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Range extension for *Pulchriphyllium anangu*
Cumming et al., 2023 (Phasmatodea: Phylliidae)
and first record from Maharashtra

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Range extension for *Pulchriphyllium anangu* Cumming et al., 2023 (Phasmatodea: Phylliidae) and first record from Maharashtra

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Abstract. *Pulchriphyllium anangu* Cumming et al., 2023 is here reported for the first time from Maharashtra state, India. Also, this is the first record of a leaf insect (Phasmatodea: Phylliidae) for Phansad Wildlife Sanctuary, District Raigad, Maharashtra. This sighting represents the northernmost distribution in the Western Ghats for *Pulchriphyllium anangu*.

Key words. Leaf insect, Phansad Wildlife Sanctuary, Western Ghats, Supegaon.

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Introduction

The first state record and range extension for the leaf insect *Pulchriphyllium anangu* Cumming et al., 2023 for Maharashtra is reported. This is approximately 369 km north of the previous northernmost record.

Materials and Methods

The present record is based on a preliminary identification of the single photograph presented in this paper. The specimen was not collected as the authors did not have permission to collect the specimen. The male of *P. anangu* was spotted during a field entomology workshop held at Phansad Wildlife Sanctuary between the 28th and 30th of September 2023. The specimen was photographed using a Nikon D5600, with Nikkor AF 105mm f/2.8 macro lens and Godox V850III flash as an external light source. The specimen was identified using Cumming et al. (2023). The distribution map was prepared using MapCustomizer (<https://www.mapcustomizer.com/>) Copyright 2014–2020, Ursus Software, LLC. plotted on the distribution map were taken from the supplementary files of Cumming et al. (2023).

Results and Discussion

Abbreviated description of male *P. anangu* Cumming et al., 2023. *Color:* Base coloration green. Variable patches of brown throughout the body, more prominently on the abdomen, venation of the wings, and lobes of the legs. The antennae are tan-colored. Two prominent dark spots on the abdomen. *Morphology:* Head with

paired, well-developed compound eyes. Three well-developed ocelli. Antennae with 22 or 23 antennomeres. Pronotum with concave anterior margin and straight lateral margins. Forewings with a short tegmina extending to the second abdominal segment. The abdomen is ovular in shape.

Sexual dimorphism. In leaf insects there is distinct sexual dimorphism between the sexes. In males, two prominent dark spots are present on the abdomen but absent in the females. Males show three well-developed ocelli, which are absent in the females. The antennae in males have 22 or 23 antennomeres as compared to the nine in females. The tegmina of the forewings are short in the males (reaching the second abdominal segment), while longer in females (reaching the seventh abdominal segment). The herein-discussed specimen observed was a male.

Material examined. On 29th September 2023, one male was sighted at approximately 11.00 PM in the Phansad Wildlife Sanctuary, Maharashtra, India (18.405128, 72.938116) resting on a Mango tree (*Mangifera* sp.) approximately 3 meters above the ground (Fig. 1). The habitat (Fig. 2) was mixed deciduous forest alongside a road north of Supegaon.

Remarks. Three species of *Pulchriphyllium* Griffini are presently known from India (Cumming et al. 2023) as follows: *P. bioculatum* (Gray, 1832) from the Andaman and Nicobar Islands, *P. scythe* (Gray, 1843) from the states of West Bengal, Assam, Nagaland, Meghalaya, Tripura, and Mizoram (= *P. bioculatum*; Mandal and Yadav 2010; Laskar and Sinha 2018) and *P. anangu* from Western Ghats. According to the original description by Cumming et al. (2023), Goa was the northernmost range limit for *P. anangu*, therefore the present sighting from Phansad Wildlife Sanctuary, Maharashtra, India extends the range northwards by almost 369 km (Fig. 3).

Phansad Wildlife Sanctuary is largely composed of mixed deciduous forest. The habitat in the Phansad Wildlife Sanctuary resembles the *P. anangu* range towards the south, suggesting that this species is present across the ~369 km stretch between Phansad Wildlife Sanctuary and the previous northernmost record (Fig. 3).



