

New faunistic records of Jewel beetles from Southern Italy and Sardinia (Coleoptera, Buprestidae)

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ABSTRACT Three species of Buprestidae are reported for the first time from two Italian regions: *Anthaxia* (*s. str.*) *midas* ssp. *oberthuri* Schaefer, 1937, and *Anthaxia* (*s. str.*) *salicis* (Fabricius, 1777) new to Campania, and *Agrilus* (*Spiragrilus*) *hyperici* (Creutzer, 1799) new to Sardinia. Short notes on ethology and larval development of *A. midas oberthuri* are also given.

KEY WORDS Coleoptera, Buprestidae, new faunistic records, Italy.

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INTRODUCTION

Since the faunistic synthesis of Italian Buprestidae published by Curletti (1994), collecting efforts of several workers, during recent field trips carried out mainly through Southern Italy, led to a better knowledge of the buprestid fauna of this part of the country (Crovato & Izzillo 1995; Izzillo et al. 2002; Liberto & Gigli, 2003), and helped to outline the composition of the buprestid fauna of some restricted areas (Liberto & Izzillo 2007); these last faunistic investigations also increasingly led to fill gaps in the distribution of poorly collected species, and to obtain certain regional data about species that were previously summarily quoted as from “all Italy” by the earlier authors.

The names of Italian regions and provinces are reported verbatim, while geographical terms such as “Lago” (= Lake), Foresta (= Forest) etc., were translated.

Abbreviations used: CFI = F. Izzillo collection, Orta di Atella (Caserta), Italy; CDB = D. Baiocchi collection, Roma, Italy; CAL = A. Liberto collection, Roma, Italy; CMG = M. Gigli collection, Roma, Italy.

Anthaxia (*Anthaxia*) *midas oberthuri*
Schaefer, 1937

Anthaxia (*s. str.*) *midas oberthuri* Schaefer, 1937 (Gobbi 1993a: 50; Gobbi 1993b: 77).

Anthaxia midas oberthuri Schaefer, 1937 (Curletti 2005).

Material examined

Italy, Campania (Avellino), Bagnoli Irpino, Laceno Lake env., m 1050, 2.V.2010, 1 ex., on yellow flower of *Ranunculus* sp., F. Izzillo legit (CFI).

Additional material examined

Italy, Basilicata (Matera-Potenza), Gallipoli-Cognato forest, 900 m., 11.IX.1992, 1 ex., reared from *Acer* sp., F. Izzillo legit (CFI); 23.III.1993, 2 exx., reared from *Acer* sp., F. Izzillo legit (CFI); 28.III.2010, 2 exx., F. Izzillo (CFI), (CDB); 3.IV.2010, 22 exx., F. Izzillo legit (CFI), (CDB), (CAL), (CMG).

Anthaxia midas is usually regarded as a polytypic species (Schaefer 1937; Curletti 1994, 2005): in Italy, the nominate subspecies has been recorded

only from Puglia (Gargano: Gridelli 1949); according to Curletti (Curletti 1994: 95), the quotations

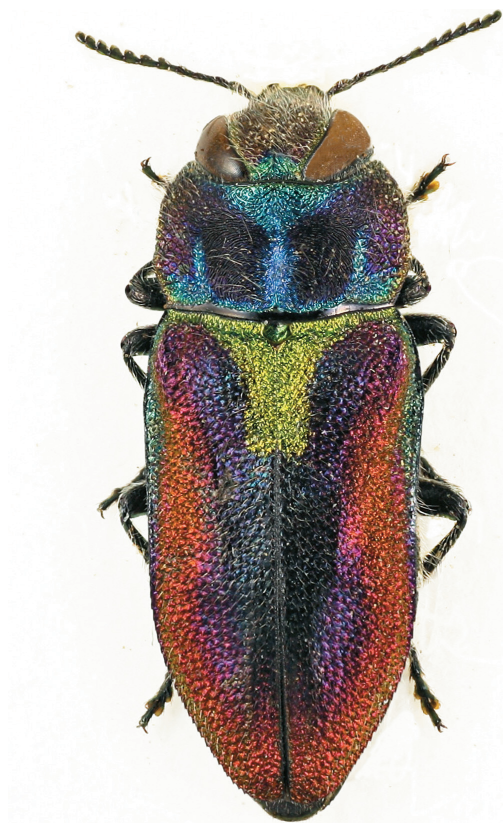


Figure 1. *Anthaxia midas oberthuri*: Italy, Basilicata (Matera-Potenza), Gallipoli-Cognato forest, 900 m., 3.IV.2010, F. Izzillo legit (CFI).

by Angelini (1987) and Gobbi (1986), who both reported the species from Gargano sub *A. midas oberthuri*, must be referred to the nominate form as well, while the western ssp. *oberthuri* occurs only in few localities of Lazio (Cassola 1968), Basilicata (Gobbi 1993b), Calabria (Gobbi 1993b: 77), and Sicilia (Magnani & Sparacio 1985); an unconfirmed regional record from Sardegna is reported by Luigioni (1929, sub *A. midas*).

Bionomy

A. midas oberthuri (Fig. 1) seems to be stenophagous on *Acer* spp. (Schaefer 1937, 1950; Gobbi 1986; Curletti 1994; Verdugo 2005), while the nominal subspecies was reported as developing also in *Platanus* spp. (Mühle, Brandl & Niehuis 2000; Muskovits & Hegyessy 2002; Sakalian 2003). Remarks on the bionomy of *A. midas oberthuri*, which agree with those made by

Schaefer (1937, 1950), are reported below; these observations were made during several field surveys, carried out yearly in the Gallipoli Cognato forest (Basilicata), since 1992.

