

NOTA / NOTE

Anthidium manicatum (Linnaeus, 1758) (Hymenoptera: Megachilidae), an addition to the wild bee fauna of Madeira Island (Portugal)

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Abstract: The first records of the European wool carder bee *Anthidium manicatum* (Linnaeus, 1758) (Hymenoptera: Megachilidae) from the island of Madeira (Portugal) are reported. The species was observed and photographed in an urban park in Funchal in 2021.

Key words: Apoidea, Apiformes, Megachilidae, *Anthidium manicatum*, geographic distribution, faunistics, first record, Madeira, Portugal.

Resumen: *Anthidium manicatum* (Linnaeus, 1758) (Hymenoptera: Megachilidae), una adición a la fauna de abejas silvestres de la isla de Madeira (Portugal). Se presentan las primeras citas de la abeja cardadora *Anthidium manicatum* (Linnaeus, 1758) (Hymenoptera: Megachilidae) de la isla de Madeira (Portugal). La especie fue observada y fotografiada en un parque urbano en Funchal en 2021.

Palabras clave: Apoidea, Apiformes, Megachilidae, *Anthidium manicatum*, distribución geográfica, faunística, primer registro, Madeira, Portugal.

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Introduction

The inventory of wild bees of Madeira Island is quite limited. The current checklist (Kratochwil *et al.* 2018) specifies 16 taxa, of which 10 are considered as indigenous. The remaining 6 species are regarded as probable or proven introductions.

During a visit to Madeira from 23/09/2021 to 3/10/2021 one further species, the European wool carder bee *Anthidium manicatum* (Linnaeus, 1758) (Hymenoptera: Megachilidae), was discovered and documented for the first time (Figs. 1, 2). *Anthidium manicatum* is primarily a species known from mainland Europe. It is also present in parts of North Africa and Asia, and has successfully invaded overseas regions following unintentional introductions. The global distribution and introductions were analysed in detail by Gonzalez & Griswold (2013).

The occurrence of the species in Madeira should not be surprising, since it is well known from the Canary Islands of Tenerife and Gran Canaria (Hohmann *et al.* 1993) as well as from the Azorean Islands of Faial and São Miguel (Weissmann *et al.* 2017).

Results

Anthidium manicatum was recorded on 29/09 and 01/10/2021 in the "Parque de Santa Catarina", a public park of 3.8 hectares above Funchal harbour. Flowerbeds surrounding a large central lawn are planted

with various ornamental perennials. During the excursion *Pentas lanceolata* (Forssk.) Deflers (Rubiaceae), *Bulbine frutescens* (L.) Willd. (Asphodelaceae), *Salvia elegans* Vahl, *Salvia leucantha* Cav. (Lamiaceae) and others were still in flower. Of these, the last-mentioned species is the most attractive for bees (disregarding *Apis mellifera* Linnaeus, 1758). *Salvia leucantha* is a 1 m-high subshrub from Central America with overhanging long inflorescences. The white tubular corollae are in marked contrast to the violet calyces (Fig. 3). They were constantly circled and visited by a dozen of the mobile *Amegilla quadrifasciata maderae* (Sichel, 1868), which is the predominant wild bee in gardens and parks of Funchal. Among the individuals of *Amegilla* there was also observed a single, fast-flying smaller (ca. 12 mm) bee with a broad black and yellow banded abdomen. Size, colour and behaviour matched perfectly the appearance of a female *Anthidium manicatum*. Due to its speedy flight and erratic behaviour it was not possible to take a photographic proof during this first encounter.

A longer visit to the park was made two days later and, again, *Anthidium manicatum* was exclusively seen visiting flowers of *Salvia leucantha*, but not at all continuously. It was not until afternoon that *Anthidium* started settling on *Salvia* inflorescences regularly to sip nectar. At this time, up to three females were simultaneously cruising in a larger *Salvia* flowerbed, besides multiple individuals of *Amegilla*. With patience and some good fortune several pictures of a satisfactory quality were finally taken, which allowed an unambiguous identification.

References

Gonzalez, V.H. & Griswold, T.L. 2013. Wool carder bees of the genus *Anthidium* in the Western Hemisphere (Hymenoptera: Megachilidae): diversity, host plant associations, phylogeny, and biogeography. *Zoological Journal of the Linnean Society*, **168**(2): 221-425.

Hohmann, H., La Roche, F., Ortega, G. & Barquín, J. 1993. Bienen, Wespen und Ameisen der Kanarischen Inseln - Abejas, Avispas y Hormigas de las Islas Canarias - Bees, Wasps and Ants of the Canary Islands (Insecta: Hymenoptera: Aculeata), vol. 1. *Veröffentlichungen aus dem Übersee-Museum Bremen*, **12**(1): 1-465 pp. + 12 tab.

