

## The larvae of *Leptanilla charonea* and *Leptanilla zaballosi*

(Hymenoptera, Formicidae)

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With 2 Figures

### Abstract

The aberrant larvae of the ant genus *Leptanilla* are only known for five of the 35 species described in the world. In this paper, we describe the larvae of *L. charonea* and *L. zaballosi*, two recently discovered species. Some morphological traits found in these species disagree with the diagnosis of the genus. The type of larvae instars and some observations on the behaviour of workers support previous assumptions on the biology of *Leptanilla* ants.

### Introduction

The genus *Leptanilla* EMERY is composed of minute and hypogaecic ants. The scarcity of specimens found throughout its history has led to a comparative ignorance about many questions on these ants, such as their phylogenetic relationships, their biology, and the taxonomic kinship between individuals from different castes (workers, females, and males). Some recent studies have cast new light on these questions. BARONI URBANI (1977) and BOLTON (1990) have revised the taxonomy and higher classification of the whole subfamily Leptanillinae EMERY, and MASUKO (1990) has offered a fine and detailed study on the behavior, biology, and ecology of cultured colonies of *L. japonica* BARONI URBANI.

To date, 35 species of this genus have been discovered in the world, but the different castes are known in few of them (BARONI URBANI 1977; BOLTON 1990; LOPEZ et al., in preparation). Males are the only caste described in 13 species, and females are only known in six species. Similarly, only the immature forms of five species are known: *L. japonica* BARONI URBANI, *L. revelierei* EMERY, *L. swani* WHEELER, *L. escheri* (KUTTER) and *L. judaica* KUGLER (WHEELER 1928; KUTTER 1948; WHEELER & WHEELER 1965; KUGLER 1986; WHEELER & WHEELER 1988; MASUKO 1990). This is due to the difficulty of finding complete colonies or important portions of them.

Larvae have a prominent role in phylogenetic studies on ants (WHEELER & WHEELER 1976, 1985). In the case of *Leptanilla*, for instance, some striking traits of the larval morphology contributed decisively to the separation of the Leptanillini from the Dorylinae, to constitute an independent subfamily (WHEELER 1923; WHEELER & WHEELER 1930). The larvae of *Leptanilla* are unique among the Formicidae, because they have several aberrant, specialized morphological and behavioural traits. These traits are key factors in relation