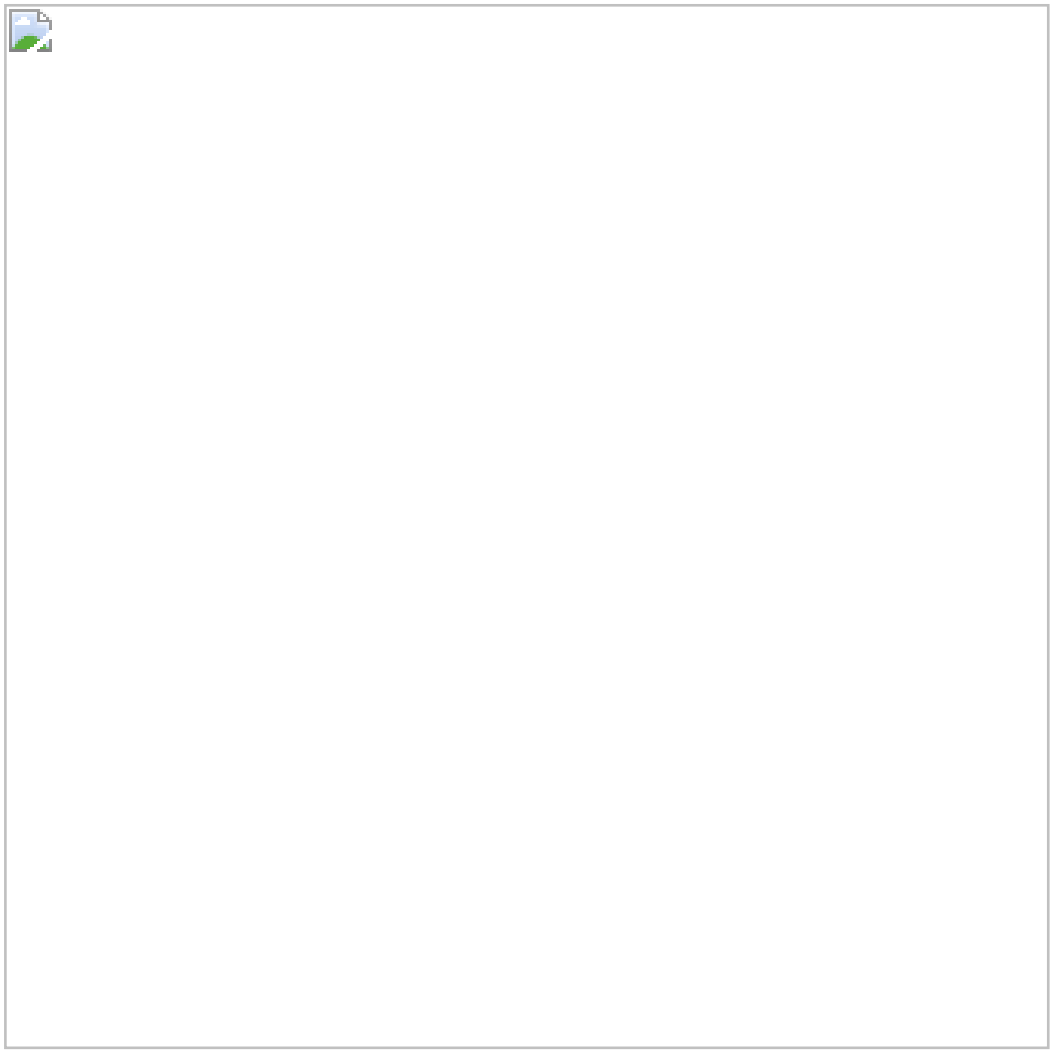

First Report of Peucetia viridis (Araneae: Oxyopidae) from the Canary Islands

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First report of *Peucetia viridis* (Araneae: Oxyopidae) from the Canary Islands

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Abstract. *Peucetia viridis* (Blackwall, 1858) is reported for the first time from the Canary Islands (Gran Canaria). This discovery represents the first record of the genus in the archipelago as well. A female together with an egg sac was collected in a natural reserve located in the west of the island within a community of Canary palm trees. Drawings of the habitus and epigyne and a photograph of the living female are presented. It is discussed whether this record represents an introduction or a natural recent arrival.

Keywords: biodiversity, distribution, lynx spider, Macaronesia, new record

Zusammenfassung. Erster Nachweis von *Peucetia viridis* (Araneae: Oxyopidae) auf den Kanarischen Inseln. Der Erstnachweis von *Peucetia viridis* (Blackwall, 1858) auf den Kanarischen Inseln (Gran Canaria) wird vorgestellt. Diese Entdeckung repräsentiert ebenfalls den ersten Fund der Gattung auf dem Archipel. Ein Weibchen wurde zusammen mit einen Eikokon in einem Naturreservat im Westen der Insel in einem Bestand Kanarischer Dattelpalmen gefunden. Zeichnungen des Habitus und der Epigyne und eine Aufnahme des lebenden Weibchens werden präsentiert. Es wird diskutiert ob dieser Nachweis eine Einschleppung oder das Ergebnis einer rezenten natürlichen Ausbreitung darstellt.

