyes closely opposed, their margins embracing each other (Fig. 20); sternum elongate (Fig. 23); 4th leg always longer than the first *tagorei* n. sp.
- Abdomen never cylindrical but broadly oval; anteromedian eyes always separate; sternum short and broad; 4th leg always shorter than the first 2

*Department of Zoology, Government P. C. College, Bagerhat-9301, Bangladesh.

2. Abdominal dorsum distinctly decorated (Fig. 14); maxillae and labium extremely broad and flat (Fig. 16); 2nd leg longer than 3rd..... *sikkimensis*
 — Abdominal dorsum never decorated, if at all with faint transverse short markings; maxillae and labium never so broad; 2nd leg shorter than third 3
3. Posterolateral angles of cephalothorax produced (Fig. 8); cheliceral teeth closely placed (Fig. 9); epigynum as in fig. 12; each of tibia and metatarsi I and II with 3 pairs of ventral spines *mysorensis*
 — Posterolateral angles of cephalothorax never produced (Fig. 1); cheliceral teeth placed far apart (Fig. 2); epigynum never as above (Fig. 5); each of tibia and metatarsi I and II with 1 pair of ventral spines *melanostoma*

***Cheiracanthium melanostoma* (Thorell)**

(Figs. 1-7)

1895. *Eutitha melanostoma* Thorell, *Spiders of Burma*, London : 44.

1931. *Cheiracanthium melanostoma* : Gravely, *Rec. Indian Mus.*, 33(3) : 26.

1981. *Cheiracanthium melanostoma* : Tikader & Biswas, *Rec. zool. Surv. India*, Occ. Pap. No. 30(1) : 69.

1991. *Cheiracanthium melanostoma* : Majumder & Tikader, *Rec. zool. Surv. India*, Occ. Pap. No. 102 : 62.

General : Cephalothorax yellow brown; legs yellow and abdomen grey. Total length (Female) 7.30 mm. Carapace length 3.00 mm; carapace width 2.50 mm. Abdomen length 4.30 mm; abdominal width 3.00 mm; Total length (Male) 7.00 mm. Carapace length 3.00 mm; carapace width 2.45 mm. Abdomen length 4.00 mm; abdominal width 2.90 mm.

Material examined 1♀, 1♂ Harinkhana, Bagerhat, 9.VII.1991, Coll. V Biswas; 1♀ Pirojpur, 7.III.1991, Coll. V Biswas; 2♀ Chandpur, Comilla, 18.IX.1992, Coll. V. Biswas; 1♀, 1♂, Joydevpur, Dhaka, 1.VII.1990, Coll. V Biswas; 1♂, ADI, Faridpur, 9.VIII.1991, Coll. V Biswas; 1♀ BARI, Jessore, 7.IX.1992, Coll. V. Biswas, 1♀ Shikerpur, Jhenidah, 7.IX.1990, Coll. V Biswas; 1♀, 1♂, Teroshri, Manikganj, 18.III.1993, Coll. V Biswas; 1♀ Mirjaganj, Rajshahi, 1.III.1992, Coll. V Biswas.

