

On a new species of the orb-weaving spider genus *Eriovixia* (Araneae: Araneidae) from India

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Abstract

A new species *Eriovixia kachugaonensis* sp. nov. with characteristic lanceolate abdomen in females is diagnosed and illustrated in detail based on specimens collected from Assam. We herein describe the female in detail along with digital images and illustrations.

Keywords: Assam • Kachugaon • taxonomy

Introduction

The genus *Eriovixia* was erected by Archer in 1951 with type species *Eriovixia rhinura* (Pocock, 1900). It is recognizable by its pilose carapace which is longer than wide, anterior eye row straighter than the posterior eye

row, female abdomen longer than wide or wider than long, subtriangular, with or without caudal appendages, male abdomen longer than wide, epigynum with stout scape and recurved tip (Archer 1951; Tanikawa 1999). The members of the genus *Eriovixia* are medium sized orb-weaving spiders which range from Africa to Asia (Mi, Peng & Yin 2010) and currently consists of 22 accepted species, of which five, *Eriovixia excelsa* (Simon, 1889), *E. gryffindori* Ahmed, Khalap & Sumukha, 2016, *E. laglaizei* (Simon, 1877), *E. palawanensis* (Barrion & Litsinger, 1995), and *E. poonaensis* (Tikader & Bal, 1981), are known from India (World Spider Catalog 2018). In the present paper, we describe the new species *Eriovixia kachugaonensis* sp. nov. and its natural history from India.

Material and methods

Specimens were collected by handpicking and preserved in 80% ethanol. Photographs were taken by using Leica EZ4 E stereo microscope. Measurements are given in millimetres (mm). Leg measurements are given as femur, patella, tibia, metatarsus and tarsus. The epigynum was treated in lactic acid for clearing soft tissues. Descriptions are given based on fresh specimens. The type specimens are deposited in BMGU (Biodiversity Museum Gauhati University, Northeast Region). Abbreviations: ALE = anterior lateral eye, AME = anterior median eye, PLE = posterior lateral eye, PME = posterior median eye.

Araneidae Clerck, 1757

Eriovixia Archer, 1951

Type species: Eriovixia rhinura (Pocock, 1900)

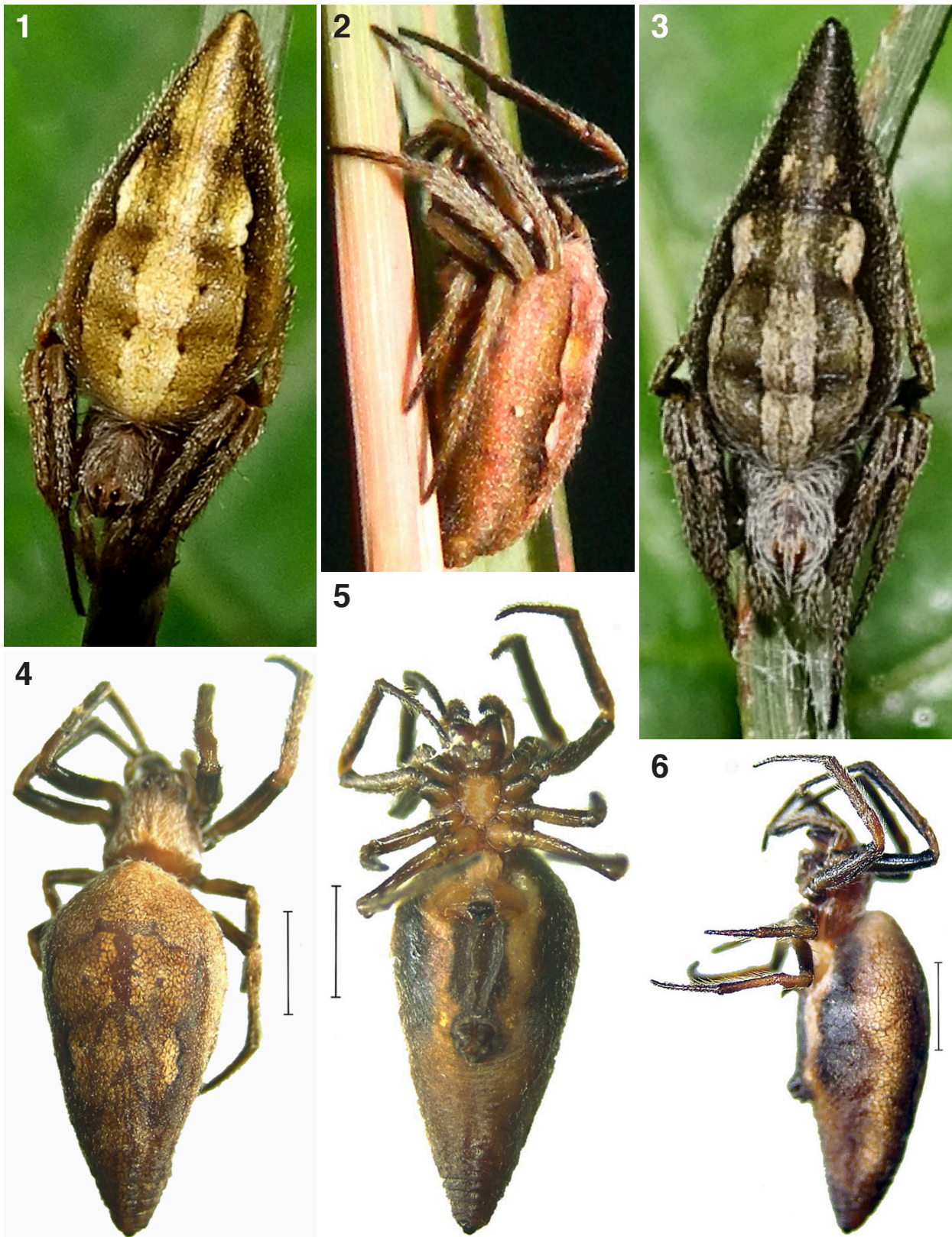
Diagnosis: Male with transverse fovea, abdomen longer than wide with a tubercle at posterior end, palp with large median apophysis, macroseta absent on patella, palp bearing one or two spurs on median apophysis. Female abdomen long, subtriangular, tapering posteriorly, epigyne bearing a scape with recurved tip.

