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New Records of Ceutorhynchinae (Insecta: Coleoptera, Curculionidae) for the Fauna of Turkish Thrace and Türkiye

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ABSTRACT

New records for Türkiye of Ceutorhynchinae weevils are reported. *Poophagus sisymbrii* (Fabricius, 1977) is reported for the first time from Türkiye. In addition, *Datonychus melanostictus* (Marsham, 1802), *Pelenomus commari* (Panzer, 1795) and *Rhinonchus bruchoides* (Herbst, 1784), already known from the Anatolian part of Türkiye, are recorded for the first time from Turkish Thrace. Additional localities of a few species already known from Thrace region are also given.

Keywords: New records, ceutorhynchines, *Poophagus*.

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INTRODUCTION

Currently, 270 species of the subfamily Ceutorhynchinae Gistel, 1848 are recorded from Türkiye (Gültekin, 2014; Aydın & Hacet, 2016a; Korotyaev et al, 2017; Hacet & Colonnelli, 2019; Alonso-Zarazaga et al, 2023). Of these, 55 species have been recorded from Turkish Thrace, which is the European part of Türkiye (Hacet & Colonnelli, 2019; Alonso-Zarazaga et al, 2023).

Of the six tribes of Ceutorhynchinae (Amalini Wagner, 1936, Ceutorhynchini Gistel, 1848, Mononychini LeConte, 1876, Phytobiini Gistel, 1848, Hypurini A. Schultze, 1902 and Scleropterini A. Schultze, 1902) recorded in Türkiye, Ceutorhynchini and Phytobiini are represented by the greatest number of species, as in the rest of the world. The absolute majority of ceutorhynchines are terrestrial, excepting a few species of Ceutorhynchini and several ones of Phytobiini which are aquatic or semi-aquatic (Morris, 2008). Aquatic habitats are nowadays places where pollution is fast spreading over large areas. For more effective conservation studies and for understanding consequences of climate change on the distribution of living distribution, ecosystem components should be determined as soon as possible. Therefore, wetlands are interesting habitats to explore also for Ceutorhynchinae.

In this note are reported four semi-aquatic species, one of them previously unrecorded from both Asian and European parts of Türkiye. This last belongs to the genus *Poophagus* Schoenherr, 1837 which was thus far unknown from the whole of Türkiye. Three other ones are recorded for the first time from the European part of Türkiye.

MATERIAL AND METHODS

This note is mainly based on material collected by the first author and Meral Fent in Turkish Thrace in 2016, 2018, 2019 and 2020. Samples were obtained by using sweeping net especially from plants growing on streamside. Specimens were initially preserved in 70% ethyl alcohol, and then they were mounted on tips of triangular labels and labelled. The material is preserved in the Zoological Museum in the Biology Department of Trakya University, Edirne, Türkiye. Collecting locations in Turkish Thrace are shown in Fig.1. Species are cited by tribe in alphabetical order, and also distribution and a short description are given for the newly recorded ones.

Localities

Edirne province. Loc. 1: Meriç-Olacak, 18.5.2016, 47 m, 41°12.55'N 26°28.25'E. Loc. 2: Kırcasalih-Tahal (Suvat Lake), 8.6.2020, 63 m, 41°25.868'N 26°51.764'E. Loc. 3: Süloğlu-Sülecik, along a stream, 12.6.2020, 196 m, 41°48.908'N 26°50.700'E.

Kırklareli province. Loc. 4: Soğucak, streamside, 25.5.2018, 271 m, 41°38.07'N 27°39.23'E. Loc. 5: Pınarhisar-Poyralı, stream, 25.5.2018, 246 m, 41°37'47'N 27°35.51'E. Loc. 6: Center-Koyunbaba, stream, 12.6.2020, 152 m, 41°43.588'N 27°6.048'E. Loc. 7: Ürünlü, streamside, 7.7.2019, 115 m, 41°40.430'N 26°59.478'E.