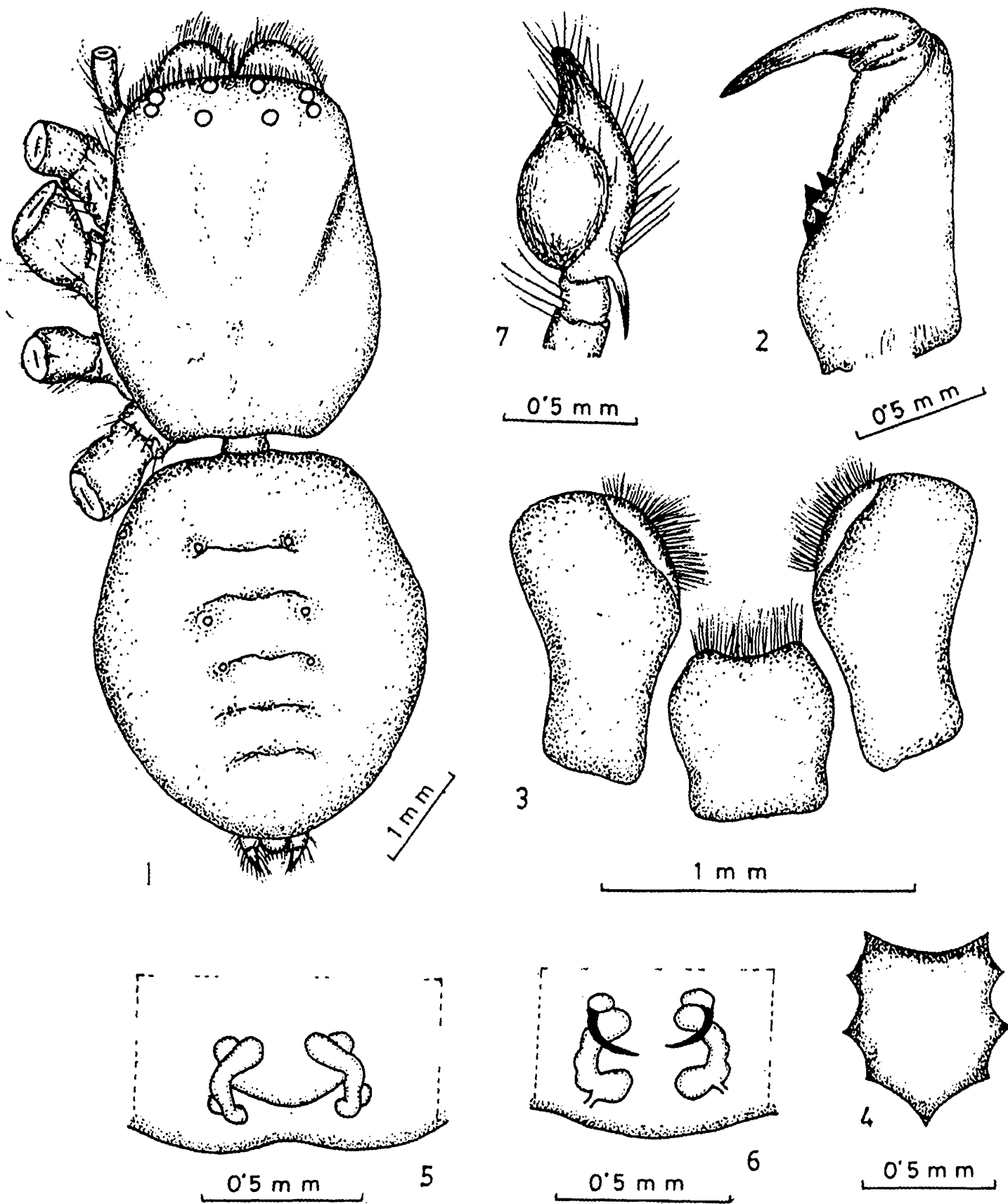
Distribution : BANGLADESH : Bagerhat, Barisal, Comilla, Dhaka, Faridpur, Jhenidah, Jessore, Manikganj, Rajshahi; MYANMAR; INDIA (Majumder and Tikader, 1991).

