



## Three new species of *Platyderus* from South Italy (Coleoptera: Carabidae: Sphodrini)

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### Abstract

Three new species, *Platyderus casalei* **new species** (type locality: Santa Eufemia, Calabria Region), *Platyderus paganettii* **new species** (type locality: Santa Eufemia, Calabria Region) and *Platyderus vignai* **new species** (type locality: Gargano Mountain, Apulia Region) are described. The diagnostic characters of the new taxa are defined and figures of the male genitalia are depicted. The synonymy of *Platyderus neapolitanus* (Reiche, 1855) and *Platyderus canaliculatus jannonei* Binaghi, 1955 is confirmed. *Platyderus dalmatinus* is treated as doubtful for the fauna of Italy. A key of the five Italian species of *Platyderus* from the South Apennines is included.

**Key words:** Coleoptera, Carabidae, *Platyderus*, Italy, South Apennines, taxonomy, new species

### Introduction

At present the genus *Platyderus* Stephens, 1827 includes 102 species (Anichtchenko 2003; Casale & Sciaky 2003; Anichtchenko 2005; Campos & Novoa 2005; Lorenz 2005; Ruiz-Tapiador & Anichtchenko 2007; Schmidt 2009). The representatives of this genus live mostly in the superficial underground compartment and are micropterous or wingless. A main consequence of that is the species display tendency to isolation and differentiation into various local forms (see also Ruiz-Tapiador & Anichtchenko 2007), especially in the southern areas. The range of *Platyderus* comprises the Western Palearctic, Central Asia and the Himalayan, and the highest number of taxa is currently known from the Iberian Peninsula and North-West Africa.

So far, only three studies have been in part or entirely devoted to the Italian representatives of the genus (Magistretti 1955; Straneo 1959; Degiovanni 2005). As a result of the last above-mentioned works and a national list of the Carabidae (Vigna Taglianti 2005), seven species of *Platyderus* are currently known from Italy: *P. canaliculatus* Chaudoir, 1843, *P. neapolitanus* Reiche, 1855, *P. dalmatinus* Miller, 1880, *P. lombardii* Straneo, 1959, *P. magrinii* Degiovanni, 2005, *P. ruficollis* (Marsham, 1802) and *P. rufus* (Duftschmid, 1812) s.l.

The main purpose of this paper is to describe three new species from the South Apennines discovered by the author in the collections of several European national history museums.

### Material and methods

Seventy specimens of six species from Italy and Montenegro were examined. Male specimens were boiled in water and the aedeagus was extracted and placed in 10 % KOH and glycerine. The genital figures were made with the aid of a drawing tube mounted on a Zeiss transmitted-light microscope. After that the genitalia were put either in glycerine, in microvials, pinned beneath the specimen from whom they were removed or in “Euparal”. The measurements were made with the aid of a Zeiss stereobinocular.