

-Short Communication**A NEW SPECIES OF JUMPING SPIDER GENUS *Rhene* Thorell, 1869 (ARANEAE: SALTICIDAE) FROM BANGLADESH**

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Jumping spiders (Family: Salticidae), the largest group of the order Araneae comprising 553 genera and 5025 species all over the world. Of these, a total of 212 species under 73 genera has been recorded in Indian Sub-continent (Keswani *et al.* 2012). With few exceptions a little information is available on these spiders in the fauna of Bangladesh. But, a good number of contributions are found in other Asian countries like -India (Majumder 2005), China (Peng and Li 2002), Viet Nam (Zabka 1985), Japan (Ikeda 1996), Korea (Kim 1996), Singapore (Koh 1989) and the Philippines (Barrion and Litsinger 1995).

Genus *Rhene* Thorell, is a common predatory member in the garden and forests of Bangladesh. The genus was first established by Thorell in 1846 with the type-species *Rhene flavigera* Koch. The genus at present comprises 54 species all over the world with only 5 species recorded from Bangladesh (Biswas 1995, Begum and Biswas 1997) and 23 species in the Indian Sub-continent (Keswani *et al.* 2012). The present paper deals with the description of a new species namely, *Rhene khulnaensis* sp. nov.

Khulna, a district situated in the southern part of Bangladesh. The area is evergreen with numerous vegetations and famous for shrimp cultivation. In the southern part of the district, the great mangrove forest 'Sunderbans' is showing its glorious presence. It covers an area of 10,000 square kilometers from the west to east and situated on the bank of the 'Bay of Bengal' with regular experience of oceanic tide.

The spider specimens were collected from the local village area of Khulna district by hand and with vials from vegetation by beating the branches of shrubs and small trees. Collected specimens were paralysed with chloroform in large glass jars and transferred to 70% alcohol in a Petri dish for relaxation of body muscles. The specimens were then preserved in 70% alcohol for identification. The preserved specimens were identified on the basis of various morphometric characters of body-parts following Kaston (1972) and Tikader (1987) up to the genus. A detailed taxonomic study and identification upto species level was done based on various relevant literatures of the world. After identification, the specimens were preserved permanently in 'Audmans Preservative' (90 parts 70% alcohol+5 parts glycerin+5 parts glacial acetic acid). One of the collected spider specimens could not be identified as species following the available literature and also consulting with the experts on spiders. As such it was thought that the said specimen might be a new species. Following the taxonomic procedures finally the identity of the specimen as a new species was confirmed by the assistance of the Zoological Survey of India, Kalkata (personal communication: Dr. S. C. Majumder, Scientist-SD, Zoological Survey of India). The photographs of the new species were taken with a Canon digital Camera fitted with a 90mm

zoom lens and drawings of necessary body-parts were done with a Camera lucida fitted with a Stereo Binocular Microscope. The type specimen has been deposited in the Department of Zoology, Khulna Govt. Womens' College and will be deposited to the Museum of the Department of Zoology, University of Dhaka, Bangladesh, in due course of time.

Diagnosis of Genus *Rhene*: The new species has been identified under the genus *Rhene* Thorell, 1869 belonging to the family Salticidae Blackwall, 1804. *Rhene* are small to medium beetle-like jumping spiders with conspicuous thick hairs. Body somewhat rounded, broad, usually less than 7mm. Cephalothorax flattened, wider than long, narrowed and sloped posteriorly. Anterior row of eyes basally ringed with black bands, medians of which twice or nearly thrice larger than the laterals; posterior row of eyes marginal, situated far behind the anterior row. Sternum longer than wide, apex slightly concave. Leg I robust and stronger, spiny. Abdomen oval or broadly oval, sometimes elongate, clothed with conspicuous spines and hairs; often variably decorated.