İstanbul province. Loc. 8: Mimar Sinan, streamside, 20.6.2019, 60 m, 41°9.448'N 28°55.260'E. Loc. 9: Çatalca entrance-Karasu stream, 3.7.2019, 62 m, 41°10.378'N 28°26.204'E. Loc. 10: Çatalca-İnceğiz bridge, stream, 4.7.2019, 39 m, 41°10.938'N 28°24.216'E. Loc. 11: road to Danamandıra from Çatalca, streamside, 10.7.2019, 232 m, 41°19.327'N 28°15.948'E.

Tekirdağ province. Loc.12: Malkara-Kozyörük, side of Güneşli brook, 15.6.2020, 120 m, 41°0.133'N 26°56.557'E.

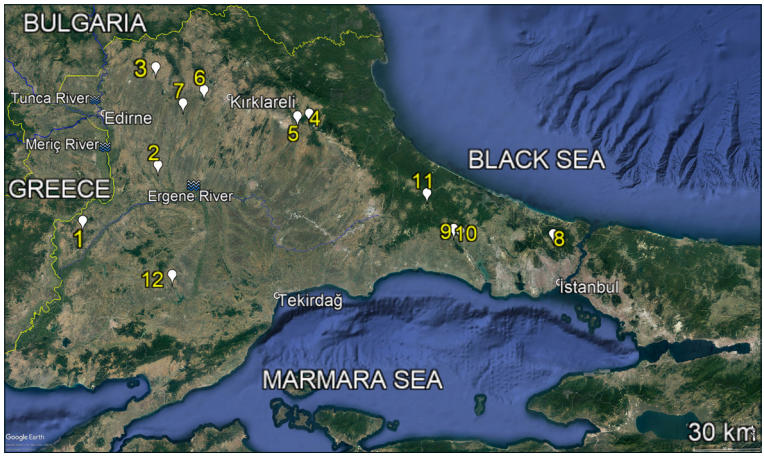

Figure 1. Localities, the study material was sampled in Turkish Thrace. The numbers correspond to the localities (from Google Earth).

RESULTS

Ceutorhynchini Gistel, 1848

*Amalorrhynchus melanarius (*Stephens, 1931)

Material examined. İstanbul province: Loc. 9, 1 ♂.

Comments. Species known only from one locality in Türkiye at the present (Hacet & Colonnelli, 2019). This second record is from a different locality of the İstanbul province. *Amalorrhynchus melanarius* is to be found in semiaquatic habitats (Morris, 2008), and the collected single specimen was swept from plants growing on the banks of a stream.

Ceutorhynchus pallidactylus (Marsham, 1802)

Material examined. Edirne province: Loc. 2, 1 ♀; Tekirdağ province: Loc. 12, 2 ♂♂, 1 ♀.

Comments. This species has been previously reported from Edirne, İstanbul and Kırklareli provinces in the Turkish Thrace (Hacet & Colonnelli, 2019). This is an additional locality of the Edirne province, and a new record for Tekirdağ province.

***Ceutorhynchus viridipennis* C.Brisout de Barneville, 1869**

Material examined. Edirne province: Loc. 3, 1 ♂.

Comments. This species has been reported from Edirne and Çanakkale provinces in the Turkish Thrace (Hacet & Colonnelli, 2019). This is an additional locality of the Edirne province.

***Datonychus melanostictus* (Marsham, 1802)**

Material examined. Kırklareli province: Loc. 6, 1 ♀.

Distribution. Europe: Austria, Belgium, Bulgaria, Czech Republic, Denmark, England, France, Germany, Greece, Hungary, Italy, Liechtenstein, Luxembourg, Moldavia, The Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, South European Russia, Spain, Sweden, Switzerland, Ukraine. North Africa: Algeria, Canary Islands, Morocco. Asia: Armenia, Azerbaijan, Georgia, Iran, Jordan, Kyrgyzstan, Syria, Turkmenistan, Türkiye, Uzbekistan (Alonso-Zarazaga et al, 2023).New record for Turkish Thrace.

