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Redescription of the Himalayan *Trachelas costatus* (Araneae: Trachelidae)

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O. Pickard-Cambridge (1885) described *Trachelas costata* based on female specimens from two localities in the Himalayas. Since then it was only mentioned in two works by Simon (1897, 1906). The World Spider Catalog (2018) indicates its distribution as "China (Yarkand)". All of the species described by O. Pickard-Cambridge (1885), based on material collected during the Second Yarkand Mission, are stored in the Oxford University Museum of Natural History. Vials with material described in this paper contain no species and locality labels (Prószyński & Żochowska 1981; Marusik 1993). It was not difficult to recognize the syntypes of this species due to the figures given by O. Pickard-Cambridge, and also because it is the only trachelid described from Yarkand to date. The goals of our paper are to redescribe *Trachelas costatus* in detail, designate a lectotype, and comment on its distribution and relationships.

Specimens were photographed with a Canon EOS 7D camera attached to an Olympus SZX16 stereomicroscope and Pro-Microscan camera attached to an Olympus BH-2 stereomicroscope. Digital images were montaged using CombineZP and Helicon Focus 3.10 image stacking software. Epigynes were cleared in a KOH/water solution until the soft tissues were dissolved. Standard abbreviations are used for leg segments: Fe—femur, Pa—patella, Ti—tibia, Mt—metatarsus, Ta—tarsus. Measurements are in mm. Measurements of the paralectotype from the same vial as the lectotype are given in brackets.

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Trachelas costatus O. P.-Cambridge, 1885 (Figs 1–8)

Trachelas costata O. P.-Cambridge, 1885: 28, pl. 2, fig. 21 (♀).
Trachelas costatus Simon, 1897: 183; Roewer, 1955: 586; Bonnet, 1959: 4667.
Trachelas carinatus Simon, 1906: 303 [lapsus].

Material examined. Lectotype ♀ (here designated), and paralectotype ♀, in a vial containing following labels: “40” and “288”; and 2♀ paralectotypes, in a vial with label “B[ottle] 873 v[ial] 3.” Text data from original description: “Murree, June 11th to July 14th; and near Leh, August and September, 1873”.

Comments. Roewer (1955) indicated the species’ distribution as "NW Indien" and placed it among the Oriental species.

Bonnet (1959) and World Spider Catalog (2018) describe the distribution of the species as "Yarkand" (an administrative unit in the SW part of Xinjiang Province of China), although judging from the text it was described based on specimens from Murree (NE part of the Pakistani province of Punjab) and from Leh, a town in India (Jammu and Kashmir Province).

The original spelling of the species "*costata*" does not correspond to the masculine gender of the genus, and was corrected by Simon (1897).

Diagnosis. *Trachelas costatus* is most similar to *T. alticolus* Hu, 2001, which is known from Tibet (Li & Lin 2016). The two species are similar due to the shape of the copulatory openings (cf. Figs 3–4 and figs 15–16 in Zhang *et al.* 2009), but can be easily differentiated due to the course of the insemination ducts and the oval primary receptacles in *T. costatus* (vs. almost round in *T. alticolus*).

