

Notes on the Elateridae fauna of Hungary (Coleoptera)

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Abstract – First record of *Anostirus gracilicollis* (Stierlin, 1896) for Hungary is given. *Adrastus laceratosus* Erichson, 1841, *Agriotes pallidulus* (Illiger, 1807) and *Zoroachros flavipes* (Aubè, 1850) are deleted from the Hungarian faunal list. Identification keys for the genera *Anostirus* C. G. Thomson, 1859 and *Adrastus* Eschscholtz, 1829 of Hungary are provided. With 22 figures.

Key words – click beetles, faunistics, new country records, taxonomy

INTRODUCTION

The Elateridae fauna of Hungary is fairly well known. MERKL & MERTLIK (2005) based their study on KUTHY's (1897) Coleoptera volume of the Fauna Regni Hungariae, and listed 131 species from present-day Hungary. Since that time, several new country records were published. MERKL (2006) added the previously deleted *Cidnopus aeruginosus* (Olivier, 1790) to the Hungarian list. PLATIA & GUDENZI (2007) described *Athous kasovskyi* from Zalalövő, eastern Hungary, from a single male specimen. LESEIGNEUR & MERTLIK (2007) described *Limonius poneli*, with Hungarian specimens included in the types series. MERKL *et al.* (2008) published the first record for *Athous gottwaldi* Lohse, 1978, and *Lacon lepidopterus* (Panzer, 1800) was recorded as new to Hungary by NÉMETH & MERKL (2009). MERKL *et al.* (2010) reported the first records for three further species: *Athous carpatophilus* (Reitter, 1905), *Athous picipennis* (Reitter, 1905) and *Ectamenogonus montandoni* (Buysson, 1881). MERKL *et al.* (2012) published the first record of *Ampedus nigrinus* (Herbst, 1784) from the easternmost and westernmost parts of the country.

Athous carpatophilus (Reitter, 1905) and *A. picipennis* (Reitter, 1905) were removed from the list of the Hungarian species by MERTLIK (2016) because of the misidentification of previously reported material. KUTHY (1897) mentioned a specimen of *Cardiophorus ebeninus* (Germar, 1824), which was later re-identified

it as *Cardiophorus dolini* Mardjanian, 1985 by MERKL & MERTLIK (2005). The exact record of this specimen, together with other Hungarian records for the species were published by MERTLIK *et al.* (2015). With the changes presented hereunder, the number of Elateridae species known to occur in Hungary raised to 137.

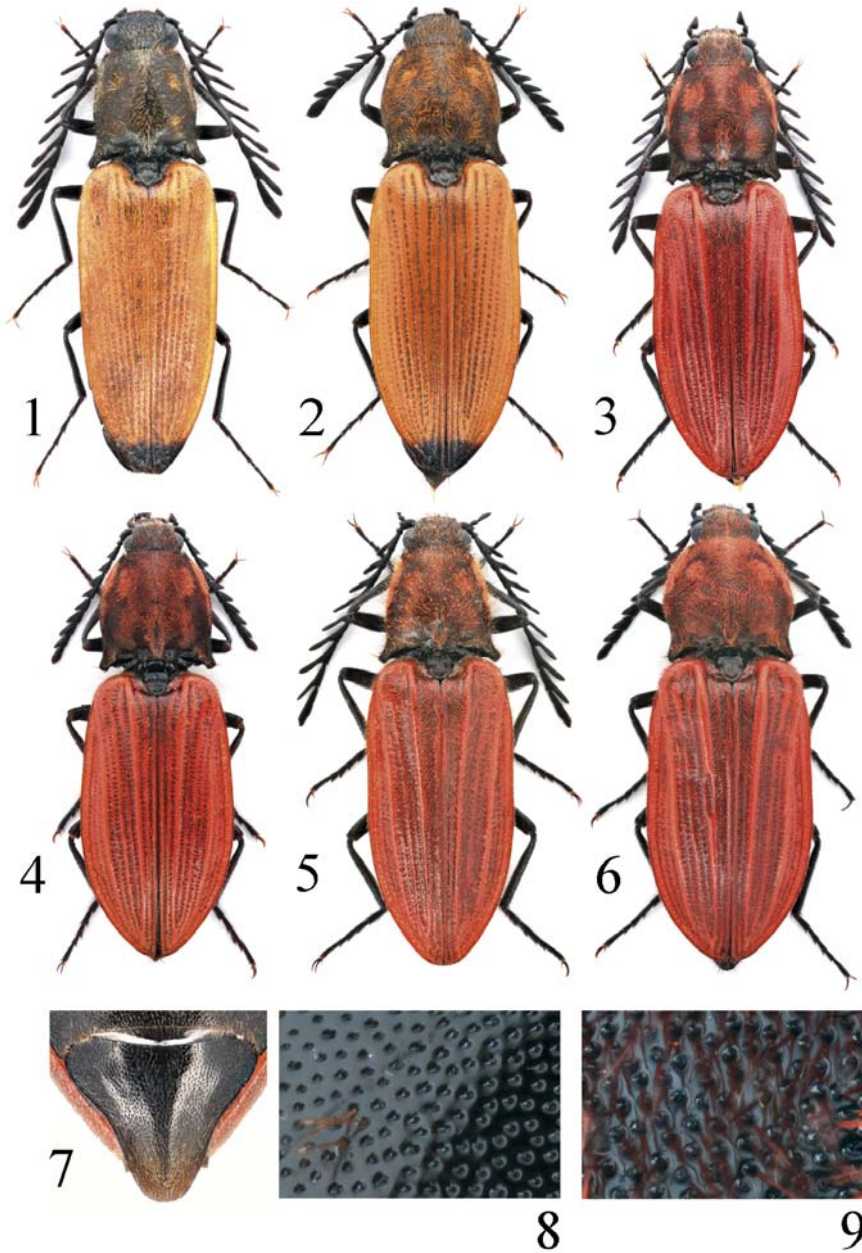
Abbreviation – HNHM = Hungarian Natural History Museum, Budapest.