Short description. Body elongate, about 3 mm long. Integument piceous, tarsi reddish. Dorsal side covered with brownish and whitish scales on pronotum and elytra, here forming an arrow-like pattern on basal third, the arms of the arrow pointing forward towards humeri, plus a quite confused pale band on elytral posterior third. Underside clothed by pale greyish scales. Femora toothed, tarsal claws appendiculate.

Comments. No records of any *Datonychus* Wagner, 1944 were known from Turkish Thrace up to present. Wetlands, and wet areas even inside agricultural areas are habitats where the species occurs on the Lamiaceae *Lycopus europaeus* L. and *Mentha* spp. (Colonnelli, 2004; Morris, 2008), both genera of plants are recorded from the Turkish Thrace (Tübives, 2022).

***Hadroplontus trimaculatus* (Fabricius, 1775)**

Material examined. Kırklareli province: Loc. 4, 1 ♀.

Comments. This species has been reported from the Edirne province in the Turkish Thrace (Aydın & Hacet, 2016b; Hacet & Colonnelli, 2019). There is another record from Kırklareli province (Lodos et al, 1978), the present one is from a new locality in the Kırklareli province after some 40 years.

***Microplontus rugulosus* (Herbst, 1795)**

Material examined. Edirne province: Loc. 1, 2 ♀♀.

Comments. Species already known from the Edirne province in the Turkish Thrace (Aydın & Hacet, 2016b; Hacet & Colonnelli, 2019). This is an additional locality of the same province.

***Mogulones geographicus* (Goeze, 1777)**

Material examined. Kırklareli province: Loc. 5, 1 ♂.

Comments. This species has been registered from the Edirne province in the Turkish Thrace by Aydın & Hacet (2016b) and Hacet & Colonnelli (2019). This is a new locality for the Kırklareli province.

Poophagus sisymbrii (Fabricius,1777)

Material examined. İstanbul province: Loc.9, 1 ♀.

Distribution. Europe: Austria, Belgium, Belarus, Bulgaria, Croatia, Czech Republic, Denmark, England, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Luxembourg, Moldavia, The Netherlands, Poland, Romania, Central and South European Russia, Slovakia, Slovenia, Sweden, Ukraine. Asia: Kazakhstan, East Siberia, Russian Far East, West Siberia. Nearctic Region: Canada (Colonnelli, 2004; Alonso-Zarazaga et al, 2023). New record for Türkiye.

Short description. Body elongate (collected sample: 3.2 mm), black, covered with grey scales on head, pronotum, elytra, legs, and underside of body. Antennae with 7-segmented funicle and scape gradually expanded from the midpoint. Central area of pronotum, disc of elytra and two patches below shoulders dark. Tibiae unarmed, tarsal claws simple.

Comments. The genus includes three species, all from the Palearctic (Alonso-Zarazaga et al, 2023). Of them, *P. hopffgarteni* Tournier, 1873 occurs from central-eastern Europe to West Siberia, and *P. robustus* Faust, 1881 is distributed in Eastern Europe, Kazakhstan and West Siberia. The distribution of *P. sisymbrii* includes almost all the Palearctic Region, being its presence in the Nearctic Region (Quebec, Canada) due to an involuntary introduction (O'Brien & Wibmer, 1982) from Europe. *Poophagus sisymbrii* is related to wetlands, occurring at the side of streams, rivers and canals (Morris, 2008). Host plants of this species are as the genera *Nasturtium* W.T. Aiton and *Rorippa* Scop. of Brassicaceae (Colonnelli, 2004; Morris, 2008). The specimen collected in Turkish Thrace was swept by plants growing at the side of a brook, but its host was not identified. *Nasturtium officinale* W.T. Aiton, *Rorippa austriaca* (Crantz) Besser, *R. thracica* (Gris.) Fritsch, and *R. sylvestre* (L.) Bess. are recorded from İstanbul province (Tübives, 2022), possibly being one or more of them the host of *P. sisymbrii* in Türkiye. The finding in the province of İstanbul represents the easternmost record of the species in southeastern Europe.

