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Philanthus triangulum (Hymenoptera; Crabronidae) new for the fauna of the Canary Islands

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A b s t r a c t : *Philanthus triangulum* (Hymenoptera, Crabronidae) is reported new for the fauna of the Canary Islands.

K e y w o r d s : faunistics, Crabronidae, Canary Islands.

Introduction

Previously 50 species of the family Crabronidae have been reported from the Canary Islands (BAEZ et al. 2001, SMIT 2007). These species belong to 6 subfamilies. Four species from the subfamily Philanthinae were known: *Cerceris chlorotica*, *Cerceris concinna*, *Eremiasphecium schmiedeknechti* and *Pseudoscolia dewitzi*. In October 2007 the second author collected five males of the bee wolf (*Philanthus triangulum* FABRICIUS 1775).

Material

The material was collected at San Eugenio, situated on the Costa Adeje, on the south-west coast of Tenerife, close to Los Christianos (Fig. 1). The wasps were caught on the roof garden (Fig. 2) of a holiday accommodation that was situated about 150 meters from the beach.

On 8th October a wasp sitting on a cactus and was caught. A few moments later another one was found at the same place and finally on 14th October three more wasps were caught. They were collected by hand net, at a temperature of 25 °C.

The soil of the roof garden consisted of volcanic waste. A number of cactuses and agaves have been planted here, mixed with some other plants. The only plants in flowers were some mesembryanthemums (*Mesembryanthemum* sp.).

Philanthus triangulum ssp. *abdelcader* LEPELETIER 1845

The specimens collected in Tenerife belong all to *Philanthus triangulum* subspecies *abdelcader* LEPELETIER 1845. This subspecies differs from the nominate form in coloration. The females are much more extensively marked with red and yellow than the nomi-

nate subspecies. The males, however, are more variable than the females. The variation in colour is not consistently connected to the size, but the smaller males more often have black spots on the abdomen. The back of the head is red and yellow coloured.

Distribution

The genus *Philanthus* is widely spread in the Palearctic and Ethiopian region. A small number of species also occurs at the Oriental and Nearctic region. In this genus 135 species have been described (BOHART & MENKE 1976).

Philanthus triangulum s.l. occurs from northern Europe to South-Africa.

Four subspecies have been listed by PULAWSKI (2007):

- ssp. *abdelcader* LEPELETIER 1845, this subspecies occurs in Palaearctic Africa, from Iraq westwards to the Atlantic (BOHART & MENKE 1976). GUIGLIA (1957) listed this subspecies from the Italian island of Lampedusa.
- ssp. *bimaculatus* MAGRETTI 1908 occurs in Kenya.
- ssp. *diadema* (FABRICIUS 1781), occurs in the Ethiopian region.
- ssp. *obliteratus* PIC 1917, occurs in Algeria and Egypt.

Biology

The bee wolf is a digger wasp which lives especially in areas with warm sandy places, and less often in areas with clay. There the females dig their nests in the soil. In England they have been found nesting in soot and coal dust (S. Roberts pers. comm.), they will even nest in spoil heaps of coal-mines (PEETERS et al. 2004).

The females provide their brood cells with adult Honey bees (*Apis mellifera*). Exceptionally they also catch solitary bees, and these include the genera *Andrena*, *Dasypoda*, *Halictus*, *Lasioglossum* and *Megachile* (PEETERS et al. 2004). According to the observations of LHÉRITIER (1946) and KROMBEIN (1969) *Philanthus triangulum* ssp. *abdelcader* also hunts for honeybees.

Discussion

The distinction of subspecies of *Philanthus triangulum* is just a matter of difference in colour. The subspecies *Ph. t. abdelcader* is far more yellow than the nominate form. This subspecies occurs in northern Africa and on the Italian island of Lampedusa. However, there are also strongly yellow coloured specimens known from Cyprus, Turkey, Crete, Southern France, Germany and even southern England. These forms can probably also be found in other countries in Europe.

When the genus *Philanthus* in the Western Palearctic is revised, all the subspecies probably will be synonymized (information Schmid-Egger).

Since only 5 males have been caught in Tenerife, the question remains whether this species is resident on this island or whether these observations represent either aliens or temporary colonists. Further investigations in the future will tell us.

Apiculture in Tenerife is a family industry. There are many beekeepers with a small number of beehives. There may be hundreds of apiculturists on the island, but no large

commercial companies operate there. If *Philanthus triangulum* has colonised the island, it could become a problem in the future as the wasp may cause significant damage to the colonies of some of these beekeepers (information M. Báez).

Acknowledgements

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Zusammenfassung

Philanthus triangulum (Hymenoptera, Crabronidae) wurde neu für die Kanarischen Inseln nachgewiesen.

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Fig. 1: Map of Tenerife with the location of the capture of *Philanthus triangulum*.

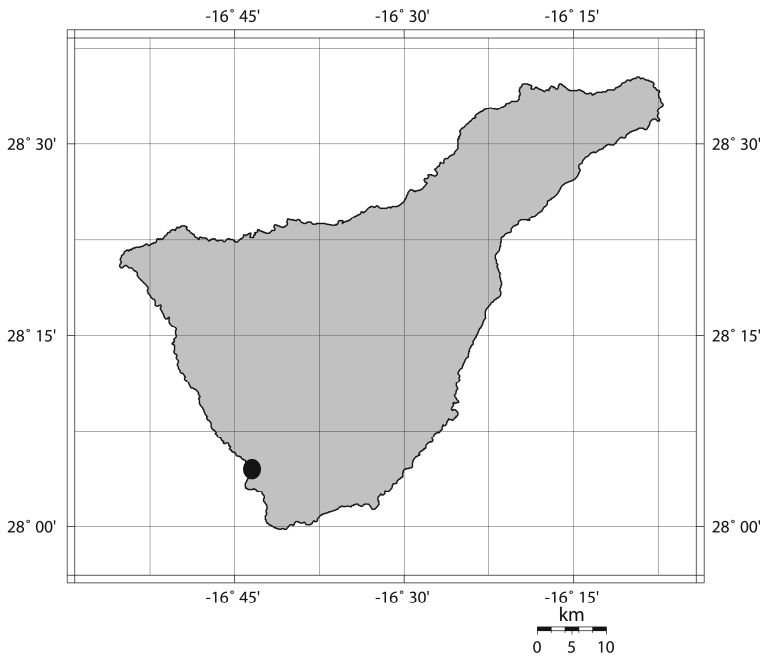

Fig. 2: The roof garden at San Eugenio.