

Agrilus verres Théry, 1930 (Coleoptera Buprestidae) *bona* subspecies of *Agrilus (Agrilus) albomarginatus* Fiori, 1906

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ABSTRACT

Agrilus (Agrilus) verres Théry, 1930, placed until now as junior synonym of *Agrilus (Agrilus) albomarginatus* Fiori 1906, is considered with this paper a valid taxon as subspecies of *A. albomarginatus*. A new redescription is proposed to highlight the morphological characters that differentiate it. *Genista aetnensis* (Raf. ex Biv.) DC. is reported as probable host plant.

KEY WORDS

Taxon revalidatum; Italy; Sicily; Linguaglossa Pine Forest; Mount Etna; *Genista aetnensis*.

Received 26.10.2024; accepted 28.11.2024; published online 30.12.2024

INTRODUCTION

Agrilus verres Théry, 1930 (Coleoptera Buprestidae) was described on a single female specimen from Sicily without further indication (Théry, 1930). This taxon was until now considered synonymous with *A. (Agrilus) albomarginatus* Fiori 1906 (Curletti 1983; Sparacio, 1997; Löbl & Löbl, 2016), a species endemic to Peninsular and North-Eastern Italy (Curletti, 2000).

The discovery of numerous specimens of this taxon by one of the authors (I.S.) has allowed us to better study its morphological characteristics and to establish that the Sicilian population can be considered a valid subspecies, also thanks to the different larval biology and geographical isolation. To improve knowledge on this taxon, a brief integrative description is proposed.

MATERIAL AND METHODS

The specimens are prepared dry and glued on mounting boards. The extracted male genitalia

were glued to the side of the specimen in dorsal position.

The syndetic used is gum arabic. The photographs of the specimens were taken with a Nikon P6000 camera fixed to a Leica MZ6 stereomicroscope. The photographs were then processed with the stacking technique using Combine ZP program and processed with Photoshop (Adobe Systems Inc.).

RESULTS

Systematics

Familia BUPRESTIDAE Leach, 1815
Subfamilia AGRILINAE Lacordaire, 1857
Genus *Agrilus* Curtis, 1825
Subgenus *Agrilus* Curtis, 1825

Agrilus (Agrilus) albomarginatus verres Théry, 1930 - *taxon revalidatum*

MATERIAL EXAMINED. ITALY • 1 spm female; Si-

cily; Holotype, L = 8 mm, Musée National d'Histoire Naturelle, Paris: EC9034 coll. Théry, ex coll. De Bonneuil • 43 spm; Sicily, Catania, Linguaglossa Pine Forest; 22–23 Jul. – 5 Aug. 1995; 1500 m ASL, I. Sparacio legit on *Genista aetnensis* (Raf. ex Biv.) DC. (Fig. 4).

DESCRIPTION. Length 6.8–9.6. bronze color, metallic and bright. Vertex wider than 1/3 the anterior margin of the pronotum. Frons concolorous, widely depressed, with uniform white pubescence. Same thicker pubescence also on the cheeks. Antennae short, serrate from the 4th antennomere. Clypeus raised above the frontal line without transverse carina. Pronotum with lateral margins slightly and regularly arcuate, posterior angles obtuse. Prehumeral carinulae absent or barely visible in males. Marginal carinae spread forward but still separated posteriorly. Disc with strong and transverse sculpture. Gular sclerite with slightly sinuate anterior margin. Scutellum transverse, carinate. Elytra with clearly and visible white perisutural

pubescence and apices separately rounded and microdenticulate. The ventral pubescence, white and dense, covers the sides of the tergites, mesoepimera and mesoepisterna. Ventrites concolorous, with regular white pubescence less abundant than that present on the laterotergites. Legs strong and bronzed. Metatibia longer than the metatarsus. Metatarsal formula 1=2+3. In males the anterior and median claws are bifid and the posterior claws are toothed, in females all are toothed.

Aedeagus (Fig. 2) flat, sclerotized, with apex of the parameres pointed, provided with lateral pubescence also in the external median part. Apex of the median lobe rounded and dorsally grooved.

Sexual dimorphism with females having all the claws dentate and males having absent or barely visible prehumeral carinules.

