

**New records of two recently described beetle species from Hungary
(Coleoptera: Melyridae, Zopheridae)**

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Abstract – Two recently described beetle (Coleoptera) species, *Colydium noblecourti* Parmain, Eckelt et Schuh, 2024 (Zopheridae: Colydiinae) and *Anthocomus nigriventris* Franzini, 2025 (Melyridae: Malachiinae), are reported for the first time from Hungary.

Key words – faunistics, Carpathian Basin, soft-winged flower beetles, ironclad beetles

INTRODUCTION

Only a few new beetle species have been described from Central Europe over the last decades. These are most often segregated from previously recognised widespread species or species-groups through detailed morphological studies, often but not necessarily supported by genetic evidence (WALLIN *et al.* 2009, PARMAIN *et al.* 2024, ZÁHRADNÍK 2024, FRANZINI 2025). Alternatively, they have been discovered in cryptic, understudied microhabitats such as caves (SITAR *et al.* 2025), polypore basidiocarps (ZÁHRADNÍK 2017), mesovoid substratum (FAILLE *et al.* 2016) or mammalian nests (LACKNER & SERES 2018). In this study, we provide the first confirmed records from Hungary for two recently described coleopteran species that fall into the first of the aforementioned categories: *Anthocomus nigriventris* Franzini, 2025 (Coleoptera: Melyridae: Malachiinae) and *Colydium noblecourti* Parmain, Eckelt et Schuh, 2024 (Coleoptera: Zopheridae: Colydiinae).

Malachite beetles were traditionally treated as a separate family, Malachiidae, within the superfamily Cleroidea, however, based on analyses of specific genetic markers, GIMMEL *et al.* (2019) downgraded them to a subfamily

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of Melyridae. The genus *Anthocomus* Erichson, 1840 currently contains 44 extant species belonging to three subgenera (MAYOR 2007, TSHERNYSHEV 2021, 2022, FRANZINI 2025). *Anthocomus* species are mainly distributed in the Palaearctic Region, with two species known from the Nearctic Region, namely the introduced *A. equestris* (Fabricius, 1781), and the presumably indigenous *A. pristinus* (Fall, 1901) (MAYOR 2007, FRANZINI 2025). Until now, four species of the genus, *A. coccineus* (Schaller, 1783), *A. equestris* (Fabricius, 1781), *A. thalassinus* (Abeille de Perrin, 1883), and *A. fasciatus* (Linnaeus, 1758), have been known from Hungary (KASZAB 1955, SZALÓKI & MERKL 2005).

The tenebrionoid family Zopheridae is distributed worldwide and includes approximately 1700 species classified in 190 genera (ŚLIPIŃSKI & LAWRENCE 2010, OTERO & GHAHARI 2020). The Palaearctic fauna comprises 287 species in 46 genera (SCHUH 2020, PARMAIN *et al.* 2024). The genus *Colydium* Fabricius, 1792 was comprehensively revised in the late 20th century and currently includes 33 recognised species (MARCZAK & PEPEŁOWSKA-MARCZAK 2025) distributed in the Holarctic and Neotropical Regions, with the highest species diversity in the latter (WĘGRZYNOWICZ 1999). Three species, *C. elongatum* (Fabricius, 1787), *C. filiforme* Fabricius, 1792, and the recently described *C. noblecourti* Parmain, Eckelt et Schuh, 2024 have been reported from the Western Palaearctic Region (PARMAIN *et al.* 2024, MARCZAK & PEPEŁOWSKA-MARCZAK 2025, RUTA *et al.* 2025), and the first two have also been recorded from Hungary (ŚLIPIŃSKI & MERKL 1993, SCHUH 2020).

