

**FIRST RECORD OF *RUBORRIDION MUSIVUM* SIMON, 1873
(ARANEAE: THERIDIIDAE) FROM INDIA.**

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ABSTRACT: The theridiid spider *Ruborridion musivum* (Simon, 1873) is reported from India for the first time, based on specimens collected from Maharashtra and Uttarakhand. A brief description and illustrations of the female is provided in this paper.

KEY WORDS: Theridiidae, *Ruborridion musivum*, India, new record

The comb-footed spider family Theridiidae (Sundevall, 1833) is one of the most speciose family with 122 genera and 2470 species (World Spider Catalog, 2016). In India it is represented by 18 genera and 52 species (World Spider Catalog, 2016). The monotypic genus *Ruborridion* Wunderlich, 2011, however, has not been reported from India so far. Here, we report *R. musivum* based on female specimens collected from Nanda Devi Biosphere Reserve-NDBR, Uttarakhand and Dapoli, District Ratnagiri, Maharashtra.

The type species *Ruborridion musivum* was originally described as *Theridion musivum* by Simon (1873). Wunderlich (1987) placed *R. musivum* in *Paidiscura* based on the body colouration, haemolymph color, shape of labium and sternum, genital structures. Subsequently, Knoflach & Thaler (2000) rejected this transfer. Later, Wunderlich (2011) created the genus *Ruborridion* to accommodate *Theridion musivum* Simon 1873. The species is presently known only from the Mediterranean region (Wunderlich, 2011).

MATERIAL AND METHOD

The material examined for the present study was collected from two study sites. First site was Joshimath and Sunil Goan, NDBR. This site is located in the northern region of the Western Himalaya (India). Another site was Dapoli taluka in Maharashtra (India). This site is located on the western coast of India and the samples were collected from the forest using vegetation beating and litter sorting method. The specimen were then preserved and examined under a stereomicroscope (MOTIC™); all the illustrations were prepared with the aid of a camera lucida. All measurements are in millimeters (mm) using an ocular micrometer. Epigynum were dissected and cleaned using lactic acid. Photographs were taken with a Leica DFC 290 stereomicroscope. Specimens were deposited in the public museum of the Wildlife Information Liaison Development Society (WILD), Coimbatore, Tamil Nadu, India.

Abbreviations: ALE = anterior lateral eye; AME = anterior median eye; PME= Posterior median eyes, PLE= Posterior lateral eyes; Fe=femur; Mt=metatarsus; Pa=patella; Ta=tarsus; Ti=tibia

TAXONOMY

Rubroridion musivum (Simon, 1873)

(Table 1; Figs. 1A-C)

Material Examined:

1 female, 17 November 2009, Joshimath, NDBR, Uttarakhand, India: elevation 2182 m, 30°29'42.1"N 79°42'19.3"E, WILD-09-ARA-1237 (Shazia Quasin).

1 female, 23 July 2015, Sunil Gaon, NDBR, Uttarakhand, India: Elevation 2237 m, 30°33'02.6"N 79°33'14.0"E WILD-15-ARA- 1303 (Irina Das Sarkar).

1 female, 10 October 2013, Jamage sacred grove (Dapoli), CFOR-S367, (Vinayak Patil & Pradip Patil).

1 female, 03 October 2013, Pangari sacred grove (Dapoli), CFOR-S390, (Vinayak Patil & Mayur Naik).

Description Female (WILD-09-ARA-1237): Spider in life bright orangish-red (Fig. 1A). But colour fades in alcohol except for tibia to tarsus reddish.

Total length 2.18. Carapace 0.66 long, 0.72 wide. Abdomen 1.52 long, 1.72 wide. Carapace wider than long; pear shaped, broader posteriorly; caput raised, covered with long pallid hairs; clypeus 0.08 high; fovea with wide depression; striae distinct. Eyes: both rows slightly procurved. Eyes: AME=PME 0.041, ALE 0.027, PLE 0.03. Distance between eyes: PME-PLE 0.027, ALE-PLE adjacent, AME-ALE 0.029, AME-AME 0.042, PME-PME 0.047, OQ 0.13 long, 0.32 wide, MOQ 0.12 long, 1.16 wide. Sternum 0.4 long, 0.32 wide, shield shaped, anteriorly widest, posteriorly narrowing down. Labium triangular, distinctly wider than long. Endites longer than wide. Sternum, endites, labium, legs covered with black long hairs. Chelicerae covered with few stiff hairs. Chelicerae one promarginal tooth, retromarginal tooth absent. Morphometry of legs is given in Table 1. Abdomen globular, without markings; three sigillas; uniformly covered with long black hairs dorsally and ventrally. Spinnerets three pairs, colulus absent.

