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## **New wasps and bees for the fauna of the Canary Islands (Hymenoptera, Aculeata)**

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**A b s t r a c t :** Five species of Hymenoptera Aculeata have been reported new for the fauna of the Canary Islands. Three species of Hymenoptera Aculeata have been reported new for one of the islands.

**K e y w o r d s :** faunistics, Scoliidae, Pompilidae, Sphecidae, Crabronidae, Apidae, Canary Islands.

### **Introduction**

There are a number of publications on the aculeate Hymenoptera fauna of the Canary Islands. HOHMANN et al. (1993) published the results of a survey on the bees, wasps and ants of these islands, and in it, they listed 319 species. Among the Bethyridae, only two species have been reported as identified for certain and the authors listed a further 11 unidentified species (cf. and sp.) of this family.

In 2001 BÄEZ et al. published the results of a new survey on the Hymenoptera of the Canary Islands. They listed 321 species for the islands, but still listed only the two species of Bethyridae previously noted by HOHMANN et al. In 2000 Y.L. Dupont & C. Skov found a new species of *Osmia* at La Palma (TKALCÛ 2001). The number of species of Hymenoptera Aculeata has increased by 14 species in eight years.

### **Material and methods**

Between 2000 and 2002 I have spent two holidays in the Canary Islands. In 2000, I stayed on the island of La Gomera from April 28 to May 5. (with a brief stop at Puerto Christiano (on the island of Tenerife) during my visit). In 2002 I stayed on Fuerteventura, from 5 to 12 May (spending 11 May on the island of Lanzarote).

During both holidays Hymenoptera Aculeata (excluding the families Bethyridae, Dryinidae, Embolemidae and Formicidae) were collected. The insects were caught by handnet.

The records from Gran Canaria are based on specimens collected by Henk Pijpers and Jeanne Kuijper-Nannenga, who spend a holiday at this island in March 2003.

The collected material has been identified and the results have been compared to the lists

of HOHMANN et al. (1993) and BÁEZ et al. (2001). Among the material were five species that have not been reported previously from this archipelago and three species which were new for one of the islands. The species are discussed below, listed by family.

## Results

### Taxonomy

In this publication the classification of the digger wasps of MELO (1999) is used. He divides them into three families: Ampulicidae, Sphecidae and Crabronidae. The classification of the bees is based on MICHENER (2000).

### Scoliidae

Previously two species of this family, belonging to the genus *Micromeriella*, were known from the Canary Islands (BÁEZ et al. 2001). On 28 April 2000 a male of *Scolia hirta* (SCHRANK 1781) was collected at Puerto los Christianos on the island of Tenerife. This species is new for the fauna of the Canary Islands.

This species is widespread in the Palearctic, ranging from Portugal to Kazakhstan and Siberia (OSTEN 1999).

### Pompilidae

22 species of this family have been reported previously from the Canary Islands (BÁEZ et al. 2001). On 2 May 2000, two females of *Agenioideus gentilis* (KLUG 1834) were captured and subsequently identified by R. Wahis (1 ex. col. R. Wahis, 1 ex. col. J. Smit). Both specimens were captured on the island of La Gomera, near the village Playa de Santiago, at an altitude of 100 metres. This species is new for the fauna of the Canary Islands.

*Agenioideus gentilis* occurs in north Africa and Arabia.

### Sphecidae

Seven species of digger wasps of the family Sphecidae have been recorded previously from the islands (BÁEZ et al. 2001), among them *Sceliphron spirifex* (LINNAEUS 1758). This species has been reported from the islands of Gran Canaria and Tenerife. Two males of this species have been caught on the island of La Gomera on 5 May 2000, in the harbour of San Sebastian, which represent the first records from this island.

*Sceliphron spirifex* occurs throughout Africa and southern Europe, on three of the Canary Islands and on the Cape Verde Islands.

### Crabronidae

Of this family 48 species from 23 genera were listed so far from these islands.

The genus *Solierella* is represented by three species: *S. canariensis*, *S. dispar* and *S.*

*pectinata*. *Solierella dispar* PULAWSKI 1964 is known from the island of Fuerteventura. On 11 May 2002 a female was caught on the island of Lanzarote, near San Bartholomé. This species is new to this island.

The genus *Trypoxylon* was represented at the Canary Islands by two species: *T. attenuatum* and *T. clavicerum*. A third species was captured on 30 April 2000: *Trypoxylon medium* de BEAUMONT 1945. It was a female, collected on the island of La Gomera, near Vallehermoso, Valle Abajo at an altitude of 100 m. This digger wasps is new for the fauna of the Canary Islands.

The species occurs in the western- and central palearctic region, eastwards to Kazakhstan.

