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## Some new or interesting ants species from Gran Canaria, Canary Islands (Hymenoptera, Formicidae)

OLLE HÖGMO

*Stationsvägen 26, 241 95 Billinge, Sweden*

HÖGMO, O. (2003). Algunas especies de hormigas nuevas o interesantes para Gran Canaria, islas Canarias (Hymenoptera, Formicidae). *VIERAEA* 31: 197-200.

**ABSTRACT:** Six species of ants are presented as new to the fauna of Gran Canaria: *Pheidole pallidula* (Nyl.), *Tetramorium bicarinatum* (Nyl.), *Solenopsis geminata* (Fabr.), *Aphaenogaster iberica* Emery, *Tapinoma melanocephalum* Fabr. and *Lasius grandis* Forel. The importance of these introduced species to the original fauna is also discussed.

**Key words:** Hymenoptera, Formicidae, Gran Canaria, Canary Islands, new species, introduced species.

**RESUMEN:** Se estudian seis especies nuevas para Gran Canaria: *Pheidole pallidula* (Nyl.), *Tetramorium bicarinatum* (Nyl.), *Solenopsis geminata* (Fabr.), *Aphaenogaster iberica* Emery, *Tapinoma melanocephalum* Fabr. y *Lasius grandis* Forel. Se discute también la relevancia de especies importadas para la fauna original.

**Palabras clave:** Hymenoptera, Formicidae, Gran Canaria, islas Canarias, especies nuevas, especies importadas.

### INTRODUCTION

During some short stays in Gran Canaria the ant fauna was studied. Most of the known species were found and checked against current literature (Barquín, 1981; 1993). It was then noticed that there were some species that had not previously been reported from the island. These could be named later on. This report contains a list of the species with descriptions and figures. Hopefully it can be used as a complement to the keys in Barquín (1981).

Specimens are deposited in the Museo de Ciencias Naturales de Tenerife (TFMC).

## RESULTS

**Species list**

*Pheidole pallidula* (Nyl.) 1849.

Maspalomas, pavement 28.XII.97. San Agustín, road side 23.XII.97. Playa del Inglés, stony bank 26.II.99. First record for the Canary Islands.

This dimorphic species with its workers and soldiers is very common around the Mediterranean. Now it seems to have reached Gran Canaria. Considering that it was found in urban environment this could have happened quite recently. From the similar *megacephala* (Fabr.) which is also found on the island it can be distinguished in the workers in the shape of the postpetiolar node. *Pheidole megacephala* has a node that, seen from above, is widening towards the abdomen, whereas the node in *pallidula* is cross oval in form.

*Tetramorium bicarinatum* (Nyl.) 1846 (= *guineense* (Fabr.) 1793). Fig. 1.

San Agustín, hotel garden 6-12.XI.82 (Leg. Anders Högmo). First record for the Canary Islands.

A light reddish species, originating from Southeast Asia. Length of workers 3.4-4 mm. Body coarsely sculptured with numerous long hairs and long acute propodeal spines. Body surface covered with irregular reticulate rugosity. Head with prominent longitudinal rugae. Large nodes.

*Tetramorium simillimum* (Smith) 1851. Fig. 2.

Las Palmas, park 22.XII.97. Arucas, field 26.XII.97. San Agustín, hotel garden 27.XII.97. Occurrence confirmed for the Canary Islands.

Reddish yellow, of smaller size; length of workers 1.6-2 mm. Thorax weakly sculptured with numerous punctures. Body hairs short and sparse. Propodeal spines dentiform and somewhat directed upward. Sculpture fine, longitudinally rugulose. Originally from Africa, it is now a widespread cosmopolitan.

There seems to have been some confusion concerning these two species. Wolf (1980) reported *simillimum* from Maspalomas, Gran Canaria. This was however doubted by Barquín (1981), who argued that it was the common *T. semilaeve depressum* Forel that Wolf had found. On the other hand Barquín (op.cit.) states *bicarinatum* as occurring in Gran Canaria, but his description of this species seems to refer to *simillimum*. These new finds indicate that both of the species occur and that the latter seems to be more common of the two.

*Solenopsis geminata* (Fabr.) 1804. "Tropical Fire Ant". Fig. 4.

Las Palmas, park 22.XII.97, 25.II.99. First record for the Canary Islands.

