

A NEW SPECIES OF THE GENUS *Thomisus* Walckenaer, 1805 (Araneae: Thomisidae) FROM PUNJAB PAKISTAN

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A new species, of crab spiders (Araneae; Thomisidae) is described from central Punjab, Pakistan. The specimens were collected by hand-picking method from a park in Faisalabad. Identification was made on the basis of morphometric characters of various body parts. Detailed morphological characteristics with drawings are given which differentiate it from other related species.

Keywords: Arachnology, Taxonomy, Thomisidae, Pakistan

INTRODUCTION

Spiders play a key role in Integrated Pest Management in agroecosystems. There is a dire need to explore the spider fauna of Pakistan for their employment in I.P.M. There are 122 known species of genus *Thomisus* (Platnick, 2006). Dyal (1935) recorded three species of the genus including one new species from Lahore. Arshad *et al.* (1984) and Khatoon (1985-86) recorded two known species each from Peshawar and Islamabad respectively. Hameed (1993) and Fatima (1999) recorded this genus from Faisalabad. During present study 12 species belonging to this genus were recorded; of which one species was considered to be new to science.

MATERIALS AND METHODS

Spiders were collected by hand-picking method from a park in Faisalabad. Identification was made on the basis of morphometric characters of various body parts. A detailed study of various keys and catalogues provided by Dyal (1935), Tikader (1982) and Platnick (2006) was made in this respect. The specimens were preserved in Oudemans' preservative. The drawings were made using an eyepiece square grid. The type specimens (no. 2574, 2575) are deposited in the museum of the Department of Zoology and Fisheries, University of Agriculture, Faisalabad.

RESULTS AND DISCUSSION

Type Material

Holotype ♀ collected from *Helianthus annuus* on 20-7-97 from Faisalabad; Paratype ♂ with same data.

Etymology

This species was named as a reverence to my teacher, Dr. Zaheer Ahmad.

Diagnosis

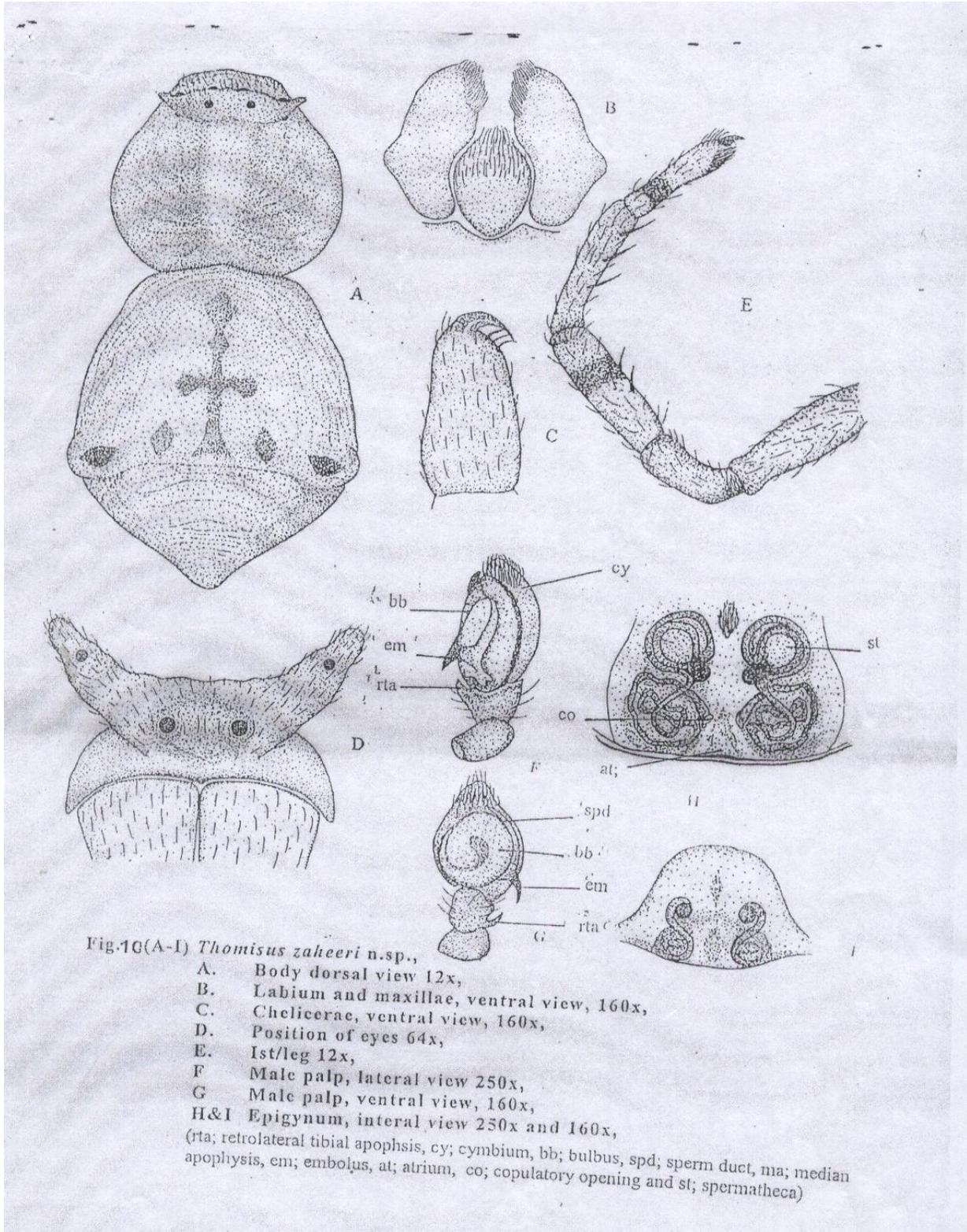
Thomisus zaheeri resembles *Thomisus sikkimensis* Tikader (1962), and *Thomisus okinawensis* Strand (1907) to some extent but can be separated from both the species. Black transverse bands on tibia and tarsus I only. Tarsal claw and its tuft is prominent. In female genitalia spermathecae are rounded with inverse S-shaped fertilization tubes. Copulatory opening present on the lower side rather than on the upper side as in *T. okinawensis*. A tuft of hair is present in the uterus. In the male genitalia ITA and VTA absent; median tegular apophysis and apical tegular apophysis present.