MATERIAL AND METHODS

We revised the *Anthocomus* and *Colydium* materials housed in the collections of six Hungarian museums and two private collections, namely in the Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum, Budapest (HNHM), Natural History Museum of Bakony of the HNHM, Zirc (BNHM), Mátra Museum of the HNHM, Gyöngyös (MM), Kazinczy Ferenc Museum, Sátoraljaújhely (KFM), Móra Ferenc Museum, Szeged (MFM), Savaria Museum, Szombathely (SM), the private collections of Dezső Szalóki, Budapest (DSzCB), and that of Béla Tallósi, Szolnok (BTCSz). We could not find any specimens belonging to the subject of this paper in the MM, MFM, SM, and BTCSz. The identifications were based on FRANZINI (2025) and PARMAIN *et al.* (2024). Taxonomy and nomenclature follow SCHUH (2020) and GIMMEL *et al.* (2019).

Taxa are listed in alphabetical order, while the collecting data in chronological order. Label texts are given verbatim; all examined specimens were provided with our identification labels. Separate labels are indicated by ”//”, comments of the authors by square brackets. Actual depositories are given in parentheses in the Material examined sections. A Leica MZ12.5 stereomicroscope

was used for the morphological examinations. Habitus images were produced with Raynox Super Macro Conversion Lens DCR-250 or MSN-202 adapter sets attached to a Nikon D7200 digital camera, images were stacked with Helicon Focus 8, post-image works were done with Adobe Photoshop.

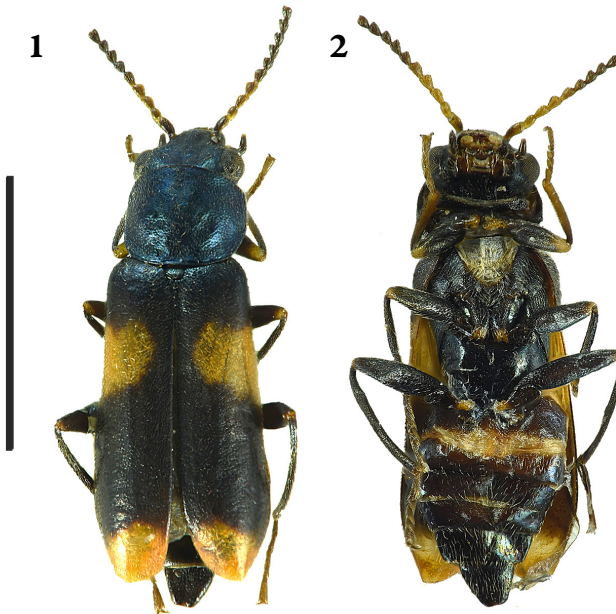
SPECIES NEW TO HUNGARY

Anthocomus nigriventris Franzini, 2025

(Figs 1–2)

Material examined – Noszvaj, Síkfőkút, Hungaria // 1987.V.17. Malaise-cs. [= Malaise trap] (A) [during a study conducted by researchers of the University of Horticulture and Food Industry, a multi-layered trap was built, the letter “A” refers to the bottommost layer] leg. Szalóki D. (HNHM); Hungary, Vas m. [= Vas County] Kőszeg // 1991.V.11. leg. Hegyessy G. (KFM); Hungaria, Noszvaj, Síkfőkút, // 1994.VII.17. fűhálózza [= swept], leg. Markó Viktor (DSzCB); Sátoraljaújhely Hegyalja u. [= street] 12. // 2025.V.20. leg. Hegyessy G. (KFM).

Remarks – *Anthocomus nigriventris* was recently described by FRANZINI (2025) from the type locality in Abruzzo, Italy; besides that, it is known from a few localities from Austria and Turkey (FRANZINI 2025).



Figs 1–2. *Anthocomus nigriventris* Franzini, 2025, a voucher specimen from Hungary, 1 = dorsal view, 2 = ventral view. Scale bar = 2 mm (photos by Kristóf Mislai)

Identification – *Anthocomus nigriventris* closely resembles *A. fasciatus* in dorsal aspect but can be distinguished by the dark colouration of the mesepimeron (light ivory in the latter), by the morphology of the antennae (antennomeres 5–10 are blunt in *A. fasciatus* while antennomeres 5–8 are triangular with convex inner sides in *A. nigriventris*), and the apex of elytra in male sex lacking the dark, hairy spot on the outer angle (present in males of *A. fasciatus*). *Anthocomus equestris* resembles *A. nigriventris* regarding the dark mesepimeron, but it can be distinguished by the dark protibiae (light yellow in *A. equestris*), and by the laterally slightly convex, subtriangular antennomeres 4–10 (which are triangular and sharply angular in *A. equestris*) (FRANZINI 2025).

