

## On the presence of the alien exotic sap beetle *Phenolia (Lasiodites) picta* (Macleay, 1825) (Coleoptera Nitidulidae) in Italy

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### ABSTRACT

The exotic sap beetle *Phenolia (Lasiodites) picta* (W.S. Macleay, 1825) (Coleoptera Nitidulidae) is an alien species recently recorded in Europe (Spain, France, and Greece), and Turkey. For Italy, only a single record of *P. cf. picta* is reported from Sicily. In this paper, we studied this specimen confirming the presence of *P. picta* in Italy.

### KEY WORDS

Alien species; *Phenolia*; Nitidulidae; Sicily.

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### INTRODUCTION

The problem of alien species has always been present in past centuries and has been linked to the various activities of man on our planet. However, in recent decades this phenomenon has multiplied and, often, has become detached from the presence of man, following its own dynamics and characteristics that are not always easily understood and have a great environmental impact.

Insects are one of the groups most affected by this phenomenon and there are now numerous reports of these invasive species in Europe (Roques et al., 2009). Among the Coleoptera, the Nitidulidae family includes numerous species introduced in Europe and in the Mediterranean area (Jelinek et al., 2016).

The nitidulid genus *Phenolia* Erichson, 1843 is the one that presents a wider distribution with two species listed also in Europe: *P. tibialis* (Boheman, 1851) and *P. picta* (W.S. Macleay, 1825) (see Jelinek et al., 2016).

Particularly, *P. picta* has been introduced into Spain, France, Greece, and Turkey (Jelinek & Audisio, 2007; Vinolas et al., 2014, as *Phenolia limbata tibialis*; Montagud & Orrico, 2015; Jelinek et al., 2016; Kalaentzis et al., 2019) (Fig. 1). Currently, there are no record of this species in Italy, except for the online reporting of a specimen of *P. cf. picta* sampled in Sicily (Ditta, 2019).

In this paper, we report the study of this specimen that allowed us to identify it as *P. picta* and, therefore, to confirm the presence of this species in Sicily and Italy.

### RESULTS

#### *Systematics*

Ordo COLEOPTERA

Subordo POLYPHAGA Emery, 1886

Familia NITIDULIDAE Latreillae, 1802

Subfamilia NITIDULINAE Latreillae, 1802

genus *Phenolia* Erichson, 1843  
Subgenus *Lasiodites* Jelinek, 1999

***Phenolia picta* (W.S. Macleay, 1825)**

EXAMINED MATERIAL. Italy, Sicily, Mazara del Vallo, near gorgo Basso of the Riserva Lago Preola, 2.XI.2019, 1 male, legit A. Ditta.

DESCRIPTION. Male (Fig. 2). Length 7.4 mm; maximum width (at the base of the pronotum) 4.1 mm. Dark brown in colour with the light yellowish elytral band formed by the union of some of the light small elytral spots, distinctively bicoloured femora (light and dark brown). The posterior pronotal angles not projecting backwardly. Pro- and mesotibiae sub-rectilinear, not sinuate. Aedeagus as in figure 3.

DISTRIBUTION AND BIOLOGY. *Phenolia picta* is an invasive species with Oriental and Palaetropical area of origin. It is widespread in Madagascar, Mau-

ritius, Nosy Be, Reunion, and Seychelles, Australian and Indomalayan regions, eastern Palaearctic zone (including Korea, China, Japan, and Pakistan), Hawaii, and is probably also present in Polynesia (Montagud & Orrico, 2015). In Europe and Mediterranean areas, it has been introduced into Spain, France, Greece, and Turkey (Jelinek & Audisio, 2007; Vinolas et al., 2014, as *Phenolia limbata tibialis*; Montagud & Orrico, 2015; Jelinek et al., 2016; Viñolas & Muñoz Batet, 2017; Kalaentzis et al., 2019).

*Phenolia picta* lives exclusively on fruits in the advanced stage of maturity that have already fallen to the ground (Marthur et al., 1958; Delobel & Tran, 1993; NZS Bio Pineapple Th., 2001; Abdullah & Shamsulaman, 2008; Hishike et al., 2009; Naka et al., 2010).