Measurements

Total length: 4.27mm; carapace length: 1.79mm; width: 1.90mm; abdomen length: 2.48mm; width: 2.31mm; Leg I: 7.6mm; Leg II: 7.29mm; Leg III: 4.40mm; Leg IV: 4.54mm; Pedipalp: 1.79mm.

Cephalothorax

Cephalothorax wider than body length; broadest posteriorly; yellowish brown except with a central longitudinal lighter area from which arise ridges of black hair towards the periphery. Ocular area encircled by a yellowish brown triangle; eyes black, clypeus long. Eight eyes in two rows; shorter AE row; more recurved than PE row and lateral eyes in the tubercle by formula; PME > ALE > AME > PLE. MOQ much broad behind than in front, length equal to one half of posterior width. Sternum longer than wide, anterior margin concave, lateral margins without concavities opposite each coxa and posterior end rounded; labium oval, maxillae cylindrical, broader behind; both maxillae and labium are scopulated and yellowish brown. Chelicerae yellowish brown; fang thick stout, curved and pointed anteriorly; three strong spines near the base of the fang on the promargin; chelicerae without teeth. Legs light brown with blackish brown bands in



the subapex of tibia and tarsus and base of patella. Tarsi two clawed, with at least three spines on the metatarsus and three spines on the dorsum of tibia and two spines on the pro-lateral boarder of the tarsus; three teeth in each claw of tarsi I; pedipalp longer than femur I. Tibia with short stout RTA. ITA absent; VTA not prominent; tegulum rounded, Tegular apophysis and median tegular apophysis present; embolus stout and pointed downward; cymbium narrow with an apical tuft of hair. Sperm duct coiled. Spination on legs: Femur I = 0-2-1-1; II = 0-2-0-0; III & IV = without spines; Patella = I, II, III without spines; IV = 0-0-1-0; Tibia = I = 0-0-2-0; II = 0-0-2-0; III = without spines; IV = 0-0-2-0; Metatarsus = I = 0-0-4(1+1+1+1)-0; II, III and IV without spines. Leg formula: 1243.

Abdomen

Yellow brown, with a central tree-like blackish patch covering two third of the central region with four black spots in the broadest area of abdomen; abdomen pentagonal, slightly overlapping the posterior region of cephalothorax in front; broadest just behind the middle, tapering to the anal tubercle. Posterior end with conspicuous transverse, muscular corrugation or striations. Ventrums yellow-brown with a central brown band. Posterior pair of spinnerets widely separated. Epigynal plate broad, scape broad and hairy; spermathecae globular with coiled spermathecal ducts; fertilization tubes in the form of inverted S; copulatory opening in the middle.

Natural History

Holotype ♀ and paratype ♂ collected from sunflower plant in Kalim Shaheed Park, Faisalabad on 20.7.97.

Distribution

Central Punjab.

REFERENCES

- Arshad, M., G.A. Jan and M. Iqbal. 1984. On some spiders of Peshawar and adjoining areas. *Rec. Zool. Surv. Pak.*, 10:83-89.
- Dyal, S. 1935. Fauna of Lahore, Spiders of Lahore, *Bull. Deptt. Zool. Punjab Univ.*, Lahore, 1:117-252.
- Fatima, M. 1999. The spider fauna of sugarcane agroecosystem in Faisalabad. M.Sc. Thesis, Deptt. Zool. and Fisheries, UAF.
- Hameed, B. 1993. Taxonomic studies of thomisid spiders (Araneae: Thomisidae) from some flowering plants. M.Sc. Thesis, Deptt. Zool. and Fisheries, UAF.
- Khatoon, S. 1985-86. A checklist of Arachnids of Pakistan. *Bull. Hydrobiol. Res.*, 1:645-650.
- Platnick, N.I. 2006. The World Spider Catalog, Version 6.5. *Amer. Mus. Nat. Hist.* <http://www.research.amnh.org/entomology/spiders/catalog/Index.html>.
- Tikader, B.K. 1982. The Fauna of India: Araneae: Araneidae. *Zool. Surv. India*, 2:1-293.