***Cheiracanthium mysorensis* Majumder & Tikader**

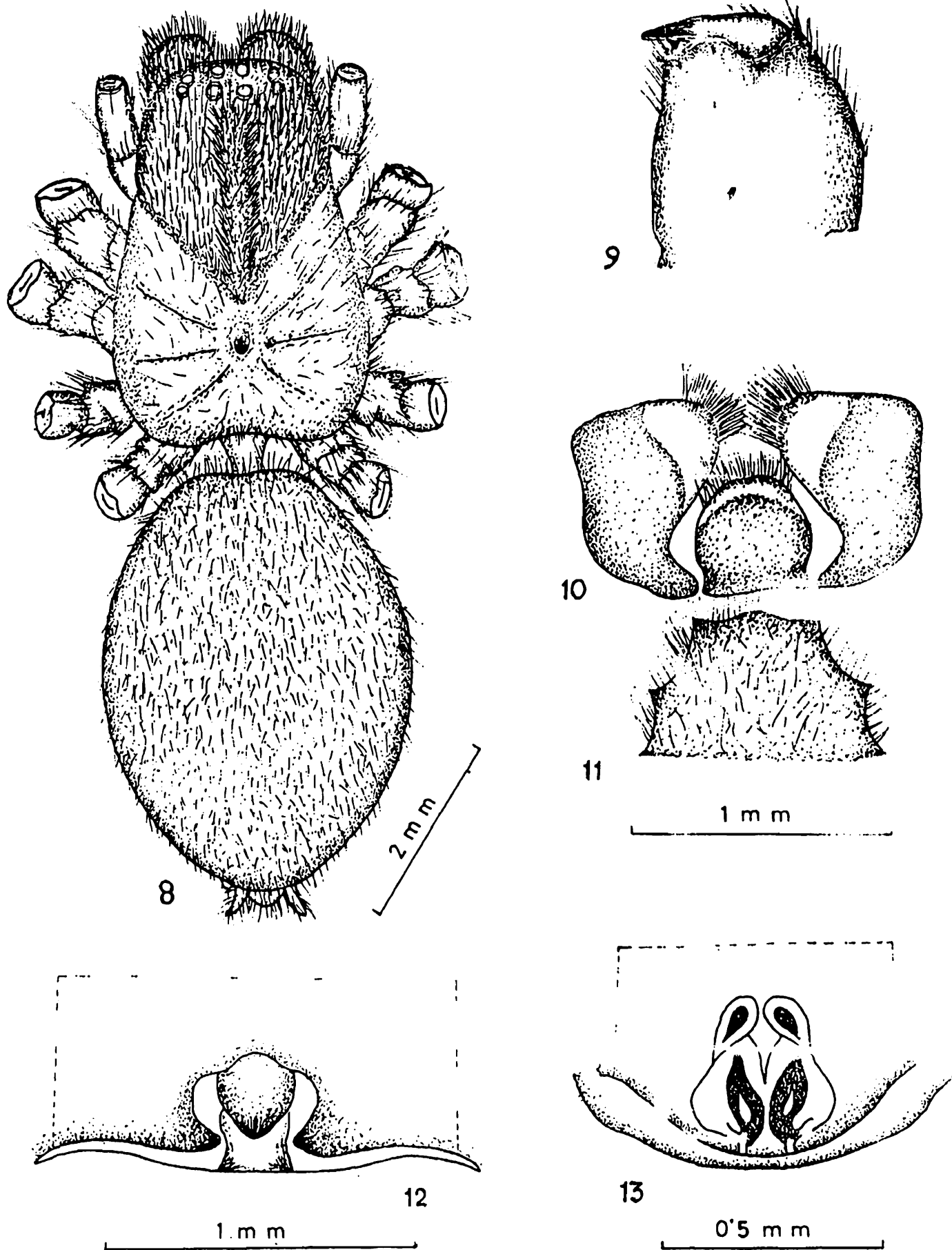
(Figs. 8-13)

1991. *Cheiracanthium mysorensis* Majumder & Tikader, *Rec. zool. Surv. India*, Occ. Pap. No. 102 : 79.

General : Cephalothorax and legs brown. Abdomen pale yellow. Total length 5.70 mm. Carapace length 2.65 mm; carapace width 2.00 mm. Abdomen length 3.05 mm; abdominal width 2.00 mm.



Figs. 1-7 : *Cheiracanthium melanostoma* (Thorell). 1. Whole body (dorsal view); 2. Chelicerae; 3. Maxillae and Labium; 4. Sternum; 5. Epigynum; 6. Internal genitalia and 7. Male palp.



Figs. 8-13 : *Cheiracanthium mysorensis* Majumder & Tikader. 8. Whole body (dorsal view); 9. Chelicerae; 10. Maxillae and Labium; 11. Sternum; 12. Epigynum and 13. Internal genitalia.

Material examined : 1♂ Basabati, Bagerhat, 3.VII.1991, Coll. V. Biswas; 2♀ Nazirpur, Barisal, 17.VIII.1992, Coll. V. Biswas; 2♀ Khajura, Jessore, 15.VIII.1991, Coll. V. Biswas; 2♀ Jhenidah, 18.VI.1990, Coll. V. Biswas; 2♀ Nagarpur, Tangail, 18.V.1992, Coll. V. Biswas.

Distribution : BANGLADESH : Bagerhat, Barisal, Jessore, Jhenidah, Khulna, Tangail; INDIA.

Cheiracanthium sikkimensis Majumder & Tikader

(Figs. 14-19)

1991. *Cheiracanthium sikkimensis* Majumder & Tikader, *Rec. zool. Surv. India*, Occ. Pap. No. 102 : 77.