The Canary Islands are an archipelago of volcanic origin located off northwest Africa, comprising eight major islands. Gran Canaria is the central and the third-largest island of the Canarian archipelago (Troll & Carracedo 2016). A high habitat diversity has been recovered within Gran Canaria due to its topographic complexity (Macías-Hernández et al. 2016). Among the more than 500 spider species and subspecies that have been reported for the Canary Islands, 224 have so far been recorded from Gran Canaria (Gobierno de Canarias 2024), thus being currently the second island with the highest species richness within the archipelago, only surpassed by the island of Tenerife (303 species). The scarcity of chorological studies in the archipelago suggests that the current species checklist is still far from being complete (Suárez 2018). In order to contribute to the knowledge of the Canary arachnofauna, we provide here the first report of the spider genus *Peucetia* Thorell, 1869 (Araneae: Oxyopidae) for the Canary Islands, based on a specimen of *Peucetia viridis* (Blackwall, 1858) collected on this island.

Material and methods

An adult female was collected by hand, subsequently preserved in 99% ethanol, and examined under a Zeiss Stemi 2000 stereomiscroscope. The individual was identified to species level by examining morphological characters. The following articles were consulted: van Niekerk & Dippenaar-Schoeman (1994), Levy (1999) and Santos & Brescovit (2003). Illustrations were made using the vector graphics editor Inkscape based on photos taken with a Canon EOS 750D camera. The map (Fig. 1a-b) was made using QGIS v. 3.16. Layers of the shape of the island as well as the orthophotography of the collection locality were downloaded from GRAFCAN (2024). The specimen has been deposited in the collection of the Department of Animal Biology of the University of La Laguna (DZUL).

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Results

***Peucetia* Thorell, 1869**

***Peucetia viridis* (Blackwall, 1858)** (Figs 2-3)

Material examined. Gran Canaria, Barranco de Güigüí, La Aldea de San Nicolás (27.9402ºN, -15.8214ºW), 6. Apr. 2024, 1 ♀, E. Jiménez-García leg. (DZUL-44345).

Diagnosis. The specimen possessed the following diagnostic characteristics: clypeus with four brown vertical marks, two medially and two laterally, extending onto the chelicerae; epigynum with anterior pit, with apically rounded digitate projection, surpassing the middle of anterior pit length (Fig. 3).

Remarks. Copulatory openings were both plugged with a resinous material and with broken parts of a male paracymbium (*sensu* Exline & Whitcomb 1965 and van Niekerk & Dippenaar-Schoeman 1994).

Distribution. Spain, Greece, Africa, Middle East. Introduced to Caribbean Islands (World Spider Catalog 2024).

Habitat. The specimen was collected within a community of Canary palm trees (*Phoenix canariensis* H. Wildpret) (Fig. 1c) developing on seasonally humid old colluvial soils (phytocoenotic association Periploco laevigatae-Phoenicetum canariensis) (del Arco Aguilar & Rodríguez Delgado 2018: 236).

Discussion

This record of *Peucetia viridis* from Gran Canaria is the first report of the genus for the Canary Islands. *Peucetia viridis* does occur on Cape Verde (Arechavaleta et al. 2005) as well as in Morocco and Algeria (van Niekerk & Dippenaar-Schoeman 1994), and the Mediterranean coast of Spain, Málaga and Almería (ca. 1200 km from Canaria) (Barrientos 1991). The nearest record available is a photo published on iNaturalist in Agadir, Morocco (https://www.inaturalist.org/observations/162395047), ca. 620 km from Gran Canaria. Given that we expect the species to be more distributed across Morocco, it is feasible that the distance from the source area is lower than 620 km (i.e., the lowest distance from Morocco to the Canary Islands is 90 km). An anthropogenically assisted

