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CRITICAL ECOSYSTEM

Western Ghats Special Series

FIRST RECORD OF *POLTYS COLUMNARIS* THORELL, 1890 (ARANEAE: ARANEIDAE) FROM WESTERN GHATS, INDIA

Siddharth Kulkarni¹ & Helen Smith²

¹Zoology Department, Yashavantrao Chavan Institute of Science, Satara, Maharashtra 415001, India

² Australian Museum, 6 College St, Sydney, New South Wales, 2010, Australia ¹sskspider@gmail.com (corresponding author), helen.smith@austmus.gov.au

The genus *Poltys* C.L. Koch of the family Araneidae is recognized by the presence of an eye tubercle and the almost unique arrangement of the lateral eyes separated widely from each other (Tikader 1982). During the day, spiders lie motionless with legs kept close to the cephalothorax and the median eyes on the tubercle protrude through them (Image 1); at night spiders build an orb web (Smith 2006).

Poltys was established with the type species *P. illepidus* C.L. Koch, 1843. This is an old-world genus with 43 species worldwide (Platnick 2013). Till date, six species have been described from India viz. *Poltys bhabanii* (Tikader, 1970), *Poltys bhavnagarensis* Patel, 1988, *Poltys godrejii* Bastawade & Khandal, 2006, *Poltys nagpurensis* Tikader, 1982, *Poltys rehmanii* Bastawade & Khandal, 2006 from Indian mainland and *Poltys pogonias* Thorell, 1891 from Nicobar Islands.

The specimens were studied under Olympus stereozoom microscope (MSZ-B). Illustrations were

made using camera lucida and prepared on Coral draw X4. All measurements are in mm. Epigynes were dissected from females and cleared in clove oil. Specimens are

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deposited at Western Regional Station, Zoological Survey of India, Pune.

Poltys columnaris Thorell, 1890 (Fig. 1–3, Images 1–3)

Thorell, 1890: 87; Smith, 2006: 95 figs 223-225.

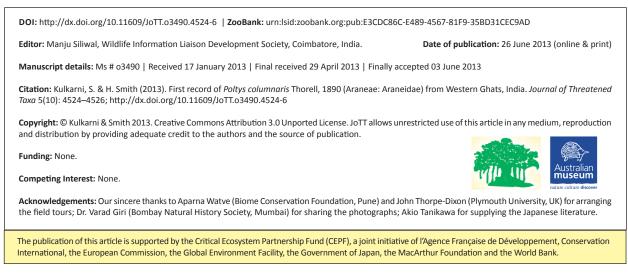
<u>Type material:</u> (examined by Smith, 2006): Female, Sumatra, at Oxford university Museum, Oxford, UK.

<u>Material examined</u>: 10.vii.2010, 16°83'N & 73°53'E, Vetye, Ratnagiri, India, two females on dried firewood; 15.vi.2011, 2 females on fence. 27.viii.2012, 1 female on fence, Nerur, Sawantwadi, Sindhudurg, 16°02'N & 73°61'E, ZSI-WRC-Ar/441.

General: Carapace length range: 3.18–4.12, width: 2.02–2.63 and abdomen length: 8.1–9.24, width: 2.13–2.63.

<u>Cephalothorax</u>: Carapace yellow in colour, high, slightly raised, pointed tubercle. Tuft-like setae between and behind posterior median eyes, lateral eyes widely separated. Base of eye tubercle brown. Thoracic groove brown and sharp. Labium, maxillae and sternum brownish. Femora stout, distinctly bulged, I and II with black dots. Few clavate setae on patella I.

<u>Abdomen</u>: Dark brown, dark grey ventrally with corrugations. Abdomen tall, high extended above the



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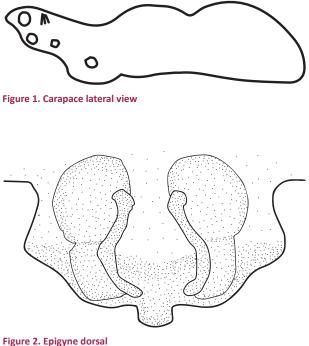




Image 1. Poltys columnaris - motionless female with protruded eye tubercle

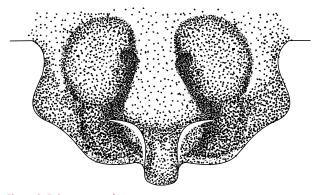


Figure 3. Epigyne ventral

posterior region of carapace, similar to the other species of the Poltys columnaris group (Smith 2006). Many shiny maculae present in rows just anterior to spinnerets on the dorsum (Image 2). Epigyne short, covered with V-shaped lip ventrally. Spermathecae ear-shaped, slightly bent outwards, copulatory ducts short (Image 3).

Remark: There is variation in the abdominal size and slightly in its shape, so epigynal study is always a must for species confirmation.

Discussion: The record of this species from Sri Lanka is an old one (Karsch 1891) and there are no recent records of this species from the region, although Smith (2006: 95) suggested that it also occurs in Myanmar. The species known as P. columnaris in Japan does not



Image 2. Poltys columnaris - female abdomen venter showing maculae



Image 3. Epigyne dorsal

Poltys columnaris in Western Ghats

appear to be conspecific by judging the illustrations and photographs given by Tanikawa (2007: figs 289– 294, 754–756). Also, the illustrations of holotype of *P. turriger* Simon, 1897 (Smith 2006: figs. 229–231; Ono et. al. 2012: figs 3–5) depict it to be a possible synonym of *P. columnaris.* The taxonomy of the *Poltys columnaris* group thus, needs revision.

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Erratum

Habitat and seasonal distribution of Odonata (Insecta) of Mula and Mutha river basins, Maharashtra, India Kulkarni, A.S. & K.A. Subramanian

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(i) Valid name of *Coenagrion dyeri* is *Cercion dyeri* (Fraser 1919). This is to be corrected in Table 2, page 4089 and Appendix 2, page 4094.

(ii) The correct spelling of *Sympetrum fonscolumbi* in Table 2 and Appendix 2 is *Sympetrum fonscolombii* Selys, 1840.

(iii) Orthetrum chrysostigma (Burmeister, 1839) sensu stricto has not yet been reported from India. Fraser (1936) reported O.c. luzonicum (Brauer) as the subspecies commonly occurring in India. The valid name of O.c. luzonicum (Brauer) is Orthetrum luzonicum Brauer, 1868. The entry of Orthetrum chrysostigma in Table 2 may be corrected as Orthetrum luzonicum and the data pertaining to that may be combined with that of Orthetrum luzonicum further down the list.