

# *Xantholinus audrasi* (Coiffait, 1956) (Coleoptera: Staphylinidae), new record for South Tyrol

## Introduction

The genus *Xantholinus* (Dejean, 1821) gives name to the tribe Xantholinini belonging to the subfamily Staphylininae and the family Staphylinidae. The genus is distributed across all biogeographic regions and encompasses 14 different subgenera. Currently, the genus is represented by 274 known species worldwide (SCHÜLKE & SMETANA 2015). The Mediterranean region is the hotspot of *Xantholinus* species in the western Palearctic region, where 105 species have been described so far (SHÜLKE & SMETANA 2015, ASSING 2017).

Anatolia is the geographic area with the highest number of species of *Xantholinus* in the Mediterranean area, followed by Italy, where an overall number of 25 species belonging to the genus *Xantholinus* are present (Zanetti, personal communication).

KAHLEN (2018) reports five species of *Xantholinus* for South Tyrol: *Xantholinus longiventris* Heer, 1839, *X. tricolor* (Fabricius, 1787), *X. distans* Mulsant & Rey, 1853, *X. linearis* (Olivier, 1795), *X. laevigatus* Jacobsen, 1849.

The present short faunistic note aims to extend the list of KAHLEN (2018) including *Xantholinus audrasi* (Coiffait, 1956) as a new record for South Tyrol.

Keywords: Staphylinidae,  
Faunistics, South Tyrol, Alps.

## Findings

*Xantholinus audrasi* was found in two different sites in South Tyrol, with an overall number of 5 specimens. Four specimens, all males, were collected in Unterinn / Auna di Sotto by Elia Guariento on 17/09/2018 using soil samples (20 x 20 x 15 cm square frame) and heat-extracted in a Kempson apparatus (KEMPSON et al. 1963). The site is included in the EUREGIO Environment, Food and Health project (<https://eventi.fmach.it/EFH/Mission>), it is an extensive hay meadow close to the village of Unterinn/Auna di Sotto (GPS coordinates: WGS84 46.5117°N;11.4348°E). The site presents the following features: altitude 953 m a.s.l., 12° slope, exposition 110 and silicate bedrock. Furthermore,

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Fig. 1: The specimen collected in Unterinn/Auna di Sotto.

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Fig. 2: Aedeagus of the specimen reproduced above.



we have additional information regarding the management: the site is irrigated, mowed once a year, but there is no application of manure.

Another single male was collected in Barbian / Barbiano by Julia Plunger using pitfall traps for her Master Thesis project (University of Innsbruck, 2020). The specimen was collected in the period between 24/04/2019 and 04/05/2019. The site is again an open habitat described as intensive hay meadow at 1202 m a.s.l.. The site is frequently mowed, at least 4/5 times a year, irrigated and manured 4/5 times a year (GPS coordinates: WGS84 46.6109°N; 11.5092°E).

All the specimens were identified by Filippo Colla and Adriano Zanetti using ASSING (2012).

## Discussion

*Xantholinus audrasi* occurs in the following countries: Armenia, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, France, Georgia, Greece, Italy, Norway, Romania, Slovakia, European Russia, Sweden, Ukraine, Iran and Turkey (SCHÜLKE & SMETANA 2015). This kind of distribution is defined by ASSING (2012) as “pontomediterranean”. In Italy, the species was previously found in the following areas: Alpi Giulie, Carnia, Trentino, Piemonte, Lombardia (BORDONI 1982), Veneto (CICERONI 2001), Lazio (CICERONI 1994) and Trentino Val di Non (ZANETTI 2015), the closest known occurrence of the species to South Tyrol.

Species of the genus *Xantholinus* are adapted to live in several habitats, such as grasslands, riverbanks, wetlands, forests, and many others. They preferentially live in leaf litter and under stones and their diet is mainly based on small insects and mites (ANLAS 2019). Notably, CICERONI (1994) defined *Xantholinus audrasi* as a phytodetrital species living in meadows, mainly in montane areas, less frequent in plains. ASSING (2012) affirms that *Xantholinus audrasi* lives in litter, herb roots, under stones and often close to streams both in woods and open areas. Moreover, three specimens of *Xantholinus audrasi* were collected in vineyards in Lessinia, Province of Verona by ZANETTI et al. (2016).

Our findings confirm that *Xantholinus audrasi* is well-adapted to live also in low-impact-agroecosystems. Although the sites described in the findings section are defined as extensive and intensive hay meadows, there is no application of chemicals and pesticides in both. Hay meadows are a relatively widespread agricultural environment in South Tyrol and probably the presence of *Xantholinus audrasi* on the territory is wider.

In conclusion, we would like to underline the importance of monitoring programs which give us valuable information about the biodiversity as a whole and of investi-

gating also the intensely managed landscape, which is often overlooked and might harbor interesting and new species records.

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