The deposition of eggs takes place on the bark of withering, or freshly dead branches of *Acer* spp., generally 4 to 10 cm in diameter; the larva bores flat and sinuose galleries in the phloem, just under the bark, that reach a length of 10-12 cm, and a width of 6-7 mm; at the end of the gallery, the larva digs its pupal chamber, at a depth of 7-8 mm, in the superficial sapwood, and then fills the larval entrance with stiffed frass, forming a so-called “white spot” (see Bílý 2002: 30), which will be used as exit hole as well. On 6 June 1992, I collected some wood of *Acer* sp., that showed some undisclosed “white spots” supposed to mean the presence of adults still present in their pupal chambers; an adult was extracted on 11 September of the same year, and two more specimens on 23 March, 1993.

These data are summarized as follows: the deposition of eggs is likely to occur in April / May; the larva bores trophic tunnels during the whole summer season, and passes its first winter in hibernation; it starts to feed again in the next early spring, and the construction of the pupal chamber takes place in late spring; after an interval during which the larva rests in the typical “hook” position, it pupates in late summer, and the imago hatches after a couple of weeks; the adult passes the second winter resting in the pupal chamber, until emergence in the following spring. The whole cycle, therefore, takes at least two years, and goes through three vegetation seasons. The adult phenology agrees well with the above sketched pattern of larval development, as several specimens were collected very early in spring in 2010 (see “additional material examined” chapter).

A. midas oberthuri seems to be orophilous, as records from lowland habitats are not known; this matches its host plant requirements, being the genus *Acer* spread mainly from hill to mountain levels. Strong fluctuation of population density were observed locally, eventually with abundance of adults in the field; the highest number of captures was achieved during the years 2001, 2002, 2006, 2007, 2008, 2010. *A. midas oberthuri* is a typical flower visitor, with preference for *Ranunculus* spp., yellow flowers of Asteraceae liguliflorae, and flowers of *Rosa*.

Anthaxia (Anthaxia) salicis (Fabricius, 1777)

Material examined

Italy, Campania (Benevento), Pietraroja, 6.VI.2010, on yellow flowers of *Ranunculus* sp., 4 exx, F. Izzillo legit (CFI, CDB, CAL).

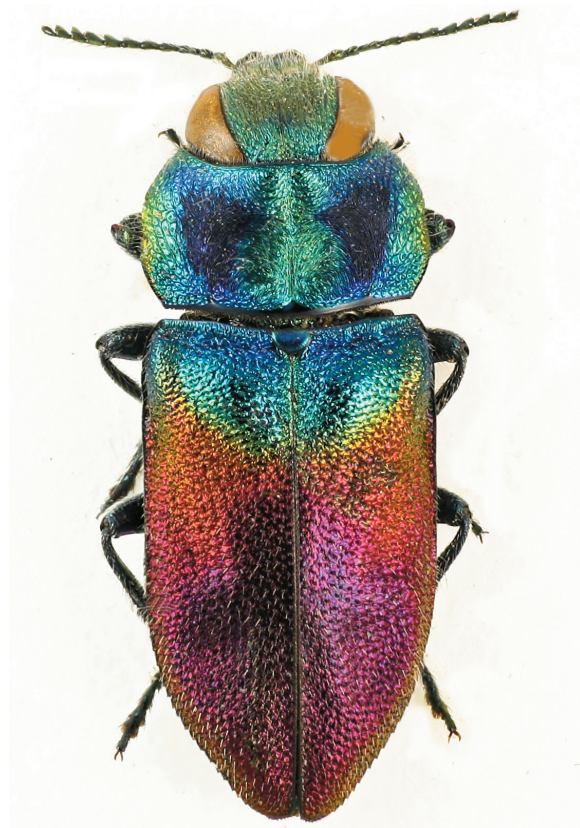


Figure 2. *Anthaxia salicis*: Italy, Basilicata (Matera-Potenza), Gallipoli-Cognato forest, 900 m., 3.IV.2010, F. Izzillo legit (CFI).

Species widely distributed in Italy (Fig. 2), previously known from nearly all regions (Curletti 1994; Crovato & Izzillo 1995), summarily quoted as from “all Italy” by Porta (1929) and Luigioni (1929); no detailed regional records were available from Campania, so far. Host plants are *Quercus* spp. (Curletti 1994; Bílý 2002), but the species is also reported from *Acer* and *Castanea* (Curletti 1994).

Records from *Salix* are discussed by Bílý (2002: 40), who describes the bionomy of this species in Central Europe.

A. salicis is a typical flower visitor, mainly *Ranunculus* spp. and yellow Asteraceae liguliflorae.

Agrilus (Spiragrilus) hyperici (Creutzer, 1799)

Material examined

Italy, Sardegna (Sassari), Mount Limbara, Western slopes, 9.VIII.2004, on foliage of *Hypericum* sp., 1 ex, F. Izzillo legit (CFI).

Species widely distributed in Italy, previously known from all regions (Curletti 1994, 2005) except for Sardegna, and therefore new for the island. Recorded host plants are: *Hypericum perforatum* and *H. tetrapterum* (Curletti 1994; Bílý 2002). Bionomy summarized in Bílý (2002: 19).

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