

Contributions on the wolf spider fauna (Araneae, Lycosidae) of Gran Canaria (Spain)

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Summary

Collecting trips on Grand Canaria from 1990 to 2002 yielded eight lycosid species from five genera: *Alopecosa artenarensis*, *Alopecosa grancanariensis*, *Alopecosa thaleri*, *Arctosa lacustris*, *Arctosa similis*, *Hogna ferox*, *Pardosa proxima* and *Wadicosa fidelis*. One species was recorded for the first time from Gran Canaria: *W. fidelis*. The results of this study differ from previous lists of the lycosid fauna in the literature. For example, the species *Alopecosa obscura*, *Hogna canariana* and *Trochosa lucasi* were not found during our collecting trips. The *H. canariana* and *Arctosa cinerea* of previous studies have presumably been misidentified.

Introduction

The spider fauna of the Canary Islands has been the subject of numerous studies (e.g. Simon, 1882; Bösenberg, 1895; Strand, 1911; Denis, 1941; Schmidt, 1968, 1973, 1980, 1990; Wunderlich, 1987, 1992), but only one focuses in particular on the island of Gran Canaria (Schmidt, 1973). Our knowledge of the wolf spiders of the Canary Islands is thus still very incomplete and many species are only known from one sex (Wunderlich, 1992).

Lucas (1838) listed two lycosid spiders for the Canary Islands. Towards the end of the 19th century three lycosid species were described from there (Simon, 1882). About 100 years later, 16 species were listed for the islands, 12 of which were considered endemic (Wunderlich, 1987). Oromí & Garcia (2001) and Oromí *et al.* (2004) arrived at a total of 22 lycosid species, 16 of which were endemic for the Canary Islands. In 2004 nine of these species (five of which are endemic) were reported on Gran Canaria (Oromí *et al.*, 2004): *Alopecosa artenarensis* Wunderlich, 1992, *A. grancanariensis* Wunderlich, 1992, *A. obscura* Schmidt, 1980, *Arctosa cinerea* (Fabricius, 1777), *A. lacustris* (Simon, 1876), *Hogna canariana* (Roewer, 1960), *H. ferox* (Lucas, 1883), *Trochosa lucasi* (Roewer, 1951) and *Pardosa proxima* (C. L. Koch, 1847). The intention of this paper is to provide an overview of the lycosid spiders found on Gran Canaria during several collecting trips from 1990 to 2002.

Material and methods

The material described here was collected by Dr H. F. Paulus between 1990–2001 and by M. Hepner in 2002. All collections were made by hand. The material was stored in ~70% alcohol. About 550 individuals were examined; 131 of these were juvenile and could not be used in this study. Vulva preparations were made by removing the epigynes with a needle and boiling in 4% KOH. To determine the species the works by Knülle

(1959), Lugetti & Tongiorgi (1965), Fuhn & Niculescu-Burlacu (1971), Tongiorgi (1966), Wunderlich (1987, 1992), Marusik *et al.* (2003) and Buchar *et al.* (2006) were consulted. Nomenclature follows Platnick (2008). Information on the worldwide distribution of the species is based on the world spider catalogue (Platnick, 2008). Information on their distribution on the various islands of the Canary Islands was extracted from Oromí *et al.* (2004) and is given in parentheses. The individual locations (Fig. 1) where the spiders were collected are listed in Table 1. Only the numbers of the collecting sites (as given in Fig. 1 and Table 1) and months of collecting are indicated in the text.

Abbreviations and symbols used: **=first record for Gran Canaria; *=male unknown; tl=total length; cl=carapace length; cw=carapace width; Tr=trochanter; Fe=femur; Pa=patella; Ti=tibia; Mt=metatarsus; Ta=tarsus; Cy=cymbium. All measurements are in mm.

Results

The collected material included eight species from five genera, details of which are listed below.

**Alopecosa artenarensis* Wunderlich, 1992 (Figs. 2–3)

Alopecosa artenarensis Wunderlich, 1992: 444, fig. 663; Oromí *et al.*, 2004: 168.

Distribution: Canary Islands (endemic to Gran Canaria).

Locations (Fig. 1, Table 1): 7: February 1994 (1♀), December 1998 (1♀); 8: February 1996 (2♀); 9: January 1999 (9♀).

Habitat: This silvicolous species is found in burrows, mostly in pine woods. The entrance of the burrow is more or less circular and camouflaged with pine needles. Males of this species have continued to elude discovery.

Description: Female: tl 18.38 ± 2.21 ; cl 8.0 ± 0.79 ; cw 5.92 ± 0.89 . Carapace dark reddish brown, apically darker; wide, light coloured median band; lateral bands light coloured, clearly visible. Chelicerae strong, dark reddish brown, sometimes nearly black. Sternum dark. Abdomen dorsally and ventrally dark brown; dorsally with dark cardiac mark, first half of which surrounded by area of light hairs. Legs reddish brown with short dark hairs; Mt and Ta of legs I and II with dense scopulae. Epigyne and vulva as in Figs. 2–3.

Male: Unknown.

Alopecosa grancanariensis Wunderlich, 1992 (Figs. 4–7)

Alopecosa grancanariensis Wunderlich, 1992: 448, figs. 683–687; Oromí *et al.*, 2004: 168.

Distribution: Canary Islands (endemic to Gran Canaria).

Locations (Fig. 1, Table 1): 5: February 1994 (3♂ 5♀); 7: November 1994 (1♂ 2♀), February 1996 (9♂ 10♀), December 1998 (9♀); 8: February 1994 (2♂), February 1996 (1♂ 1♀), February 1997 (4♂ 5♀), January 1999 (1♂ 2♀); 9: January 1999 (1♂ 4♀); 13: January 1999 (2♀); 14: February 1996 (2♂ 4♀).