

## The male of *Leptothorax risi* Forel, 1892 (Hymenoptera, Formicidae)

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**Key words:** Canary Islands, endemism. *Leptothorax risi*.

**Abstract.** The male of the canarian species *Leptothorax risi* Forel is described. Eight localities are known for this endemic species. Differences from the males of *L. hesperius* are subtle.

**Resumen.** Se describe el macho de *Leptothorax risi* Forel, que difiere muy poco de los de *L. hesperius*. Se conocen ocho localidades para esta especie endémica de Gran Canaria.

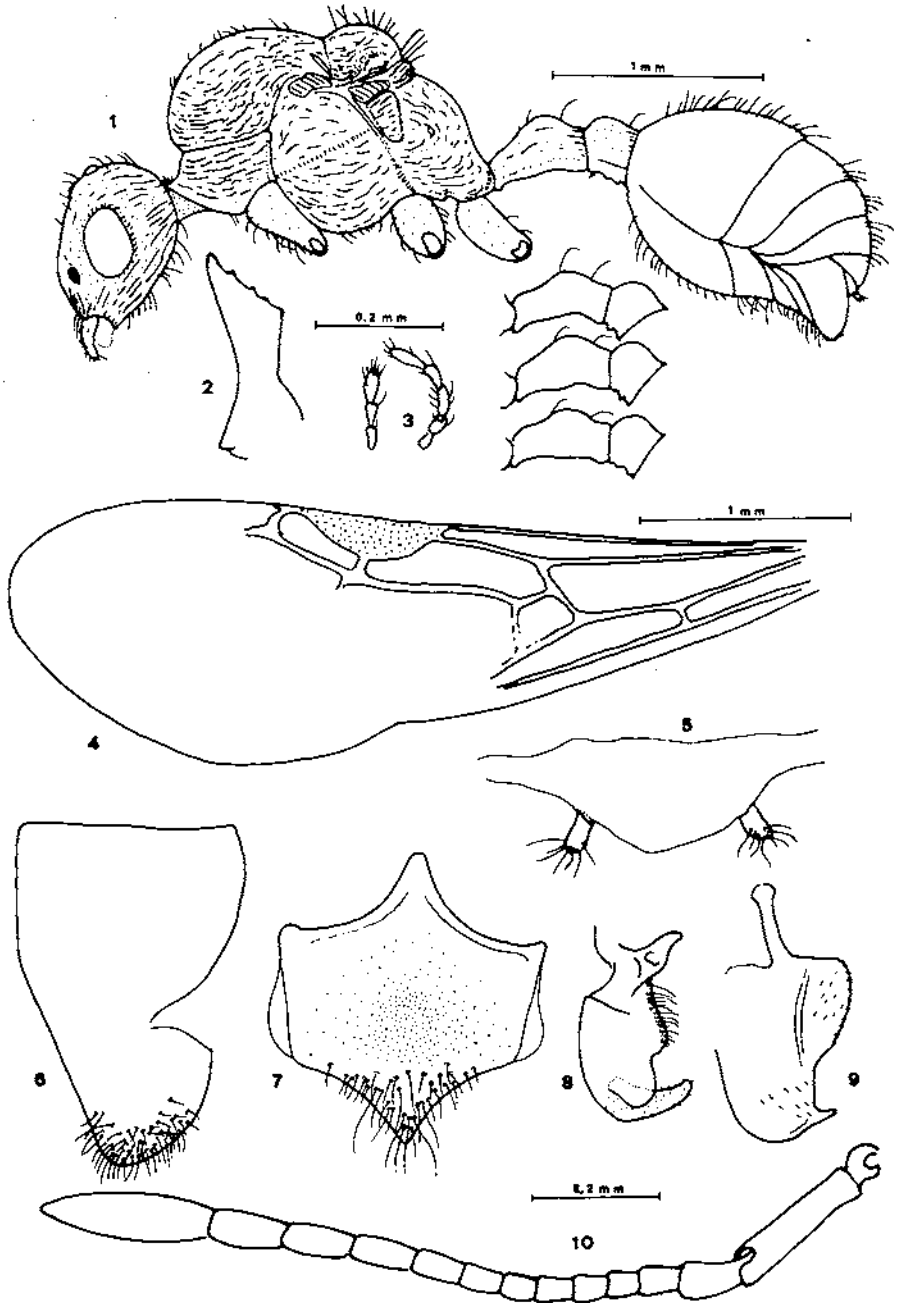
### Introduction

*Leptothorax risi* Forel, 1892 is an endemic canarian species known only from the Island of Gran Canaria (Barquín 1981); both female castes have been described (Forel 1892, Santchi 1909). A short visit in April 5, 1987 to Gran Canaria of one of the authors (R.R.) provided the opportunity to get some alive nests of ants; one of them was of *L. risi* and the composition was as follows: 51 workers, one queen, 66 larvae and some eggs; the ants were fed weekly an artificial diet (Bhatkar & Whitcomb 1970) supplemented with cricket hind legs. Two months later three females and six males eclosed. Their description follows. Measurements and indices are ant standards, (Bolton 1987).

