



First record of *Plesiophrictus millardi* Pocock, 1899 (Araneae: Theraphosidae) from Gujarat, India

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Abstract

Plesiophrictus millardi is reported for the first time from Gujarat, based on one male specimens collected from Kevadi, Vansda, Navsari District, Gujarat, India. This new record extends the distribution range of the species for about 400 km in north from the nearest known locality.

Keywords: *Plesiophrictus millardi*, Theraphosidae, Gujarat

Introduction

The theraphosid spider genus *Plesiophrictus* Pocock, 1899 is represented in India by at least 8 species considering the recent revalidation of the genus *Heterophrictus* and the description of *Neoheterophrictus*^{1,2}. Pocock³ established the genus *Plesiophrictus* to embody *Plesiophrictus millardi* Pocock, 1899, and after that many new species of this genus were described from India^{4,5,6}. Recently Siliwal *et al.*⁷ described a new species from Western Ghats, India. In Western Ghats, the genus *Plesiophrictus* appears to be distributed from Maharashtra to Kerala. B.H.Patel⁸ reported the genus *Plesiophrictus* from Gujarat for the first time, without mentioning the species. In March 2012, during a field visit at Kevadi, near Vansda, Navsari district, Gujarat; we collected a male specimen of a species belonging to the genus *Plesiophrictus*. It was later identified as *Plesiophrictus millardi* with the help of a key provided by Raven⁹, Smith^{10,11}, and Guadanucci¹. This makes a new locality record of the species as well as a new species record for Gujarat state.

Material and Methods

The specimen was collected during a night trail at around 22:30 hours and preserved in 80% alcohol. The measurements were taken with dial callipers (to the nearest 0.02 mm). All measurements are in mm. Specimen examination was done by a Leica S4E stereomicroscope. Photographs were produced using an Olympus trinocular stereomicroscope attached with a camera.

Results and Discussion

Systematics: Class: ARACHNIDA, Order: ARANEAE, Suborder: OPISTHOTHELAEE, Infraorder: MYGALOMORPHAE, Family: THERAPHOSIDAE Thorell, 1869.

Genus: *Plesiophrictus* Pocock, 1899, *Plesiophrictus millardi* Pocock, 1899

Colouration in life: Overall blackish, Carapace covered with a mat of golden hair. Metatarsus of leg-I snow white. Sternum and leg coxae brownish red; abdomen blackish brown and ventrally pale in colour.

Description: Carapace 6.62 mm long and 5.36 mm wide, Carapace overall black, covered with a dense mat of golden hair. Abdomen 6.66 mm long and 3.82 mm wide. Chelicerae 3.38 mm in size, chelicera lyra absent. Promarginal teeth 9; 12 basosomal teeth present on chelicera. Sternum 2.64 long and 2.04 wide, oval, high in center, sloping gradually, covered with long, dense, black hair. Two pairs of spinnerets, with brown hairs. Posterior median spinneret 0.44 mm long and 0.14 mm in diameter. Eight eyes, arranged in a group, on anterior tubercle. Anterior lateral eyes clearly larger than the rest, posterior lateral eyes slightly larger than anterior median eyes, and posterior median eyes clearly smaller than the rest. Maxillary lyra absent on maxillae. Labium 0.48 mm long and 0.64 mm wide; the size of labial and maxillary cuspules is the same. Four pairs of legs, divided into femur, patella, tibia, metatarsus and tarsus. Length of leg-I: 13.32 mm, leg-II: 10.42 mm and leg-III: 9.76 mm. Fourth pair of legs was damaged during capturing the specimen so it was not possible to take measurement of leg-IV. Pedipalp 7.16 mm long. Paired claws, without any dentition, present on each leg. One bare claw is present on palp.

P. millardi has been recorded from Sanjay Gandhi National Park (SGNP), Matheran, Karnala Bird Sanctuary, Phansad Wildlife Sanctuary, Uran (Raighad District), and Bhimashankar Wildlife Sanctuary (Pune District) in Western Maharashtra^{4,10,12}. This present study considerably extends the range of the species. The present locality is situated on the border of Vansda National Park (VNP) in Navsari district, which is about 400 km north

from the nearest known locality i.e., SGNP. Kevadi and VNP are situated in the geographical region of Dangs. It is a hilly terrain with hills of moderate altitude, an extension of the Sahyadri Range of Western Ghats. The northern Western Ghats has moist deciduous type of forest and Teak is the predominant tree species of the region. Climate of this region is tropical and

has three distinct seasons, viz., the monsoon (mid June - October), winter (October - February) and summer (March - mid June). Average rainfall in the hills of northern limits of Western Ghats is 2000 – 3000 mm/year. Humidity during monsoon is very high in this region.