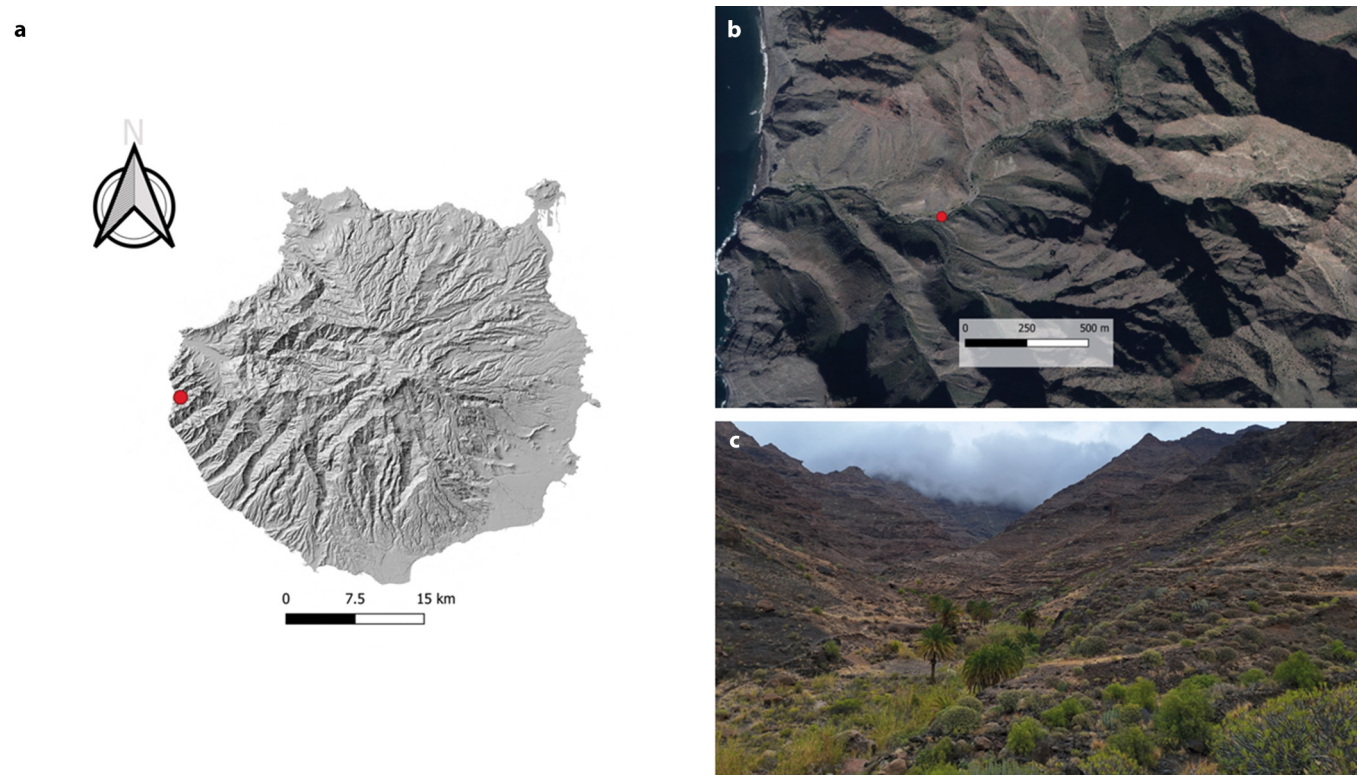

Fig. 1: Collection site of *Peucetia viridis*. **a.** map of the island of Gran Canaria showing the presence of *Peucetia viridis* (red dot); **b.** closer perspective of the sampling site (red dot) within Barranco de Güigüí; **c.** landscape/vegetation at Barranco de Güigüí (Photo E. Jiménez-García)