General : Cephalothorax yellow brown and legs yellow. Abdomen pale yellow. Total body length 4.70 mm. Carapace length 2.15 mm; carapace width 1.52 mm. Abdomen length 2.55 mm; abdominal width 2.10 mm.

Material examined : 1♂ Harinkhana, Bagerhat, 3.VII.1991, Coll. V. Biswas; 2♀ Barisal, 5.II.1990, Coll. V. Biswas; 1♂ Savar, Dhaka, 25.V.1991, Coll. V. Biswas; 1♂ Khajura, Jessore, 27.IX.1991, Coll. V. Biswas; 2♀ Jhenidah, 19.XI.1993, Coll. V. Biswas; 2♀ Teroshri, Manikganj, 18.V.1992, Coll. V. Biswas; 2♀ Digha, Rajshahi, 4.II.1992, Coll. V. Biswas; 2♀ Kajla, Rajshahi, 3.II.1992, Coll. V. Biswas.

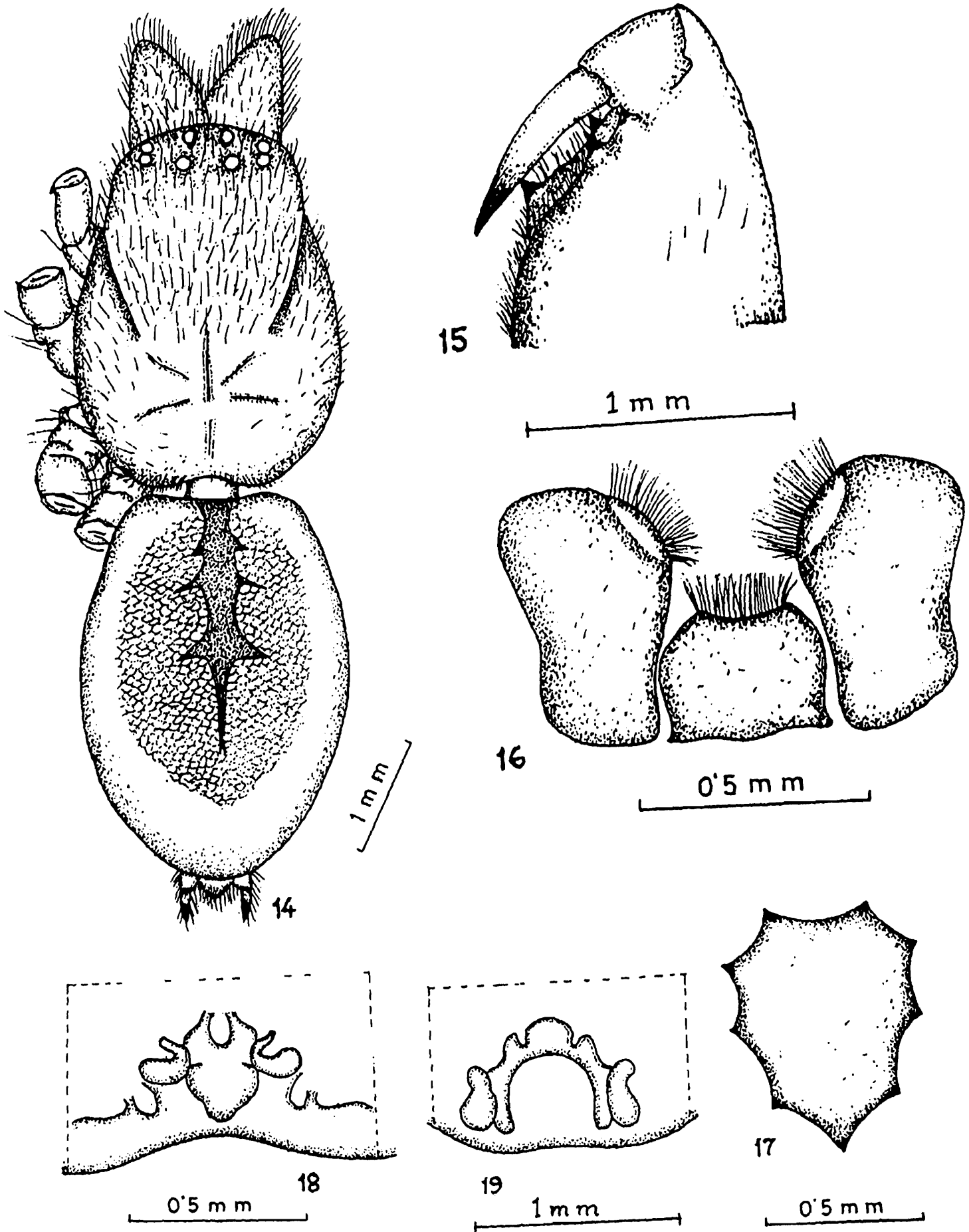
Distribution : BANGLADESH : Bagerhat, Barisal, Dhaka, Jessore, Jhenidah, Manikganj, Rajshahi; INDIA (Majumder & Tikader, 1991).