SPECIES DELETED FROM THE HUNGARIAN FANUA

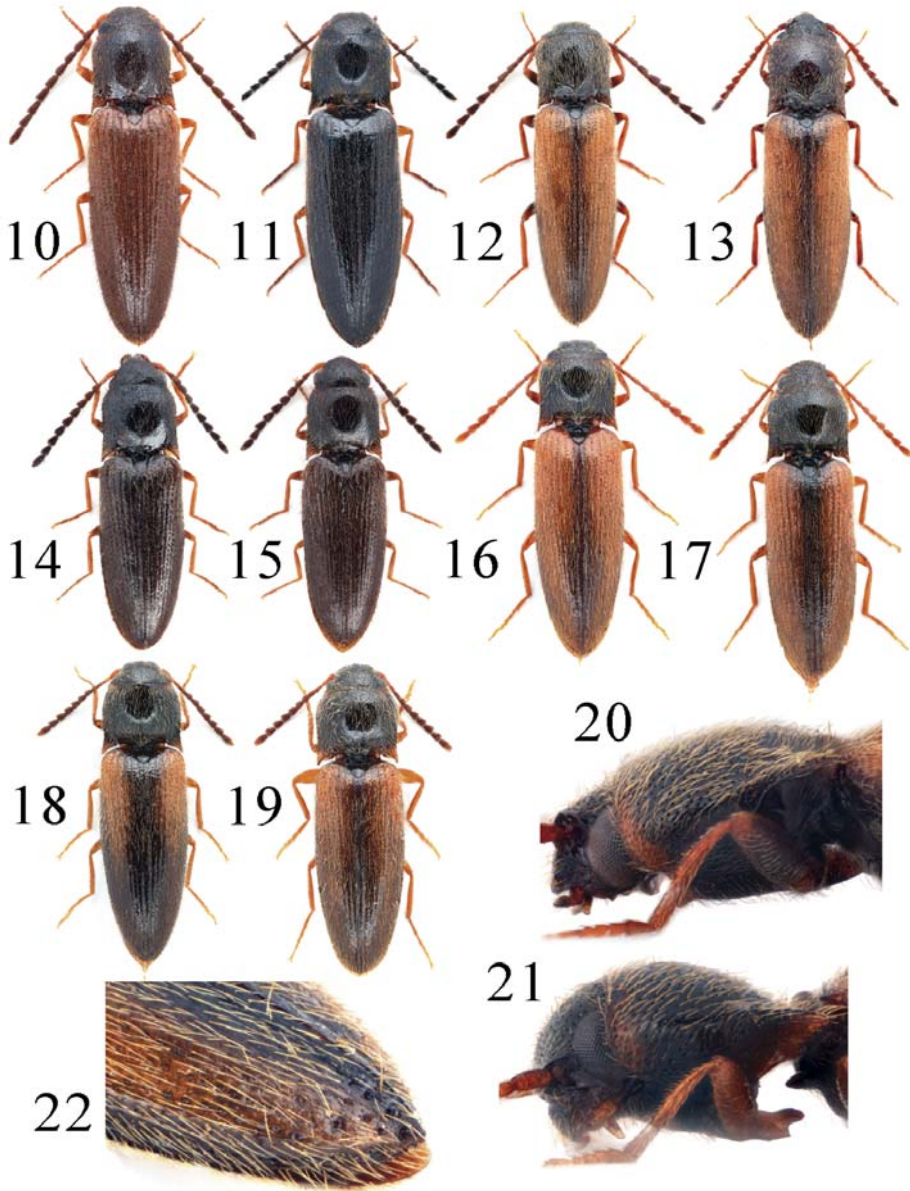
Adrastus lacertosus Erichson, 1841 – This species was mentioned by SZOMBATHY (1911) from the Hungarian localities Péczel, Simontonya and Peszér (now Kunpeszér). These specimens are deposited in the HNHM, and belong to the very common *Adrastus rachifer* (Geoffroy, 1785). SCHENKLING (1925) and HORION (1953) also mentioned *A. lacertosus* from “Ungarn”. These sources were cited in MERKL & MERTLIK (2005), although “Ungarn”, without exact locality, may refer to a region now outside present-day Hungary. *A. lacertosus* is known from several European countries (CATE 2007), but often misidentified, so that the records should be treated critically (LAIBNER 2000, PLATIA 1994).

