

# AN UPDATE OF THE ROMANIAN FAUNA OF COLEOPTERA: NEW RECORDS AND NOTES ON RARE AND LITTLE KNOWN SPECIES

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Abstract: First records of four species of Coleoptera (Fam. Leiodidae: *Hydnobius latifrons* (Curtis, 1840); Scarabaeidae: *Limarus zenkeri* (Germar, 1813); Zopheridae: *Pycnomerus sulcicollis* (Germar, 1824); Tenebrionidae: *Helops caeruleus* (Linnaeus, 1758) for the Romanian fauna are presented. The data on faunal distribution of the new recorded species and other rare and interesting species is provided.

Key words: Coleoptera, Carabidae, Leiodidae, Scarabaeidae, Zopheridae, Tenebrionidae, Omalidae, Romania, new records, distribution.

## 1. INTRODUCTION

The campaigns of faunal investigations carried out in the last two decades in the karst areas of the Mehedinți Plateau and Mehedinți Mountains— one of the most significant karst areas from the Southern Carpathians, have led to essential updates of the invertebrates fauna of Romania, also contributing to a better zoogeographic approach of the Carpathian invertebrates fauna (NITZU & ILIE, 2004, NAE & ILIE, 2004, STAN, 2009, NITZU et al., 2010, NAE, 2015, POPA & SUSTR, 2016). Among the identified taxa sampled in the above – mentioned campaigns, beside some rare and endemic species, one new species of Coleoptera (*Anommatus oltenicus*) was described (NITZU, 2003) and other species: one of Araneae (NAE, 2015), and four Collembola (POPA & SUSTR, 2016) were recorded for the first time in the Romanian Fauna.

Herein, we present new records of Coleoptera species for the Romanian fauna which resulted from the recent collecting campaign (2013–2014) in karst areas from the Mehedinți Mountains. For some other rare or/and little known species, for which only old, incomplete or inaccurate data were available up to now, we provide new and reliable eco-faunistic data. For information about the distribution and recording of species in the Romanian Fauna, we used the publications of MARCU, 1928, 1929; MONTANDON, 1906, 1908, FLECK, 1904, CSIKI, 1946, IENIȘTEA,

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1975, 1982; NITU, 2006, PETRI, 1912, 1926, LOBL & SMETANA, 2003, 2007, 2008), LOBL & LOBL, (2015, 2016), and the other works quoted in this paper.

## 2. MATERIAL AND METHODS

In the period September 2013 – September 2014 we monthly sampled soil and cave-dwelling species from the Motru Sec karst area (the Mehedinți Plateau Geological Park), using Barber traps with ethylic alcohol as preservative solution. The traps were verified and emptied monthly. The material was sorted and identified to species and subspecies level and preserved in 70% ethanol.

The specimens are preserved in the Coleopteran Collection of the “Emil Racoviță” Institute of Speleology of the Romanian Academy.

The species presented in this article were sampled in riparian sylvan habitat nearby Lazului Cave, situated in a zone with sub-Mediterranean climate (CĂLINESCU, 1969) and covered by a mixed forest of beech and oak.

## 3. RESULTS AND DISCUSSIONS

A total of 143 species of Coleoptera were identified. Of these, four are for the first time recorded in the Romanian fauna with precise collecting data, two of them being doubtfully cited for the Romanian fauna in old papers (KUTHY, 1869) and without any data about the collecting sites (KASZAB, 1957, DAJOZ, 1977). Other species are rare in Romania and in the Central Europe, their presence indicating well preserved ecosystems. In this article we present data only of the above mentioned species.

### 3.1. NEW RECORDS AND CONFIRMED SPECIES FOR THE ROMANIAN FAUNA

**Family Leiodidae** Fleming, 1821; Subfamily Leiodinae, Fleming, 1821; Tribus Sogdini Lopatin 1961

*Hydnobius latifrons* (Curtis, 1840) (Fig.1)

Material: Motru Sec – Lazului area, 07.7.2014; coordinates: 45<sup>o</sup>04'16" N; 22<sup>o</sup>45.51'4" E. Alt: 370 m. Leg. Nitzu E.

Distribution: Austria, Britain, Bulgaria, Croatia, Czech Republic, Finland, France, Germany, Italy, W-Russia, Norway, Poland, Slovakia, Sweden, Switzerland.  
***First record for Romania.***

**Family Scarabaeidae** Latreille, 1802; Subfam. Aphodiinae Leach, 1815; Tribus Aphodiini Leach, 1815

*Limarus zenkeri* (Germar, 1813) (Fig. 2)

Material: Motru Sec – Lazului area, 07.7.2014; coordinates: 45°04'16" N; 22°46'4" E. Alt: 370 m. Leg. Nitzu E.

Distribution: Austria, France, and Italy (southern to Calabria), rare in North – Holland (KRIKKEN, 1978) and Central Europe (Germany) (BALTHASAR, 1964), England, Denmark, Croatia (Dalmatia), Bosnia, Herzegovina, Hungary, Poland. No records for Romania (PANIN 1954, HORION, 1958, IENISTEA, 1982). A coprophagous species specialised on feces of Cervidae (BALTHASAR, 1964.) **First record for Romania.**

**Family Zopheridae**; Subfamily Zopherinae Solier, 1834; Tribus Pycnomerini Erichson, 1945

***Pycnomerus sulcicollis*** (Germar, 1824) (Fig. 3)

Material: Motru Sec – Lazului area, 06.26.2014; coordinates: 45°04'16.3" N; 22°45'50" Alt: 370 m. Leg. Nitzu E.