Cheiracanthium tagorei n. sp.

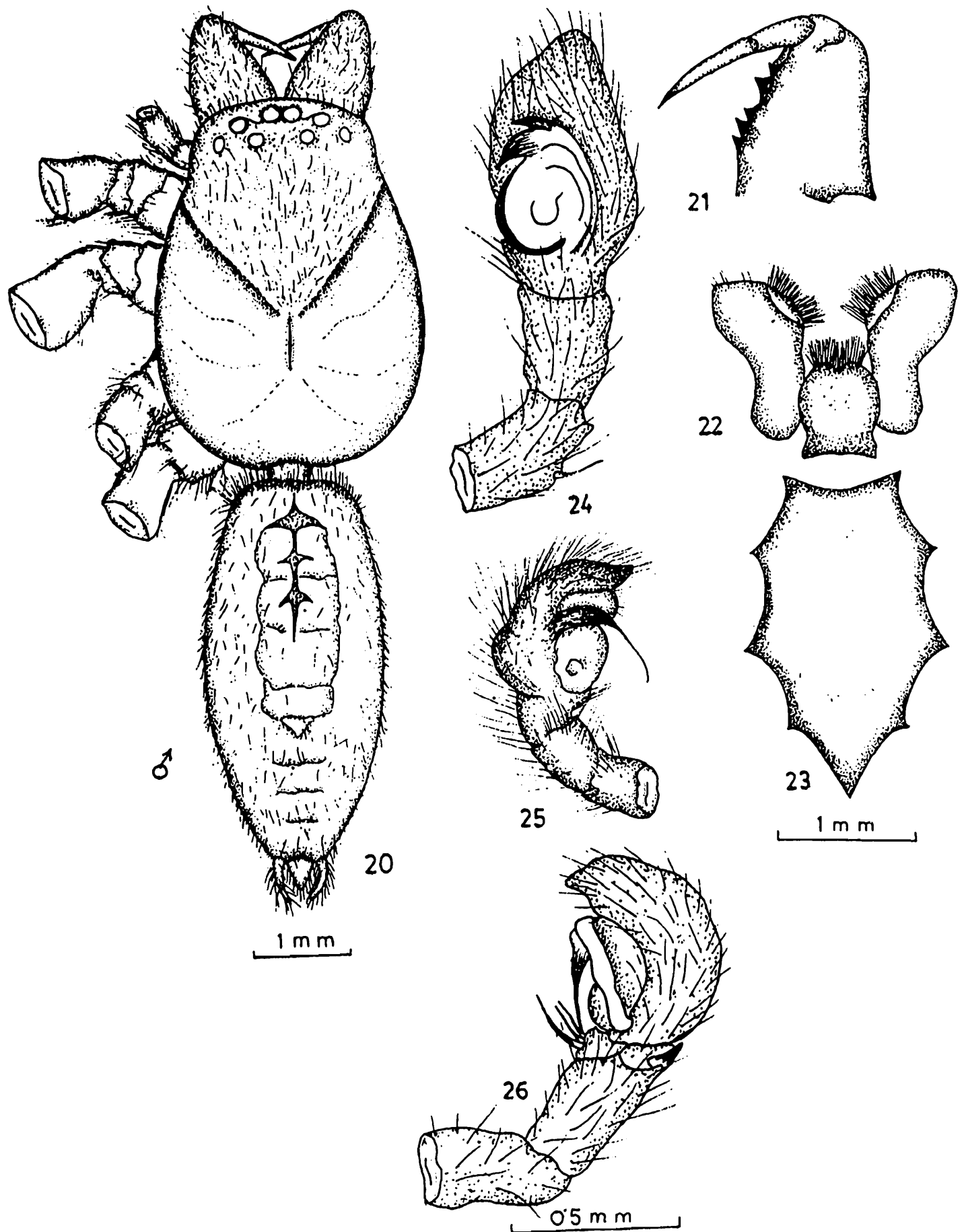
(Figs. 20-26)