Eriovixia kachugaonensis sp. nov. (Figs. 1–13)

Types: Holotype ♀, BMGU/A-10/ARA-30 from Kachugaon, 26°44'44.1"N 90°08'14.6"E, 81 m a.s.l., 11 July 2018, leg. T. Basumatary. Paratypes: INDIA: 1♀, BMGU/A-10/ARA-31, Kachugaon, 26°44'38.4"N 90°07'59.1"E, 72 m a.s.l., 12 June 2018 and 1♀, BMGU/A-10/ARA-32, Jharbari Forest Range, 26°35'49.3"N 90°14'15.7"E, 72 m a.s.l., 24 July 2018, all leg. P. Basumatary.

Etymology: The species is named after the type locality Kachugaon (noun in apposition).

Diagnosis: The new species resembles *Eriovixia pseudo-centrodes* (Bösenberg & Strand, 1906) in habitus, but can be distinguished from the latter by having a flat, elongate abdomen; the abdomen does not tapering posteriorly (Figs. 1–2, 4) (in *E. pseudo-centrodes*, the abdomen is in an upright position and tapers posteriorly). The epigyne is oval shaped;

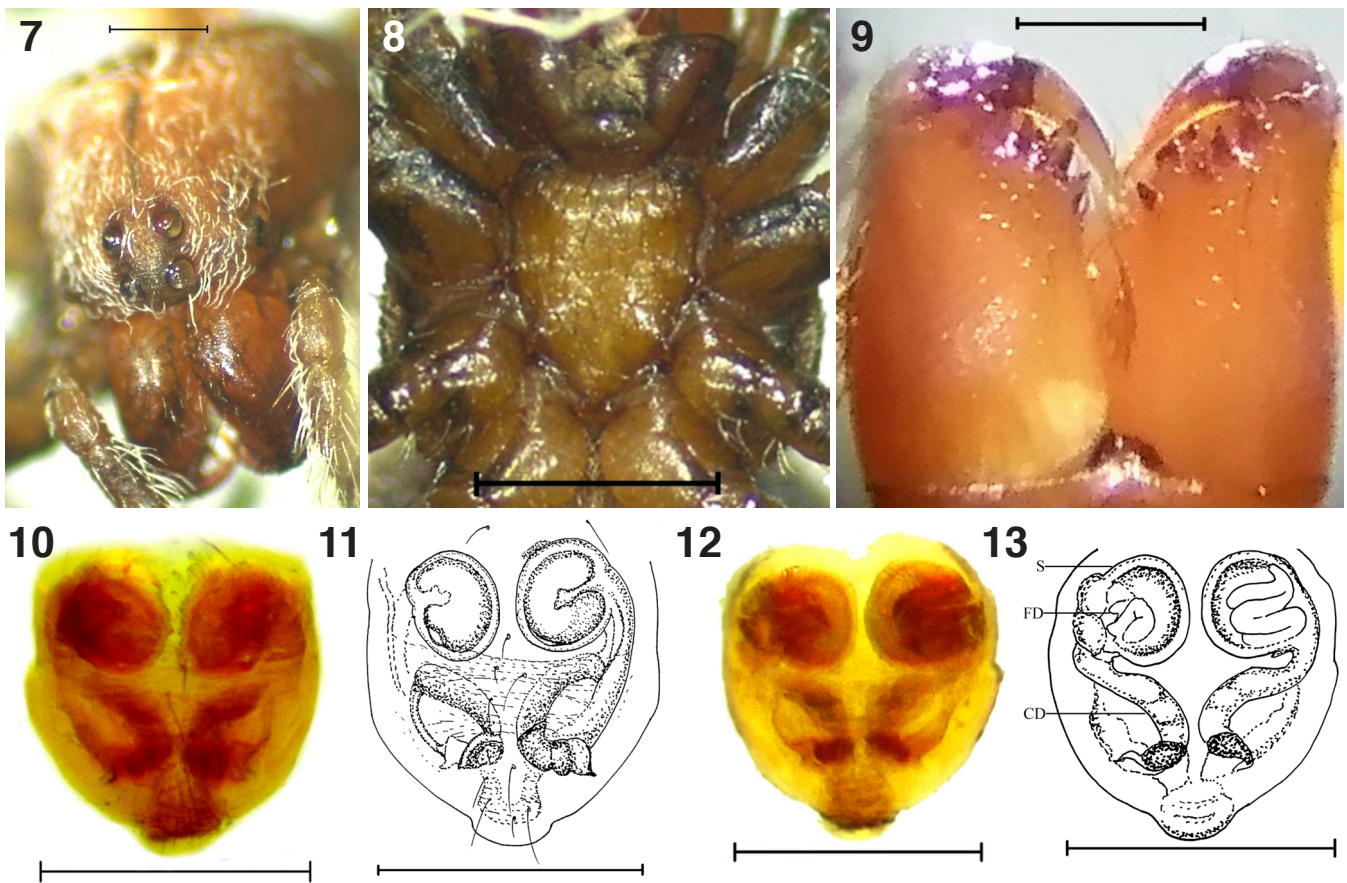


Figs. 1–6: *Eriovixia kachugaonensis* sp. nov., female. **1** live, anterior view; **2** live, lateral view; **3** live (black morph), anterior view; **4** habitus, dorsal view; **5** habitus, ventral view; **6** habitus, lateral view. Scale bars = 2 mm.

globular spermathecae; copulatory ducts long and with a single fold posteriorly, almost touching each other (Figs. 10–13) (in *E. pseudocentrodus*, the epigyne is triangular shaped; oval spermathecae; copulatory ducts unfolded, posterior ends facing each other). It is distinguishable from *E. gryffindori* Ahmed, Khalap & Sumukha, 2016 by the absence of a long, pointed, abdomen tapering posteriorly,

short epigynal scape, coiled copulatory ducts and oval-shaped spermathecae.

Description of holotype female: Total length 8.83; carapace 1.56 long, 1.48 wide; opisthosoma 7.27 long, 3.42 wide; sternum 0.94 long, 0.82 wide. Eye measurements: AME 0.11, PME 0.11, ALE 0.06, PLE 0.06, AME–AME 0.14, AME–ALE 0.33, AME–PME 0.09, ALE–PME 0.38,