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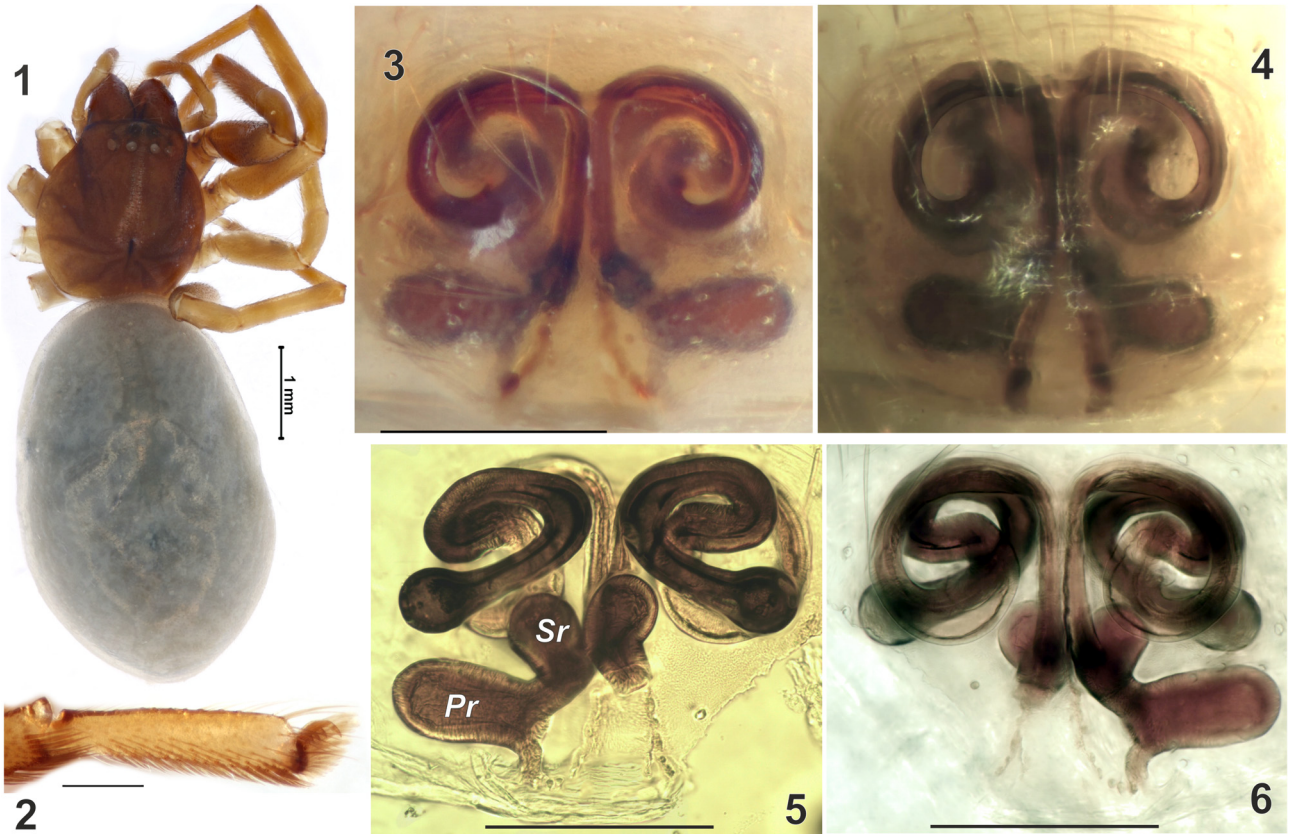


FIGURES 1–6. Females of *Trachelas costatus.* 1. Habitus, dorsal; 2. Metatarsus and tarsus IV; 3, 4. Intact epigyne, ventral; 5, 6. Macerated epigyne, dorsal and ventral. 1–3, 5, 6. Lectotype; 4. Paralectotype. Scale = 0.2 mm unless otherwise indicated. Abbreviations: *Pr*—primary receptacle; *Sr*—secondary receptacle.

Description. Total length 6.22 (5.29). Carapace 2.14 (1.89) long, 1.83 (1.64) wide. Abdomen 4.08 (3.38) long, 2.75 (2.0) wide. Carapace dark-brown, with blackish radial stripes and poor visible granulation; fovea black, distinct (Fig. 1). AME with thin black edging. Chelicerae dark-brown with granulation, with 2 promarginal and 2 retromarginal teeth. Maxillae light-brown. Sternum light yellow-brown, shield-shaped, without sharp precoxal triangles.

Legs without annulations and cusps; legs I and II dark-brown, III and IV lighter. Metatarsus IV with preening comb and brush (Fig. 2), distal part of tarsus broader than proximal.

Leg measurements (lectotype).

