

with greatly swollen mandibles of a pale yellow colour (Lattke 2011).

The ergatogyne of *Leptogenys transitionis* reported here is the first of its kind, a novel phenotype with well developed ocelli, and an exceptionally large gaster, both of which are plesiomorphic features (Villet 1989; Lattke 2011). Other reported ergatogynes lack any trace of ocelli or, if present, they are reduced in size or in some cases have only the single median ocellus.

Wingless reproductive females are evidently a derived condition because most Hymenoptera have wings (Ito & Ohkawara 2000). Ergatogyne ponerines frequently possess ocelli or ocellar remnants, a trait typical of ponerine alates but totally absent in workers, and unlikely to reappear during evolution (Villet 1989). The queen of *L. ergatogyna* Wheeler, 1922, with well-developed wing-base sclerites and ocelli, is intermediate in thoracic morphology between the normal alate condition, as found in *L. langi* Wheeler, 1923 and *L. nigricans* Lattke, 2011. The ergatogyne of *L. transitionis*, with prominent ocelli, is in turn intermediate between *L. ergatogyna* and the more usual ergatoid condition characterised by degenerate ocelli.

The loss of winged queens is apparently effectively irreversible, and eliminates the option of colonising disjunct habitats across a hostile matrix (Peeters 2012). The species reported here were collected in canoe-shaped longitudinal valleys of the Shivalik range (arguably the most fragile ecosystem of the Himalayas) (Mittal *et al.*, 2000), which separate the mountains from the plains of India. They seem especially prone to allopatric speciation due to the wingless nature of their queens and have, therefore, a limited range. Although their conservation status is yet to be ascertained, these and many other evolutionarily significant species found in Shivalik (Bharti & Wachkoo, unpublished) demand prompt attention or else the already fragmented Shivalik forests may not sustain them much longer.

MATERIALS AND METHODS

The specimens were collected by hand. The taxonomic analysis was conducted with a Nikon SMZ 1500 stereo zoom microscope. For digital images, an Evolution MP digital camera

was used on the same microscope with Auto-Montage (Syncroscopy, a division of Synoptics Ltd.) software. Later, images were cleaned with Adobe Photoshop CS5. Morphological terminology for measurements (given in millimetres) and indices includes:

TL	Total outstretched length of a specimen, from mandibular apex to gastral apex.
HL	Maximum length of head in full-face view, measured in straight line from the anteclypeus to the midpoint of the frontovertex margin.
HW	Maximum width of head in full-face view.
ML	Straight-line length of a mandible in full-face view, measured from the base at the insertion into the head capsule, to the apex.
EL	Maximum length of eye as measured normally in oblique view of the head to show full surface of eye.
SL	Maximum length of the scape excluding the basal neck and condyle.
PW	Maximum width of pronotum in dorsal view.
WL	Weber's length of mesosoma, measured in lateral view from the anterior surface of the pronotum (excluding the collar) to the posterior margin of the propodeal lobes.
PL	The length of the petiole from the anterior process to the posteriormost point of the tergite, where it surrounds the gastral articulation.
PDW	The maximum width of the petiole in dorsal view.
PH	Height of the petiole measured in lateral view from the apex of the ventral (subpetiolar) process vertically to a line intersecting the dorsalmost point of the node.
CI	Cephalic index: $HW/HL \times 100$
MI	Mandibular index: $ML/HW \times 100$
OI	Ocular index: $EL/HW \times 100$
SI	Scape index: $SL/HW \times 100$.
LPI	Lateral petiole index: $PH/PL \times 100$
DPI	Dorsal petiole index: $PDW/PL \times 100$

SPECIES ACCOUNTS

Leptogenys lattkei sp. nov.

(Figs. 1–3)

MATERIAL EXAMINED

Holotype (worker) from India, Himachal Pradesh, Kangra District, Andretta, 940 m a.s.l., 32.0744°N 76.5856°E, 20 June 2010, hand picking, coll. Aijaz A. Wachkoo. Holotype deposited in Punjabi University Patiala Ant Collection (PUPAC), Patiala, India.