Figs. 7–13: *Eriovixia kachugaonensis* sp. nov., female. **7** cephalothorax, anterior view; **8** sternum; **9** chelicerae, retrolateral view; **10** internal genitalia, ventral view; **11** explanatory drawing of internal genitalia, ventral view; **12** internal genitalia, dorsal view; **13** explanatory drawing of internal genitalia, dorsal view. Scale bars = 1 mm (8), 0.5 mm (7, 9, 10–13).

PME–PME 0.16, PME–PLE 0.38. Leg measurements: I 5.25 (1.39, 0.66, 1.51, 1.08, 0.61); II 4.48 (1.36, 0.51, 1.12, 1, 0.49); III 2.93 (0.98, 0.42, 0.51, 0.63, 0.39); IV 4.65 (1.24, 0.72, 1.21, 0.96, 0.52). Carapace pear shaped and brownish with a short blackish mid-dorsal stripe to foveal groove; covered with whitish setae; longer than wide; deep cervical groove; ocular region dark brown; anterior eyes recurved and straight posterior eyes (Figs. 4, 7). Chelicera brownish with sparse grayish hairs; three retromarginal and three promarginal teeth (Fig. 9). Sternum yellowish brown and triangular; labium and maxillae dark brown (Fig. 8). Legs blackish brown, covered with short bristle-like hairs (Figs. 5–6). Abdomen elongated, pointed posteriorly, with round muscle markings at posterior end; pale yellowish brown covered sparsely with whitish hairs; dark brown margins on dorsum with three pairs of sigillae; broad blackish markings on lateral sides (Figs. 1–2, 4); venter dark brown; short blackish broad margin from distal end of epigynum to proximal end of spinnerets; blackish brown spinnerets (Fig. 5). Epigyne oval with long scape; globular spermathecae; copulatory ducts long with a single loop (Figs. 10–13)

Natural history: Females were observed resting motionless during the daytime on a specific narrow-lanceolate leaved plant *Saccharum spontaneum* (wild sugarcane) at a height of ~1.2 m above the ground. The females were found ~5 m apart with only one individual per plant. A black colour morph of *Eriovixia kachugaonensis* sp. nov. was also collected; only a single such individual was observed at the locality (Fig. 3).

Distribution: India (Assam).

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