General : Cephalothorax brown, with chelicerae blackish. Abdomen pale-brown, covered with silky pubescence. Legs blackish-brown. Total body length 8.50 mm. Carapace 4.50 mm long, 2.80 mm wide; Abdomen 4.00 mm long, 1.50 mm wide.

Cephalothorax : Robust, longer than abdomen, anteriorly narrowed, posteromedially broad, with a brown distinct fovea; radial striae distinct; cephalic region weakly raised; cervical furrows faintly distinct. Eyes black; anterior row recurved and posterior row faintly procurved; ocular quad wider than long, narrowed anteriorly. Chelicerae black, longer than wide, inner margin with 3 and outer margin with 2 teeth (Fig. 21). Maxillae red-brown, long (Fig. 22). Labium little darker, scopulate (Fig. 22). Sternum elongate, oval, pointed posteriorly, covered with hairs, these posteriorly brown, erect, appearing spines (Fig. 23). Legs long and strong; tibiae and metatarsi I and II with 2 and 3 strong spines respectively; leg formula 4213 and the measurements (in mm) in Table 1.



Figs. 14-19 : *Cheiracanthium sikkimensia* Majumder & Tikader. 14. Whole body (dorsal view); 15. Chelicerae; 16. Maxillae and Labium; 17. Sternum; 18. Epigynum and 19. Internal genitalia.



Figs. 20-26 : *Cheiracanthium tagorei* n. sp. 20. Whole body (dorsal view); 21. Chelicerae; 22. Maxillae and Labium; 23. Sternum; 24. Male palp (ventral view); 25. Male palp (retrolateral view) and 26. Male palp (lateral view).

Table-1 : Length of legs of female (\varnothing) holotype of *Cheiracanthium tagorei* n. sp. (in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	2.0/2.0	1.1/1.1	2.5/2.5	2.3/2.3	1.0/1.0	8.9/8.9
II	2.5/2.5	1.1/1.1	2.8/2.8	2.0/2.0	1.5/1.5	9.9/9.9
III	1.5/1.6	0.6/0.6	1.8/1.8	2.1/2.1	0.9/0.9	6.9/7.0
IV	2.7/2.7	0.8/0.8	2.7/2.7	3.5/3.5	1.2/1.2	10.9/10.9

Male palp as figs. in 24, 25 and 26.

Abdomen : Cylindroid, longer than wide, anterior margin wavy, posteriorly narrowed appearing pointed, medially ridged, these appear reticular; dorsum with silvery pubescence all over.

Male : Unknown.

Holotype : Male in spirit.

Type-locality : BANGLADESH : Shilaidah, Dist. Kustia, 15.II.92, Coll. V. Biswas.

Etymology : The species is named after the famous poet Rabindra Nath Tagore.

Remarks : None of the congeneric species (Majumder & Tikader, 1991, Dondale & Redner, 1982; Paik, 1985; Koh, 1989; Yaginuma, 1980) like the present species are known to have contiguous anteromedian eyes. Male palpus being anteriorly, the species, following key of Majumder and Tikader (1991) may be related to *C. trivialis* (Thorell) but its points of distinction are too many :

- (1) Lateral eyes widely placed
- (2) Cephalothorax much larger than abdomen
- (3) Fangs segmented; inner margin of chelicerae with 3 teeth
- (4) Labium basally constricted and anteriorly concave
- (5) Sternum elongate and
- (6) Typical male palp

The species, is therefore, described as new to science.

SUMMARY

The present paper deals with 4 (four) species of sac-spiders of the genus *Cheiracanthium* Koch from Bangladesh. Of these, *C. tagorei* is recognised as new to science and rest 3 (three) species is described and illustrated.

The types are at present in the collection of the Department of Zoology, Government P. C. College, Bagerhat, Bangladesh and will be deposited to the Museum of the Department of Zoology, University of Dhaka, Dhaka-1000, Bangladesh, in due course of time.

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