From the genus *Cerceris* one endemic species was known: *Cerceris concinna*. This species occurs on all the islands of the archipelago. On 9 May 2002 a second species of this genus was collected: *Cerceris chlorotica* SPINOLA 1839. This digger wasp is new for the fauna of the Canary Islands. The species occurs in Northern Africa (SCHMIDT 2000). Three females were captured on the island of Fuerteventura and further specimens have been observed. They were collected at their nesting site, north of the village Costa Calma. A number of nests were located, on an almost bare, triangle-shaped, sandy area, which was screened at the south- and westside by shrubs and young trees (Fig. 1).



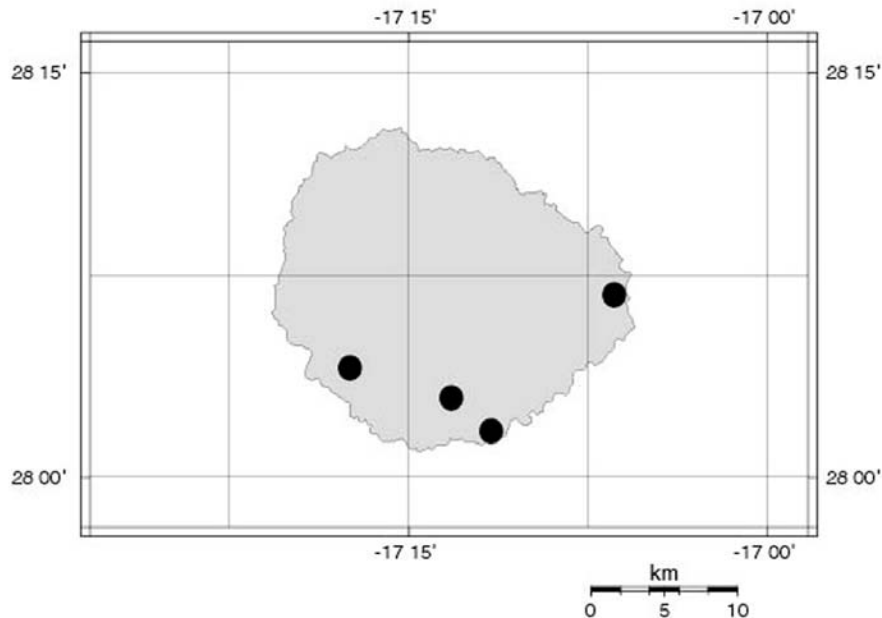
**Fig. 1.** Nesting site of *Cerceris chlorotica* near Costa Calma on Fuerteventura.

## Apidae

124 species of bees are known from the Canary Islands. Of the family Apidae (including the former family Anthophoridae) 36 species are recorded.

Four species of the genus *Anthophora* occur on the islands: *Anthophora alluaudi*, *A. orotavae*, *A. porphyria* and *A. purpuraria*. These are all endemic species from these islands. So far *Anthophora orotavae* has been reported only from the islands of Tenerife and Gran Canaria.

In 2000 this species has been collected for the first time on the island of La Gomera. Six specimens have been captured at four different places; 1 ♂, Alajero, Antoncojo, 400 m, 1.v.2000; 2 ♀♀, Playa de Santiago, 100 m, 2.v.2000; 1 ♀, La Dama, 1000 m, 2.v.2000; 1 ♀, 1 ♂, San Sebastian, Barranco de Avalo, 10 m, 5.v.2000. It appears that this species is widely spread on this island, see the map, Fig. 2.



**Fig. 2:** Map of La Gomera with the locations of captures of *Anthophora orotavae*.

Henk Pijpers and Jeanne Kuijper-Nannenga gave me some bees from the island of Gran Canaria. Among these was a specimen of *Melecta luctuosa*, a bee that has not been recorded from the Canary Islands previously. It is a female, collected on 23 March, near Cruz Grande, San Bartolome at an altitude of 1550 m.

This bee is widespread across Eurasia, in the norther parts of its range.

### Conclusions

Five species of Hymenoptera Aculeata have been reported new for the fauna of the Canary Islands: *Scolia hirta* (Scoliidae), *Agenioideus gentilis* (Pompilidae), *Trypoxylon medium*, *Cerceris chlorotica* (Crabronidae) and *Melecta luctuosa* (Apidae). The total number of known species of the aculeates now stands at 327.

Three species of Hymenoptera Aculeata have been reported new for one of the islands:

*Sceliphron spirifex* from La Gomera, *Solierella dispar* from Lazarote, *Anthophora orotavae* from La Gomera.

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### Zusammenfassung

Von den Kanarischen Inseln werden fünf neue Arten der Hymenoptera aculeata gemeldet: *Scolia hirta* (Scoliidae), *Agenioideus gentilis* (Pompilidae), *Trypoxylon medium*, *Cerceris chlorotica* (Crabronidae) und *Melecta luctuosa* (Apidae). Damit ist die Zahl der bekannten Arten der Aculeaten von diese Inseln auf 327 gestiegen. Drei Arten der Hymenoptera aculeata werden erstmalig von einer der Inseln gemeldet: *Sceliphron spirifex* von La Gomera, *Solierella dispar* von Lazarote, *Anthophora orotavae* von La Gomera.

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