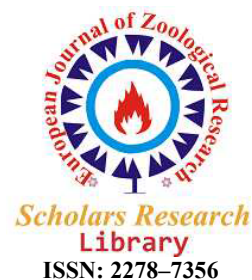




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## First Report of Male Star-Legged Spider *Uroctea thaleri* (Rheims, Santos and Van Harten, 2007) (Araneae: Oecobiidae) From India

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### ABSTRACT

The tent-web spider *Uroctea thaleri* has earlier been reported from Turkey, Israel, Iran, Yemen and India. The male of *Uroctea thaleri* is first time being reported here from India along with detailed taxonomic description of both sexes.

**Keywords:** *Uroctea thaleri*, taxonomy

**Abbreviations:** ALE: Anterior Lateral Eyes; AME: Anterior Median Eyes; PLE: Posterior Lateral Eyes; PME: Posterior Median Eyes; C: Copulatory Duct; TA: Tegular Apophysis; PMS: Posterior Median Spinnerets; ALS: Anterior Lateral Spinnerets; fe: Femur; pa: Patella; ti: tibia; mt: Metatarsus; ta: Tarsus; d: Dorsal; v: Ventral; p: Prolateral; r: Retrolateral

### INTRODUCTION

The tent-web spider family Oecobiidae Blackwall, 1862 is represented by six genera and 110 species in the world, of which, two genera (*Oecobius lucas*, 1846 and *Uroctea dufour*, 1820) with five species have been reported from India [1]. Under the genus *Uroctea* three species viz. *Uroctea indica* Pocock, 1900, *Uroctea manii* Patel, 1987 and *Uroctea thaleri* (Rheims, Santos and van Harten) are reported from India [1]. Both sexes of *U. thaleri* herein described is so far reported from Turkey, Israel, Iran, Yemen and India, but misidentified as *U. paivavi* Blackwall, 1868 by Baum [2], *U. indica* Pocock, 1900 by Gajbe and Bhadra [3] and Gajbe [4] and *U. limbata* (C. L. Koch, 1843) by Hosseini et al. [5]. This species lives under stones and spins small tent-like web.

While carrying out survey in Guru Gobind Singh Indraprastha University campus, New Delhi in 2012, one male of *U. thaleri* was collected under a stone. The female of the same was collected three years later in 2015 from the same area on a tent like web on a rock. Since female of this species has previously been reported from India, but misidentified as *U. indica*, based on the finding of Rheims et al. [6], we are herewith reporting male of this species for the first time from India with detailed taxonomic descriptions of both sexes with correct identification.

### MATERIALS AND METHODS

The specimens were collected under the rocks by hand-picking and preserved in vials in 70% ethanol. Eye measurements were done with a calibrated ocular micrometer. All measurements are in mm. Genitalia were dissected and cleaned in concentrated lactic acid for 15 minutes to 20 minutes. All illustrations were prepared with the help of camera Lucida attached to Olympus SZX10 stereomicroscope. Scanning Electron Microscope images for palp were taken through SEM-Zeiss EVO-40EP at the Wadia Institute of Himalayan Geology, Dehradun. Specimens are deposited at Indraprastha University Museum (IPUM), New Delhi, India.

### Taxonomy

#### *Uroctea thaleri* (Rheims, Santos and van Harten)

*Uroctea paivani*, Baum, 135.

*Uroctea indica*, Gajbe and Bhadra, 933.

*Uroctea thaleri*, Rheims et al., 64.

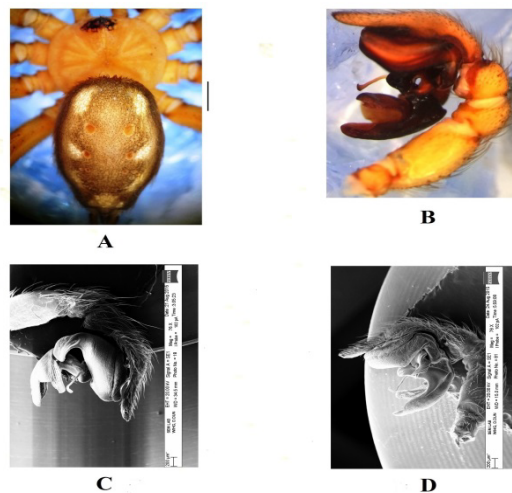
*Uroctea indica*, Gajbe, 436.

