

Two new species of the ant genus *Leptogenys* (Hymenoptera: Formicidae) from India, with description of a plesiomorphic ergatogyne

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ABSTRACT. Two new species of *Leptogenys* based on the worker caste are described under the names *Leptogenys lattkei* sp. nov. and *Leptogenys transitionis* sp. nov. The ergatogyne of *Leptogenys transitionis* also reported here is the first of its kind in *Leptogenys*, characterised by a highly enlarged gaster, three prominent ocelli and the absence of wing sclerites. The ergatogyne of *L. transitionis* is intermediate between that of *L. ergatogyne*, with well-developed wing-base sclerites and ocelli, and the more usual ergatoid condition characterised by degenerate ocelli.

Keywords: ergatogyne, Ponerinae, key, new species, Himalaya.

INTRODUCTION

The genus *Leptogenys* Roger currently includes 216 extant species, 31 subspecies and one fossil species, distributed pantropically (Bolton et al. 2007; Bolton 2012). It forms the most speciose genus within the subfamily Ponerinae. While *Leptogenys* awaits a global taxonomic revision, noteworthy contributions include the revisionary work of Bolton (1975) for the African region and Lattke (2011) for New World species. From Southeast Asia, important contributions include Wu & Wang (1995), Xu (2000), Zhou (2001) and Terayama (2009). In India the present study follows Bingham (1903), Donisthorpe (1943) and Mathew & Tiwari (2000).

Here we present descriptions of two new species, *Leptogenys transitionis* sp. nov. and *Leptogenys lattkei* sp. nov., collected in the foothills of the Northwest Himalayas, in the Shivalik range. Prior to this the genus *Leptogenys* was represented by 29 species/subspecies from India (Bharti 2011). The taxonomy of *Leptogenys* from India remains chaotic, although an attempt has been made here to give a summary of current

understanding by providing a preliminary key. From Southeast Asia about 100 species of *Leptogenys* are reported up to now (Bolton 2012). Since most collection to date has been conducted in a small number of locations, it is likely that many more species of *Leptogenys* await discovery in the region. Considering that six ant genera (in northwest Shivalik range and the Western Ghats) and about 70 new species (from the Northwest Himalayas) have been recently discovered in India (Bharti & Wachkoo 2012a, b, c; Bharti & Akbar in prep.; Bharti et al. in prep.) and that most areas of the vast Indian territory are unexplored for ants, perhaps half of the *Leptogenys* in India are still to be discovered.

Ants of this genus generally reproduce by ergatogynes or gamergates (Ito 1997; Ito & Ohkawara 2000; Peeters 2012). Ergatogynes may or may not possess one to three ocelli, but generally show differences in petiolar width and shape and an enlarged gaster as compared with workers. The petiolar node, when seen dorsally, is generally wider than long, and the propodeal margin is more convex when observed laterally than in the worker. Some species have ergatogynes