

Agrilus (Anambus) kubani BÍLÝ, 1991 in Romania (Coleoptera, Buprestidae)

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Summary: The occurrence of *Agrilus kubani* BÍLÝ, 1991 is reported for the first time in Romania. This study provides details on its distribution within the country, along with information on its biological characteristics and morphological description, contributing to a better understanding of this species.

Rezumat: Prezența speciei *Agrilus kubani* BÍLÝ, 1991 este raportată pentru prima dată în România. Acest studiu oferă detalii privind distribuția sa în țară, împreună cu informații privind caracteristicile biologice și descrierea morfologică, contribuind la o mai bună înțelegere a acestei specii.

Key words: Agrilini, *Loranthus europaeus* JACQ. 1762, new country record.

Introduction

Early in the spring of 2024, one of the AA (C.M.) collected several branches of *Loranthus europaeus* Jacq., 1762, during field studies. These branches were found on the canopy of *Quercus* sp.

By rearing the xylophagous larvae in the laboratory, the collected branches were placed inside suitable containers to facilitate their development. As a result, in the following months (May and June), several adult specimens of *Agrilus kubani* BÍLÝ, 1991 (Figs. 1, 2, 3) emerged. This jewel beetle species is considered to be a



Fig. 1. *Agrilus kubani* ♂, near Camena city, dorsal view, 5.1 mm.

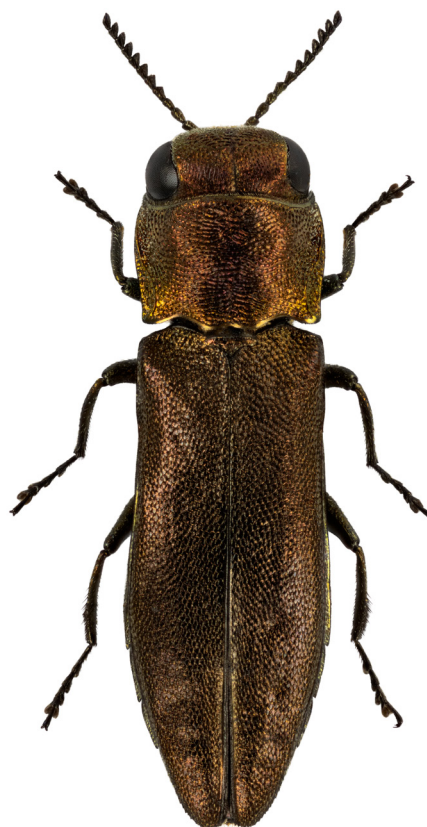


Fig. 2. *Agrilus kubani* ♀, idem, 5.9 mm.



Fig. 3. *Agrilus kubani*,
aedeagus, dorsal view, 1.5 mm



Fig. 4. Branch of *Loranthus europaeus*.



Fig. 5. *Quercus* specimen with *Loranthus* branches on collecting site.



Fig. 6. Habitat of collecting site.

rare species due to its unique biological characteristics and its association with the Loranthaceae family. This Buprestidae stands out as one of the few European species identified in relatively recent times, despite the extensive knowledge of European entomofauna.

The species was not known yet from Romania (PANIN *et al.* 2015, RUICĂNESCU 2013) but its occurrence in Romania was anticipated based on its known distribution and the presence of its host plant. Previously, *A. kubani* has been documented in Austria, Czechia, Slovakia, and Hungary (LÖBL and LÖBL 2016).

Materials and methods

5 ♂♂ and 6 ♀♀. Romania, Tulcea county, near Camena village, 44.7933N 28.6271E, *ex larva* from branches of *Loranthus europaeus* (Fig. 4, 5, 6) collected on 20.IV.2024, emerged on V-VI.2024, MANCI C.O. legit and kept in authors collections.

Photographs of the mounted specimens were taken in a studio using a Canon EOS R7 camera equipped with a Canon MP-E 65mm f/2.8 1–5× lens and four continuous light sources. Each final image was created using a composite of approximately 30–40 photographs taken with the stacking method. The images were stacked using Zerene Stacker software

(version 1.04) (<https://zerenesystems.com/>) and later processed in Adobe Photoshop (<https://www.adobe.com/products/photoshop.html>) to achieve a clean background.

Taxonomic and biological notes

The description of *A. kubani* in 1991 placed it within the *Agrilus roscidus* species-group (BÍLÝ 1991), a complex known for its high level of polyphagy and the difficulty in distinguishing between closely related sister species (JENDEK and POLÁKOVÁ 2011). This group is found across the Eastern Palearctic and Mediterranean Asia, suggesting a broad ecological adaptability among its members.

As of the current understanding, alongside *A. roscidus* KIESENWETTER, six additional species are recognized within the European continental fauna: *Agrilus kubani* BÍLÝ, 1991, *Agrilus marozzinii* GOBBI, 1974, *Agrilus viridicaerulans* ssp. *rubi* SCHAEFER, 1937, *Agrilus graecus* OBENBERGER, 1916 (synonym: *A. viscivorus* BÍLÝ, 1991), *Agrilus jacetanus* SOBRINO SÁNCHEZ & TOLOSA SÁNCHEZ, 2004, *Agrilus escambroni* F. MURRIA BELTRÁN, TOLOSA SÁNCHEZ & Á. MURRIA BELTRÁN, 2022.

This classification reflects ongoing research and taxonomic revisions in the *Agrilus* genus,

highlighting the complexities involved in identifying and categorizing species within this diverse group of beetles. The mention of various synonyms indicates a dynamic understanding of species relationships and nomenclature in entomology.

Differential diagnosis

The morphological distinctions that set *A. kubani* apart from other taxa in its group are indeed well-documented in the original description. However, we believe it is beneficial to include additional characteristics. Notably, the Romanian specimens exhibit pronounced sexual dichroism, with the females displaying a reddish hue while the males present a bronzed appearance (Figs. 1, 2). Furthermore, the frons of the males is less bright in green compared to *A. roscidus*, exhibiting a shift towards a darker olive-green coloration. On the other hand, the conformation of the aedeagus is within the normal range for the species (Fig. 3).

Biological notes

Adults emerged from dying twigs of specific diameters (0.5 to 1.5 cm), indicating that these sizes are suitable for their development.

The absence of subcortical galleries suggests that the larvae inhabit inside the sapwood and heartwood of the twigs rather than the outer bark layer.

The difficulty in tracing larval galleries within the host plant, combined with the seasonal leaf drop (winter leaf caducity), complicates the identification of the branches hosting the species.

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