*Uroctea limbata*, Hosseini et al., 440

### Material Examined

One male, IPU-Arach-34, GGSIPU campus, Delhi, India (28°35'39.89" N and 77°01'14.52" E) 24.06.2012 Coll. S.K. Das; one female, IPU-Arach-140; GGSIPU campus, Delhi, India (28°35'39.89" N and 77°01'14.52" E) 14.09.2015 Coll. S.K. Das.

### Description, Male (IPU-ARACH-34) (Figure 1)



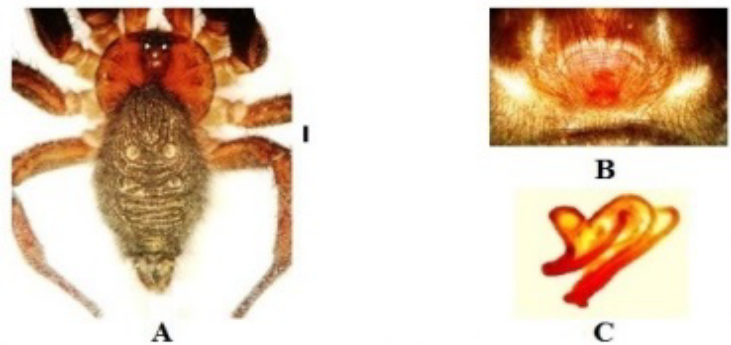
**Figure 1:** *U. thaleri* ♂ (IPU-ARACH-34). A. Habitus (dorsal view), B, C. Right palp, prolateral view; D. Embolus. B-D: SEM. (A,B Scale line=1 mm).

Total length 7.05; carapace 2.05 long, 3.05 wide; abdomen 5.00 long, 3.0 wide; Leg morphometry is provided; Carapace orange coloured, round, as long as wide and covered with small brown hairs. Eyes are on distinct ocular tubercles. Long hairs on ocular area and clypeus, caput low with faint black spots and fovea like a triangular depression. Eyes: In two rows, both procurved and form a group. All eyes with black rim. AME largest, PME pearly white. Diameter of AME 0.3, ALE 0.28, PME 0.15, PLE 0.15. Eyes interspaces: AME-AME 0.15; AME-ALE adjacent; PME-PME 0.5; PME-PLA adjacent; AME-PME 0.10. Clypeus height 0.10, broad-high. Sternum: 2.0 long, 2.5 wide. Heart shaped, yellowish brown with darker margins covered with black long and short bristles. Endites: 0.75 long, 0.25 wide. Sub-rectangular, orange brown and covered with long black bristles. Labium: 0.2 long, 0.25 wide. Triangular broader than long, pale orange and covered with long black bristles. Chelicerae: Pale orange covered with long bristles and hairs, without any teeth. Legs: Orange brown covered with long and short bristles, hairs and spines. Leg formula: 4321. Measurements {femur, patella, tibia, metatarsus, tarsus, total}: Leg I: 2.75, 0.75, 2.75, 2.05, 1.50, 9.80; Leg II: 2.80, 1.00, 3.00, 2.75, 1.05, 10.60; Leg III: 2.90, 1.00, 2.50, 3.00, 1.40, 10.80; Leg IV: 3.20, 1.25, 2.75, 2.80, 1.50, 11.50. True claw tufts absent, both paired and unpaired claws on all tarsi, paired claw with 6-9 dentations. Spines: I: fe, d=6, r=3 p=6; pa, v=2, p=3; ti, v=3, d=3; mt, v=4, p=4; ta, v=4, r=2, p=4. II: fe, d=4, r=5, p=8; pa, v=4, p=2, d=3; ti, v=3; mt, v=5, p=2; ta, v=4, r=2, p=4. III: fe, d=6, p=10, r=5; pa, d=3, v=2, p=2; ti, v=4; mt, v=4, p=4; ta, v=3, r=2, p=3. IV: fe, d=4, r=2, p=8; pa, d=3 v=2, p=2; ti, v=4; mt, v=5, p=4, r=3; ta, v=4, r=3, p=3. Abdomen greyish brown with black reticulated markings and three pairs of white large spots on dorsolateral side and one large wide spot before spinnerets. Three pairs of dorsal sigillae, integument appears rough covered with dense long and short black hairs and bristles. Ventrally pale with a sclerotized semicircular plate in epigastral area with few white flakes between epigastral area and spinnerets. Spinnerets three pairs and brown. ALS large, two segmented with distal segment long and gently curved prolaterally. PLS short, two segmented, apical segment dome shaped. PMS short and hidden between ALS and PMS. Major ampullate and piriform gland spigots are dispersed on ALS; Colulus large and plate like.

