to their social organization. They are: (1) a ventral projection of the prothorax, used for larval transportation by workers, (2) the 'larval hemolymph taps', through which the adult nestmates (specially the queen) feed on the larval hemolymph, (3) outwardly-directed mandibles, which help the larvae to dig into the prey body tissues (WHEELER & WHEELER 1965; MASUKO 1989, 1990).

In this paper, we describe the larvae of two recently discovered species of *Leptanilla*. The specimens are part of three exceptional findings, in which a large portion or the whole colony was collected. The description of these larvae provides new information on the larvae of Leptanillinae, whose diagnosis remains unsettled due to the very scarcity of data on these inmature stages (BOLTON, 1990). Some morphological traits found in the larvae described differ from those given for WHEELER & WHEELER's (1988) characterization of the genus.

Materials and methods

The larvae described in this study belong to two recently discovered species from the Iberian peninsula and North Africa (LOPEZ et al., in preparation). The specimens of *L. charonea* come from a complete colony found during the excavation of a *Leptothorax* nest. All living specimens were taken to the laboratory and installed in an artificial nest. The rearing of this colony, however, was unsuccessful due to an incipient fungal infection, which forced the complete colony to be fixed in a Scheerpeltz solution. The *L. zaballosi* specimens were collected – together with some workers – in large soil samples from small seasonal water courses, by means of a method employed by some coleopterologists studying hypogacic beetles ('lavage de terre' method; NORMAND 1911; COIFFAIT 1958; ZABALLOS 1990).

All specimens were cleaned by immersion in a 100% solution of lactic acid for a period of 30 min. For observation, they were mounted in ephemeral preparations of lactic acid, using excavated slides. The head and the prothoracic structure of some specimens were separated and mounted in permanent preparations with Hoyer, to study them in detail. The head had to be fragmented for an adequate observation of the mouthparts. The observations were made using an Izumi light microscope, with a maximum magnification of $\times 1000$. Measurements were done with $\times 100$ (error = ± 0.01 mm) and $\times 400$ (error = ± 0.002 mm) magnifications. Diagrams were drawn using a Zeiss binocular microscope.

Results and discussion

Description of the *Leptanilla charonea* larva (Fig. 1)

Length approximately 0.7 mm. Body elongated and slender, narrow and cylindrical anteriorly, laterally extended, wider and club-like posteriorly, ending in a small naked boss. Prothoracic structure composed by three pairs of U-shaped projecting structures. First pair (posterior) with slender arms, expanding themselves in pedunculated membranous flaps. With a small striated area at the base. Second pair formed by two lateral, quadrangular expansions. Third pair (anterior) with thin arms directed downwards. Between the arms of the paired structures there is a central sclerotized spatula-shaped structure, rounded by a membranous border. With two thick spines furnished with setae at the base of the prothoracic structure. Spiracles not seen. A pair of hemolymph feeding taps located dorsolaterally and near the posterior border, on the abdominal somite IV; each tap opening eccentrically in a slit on a naked circular area bordered by a fringe of stiff hairs.

Body hairs simple. They can be classified in three different types, according to their length and morphology: (1) 0.007–0.023 mm long, numerous, uniformly distributed.