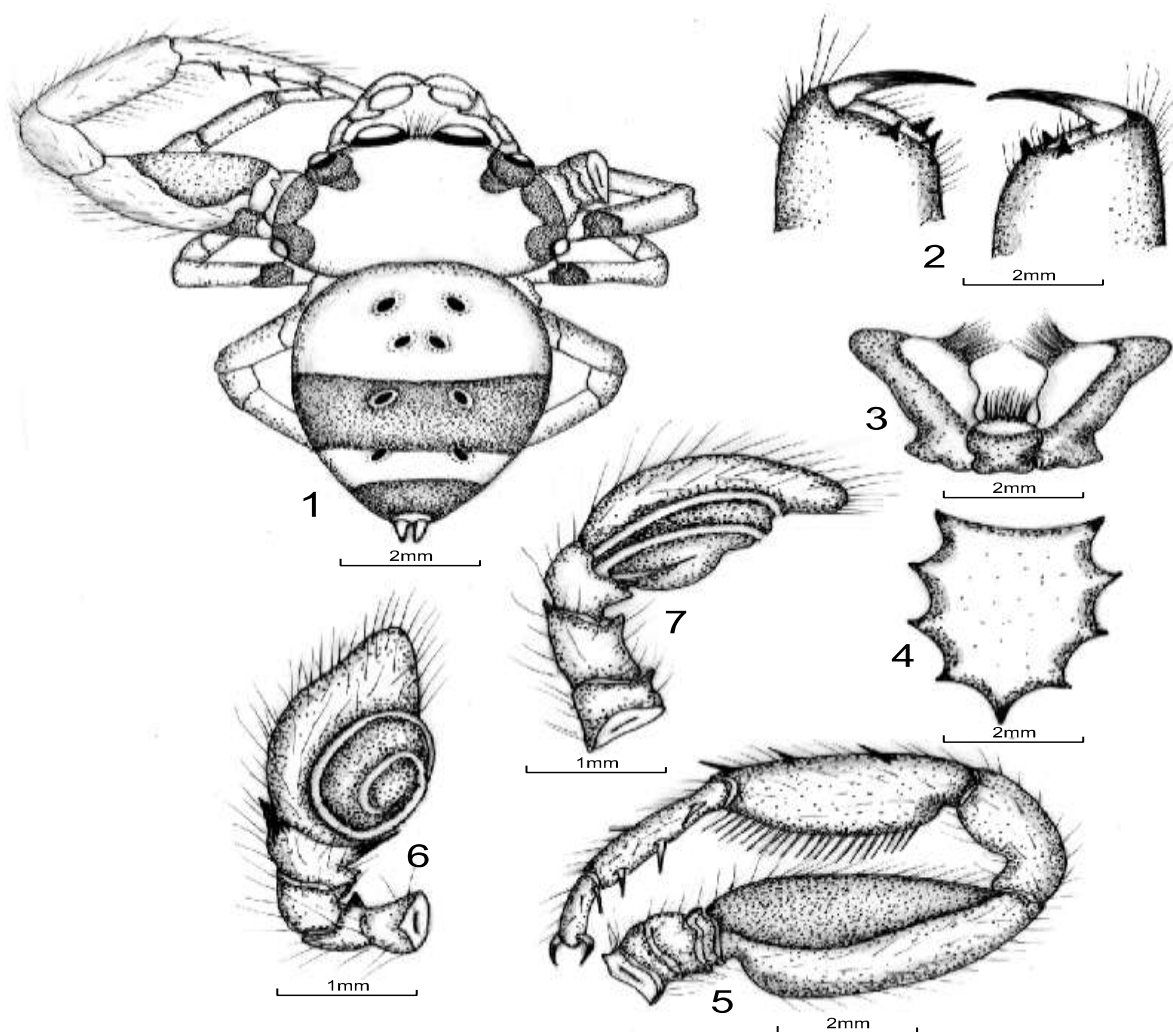


Fig. 1-7. *Rhene khulnaensis* n. sp. 1. Whole body; 2. Chelicerae; 3. Maxillae & Labium; 4. Sternum; 5. 1st right leg; 6. Male palp (ventral view); 7. Male palp (retrolateral view).

Description of new species *Rhene khulnaensis* n. sp.: Body is deep brown. Total length 4.50 mm. Carapace 2.00 mm long, 2.20 mm wide, 0.75 mm high; abdomen 2.50 mm long, 1.50 mm wide and 0.50 mm high. Cephalothorax is wider than long, flattened, slopped, posteriorly and dorsally with few bands. Eyes pearly-white, dissimilar, anterior eyes widely separated, recurved, each ringed with black basal band, medians larger than laterals; eyes of second row minute; posterior row straight, distally placed. Chelicerae brown, strong, inner margin with 1 and outer margin with 2 teeth (Fig. 2). Maxillae light brown, longer than wide, sandel shaped, anteriorly scopulate (Fig. 3). Labium small, light-brown, pot-like, anteriorly scopulate (Fig. 3). Sternum brown, elongate, nearly heart-shaped (Fig. 4). Legs strong and stout; leg I more larger and stronger than others; femur ventrally black; metatarsi with 3 strong spines (Fig. 5); tibia elongately broad, ventrally wide; leg formula 1243 and the measurements (mm) are as shown in table 1.

Table 1. Measurements (mm) of different leg segments of *Rhene khulnaensis* n. sp.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.50/1.50	0.60/0.60	1.10/1.10	0.80/0.80	0.60/0.60	4.60/4.60
II	1.10/1.10	0.40/0.40	0.60/0.60	0.50/0.50	0.50/0.50	3.10/3.10
III	0.90/0.90	0.30/0.30	0.60/0.60	0.50/0.50	0.30/0.30	2.60/2.60
IV	1.00/1.00	0.30/0.30	0.60/0.60	0.50/0.50	0.40/0.40	2.80/2.80
Palp	0.50/0.50	0.20/0.20	0.20/0.20	0.20/0.20	0.30/0.30	1.40/1.40

Male palp is elongate, covered with small hairs and spines; cymbium blunt, embolus coiled over tegulum; tibial apophysis bluntly pointed (Figs. 6 and 7). Abdomen is oval, longer than wide, narrowing posteriorly, dorsum provided with two transverse bands and four pair of sigillae. Spinnerets short. Ventrally slightly lighter than dorsum and with one blackish longitudinal band starting from epigastric furrow upto the base of spinnerets. Females not found, when available will be described in detail.

Type-specimen: The new species is designated as holotype which is a male in spider.

Type locality: Batiaghata and Daulatpur Krishi College garden, Khulna District, Bangladesh.

Etymology: The name of the species refers to the type-locality from where the collection took place.

Economic importance: Spiders of the genus *Rhene* Thorell are common predatory arthropods in the crop-fields, gardens and forests. They consume small insect pests by their specialized jumping habit and thus play a great role as one of the important biological control agents.

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