Montagud & Orrico (2015) have conducted interesting observations on the biology of this species in Spain which they found in nature on the ripe and fallen fruits of fig (*Ficus carica*), prickly pear (*Op-*

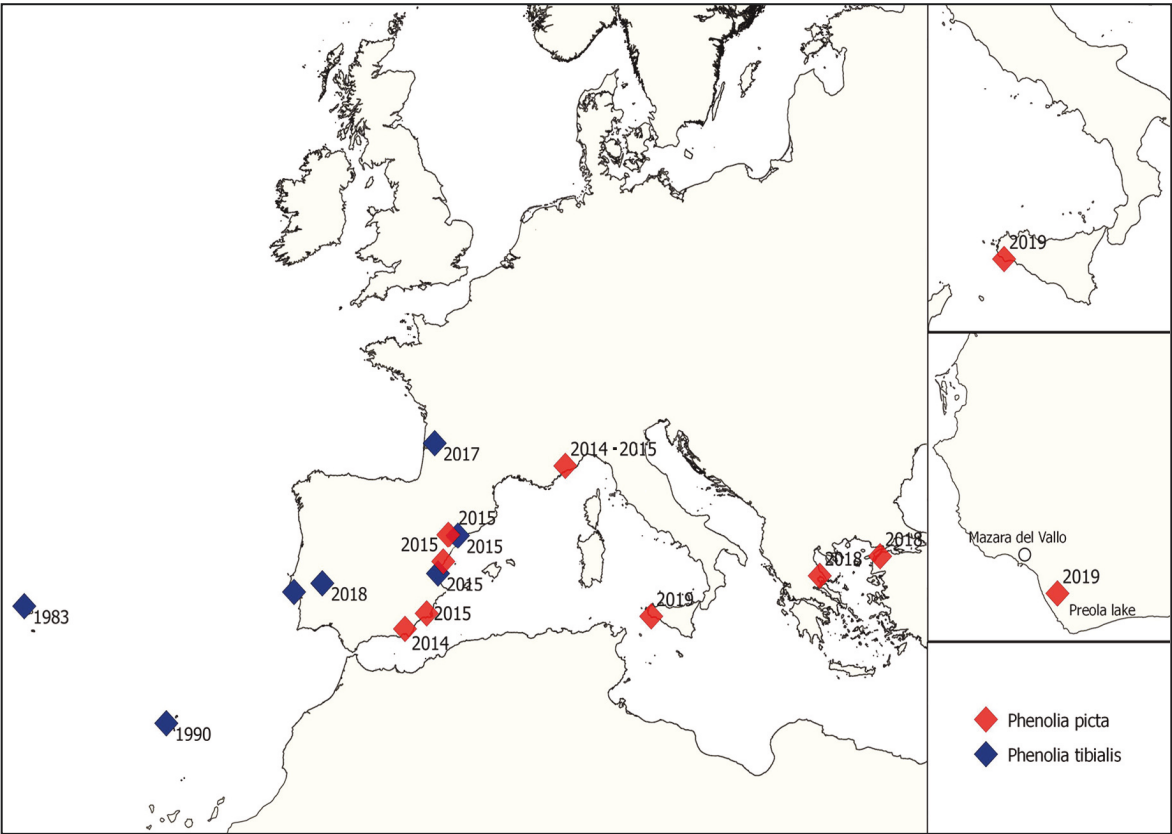


Figure 1. Map showing previous published records of *Phenolia (Lasiodites) picta* and *P. (Lasiodites) tibialis* in Europe and Turkey (see text), and our new record of the species in Italy.



Figures 2, 3. *Phenolia* (*L.*) *picta* male from Sicily, length 7.4 mm. (Fig. 2), with aedeagus (Fig. 3).

*untia* sp.), vine (*Vitis vinifera*), and oranges (*Citrus* sp.). These authors observed *P. picta* and *P. tibialis* living in different locations and managed to breed them in the laboratory by making further observations on their biology and larval morphology.

Introduced populations of *P. picta* have been observed to coexist with other native species of nitidulids in several localities (Viñolas et al., 2014; Montagud & Orrico, 2015).

**REMARKS.** *Phenolia picta* is very similar to *P. tibialis*, other alien species recently introduced into Europe but not reported from Italy (Jelinek et al., 2016). *Phenolia tibialis* has the very transverse pronotum covered by strong and dense punctuation with broad base and posterior pronotal angles moderately projecting backwardly, darker elytra with aligned bristles, pro- and mesotibiae strongly sinu-

ous in their distal part in the male, aedeagus with the apex of the parameters shorter and less pointed.

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