This is a reddish brown ant, 3-5 mm in size, from Central America. It is polymorphic, the majors having almost square heads with sturdy mandibles armed with four blunt teeth. In some individuals the teeth are worn down. The clypeus has a pair of raised carinae. The body is covered with numerous long hairs. There are two different colour-morphs, the samples from Las Palmas belonging to the light red type.

*Aphaenogaster iberica* Emery 1908.

Playa del Inglés, waste ground 24.II.99. First record for Gran Canaria.

Originating from the Iberian peninsula, this black slender species with its curved spines is previously known from Tenerife (Barquín 1981).

*Tapinoma melanocephalum* Fabr. 1793. "Ghost Ant". Fig. 3. First record for the Canary Islands.

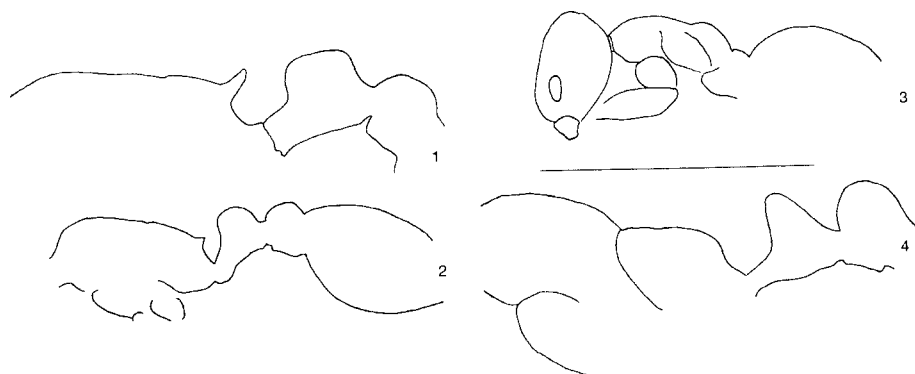
San Agustín, hotel garden 22.II.99. Playa del Inglés, stony bank 26.II.99.

Very small (1.5 mm) bicoloured species, head and thorax dark brown and abdomen yellowish white. Thorax bare. Appendages whitish. Tramp species from Tropical Africa.

*Lasius grandis* Forel 1909.

Playa del Inglés, eroded slope by the sea 21.XII.97. Valleseco, field 31.XII.97. Ayacata, field 23.II.99. First record for Gran Canaria.

Known as a variety of *niger* (L.) earlier, it was raised to species rank by Seifert (1992). In the last few years it has been reported from Tenerife (Seifert, 1992; Schulz, 1994; Espadaler & Oromí, 1997). The occurrence of *niger* (L.) in the Canary Islands is doubtful. All the specimen collected are clearly separated from that species, both in biometrical characters as well as in pilosity. They are however not consistent in colour as in Tenerife, where *grandis* is a somewhat bicoloured species according to Seifert (1992).



Figs. 1-4. Outline drawings of lateral view of workers of: - 1. *Tetramorium bicarinatum*, 2. *T. simillimum*, 3. *Tapinoma melanocephalum*, 4. *Solenopsis geminata*. Hairs omitted. Scale: 1 mm.

## DISCUSSION

With these additions the ant fauna of Gran Canaria totals 27 species. They represent an interesting mixture of various origins. For example there are endemic species and introduced species. In Gran Canaria's long history of human commerce many species of ants have been transferred to the island. It is hard to predict what these new introductions can mean to the original fauna. According to McGlynn's (1999) classification *Solenopsis geminata* is an "invasive species adapted to hot climates", whereas *T. melanocephalum*, *T. bicarinatum* and *T. simillimum* are "opportunistic tramp species". This means different types of impact. Invasive species can cause much damage to the native fauna because of

their aggressive life style. They multiply fast, they present a fast and effective recruitment system and they are very aggressive towards other species of ants. The tramp species on the other hand are weak in competition. Often they have to depend on some unoccupied niche in the disturbed habitats where they prefer to live. Thereby they do not pose a threat in the same way.

The "Tropical Fire Ant" is also at least partly a seed collector and can cause trouble in farming by reducing harvest and by spreading weeds (Taber, 2000).

It would be unfortunate if the unique endemic ant fauna of the Canary Islands would be harmed. Hopefully the effects of these imported species will be limited to the coastal regions.

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