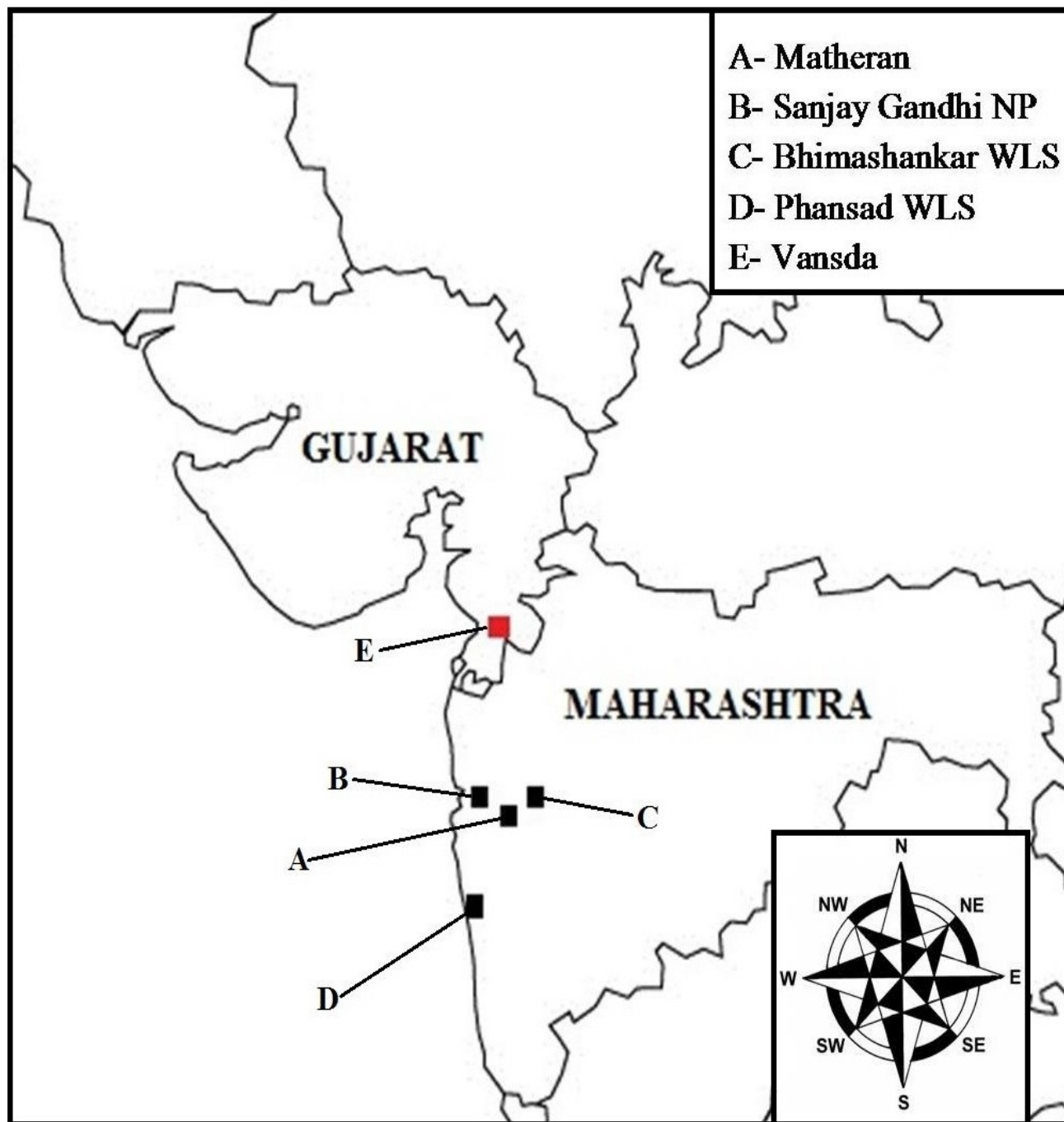


Figure-1

Map showing distribution of *Plesiophriktus millardi* based on previous records (black squares) and present record (red square)



Figure-2

Plesiophrictus millardi 1, male dorsal view; 2, male carapace; 3, eyes; 4, sternum, labium, maxillae and chelicerae; 5, male palp; 6, spinnerets

Conclusion

Documentation of biodiversity has become a very important aspect for the conservation of that particular ecosystem. The hilly forests of south Gujarat are considered as the northern limits of Western Ghats, which is a global biodiversity hotspot with very high percentage of endemic species. However, when it comes to arachnological studies, only a couple of studies have been done to survey the spider fauna of this region^{8,13}. So the forests of Dangs and south Gujarat are largely unexplored with reference to arachnofauna. Further studies may yield many new species records from Dangs and south Gujarat.

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