### *Leptothorax risi* Forel. Male (Figures 1-10)

Length 3.2-3.8 mm. Colour entirely black, with antennae, tip of mandibles and legs brownish; pilosity normally developed as for the males of this group (Fig. 1); propodeum bare; two pairs of posteriorly curved hairs on petiole dorsum; eyes with micropilosity.

Head longitudinally rugulose, turning to reticulate at the occipital corners; a narrow shining depression between frontal area and median ocellus is present in 3 out of 7 males. Thorax rugulose to finely reticulated; petiole and postpetiole superficially reticulated laterally, the dorsal face with subdued shine; gaster smooth and shining. HL 0.65-0.77 mm; HW 0.60-0.67 mm;



Figures 1-10. *Leptothorax risi* Forel, male. 1: side view; inset, variability of petiole node. 2: Mandible. 3: Buccal palps. 4: Forewing. 5: Penicilli. 6: External paramera. 7: Subgenital plate. 8: Volsella. 9: Aedeagus. 10: Antenna, pilosity omitted.

CI 85-92; SL 0.22-0.30 mm; SI 37-44. Scape as long as the first three funicular segments, not reaching the median ocellus; mandibles 5-toothed: distal much more developed, the rest as simple angles, gradually smaller; palp formula 5:3.

Mesoscutum and mesoscutellum strongly convex when viewed in profile, with a deep furrow between them; propodeum without spines, the basal face slightly longer than declivous face and meeting at a very obtuse angle; wings slightly infuscated; radial cell very short; discoidal cell sometimes absent because of lacking m-cu vein; posterior wings with 5-6 hammuli. Thorax width, tegulae excluded: 0.75-0.90 mm; AL 1.25-1.47 mm. Petiole length 0.37-0.40 mm; petiole width 0.18-0.22 mm; Petiole length 0.37-0.40 mm; petiole width 0.18-0.22 mm; petiole node low, somewhat variable (Fig. 1). Postpetiole with parallel sides when viewed from above; postpetiole width 0.25-0.30 mm; postpetiole length 0.22-0.25 mm.

Genitalia. Penicilli with 8-9 hairs; external paramera with 40-50 hairs; subgenital plate with 35-40 hairs; distal lobe of volsella with 30-35 areolae, some with very short spines; ventral border of volsella with 18-23 hairs; aedeagus with a short distal point and 10-12 teeth.

Six *Leptothorax* taxa of the *rottenbergi* group are known from the Canary Islands but only the males of *L. herperius* Santschi, 1909 have been described (Barquín 1981). Differences are small, as usual in related *Leptothorax* males; main differences are the following: aedeagus has 15-16 small teeth in *L. hesperius* and volsella apparently lacks pilosity (Barquín 1981, Fig. 84 b); pilosity of subgenital plate is shorter in *L. hesperius*; radial cell is open in *L. hesperius* and posterior wings have 8 hammuli (this last characteristic has seldom been used in differentiating species and its taxonomic value must be confirmed); size is bigger in *L. hesperius* (4 mm).

Androtype: one male reared in the laboratory (5-VI-1987) from a colony collected under a stone at Los Pechos (Gran Canaria), 5-IV-1987, R. Rodríguez leg., deposited in the author's collection (X.E.); one male in the Laboratory of Zoology (U.A.B.). Known localities are the following:

Las Palmas (♂♂, Forel, 1892, loc. typ).

Galdar. ♀♀ (Wellenius, 1955).

Cruz de Tejada. ♀♀, ♀♀ (Wellenius, 1955, as *L. risi globulinodis*; synonymy by Barquín, 1981); ♀♀ (Barquín, 1981); ♀♀, 26-XII-1986, ♀♀, ♀♀♂, 1-IV-1987, Rodríguez leg.

Las Lagunetas. ♀♀ (Wellenius, 1955, as *L. risii globulinodis*).

Maspalomas. ♀♀ (Wolf, 1980, as *L. risii globulinodis* (sic!)).

Santa Brígida. ♀♀ (Wolf, 1980, as *L. risii globulinodis* (sic!)).

Las Longucas. ♀♀, ♀, pine wood, 7-XII-1986, Rodríguez leg.

Los Pechos. ♀♀, ♀♀, ♂♂, pine wood with *Asphodelus*, 5-IV-1987, Rodríguez leg.

The taxon *L. risi armouri* Wheeler, 1927 was described on a single worker and has never been found from then; the description matches very well a small worker of *L. risi* Forel but since we have not seen the type we prefer to wait for more material from its type locality, Barranco de la Virgen. Azuaje.

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