Palp: Short rounded tibia without any apophysis, cymbium long covered with bristles and hairs. Tegular lobe triangular on prolateral side, retrolaterally with wide long scape like protrusion. Embolus short, sub-triangular embolic base

wide gradually narrowing down to pointed tip. Three tegular apophyses (TA), TA1 extremely wide and long with a deep cut on lateral side and hollow inside. TA 2 and TA3 thin long with broad tips.

#### Description, Female (IPU-ARACH-140) (Figure 2)



**Figure 2:** *U. thaleri* ♀ (IPU-ARACH-140). A. Habitus (dorsal view), B. Epigyne, C. Internal genitalia; (Scale line=0.5 mm).

Total length 8.10; carapace 3.0 long, 3.05 wide; abdomen 5.10 long, 3.0 wide. Carapace orange brown. Eyes are on low tubercles. Caput slightly raised with distinct reticulated marking laterally and fovea like a triangular depression. Eyes: Diameter of AME 0.3, ALE 0.28, PME 0.15, PLE 0.15. Eyes interspaces: AME-AME 0.15; AME-ALE adjacent; PME-PME 0.5; PME-PLA adjacent; AME-PME 0.10. Clypeus height 0.10, broad-high. Leg formula: 4321. Measurements {femur, patella, tibia, metatarsus, tarsus, total}: Leg I: 3.25, 1.00, 3.00, 2.75, 2.50, 12.50; Leg II: 3.40, 1.20, 3.25, 3.00, 2.25, 13.10; Leg III: 3.50, 1.50, 2.75, 3.25, 2.15, 13.15; Leg IV: 3.75, 1.50, 3.00, 3.25, 2.50, 14.00. Palp tarsi with single claw and with 6 dentations, palp is robust. Spines: I: fe, d=4, r=3 p=3; pa, v=2, p=3; ti, v=3, d=3; mt, v=2, p=2; ta, v=4, r=2, p=2. II: fe, d=3, r=2, p=5; pa, v=4, p=2, d=3; ti, v=3; mt, v=2, p=2; ta, v=2, r=2, p=2. III: fe, d=4, p=5, r=2; pa, d=3, v=2, p=2; ti, v=4; mt, v=2, p=2; ta, v=3, r=2, p=3. IV: fe, d=4, r=2, p=5; pa, d=3 v=2, p=2; ti, v=4; mt, v=5, p=4, r=3; ta, v=4, r=3, p=3. Abdomen greyish black with radiating light bands and black spots. Three pairs of dorsal sigillae, integument appears rough and wrinkled covered with dense, long and short black hairs and bristles. Ventrally greyish brown with few pale and black spots covered with short and long black hairs and bristles. Rest characters as in male.

#### Epigyne:

Small, anteriorly with semicircular median plate and with many ridges and folds. Externally with a broad 'V' shaped pouch. Epigastral lip protruding like a scape with a deep distinct notch in the center. Internally two broad sub-triangular, transparent spermathecae. CD consists of three ducts, main duct opens externally in the pouch, other two subsidiary ducts relatively shorter and with loose ends, and all three CDs coiled once below spermathecae.

### DISCUSSION

Herein described female from India possesses on dorsal abdomen radiating light bands by which it differs from earlier described females from Israel, India, Yemen and Turkey by Baum [2], Gajbe and Bhadra [3], Rheims et al. [6] and Kunt et al. [7] respectively. The described male from India is morphologically different from male specimens described from Israel, Iran, Yemen and Turkey by Baum [2], Hosseini et al. [5], Rheims et al. [6] and Kunt et al. [7] respectively. Abdomen of male from India is greyish brown dorsally whereas from Israel, Yemen and Turkey are dark grey in colour. In Iranian male dorsal abdomen is black with 2 longitudinal cream-colored lateral bands and black spinnerets unlike Indian specimen described here.

### ACKNOWLEDGEMENT

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