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A new record of *Erianotus lanosus* (Dufour, 1834) for Italy

(Insecta: Hemiptera: Heteroptera: Leptopodidae)

Abstract

A new record of *Erianotus lanosus* (Dufour, 1834), a species of true bugs (Heteroptera) with very few records in Italy, is reported from Tuscany. Additional considerations about the only other known record for the same region are also provided.

Key words: Faunistics, spiny shore bugs, spiny-legged bugs, Tuscany.

Riassunto

[*Un nuovo dato di Erianotus lanosus* (Dufour, 1834) per l'Italia (Insecta: Hemiptera: Heteroptera: Leptopodidae)]

Erianotus lanosus (Dufour, 1834), una specie di eterottero con pochissime segnalazioni in Italia, viene segnalato con un nuovo dato di Toscana. Inoltre vengono fornite ulteriori considerazioni sull'unico altro dato conosciuto per questa regione.

Introduction

Erianotus lanosus (Dufour, 1834) is a species of Leptopodidae (Hemiptera: Heteroptera) with a Centralasiatic-Mediterranean distribution (*sensu* VIGNA TAGLIANTI *et al.*, 1999), spanning from Morocco to Mongolia (LINDSKOG, 1995; LINNAVUORI *et al.*, 2011; VINOKUROV & KMENT, 2015; DOMINGO, 2018; PROTIĆ, 2018).

In Italy, this species has been reported only a few times: generically from Sicily (RAGUSA, 1907) and in 1970 from the same island with a precise locality (PÉRICART, 1990; FARACI & RIZZOTTI VLACH, 1992), Tuscany in 1948 (CARAPEZZA & FARACI, 2005, 2007), and Emilia-Romagna in 1963 (PÉRICART, 1990; FARACI & RIZZOTTI VLACH, 1992).

Erianotus lanosus is a ripicolous species. Both adults and immature specimens occur among (over and under) dry, sunlit stones in watercourses and their shores (PÉRICART, 1990; DOMINGO, 2018). It was also observed in abandoned gravel pits, but always near streams, in northern Spain (DOMINGO, 2010) and in waterless salty

areas in southern Iran (HOBERLANDT, 1983). Its detailed biology is still unknown (PÉRICART, 1990).

This contribution gives a further record of this species from Tuscany and provides additional insights into the only other record for this region.

Material and methods

The specimen was observed and photographed by BF, uploaded on the platform “iNaturalist” (www.inaturalist.org), and subsequently identified by FC.

For the material examined, the following information is given: country, region, municipality and province (in brackets), water body, altitude, geographical coordinates (decimal degrees; *datum* WGS84) and uncertainty, bank granulometry, date, hour, number of specimens and life cycle stage, photographer, observation references on the web. The uncertainty of data (in metres) was indicated according to the point-radius method (WIECZOREK *et al.*, 2004). Additional weather data associated with the record is also provided.

Results

The specimen subject of this note was photographed in southern Tuscany, on stones in the banks of the Torrente Formone (Fig. 1a), a stream tributary of the Orcia river, in turn a tributary of the Ombrone river.

***Erianotus lanosus* (Dufour, 1834)**

Material examined: ITALY, Tuscany: Radicofani (Siena), Torrente Formone, ab. 310 m a.s.l., 43.002760° N 11.728059° E (uncertainty = 25 m) (Fig. 1a), gravel bank with particle sizes ranging from sand to cobble, 18.V.2022, 5:10 pm, 1 adult specimen (Figs. 1b,c), photos by Benjamin Fabian (www.inaturalist.org, observation ID 130019189).

Weather: sunny, clear sky, daily maximum temperature 27 °C (same weather for 4 days prior to the observation, range of daily maximum temperature 27–29 °C).

The only other known record for Tuscany is from Florence (CARAPEZZA & FARACI, 2005, 2007). The single specimen is preserved in the entomological collection of the Department of Agricultural, Forestry and Food Sciences (DISAFA) of the University of Turin, Grugliasco (Turin), with the following label data: “Firenze, S. Andrea, 12.IX.1948”, without collector name (F. Faraci, pers. comm., 20 March 2023).



Fig. 1 - a) Stretch of the Torrente Formone (Radicofani, Siena) where *Erianotus lanosus* (Dufour, 1834) was observed; b,c) specimen of *E. lanosus* from the T. Formone, in two different positions (photos by Benjamin Fabian).

Discussion

The new observation of *E. lanosus* from southern Tuscany (Torrente Formone) is relevant as there are only three other Italian records with precise locality in the literature (including the one for northern Tuscany of 1948) and a very old citation from Sicily (see introduction for further detail).

The specimen of 1948 from Florence (see above) was very likely collected on the right bank of the Arno river, in the surroundings of a transept between the “ex pescaie” (= former weirs) of “Sant’Andrea a Rovezzano” and “San Jacopo al Girono [near the old Church of Sant’Andrea a Rovezzano]”. The source “Faraci, Rizzotti Vlach, 1992” and coordinates are incorrectly indicated in CARAPEZZA & FARACI (2005, 2007) for this record.

Although *E. lanosus* has been collected up to 2200 m a.s.l. in the Iranian Zagros Mountains (HOBERLANDT, 1983), in Italy the known sites of *E. lanosus* are from lowland in continental Italy (including the new record) and just above the hilly altitude in Sicily (CARAPEZZA & FARACI, 2007).

The species is considered rare and included in red lists in several countries (see e.g., DOMINGO, 2010; PROTIĆ, 2018), due to the few and scattered records. Although it is certainly not a common species, the data is insufficient for an objective evaluation and its presence is certainly underestimated. The cryptic lifestyle and efficient camouflage habitus (Figs. 1b-c) complicate the detection of *E. lanosus* contributing to the low number of records available. In addition, the fact that it lives in the dry parts of watercourses means that it is rarely observed by the few entomologists usually specialized in either terrestrial or aquatic true bugs. A targeted search of this species is necessary to substantially expand the available data.

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