Agriotes pallidulus (Illiger, 1807) – About this species SZOMBATHY (1910) wrote the following: “Rare, I collected this species at Hidegkút [probably Pesthidegkút, part of District II of Budapest] on *Melittis melissophyllum*.” Several specimens of the similar species, *Agriotes acuminatus* (Stephens, 1830) are housed in the HNHM with locality labels „Hidegkút”. These specimens were collected in 1910 by the colleagues of Szombathy, i.e. Hugó Diener and Alajos Gammel, but there are no specimens which were collected by Szombathy himself. One very old specimen is also preserved in the HNHM with the data „Budapest, Buda”, identified by Frivaldszky and Dolin (in 1982) as *A. pallidulus*. This species occurs in several European countries (CATE 2007) in the upper zone of the mountain forests (LAIBNER 2000), the nearest known and confirmed localities are in the north of the Czech Republic and in Maramureş (Máramaros), northern Romania. The more than 100 years old specimen from Budapest may be a mislabelled or accidentally introduced one.

Zoroachros flavipes (Aubè, 1850) – This species was published by MERKL & MERTLIK (2005) as new for Hungary, based on two specimens. The first one is from Siófok, which is very probably mislabelled. Locality records from the collection of Ferenc Lichtneckert are doubtful in many cases (KOVÁCS *et al.* 1999, SZALÓKI & MERKL 2005). Occurrence of this alpine-mountainous species (MERTLIK 2009) is highly improbable in that part of Hungary. The other specimen with label text “Sopron, Moczarski” is more than one hundred years old. The Sopron Mountains do not provide habitats suitable for *Z. flavipes*. This specimen suggests unintentional introduction not followed by establishment of the species, or the species became extinct since that time.



Figs 1–9. *Anostirus* species of Hungary: 1 = *A. castaneus* (Linnaeus, 1758), male, 2 = *A. castaneus*, female, 3 = *A. gracilicollis* (Stierlin, 1896), male, 4 = *A. gracilicollis*, female, 5 = *A. purpureus* (Poda, 1761), male, 6 = *A. purpureus*, female, 7 = *A. purpureus*, male anal sternite, 8 = *A. purpureus*, pronotal punctures, 9 = *A. gracilicollis*, pronotal punctures. Not to scale (photo T. Németh)



Figs 10–22. *Adrastus* species of Hungary: 10 = *A. axillaris* Erichson, 1841, male, 11 = *A. axillaris*, female, 12 = *A. limbatus* (Fabricius, 1777), male, 13 = *A. limbatus*, female, 14 = *A. montanus* (Scopoli, 1763), male, 15 = *A. montanus*, female, 16 = *A. pallens* (Fabricius, 1792), male, 17 = *A. pallens*, female, 18 = *A. rachifer* (Geoffroy, 1785), male, 19 = *A. rachifer*, female, 20 = *A. limbatus*, pronotum, lateral view, 21 = *A. rachifer*, pronotum, lateral view, 22 = *A. limbatus*, elytral apex. Not to scale (photo T. Németh)

