



A new species of tree crickets *Oecanthus* (Orthoptera, Gryllidae, Oecanthinae) in tobacco plantation from Southern Brazil, with body color variation

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Abstract

We provide herein a description of a new species of *Oecanthus* collected from the tobacco plantation in southern Brazil, municipality of São Lourenço do Sul, State of Rio Grande do Sul. Description focused metanotal gland features, phallic sclerites, and calling song. A large sampling of individuals was distributed into four groups according to body and appendages color and dotted. We also rank all kind of marks present in the scape and pedicel. We compare linear morphometric variables of the metanotal glands and tegmina, as well as calling song parameters between groups in order to define all of them as the same species. Photographs and measurements are provided.

Key words: Insect, Ensifera, taxonomy, bioacoustics, metanotal gland

Introduction

The species of *Oecanthus* Serville, 1831 present *in vivo* pale and homogeneous color, usually in shades of green or brown, often translucent; some have pigmented marks on the ventral region of the scape and pedicel, whose shape varies according to species (Fulton 1925; Walker 1963). The body color is lost in individuals preserved in alcohol, but the dotted and pigmented spots around the body and appendages are usually preserved.

Intraspecific variation in body color, as well as scape and pedicel marks in *Oecanthus* species have been recorded for a long time. In 1926, Fulton documented geographic variation of these traits in populations of *O. nigricornis* Walker, 1869, *O. quadripunctatus* Beutenmüller, 1894, and *O. argentinus* Saussure, 1874 from United States, as well as the overlap of these characteristics between these species, which generated doubts about the identity of each. Walker (1963) has shown that inter and intraspecific shades of brown and green in *O. laricis* Walker, 1963 and *O. pinus* Beutenmüller, 1894 vary according to color tree they inhabit. This author also shows variations in *O. nigricornis* body color, and scape and pedicel black marking of the *O. nigricornis*, *O. celerinictus* Walker, 1963, *O. argentinus*, and *O. quadripunctatus*.

We found a large amount of individuals of *Oecanthus* in a tobacco plantation, and native bushes in the municipality of São Lourenço do Sul, state of Rio Grande do Sul, Brazil. Two species were previously identified as *O. pallidus* Zefa, 2012 and *O. lineolatus* Saussure, 1897, both with light green body color, and a black rod-shaped mark in scape and pedicel (Zefa *et al.* 2012). The other individuals are smaller when compared with both species,