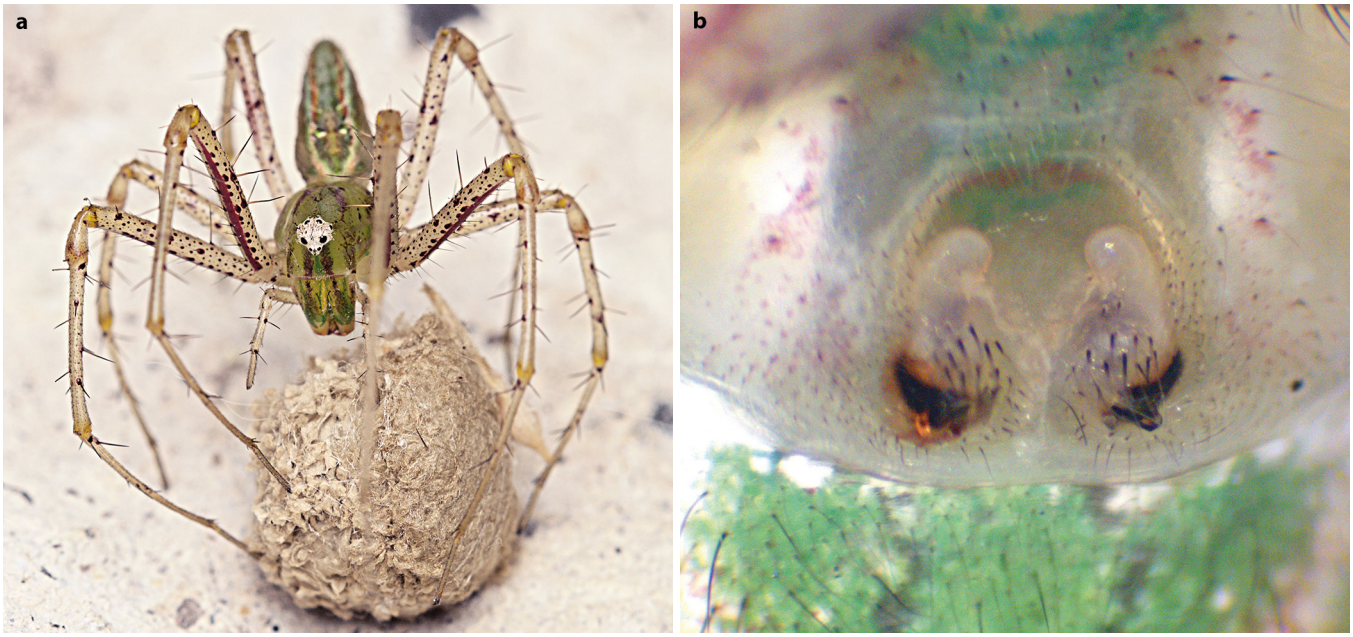

Fig. 2: Female of *Peucetia viridis* from Gran Canaria. **a.** *Peucetia viridis*, habitus *in vivo*, carrying an egg sac (Photo A. J. Pérez-Delgado); **b.** plugged epigyne, *in situ*

spread to the Canary Islands is unlikely because the area where it has been found is far from commercial trade routes and it is difficult to access. As species of Oxyopidae exhibit ballooning (e.g. Salmon & Thorner 1977, Sebastian et al. 2004), a potential explanation is that it has arrived recently or that it has been overlooked up to date. Due to its relatively large size and colourfulness, it is unlikely that this species has been overlooked for many years. Thus, the hypothesis of a recent arrival may be more plausible. The fact that the female was collected with its egg sac suggests that the species is able to reproduce *in situ*. Further investigations might uncover additional unknown populations within the island.

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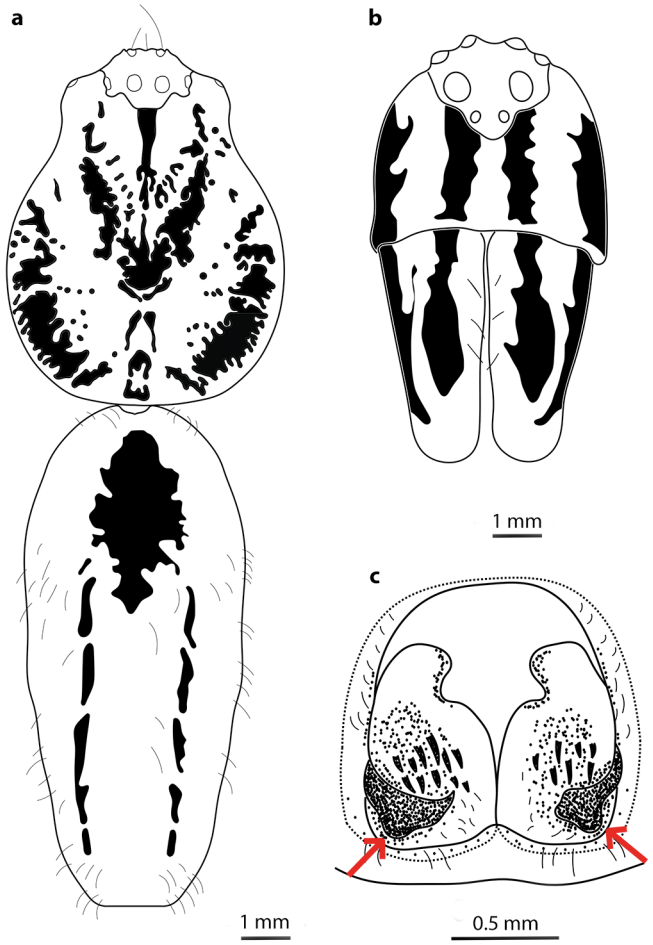

Fig. 3: Drawings of *Peucetia viridis*. **a.** habitus, dorsal view; **b.** clypeus, frontal view; **c.** epigyne, ventral view. Arrows indicate plugging of copulatory openings

Expte. 8-2023/0203125054) that allowed us to carry out this survey. David Lugo was funded by the "Academia Canaria de Investigación Gobierno de Canarias, FSE Plus 2021-2027 program" through and FPI PhD fellowship (FPI2024010117). Finally, we are indebted to the reviewers Jørgen Lissner and Theo Blick for valuable suggestions and corrections.

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