Distribution: A species with disjunct range – Belgium, European part of Turkey, Greece, Hungary. Cited by DAJOZ (1977) for Bulgaria and Romania, without any other specifications. It was considered absent in the Romanian fauna in *Fauna Europaea database* ([https://fauna-eu.org/cdm\\_dataportal/taxon/99c78548-e875-454a-9f86-f78a63b9362f](https://fauna-eu.org/cdm_dataportal/taxon/99c78548-e875-454a-9f86-f78a63b9362f)). **First reliable record for Romania.**



Fig 1. Habitus of *Hydnobius latifrons*.  
Body length: 2.13 mm



Fig 2. Habitus of *Limarus zenkeri*.  
Body length: 4.28 mm

**Family Tenebrionidae** Latreille, 1802; Subfamily Tenebrioninae Latreille, 1802; Tribus Helopini Latreille, 1802

***Helops caeruleus*** (Linnaeus, 1758) (Fig. 4)

Material: Motru Sec – Lazului area, 07.17.2014; coordinates: 45°04'16" N; 22°46'4" E. Alt: 370 m. Leg. Nitzu E.

Distribution: Albania, Bosnia and Herzegovina, Bulgaria, Corsica, Croatia, France, Greece, Italy (Italian mainland) (PORTA, 1934), Anatolia (NABOZHENKO & LOBL, 2008), Georgia (RADDE, 1899, NABOZHENKO & KESKIN, 2017). The species has been mentioned only by KASZAB (1957) for Bihor and Banat without any other specifications. *H. caeruleus* was considered as “absent” in the Romanian fauna in *Fauna Europaea database* (<https://fauna-eu.org>). **First reliable record for Romania.**



Fig. 3. Habitus of *Pycnomerus sulcicollis*.  
Body length: 3.25 mm



Fig. 4. Habitus of *Helops caeruleus*.  
Body length: 15.5 mm

### 3.2. RARE AND LITTLE. KNOWN SPECIES

**Family Carabidae** Latreille, 1802, Subfamily Trechinae Benelli, 1810, Tribus Bembidiini Stephens, 1827

***Bembidion (Ocydromus) subcostatum*** Motschulsky, 1850

Material: Bulba, 05.27.2013; coordinates: 44°59'33.7" N; 22°46'49.8" E. Alt: 325 m. Leg. Nitzu E.

Species distributed in the Balkans, Asia Minor, Central Europe. In Romanian fauna only the subspecies *B. subcostatum vau* (Netolitzky, 1913) was recorded in Sinaia-Cumpatu (the Bucegi Mountains), Nucet and Ciucurova (NIȚU, 2006). This is the first record in the Mehedinți Mountains.

Subfamily Pterostichinae Bonelli, 1810, Tribus Pterostichini Bonelli, 1810

***Myas chalybaeus*** (Palliard, 1825)

Material: Motru Sec – Lazului area, 05.15.2013; coordinates: 45°04'16" N; 22°46'4" E. Alt: 370 m. Leg Nitzu E.

Species distributed in Italy, The Balkan Peninsula and South-Eastern Europe, rare in the Romanian fauna. Cited by CSIKI (1946) for Domogled – Băile Herculane and Dubova, and by NITZU (2001) for Dobrogea (Canaraua Fetii).

**Family Leiodidae** Fleming, 1821; Subfamily Leiodinae Fleming, 1821; Tribus Pseudoliodini Portevin, 1926

***Colenis immunda*** (Sturm, 1807) (Fig. 5)

Material: Motru Sec – Lazului area, 04.17.2014; coordinates: 45°04'16" N; 22°45'4" E. Alt: 373 m. Leg. Nitzu E.

Distribution: Species with European distribution, cited by PETRI (1912) for Transylvania (without any other mentions of sites) but given as *absent* in Romania in *Fauna Europaea database* (<https://fauna-eu.org>). This species is known feeding with fruit bodies of truffles (*Tuber aestivum*) (BRATEK and al. 2010). **First concrete record for Romania.**



Fig. 5. Habitus of *Colenis immunda*.  
Body length: 1.5 mm

**Family Omalidae Lacordaire, 1857*****Omalisus fontisbellaquaei*** Geggroy, 1785

Material: Motru Sec – Lazului area, 07.17.2014; coordinates: 45°04'16.3" N; 22°45'50" E. Alt: 366 m. Leg. Nitzu E.

Distribution: Species known from the central and southern Europe, recently recorded in Albania (Nemeth et al. 2014). In Romania it was recorded in Prahova, (FLECK, 1904) Hațeg, Făgăraș, Brașov, Mureș, Șerbota, Bistrița (PETRI, 1912),

Cârța (Buteanu 1100 m Alt.) (PETRI, 1926). The adults are planticolous and their larvae feed with snails. The species is considered indicator for well conserved damp meadows. In the present, is relatively rare and isolated in Romania and also in Czech Republic (TYR & DVORAK, 2013).

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