Epigyne: Externally epigastrical area highly sclerotized and posteriorly slightly protruding like broad scape, atrium round, copulatory ducts and spermathecae partially visible (Fig. 1A). Spermathecae round, fertilization ducts small emerging posterior-prolateral end of spermathecae along with the copulatory duct; copulatory ducts, highly coiled and before opening into atrium they are heavily sclerotised and get fused (Fig. 1B).

Distribution. — Maharashtra, Uttarakhand, India (present record); Mediterranean.

Remark. — Female specimens from Uttarakhand were collected from untidy tangle webs. However, web structure was not observed in specimens collected from Maharashtra as they were collected by vegetation beating method.

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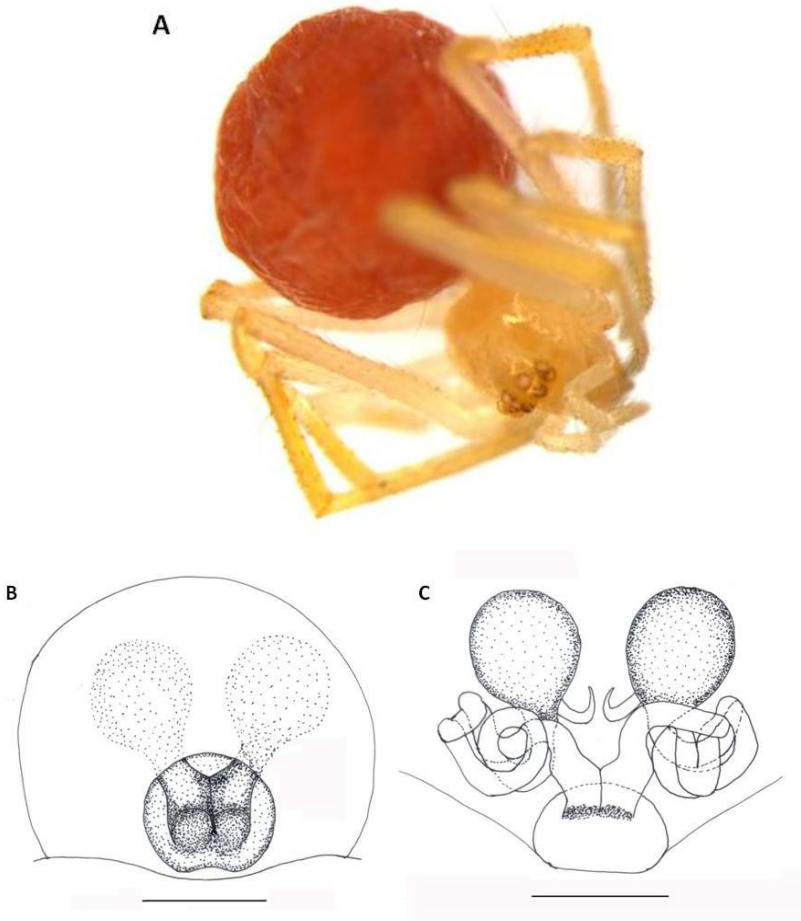


Figure 1: *Rubrorridion musivum*, female A. Habitus; B. External Epigynum; C. Internal Epigynum. B-C: Scale = 0.1 mm.

Table 1. Leg measurements (in mm) of *Ruborridion musivum* (Simon, 1873)

Legs	I	II	III	IV
Fe	1.09	0.86	0.67	0.96
Pa	0.28	0.24	0.25	0.30
Ti	0.76	0.45	0.27	0.54
Mt	0.86	0.72	0.46	0.65
Ta	0.44	0.37	0.31	0.34
Total	3.43	2.64	1.96	2.79