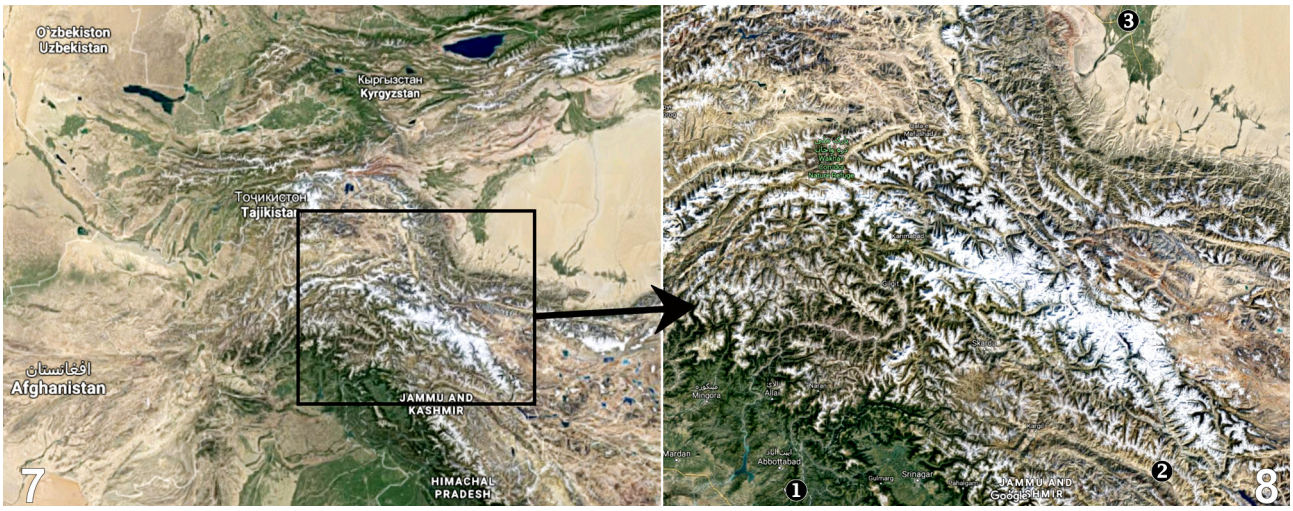
	Fe	Pa	Ti	Mt	Ta	Total
I	1.86	0.86	1.63	1.20	0.79	6.34
II	1.74	0.80	1.54	1.17	0.74	5.99
III	1.29	0.64	1.14	1.17	0.51	4.75
IV	1.79	0.86	1.63	1.20	0.64	6.12

Abdomen lacking distinct pattern. O. P.-Cambridge (1885) describes it as: "it is of a dull clayey-brown colour; the fore half of the upper side has a deep brown, longitudinal, central marking, enlarged in the middle, sharp pointed at its posterior extremity, and followed to the spinners by about six angular deep-brown bars, or chevrons, which decrease in length, from the first to the last, just above the anus; the angles of these chevrons are directed forwards; that of the first touching the pointed extremity of the central longitudinal markings on the fore half. The sides of the abdomen are more or less covered with brown striated markings".

Epigyne as in Figs 3–6; wider than long, weakly sclerotized, receptacles and copulatory ducts visible through translucent integument; copulatory organs large, larger than receptacles, with well-developed anterior and lateral margins; primary receptacles (*Pr*) oval, 2 times longer than wide, stretching horizontally, separated by 3/4 of their width; secondary receptacles (*Sr*) globular, about as long as wide.

Note. One of the paralectotype females (Fig. 4) has relatively shorter primary receptacles than the lectotype and the epigyne is as wide as long.

Distribution. So far, the species is known from northern Punjab (Pakistan) and Jammu and Kashmir (India) (Figs 7–8).



FIGURES 7–8. Distribution of *Trachelas costatus.* 7. Northern Himalaya and Tibet; 8. Map showing region of the Second Yarkand Mission: Murree (1), Leh (2) and Yarkand (3).

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