

NOTA III

NEW IBERIAN RECORDS FOR THE WOOLLY ANT *TETRAMORIUM LANUGINOSUM* MAYR, 1870 (HYMENOPTERA, FORMICIDAE)

[Nuevas citas ibéricas para la hormiga lanuda *Tetramorium lanuginosum* Mayr, 1870 (Hymenoptera, Formicidae)]

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The woolly ant *Tetramorium lanuginosum* Mayr, 1870 is a cosmopolitan tramp species that has successfully spread through human commerce (Wetterer, 2015). However, it has only become a significant pest in some small islands where its dominant status seems to be favored by the lack of competition (Wetterer, 2010). Its origin has been hypothesized to be the Indomalayan Region (Bolton, 1976), where its most closely related species is found. Nowadays, the

woolly ant is worldwide distributed in the tropics, but indoor introductions are being reported in Northern European countries as well (Wetterer, 2010) and outdoors establishments are already growing in Mediterranean Europe (Schifani, 2019).

In the Western Mediterranean basin, *T. lanuginosum* was first detected more than a century ago (Emery, 1891). Since then, it has expanded its range to three countries in the Maghreb region (Oussalah et al., 2019) and

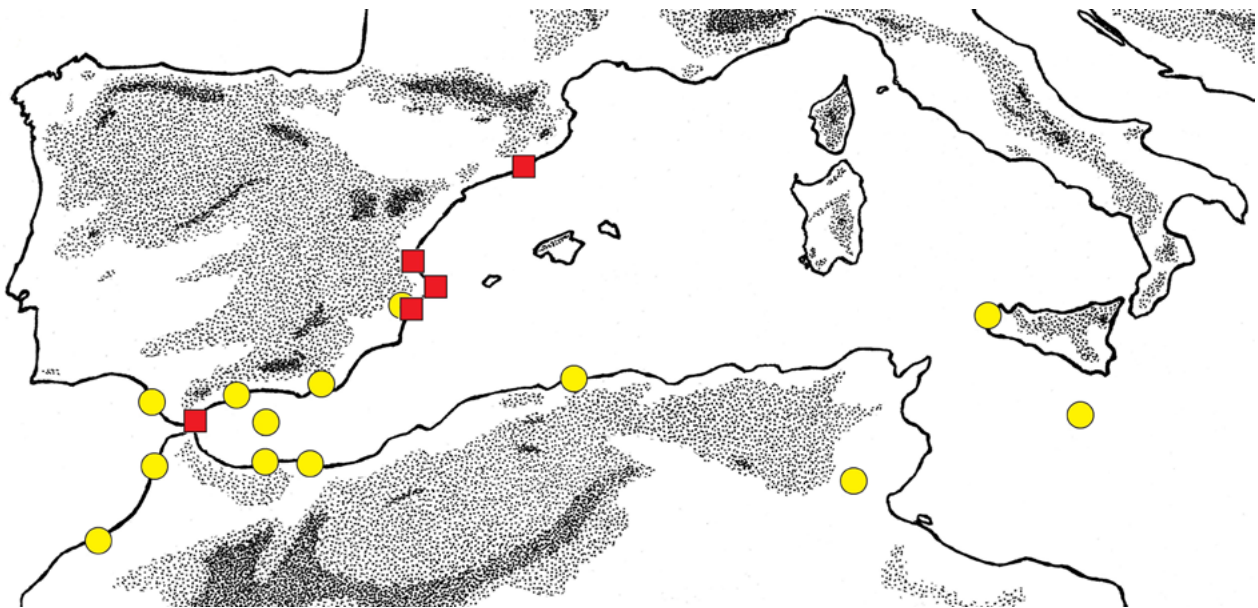


Figure 1: Known records for *T. lanuginosum* in the Western Mediterranean. Yellow circles: bibliographic records; red squares: new records.

Figura 1: Citas conocidas para *T. lanuginosum* en el Mediterráneo Occidental. Círculos amarillos: citas bibliográficas; cuadrados rojos: nuevas citas.

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Figure 2: *T. lanuginosum* worker from Barcelona; a) mesosoma, dorsal view; b) habitus, lateral view; c) head, frontal view.

Figura 2: Obrera de *T. lanuginosum* de Barcelona; a) mesosoma en vista dorsal; b) habitus, vista lateral; c) cabeza en vista frontal.

to Sicily (Schifani & Alicata, 2018) and Malta (Schembri & Collingwood, 1995). In the Iberian Peninsula, known records are from public parks and gardens in three Andalusian cities (Reyes & Espadaler, 2005; Reyes-López et al., 2008) and an irrigated palm tree plantation in Alacant (Casiraghi et al., 2020) (Fig. 1).

During an ongoing survey of the ant communities in green urban areas of Barcelona, which includes a combined protocol of pitfall and visual samplings, several workers of an exotic *Tetramorium* species were recovered from one of the baited pitfalls. The specimens were identified as *T. lanuginosum* according to the keys in Bolton (1976). Below, we present the first record of this species in Barcelona and additional Iberian localities that expand further north the known distribution of this species in the Mediterranean region.

- Parc Cervantes, Barcelona. 41°23'3N 2°06'21"E. 10.VIII.2020. Urban park with a lawn, trees and ornamental shrubs. Two workers in a tuna-baited pitfall trap. This is the first record for Catalonia, where, during the last years, several new exotic species have been found (Espadaler & Ortiz de Zugasti, 2019).

- Sueca, València. 39°12'20.7"N 0°18'31.7"W. 18.IX.2017. Workers foraging on pavement.
- L'Albufereta, Alacant. 38°21'52.9"N 0°25'56.8"W. 2.VI.2017. Several nests in a small park with grass.
- Passeig Marítim, Alacant. 38°20'18.4"N 0°29'17.0"W. 10.VII.2018. Sexuals and workers recovered from a pitfall trap in an irrigated small park.
- Badia de Xàbia, Alacant. 38°46'57.6"N 0°11'01.1"E. 6.X.2019. Residential complex with irrigated grass.
- Algeciras, Cádiz. 36°06'56.6"N 5°26'27.5"W. 21.VII.2019. Urban park with irrigated grass. Several workers collected by visual sampling.

The common name of the woolly ant comes from the dense coat of hairs covering the dorsal surface of the body (Fig. 2). These hairs are characteristically branched, which motivated its placement within the genus *Triglyphothrix* Forel, 1890 until the latter was synonymized by Bolton (1985) under *Tetramorium*. The body sculpture is also distinctive and strongly developed, consisting of coarse reticulation over smooth and shiny ground surface. At first glance, *T. lanuginosum* may be confused with the exotic species *T. bica-rinatum* (Nylander, 1846) and *T. caldarium*, which have also been recorded in the Iberian

Peninsula (Reyes & Espadaler, 2005); both the branched hairs and the dense hairy dorsum allow a safe separation of the first.

The population of *T. lanuginosum* in Alacant city is capable of resisting a mean temperature of 12°C during winter; this may imply that the species is more dependent on a constant humidity source than it is on temperature. It's to be determined whether a northern city like Barcelona is capable of hosting *T. lanuginosum* colonies in a colder environment or, on the other hand, this first record for the city represents a sporadic introduction with low probability of a long-term establishment. Imported plant material and greenhouses are probable sources of introductions for exotic ants like *T. lanuginosum* (Blatrix et al., 2018; Boer & Vierbergen, 2008).

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