Kratochwil, A., Smit, J., Aguiar, A.F. 2018. Updated checklist of the wild bees of the Madeira Archipelago and the Selvagens Islands (Hymenoptera: Apoidea: Anthophila). *Linzer biologische Beiträge*, **50**: 1213-1228.

Weissmann, J.A., Picanço, A., Borges, P.A.V. & Schaefer, H. 2017. Bees of the Azores: an annotated checklist (Apidae, Hymenoptera). *ZooKeys*, **642**: 63-95.



Fig. 1.- *Anthidium manicatum* ♀, 01/10/2021, Parque de Santa Catarina, Funchal, Madeira, near the Cristóvão Colombo statue, 32° 38' 44,2" N, 16° 54' 48,2" E. (Photo: G. Matzke-Hajek).



Fig. 2.- *Anthidium manicatum* ♀, 01/10/2021, Parque de Santa Catarina, Funchal, Madeira, 115 m west of Capela de Santa Catarina, 32° 38' 44,6" N, 16° 54' 52,3" E. (Photo: G. Matzke-Hajek).

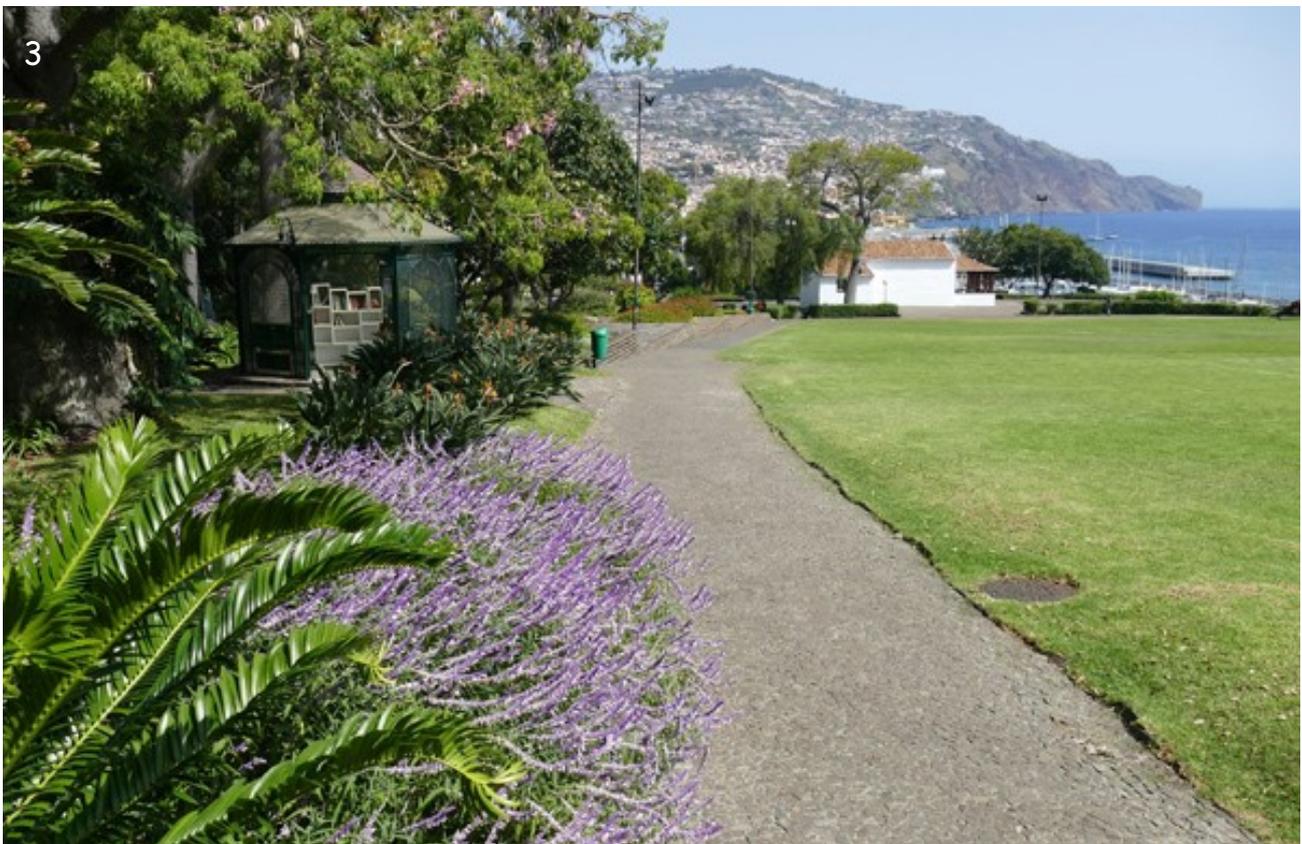


Fig. 3.- Locality of *Anthidium* observations in Parque de Santa Catarina, Funchal, Madeira, viewing direction eastwards with the white Capela building in middle distance. A bed of *Salvia leucantha* (= picture position of Fig. 2) in the foreground. (Photo: G. Matzke-Hajek).