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NEW RECORD OF *PSEUDONEOPONERA RUFIPES* (INSECTA: HYMENOPTERA: FORMICIDAE) FROM JHARKHAND, INDIA

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The Indian subcontinent is well known for its high biodiversity, varied environment and habitats, and interesting geological history. However, much work remains to document and catalogue the species of India and their geographic distribution, especially for invertebrate groups. Ants constitute an important part of the animal biomass in terrestrial ecosystems and respond to stress on a much finer scale compared to vertebrates (Hölldobler & Wilson, 1990; Andersen, 1997). They are widely used to assess landscape disturbance and species diversity (Paknia & Pfeiffer, 2011). They perform major ecological functions (predators, scavengers, pollinators, nutrient cyclers, soil turners) and are also responsible for numerous plant species dispersal at almost all levels of terrestrial food webs (Lach *et al.*, 2010; Del Toro *et al.*, 2012; Guénard, 2013; Pfeiffer *et al.*, 2013). In this context, knowledge about their diversity and distribution may add to our understanding of their ecological functions, biogeographic patterns and global affinities.

Two years ago, 13,379 species of ants were listed globally and about 30,000 undescribed species still needed to be catalogued, according to estimates by many myrmecologists (myrmologicalnews, 2018). At present, the diversity is assessed to be 16,301 valid species and subspecies around the world (AntWeb, 2020). In India 828 species and subspecies were listed, representing 100 genera grouped into 10 subfamilies (Bharti, 2016). Subfamily Ponerinae of Formicidae

has 2 species of *Pseudoneoponera* i.e., *Pseudoneoponera rufipes* (Jerdon, 1851) and *Pseudoneoponera bispinosa* (Smith, 1858) across India. The genus *Pseudoneoponera* occurs from India through Southeast Asia to Australia, where it reaches its greatest species diversity. *Pseudoneoponera* have unusual reproductive and social strategies. The queen caste has, apparently, been, found in only a few species, while gamergates have been found in several species (Monnin & Peeters, 2008). An unusual characteristic of this genus is that the workers produce a foamy thread-like defensive excretion from their venom glands. The foaming is produced by atrophication of Dufour's gland and the resulting mixing of venom gland proteins with the air (Buschinger & Maschwitz, 1984).

Some ant specimens were collected from a grassland area (23.444599 N, 85.316906 E) inside the Birsa Agricultural University campus on October 19, 2019 and kept in Faculty of Forestry. The specimens were collected and preserved in 70% ethanol, photographed and the latter sent to myrmecologists for identification. The ant was found to be *P. rufipes*, which is a new record for the state of Jharkhand, India. *Pseudoneoponera rufipes* is known to occur in Andaman and Nicobar Islands, Arunachal Pradesh, Assam, Goa, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Sikkim, Tamil

Nadu, Tripura, Uttarakhand and West Bengal (Bharti, 2016).

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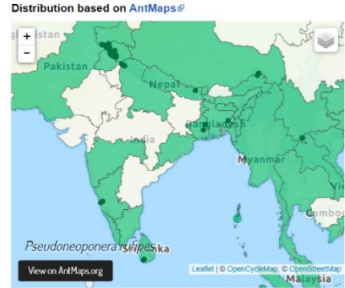
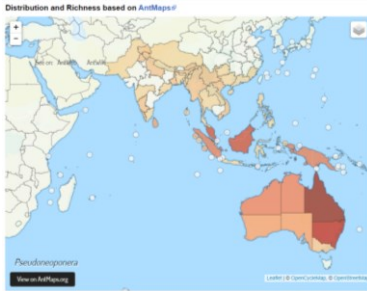
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Figs. 1 & 2: Showing distribution of genus *Pseudoneoponera* and *P. rufipes* (Antwiki.org, 2020).



Fig.3



Fig.4



Fig.5



Fig.6

Figs.3-6: Showing *Pseudoneoponera rufipes*