Figures 1–2. Observations of *P. anangu*. 1) Dorsal habitus view of a *P. anangu* male resting on Mango (*Mangifera* sp.) observed in Phansad Wildlife Sanctuary, Maharashtra, India on 29th September 2023. 2) Habitat of Phansad Wildlife Sanctuary, District Raigad, Maharashtra.

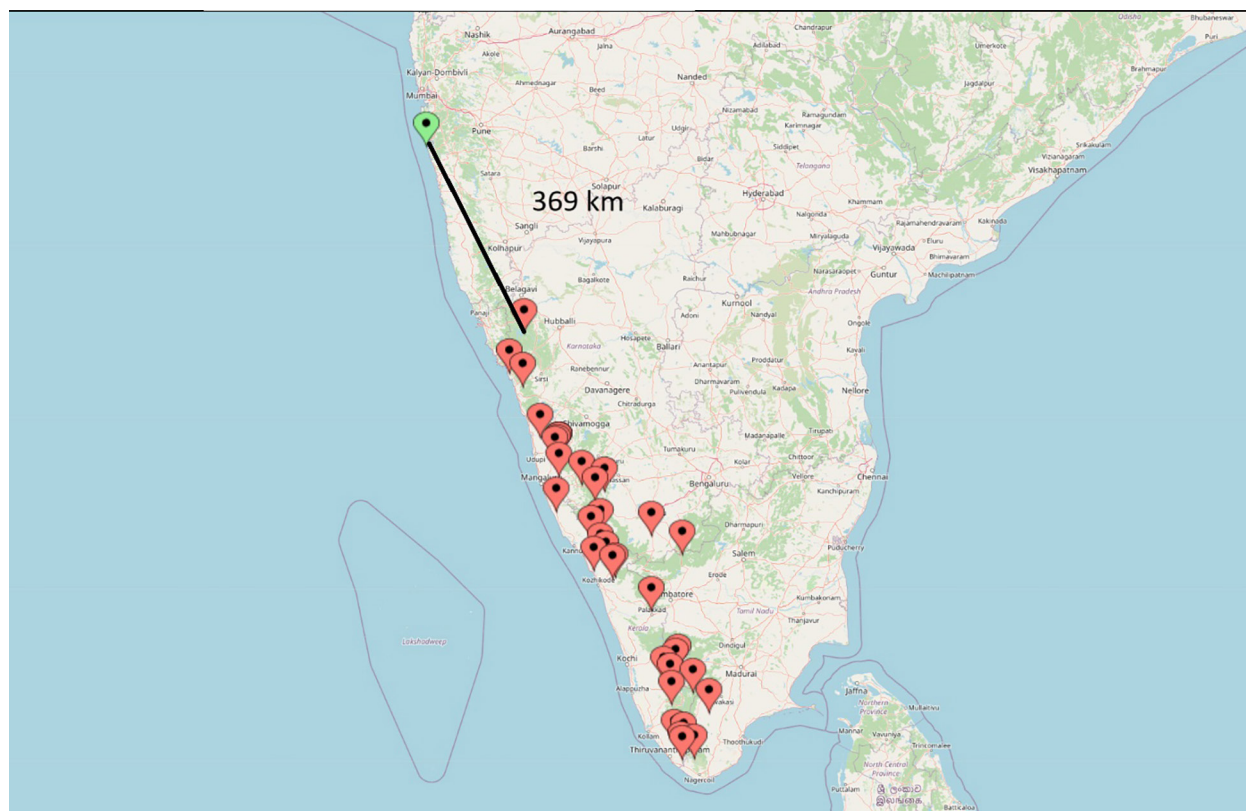


Figure 3. Distribution of *P. anangu* in the Western Ghats, India. Red points are gleaned from the supplementary files of Cumming et al. (2023). The green point is the new distribution record from Phansad Wildlife Sanctuary, District Raigad, Maharashtra, India.

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