

the growing phase of larvae, intensive hunting of centipedes is conducted. The larvae consume the victims and grow quickly. During this period the queen's gaster remains constricted. When the larvae mature, colonies go into the oviposition phase. The queen performs LHF [larval haemolymph feeding] actively and becomes physogastric. Prey consumption ceases and larvae pupate all at once while eggs are laid in mass.'

The reorganized and redefined subfamily Leptanillinae, as discussed in this paper, is still small, containing less than fifty species unevenly distributed through eight genera; thirty-one species of which are placed in *Leptanilla*. The subfamily is restricted to the Old World and most species are found in the tropics and subtropics, although some occur in more temperate latitudes. A synopsis of the subfamily and its distribution is outlined later in this paper, but readers interested in the taxonomy of individual species of *Leptanilla* should consult Baroni Urbani's (1977) excellent account.

Subfamily Leptanillinae

Leptanillini Emery, 1910: 32 [as tribe of Dorylinae]. Type-genus: *Leptanilla* Emery, 1870: 196.

Leptanillinae: Wheeler, 1923: 335. [Raised to subfamily.]

Diagnosis

Worker

Small to minute monomorphic subterranean ants with the following combination of characters.

- 1 Eyes absent (Figs 3, 9, 13).
- 2 Frontal lobes absent, the antennal sockets directed dorsally and completely exposed (Figs 4, 11, 15).
- 3 Antennae with 12 segments (in all known species).
- 4 Promesonotal suture present and mobile, usually deeply constricted.
- 5 Metapleural lobes absent.
- 6 Metasternal process absent.
- 7 Metacoxal cavities closed; with a complete cuticular annulus surrounding each cavity (Figs 1, 8, 12).
- 8 Propodeal spiracle circular and far back on side of sclerite, low on side (except in a few minute species of *Leptanilla* where the dorsum is very depressed) (Figs 3, 9, 13).
- 9 Tergite and sternite of petiole fused, without trace of a suture; or sternite reduced to a vestigial sclerite posteromedially (Fig. 8).
- 10 Helcium with sternite reduced, not visible in profile; sternite seen in frontal view as a transverse strip between the arms of the inverted U-shaped tergite; helcial tergite and sternite fused (Figs 5, 10, 14).
- 11 Spiracle of abdominal segment 3 large and far forward, very close to or even on anterior face of posttergite.
- 12 Abdominal segment 4 without tergosternal fusion, the posttergite broadly overlapping the poststernite laterally.
- 13 Stridulatory apparatus absent from posttergite of abdominal segment 3 and pretergite of segment 4 dorsally.
- 14 Spiracles of abdominal segments 1–4 exposed, of 5–7 concealed by preceding tergites (Figs 3, 9, 13).
- 15 Pygidium (tergite of abdominal segment 7) large, unarmed, convex across and down-curved posteriorly.
- 16 Sting long strong and powerfully developed.

Female

Known from only six species, four of which belong to genus *Leptanilla*. Larger than conspecific workers and like them with the pronotum extensively represented on the dorsal alitrunk. Characters 2, 3, 5 and 7–15, as worker. Character 6 of workers presumably also applies throughout females, but has been proved by dissection only in *Apomyrma*. Character 1 of workers is variable in females as eyes are present in *Apomyrma* (Brown *et al.*, 1971: 266, Fig. 6) and *Anomalomyrma* (Fig. 7), but vestigial to absent in *Leptanilla* females. Character 4 of workers is present in females of *Leptanilla*, which are dichthadiigyne; known females of other genera are alates with a full complement of flight sclerites. *Apomyrma* has moderately complete venation but lacks a pterostigma. In *Leptanilla* females have only one separated waist segment, abdominal segment 2 (petiole), whilst conspecific workers have segments 2 and 3 separated (petiole + postpetiole). Elsewhere