CONSIDERATIONS AND CONCLUSIONS

Agrilus albomarginatus verres is very similar to

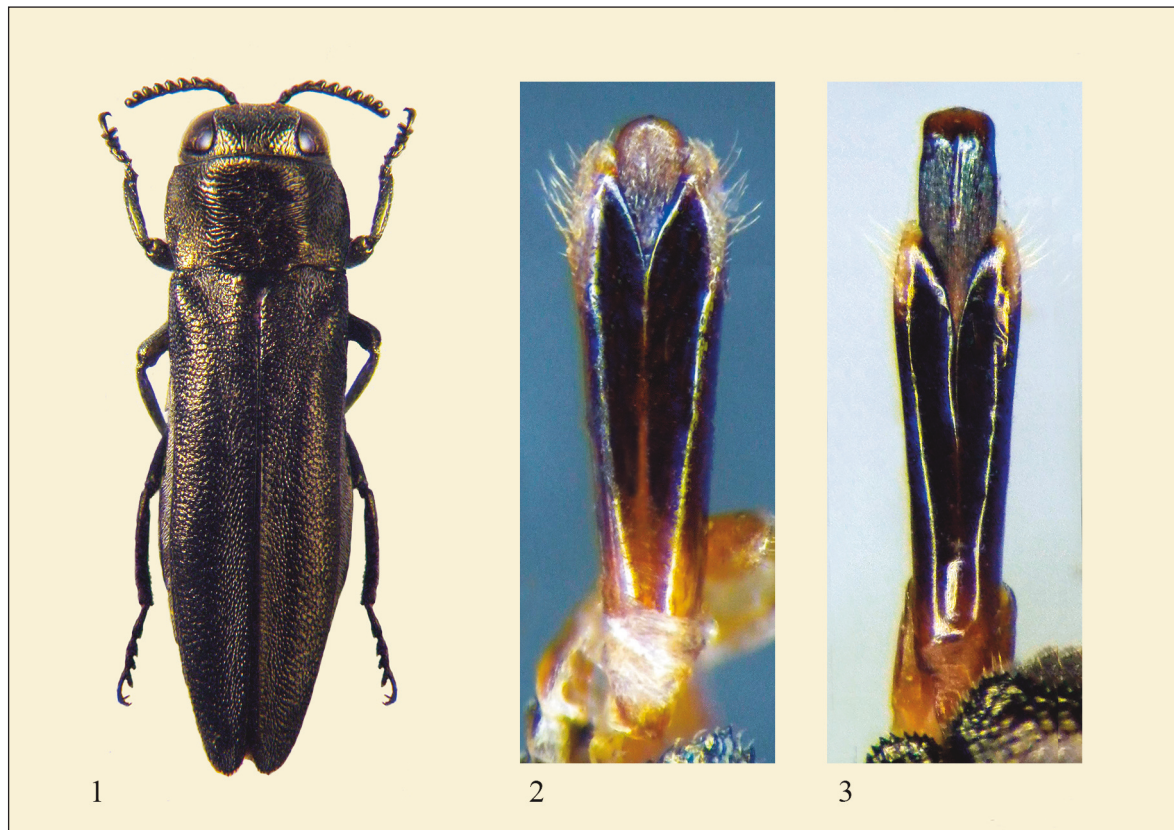


Figure 1. *Agrilus albomarginatus verres*, male, 6.9 mm, dorsal view. Figure 2. *Agrilus albomarginatus verres*, aedeagus in dorsal view, 1.6 mm. Figure 3. *Agrilus albomarginatus albomarginatus*, aedeagus in dorsal view, 2.2 mm.



Figure 4. *Genista aetnensis*, Italy, Sicily, Mount Etna: Mount Spagnolo (photo by B. Di Gregorio).

the nominate subspecies: the females of the two taxa are indistinguishable and for this reason it is understandable why the Sicilian form, described on a single female, was placed in synonymy. On the other hand, the males of the Sicilian subspecies (Fig. 1) differ substantially for the absent or slightly pronounced prehumeral carinules, unlike the *A. albomarginatus albomarginatus* which has the carinules always well evident in both sexes. The aedeagus presents differences in the conformation of the apex of the median lobe, which in the *A. albomarginatus verres* is rounded rather than flattened (Figs. 2, 3). The different larval feeding adaptations of the two forms are further evidence of a biological differentiation that occurred thanks to geographic isolation: *A. albomarginatus albomarginatus*, widespread in Peninsular and North-Eastern Italy, has as its host plant *Spartium junceum* L., while *A. albomarginatus verres* most likely lives on *Genista aetnensis* (Raf. ex Biv.) DC. on which the numerous specimens cited were

found. The presence of *A. albomarginatus albomarginatus* in Sicily is currently to be excluded, as it was previously reported only for the specimen described by Théry (1930).

ACKNOWLEDGEMENTS

We are grateful to Antoine Mantilleri of the Musée National d'Histoire Naturelle in Paris (France) for his help in finding the typical material and to Beppe Di Gregorio (Palermo, Italy) for the photo of *Genista aetnensis*.

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