SPECIES NEW TO HUNGARY

Until now, the genus *Anostirus* was represented by two species in Hungary. Both are easy to recognise: *Anostirus castaneus* (Linnaeus, 1758) has bright yellow pubescence and *A. purpureus* (Poda, 1761) has reddish dorsal vestiture. *A. gracilicollis* (Stierlin, 1896), a species with reddish pubescence and known from several European countries, was also listed from Hungary (CATE 2007). This record is almost certainly from outside present-day Hungary. While identifying the Elateridae material of the Bakony Museum of the HNHM (Zirc) three specimens were identified as *A. gracilicollis* (confirmed by J. Mertlik), with the following data: "Bakony-hg., Veszprém, 1976.IV.29, leg. Bali J., *Anostirus purpureus* (Poda, 1761), det. O. Merkl, 2005" (1 male); „Bakony, Gyulafirátót, Halas-tó környéke, 1976.V.11., leg. Bali J., *Anostirus purpureus* (Poda, 1761), det. O. Merkl, 2005" (2 females). Proposed Hungarian name: laposhátú bársonypattanó.

KEY TO THE SPECIES OF *ANOSTIRUS* KNOWN FROM HUNGARY

Modified after LAIBNER (2000)

- 1 (2) Body vestiture yellow, elytral apex black. Elytral intervals uniform (Figs 1–2). Sporadic in mountain regions *A. castaneus* (Linnaeus, 1758)
- 2 (1) Body vestiture red to orange. Third and seventh elytral intervals partly or entirely raised, rib-like.
- 3 (4) Ribs of elytral intervals 3 and 7 interrupted in middle third of elytra. Last abdominal ventrite of male simple, not constricted. Pronotal disc with punctural interspaces on average narrower than puncture diameters. Body more oval and flattened (Figs 3–4, 9) *A. gracilicollis* (Stierlin, 1896)
- 4 (3) Elytral intervals 3 and 7 raised throughout whole length. Last abdominal ventrite of male widely and shallowly constricted laterally. Pronotal disc with punctural interspaces on average wider than puncture diameters. Body more elongated, elytra more convex in lateral view (Figs 5–8). Widespread and common in hilly and mountain forests *A. purpureus* (Poda, 1761)

KEY TO THE SPECIES OF *ADRASTUS* KNOWN FROM HUNGARY

- 1 (4) Elytra dark brown or blackish.
- 2 (3) Body elongate. Pronotum flattened, elytra brown to dark brown, more than 3× longer than pronotum. Male antennomeres 4 to 10 about 2× longer than wide. Pronotum distinctly sinuate before posterior corners, posterior corners divergent. 4–6 mm (Figs 10–11). Known only from a few localities: Tokaj (KUTHY 1897), Aggtelek, Kis-Balaton, Dubicsány *A. axillaris* Erichson, 1841 (see also 7)
- 3 (2) Body shorter. Pronotum convex, elytra blackish, only about 3× longer than pronotum. Posterior corners of pronotum paler. Male antennomeres 4 to 10 less than 2× longer than wide. Pronotum sides and posterior angles parallel. 3.5–4.5 mm (Figs 14–15). Widespread in different habitats *A. montanus* (Scopoli, 1763)

- 4 (1) Elytra ochreous with dark suture.
 5 (8) Pronotum flattened.
 6 (7) Elytral striae distinct to apex, apical portion with several scattered large punctures, especially along margins. 4–6 mm (Figs 12–13, 20, 22). Widespread in different habitats
 *A. limbatus* (Fabricius, 1777)
 7 (6) Elytral striae indistinct, scattered large apical punctures absent *A. axillaris* (see also 2)
 8 (5) Pronotum convex.
 9 (10) Body elongate. Pronotal sides distinctly sinuate before posterior corners. Antennomeres 5 to 10 1.7–2× longer than wide. Body covered with bright yellow pubescence, legs and antennae yellow to ochreous. 4–5.5 mm (Figs 16–17). Widespread, preferring wet valleys, stream banks and riversides *A. pallens* (Fabricius, 1792)
 10 (9) Body shorter. Pronotal sides less sinuate, almost parallel. Antennomeres 5 to 10 1.3–1.6 times longer than wide. Legs, antennae and body vestiture yellow or rusty. 3–4.3 mm (Figs 18–19, 21). Very common in many different habitats *A. rachifer* (Geoffroy, 1785)

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