Proposed Hungarian name – “feketehasú bibircsesbogár”.

Colydium noblecourti Parmain, Eckelt et Schuh, 2024
(Figs 3–4)

Material examined – Hu. [= Hungary] bor. [= borealis; i.e., northern] 1954. Bükk-hegység [= Bükk Mts.] // Nagybérc 821.m.p. VI. 8–10 // fűhálózza [= swept] // leg. Kaszab & Székessy (HNHM); Budapest XVI. Naplás-tó [= Naplás lake], Hungaria // 1983.X.2. kéreg alól [= from under bark], leg. Szalóki D. (DSzCB); Hung. [= Hungary], Szabolcs. Sz. m. [= Szabolcs-Szatmár-Bereg County], Bátorliget, Fényi-erdő [= Fényi forest] // farakásról [= from a woodpile] 1990.V.16. leg. Merkl O. (HNHM); Sátoraljaújhely Tatárka // 1997.IV. 27.leg. Hegyessy (KFM); Hung., Somogy m. [= Somogy County], Látrány, Kolláti-legelő [= Kolláti pasture] // egyelés [= singled], 2002. III. 14. leg. Rozner György (HNHM); Hung., Budapest, XII. ker. [= 12th District], Virág-völgy [= Virág valley], éjszakai egyelés [= singled at night], // fatörzsekről [= from logs], 2004. IV. 23. leg. Merkl Ottó (HNHM); Hung. Baranya megye [= Baranya County], Teklafalu, 2004. VIII. 1., [leg.] Sár József & Sár Péter (HNHM); Hung. Zirc, Deák F. út 2., [leg.] Kutasi 2008.05.29. (BNHM); Hung., Somogy m., Darány, Barcsi ősbörökás [= old-growth juniper grove of Barcs], éjjel, fák törzséről [from tree trunks, at night], 2008. V. 31. [leg.] Meleg L. // Muskovits J., Németh T., Rahme N. & Romsauer J. (HNHM); Hung., Tolna m. [= Tolna County], Paks, Cseresznyés, 130 m, N46°38'18.04", E18°47'40.70", // erdeifenyő kérge alól [from under the bark of *Pinus sylvestris* L. (Pinaceae)], 2008.XII.2., [leg.] A. Grabant, A. Kotán, O. Merkl, T. Németh & L. Somay (HNHM); Hung., Pest m. [= Pest County], Isaszeg, Sikló-völgy [= Sikló valley] 2009. II. 10. [leg.] Kotán A. & Szénási V. (HNHM); Hung., Fejér megye [= Fejér County], Gánt, Pap-völgy [= Pap valley], kéreg alól [from under bark], 2010.III.20., [leg.] Kotán A. & Németh T. (HNHM); Sátoraljaújhely Magas-hegy [= Magas hill] // 2013.IV.30. leg. Hegyessy G. (KFM); Mátrafüred (Hungary), 2015.05.21. lgt. J. Muskovits (HNHM); Hung., Vas m., Bozsok, Irott-kő, éjjel gombás lucról

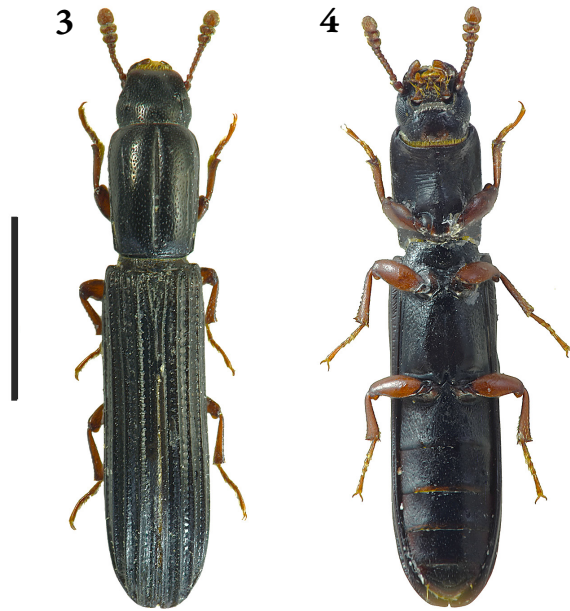
[at night, from fungus covered spruce (*Picea abies*) (L.) H. Karst. (Pinaceae)], 2015.VI.5., leg. Németh Tamás (HNHM); Hung., Budapest, János-hegy [= János hill] N47.5181°, E18.9675° 2016.V.21., leg. Merkl O. (HNHM); Sátoraljaújhely, Sátor-hegy [= Sátor hill], Popelyás, tölgyes [oak forest] // 2018.I.11. leg. Hegyessy G. és Hegyessy S. (KFM); Hung., Nógrád m. [= Nógrád County], Szendehely, Munyók-erdő [= Munyok forest], N 47.8552°, E 19.1583°, 2018.V.8., leg. Merkl Ottó & Grabant Aranka (HNHM); Hungaria, Pest m., Szokolya, Kis-Vasfazék // 2020.VI.28. farakáson, éjszaka [= on woodpile at night] leg. Szalóki D. (DSzCB).

Remarks – The type locality of this species is in Wien, Austria. It was originally recorded from 13 countries: Andorra, Austria, Bosnia and Herzegovina, Croatia, Czech Republic, France, Germany, Iran, Italy, Slovakia, Slovenia, Spain, and Turkey (PARMAIN *et al.* 2024). Subsequently, it has been recorded from Poland (MARCZAK & PEPŁOWSKA-MARCZAK 2025), Serbia (RUTA *et al.* 2025), Belgium (THOMAES *et al.* 2025), Russia (ALEKSEEV 2025), and Bulgaria (GRADINAROV *et al.* 2026).

Identification – *Colydium noblecourti* was described by PARMAIN *et al.* (2024) as a result of a revision of the European species of the genus involving 830 specimens of *Colydium* from 35 different collections. The newly described species closely resembles *C. elongatum* and *C. filiforme* in general habitus. However, it can be easily distinguished from *C. elongatum* by the following combination of character states: the morphology of elytral intervals, in particular, the carina on interval 5 is not reaching the apical margin of the elytra (while it is reaching it in *C. elongatum*), the entirely black elytral base and humeri (the elytra is brown or faintly reddish at the base in *C. elongatum*), and the weakly impressed or absent admedian pronotal lines (strongly impressed in *C. elongatum*). Although the morphology of the elytral intervals of *C. noblecourti* is similar to that of *C. filiforme*, the former species differs in having uniformly black elytra and weakly impressed or absent admedian lines of the pronotum (similarly to *C. elongatum* the elytra is brown or faintly reddish at the base). Also, *C. noblecourti* can be distinguished from its two European congeners by the peculiar morphology of the last abdominal ventrite (it is obtusely angled in the middle, while semicircular in *C. elongatum* and *C. filiforme*). Evident differences are found in the male genitalia of the three (PARMAIN *et al.* 2024, MARCZAK & PEPŁOWSKA-MARCZAK 2025, RUTA *et al.* 2025).

Bionomy – Species of *Colydium* inhabit the space beneath the bark of dead or dying trees, occupying tunnels created by other insects living in that microhabitat (PARMAIN *et al.* 2024, MARCZAK & PEPŁOWSKA-MARCZAK 2025). Although the three Palearctic species are considered saproxylic, details about their specific ecology remain limited. They possibly prey on other beetles or their larvae found under bark, or, alternatively, they may scavenge within existing galleries (PARMAIN *et al.* 2024).

Proposed Hungarian name – “Noblecourt-héjbogár”.



Figs 3–4. *Colydium noblecourti* Parmain, Eckelt et Schuh, 2024, a voucher specimen from Hungary, 4 = dorsal view, 5 = ventral view. Scale bar = 2 mm (photos by Kristóf Mislai)

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