Phytobiini Gistel, 1848

Pelenomus commari (Panzer, 1795)

Material examined. Kırklareli province: Loc. 7, 2 ♀♀.

Distribution. Europe: Austria, Belarus, Belgium, Bosnia Herzegovina, Bulgaria, Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Moldavia, The Netherlands, Norway, Poland, Romania, European Russia, Serbia, Slovakia, Slovenia, South European Russia, Spain, Sweden, Switzerland, Ukraine. Asia: Kazakhstan, Türkiye, West Siberia (Alonso-Zarazaga et al, 2023). New record for Turkish Thrace.

Comments. Although four species (including *P. commari*) of the genus *Pelenomus* C. G. Thomson 1859 are reported from Türkiye, there is previously any record of the genus from the Turkish Thrace (Hacet & Colonnelli, 2019; Alonso-Zarazaga et al, 2023). The habitats in which the species occur are wetlands, as in *Amalorrhynchus melanarius* and *Poophagus sisymbrii* recorded above. Turkish Thrace is the easternmost record of *P. commari* in southeastern Europe. The specimen was collected sweeping plants at the the side of a brook. The Rosaceae *Potentilla palustris* L., *Sanguisorba officinalis* L., *Alchemilla vulgaris* L., and the Lythraceae *Lythrum salicaria* L. are plants where *P. commari* usually occurs (Colonnelli, 2004; Morris, 2008).

***Rhinonchus bruchoides (*Herbst, 1784)**

Material examined. Kırklareli province: Loc. 7, 1 ♂; İstanbul province: Loc. 8, 25 ♂♂, 20 ♀♀; Loc. 10, 1 ♀.

Distribution. Europe: Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, England, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Luxembourg, Moldavia, The Netherlands, Norway, Poland, Portugal, Romania, European Russia, Serbia, Slovakia, Slovenia, South European Russia, Spain, Sweden, Switzerland, Ukraine. Asia: northern China, Georgia, Japan, Kazakhstan, Mongolia, East Siberia, Russian Far East, Türkiye, West Siberia. Nearctic Region: United States (Colonnelli, 2004; Alonso-Zarazaga et al, 2023). New record for Turkish Thrace.

Comments. Two species of the genus *Rhinoncus* Schoenherr, 1925 are known from Turkish Thrace up to present (Hacet & Colonnelli, 2019). *Rhinoncus bruchoides* is recorded for the first time from the region. This species usually occurs in wedlands, where its host plants are *Polygonum lapathifolia* L. and *P. hydropiper* L. (Morris, 2008). Both above species of Polygonaceae are recorded from İstanbul province, and furthermore *Polygonum salsugineum* Bieb. is known from Kırklareli province (Tübives, 2022).

***Rhinoncus perpendicularis (*Reich, 1797)**

Material examined. Kırklareli province: Loc. 7, 4 ♂♂, 4 ♀♀; İstanbul province: Loc. 11, 1 ♀.

Comments. This species has been reported from Edirne province in the Turkish Thrace (Aydın & Hacet, 2016b). Both the above localities where this weevil occurs are other provinces located in the European part of Türkiye.

DISCUSSION

With the record of *Poophagus* the number of Ceutorhynchinae genera increases to 48 from 47 in Türkiye. Furthermore, the genera number known from Turkish Thrace increases to 24 from 21 with the finding of a *Datonychus*, a *Poophagus* and a *Pelenomus,* and the species number is now 59 with four new records for the region (*Datonychus melanostictus*, *Poophagus sisymbrii*, *Pelenomus commari* and *Rhinoncus bruchoides*). The paucity of records of wetland species is probably due to underexploration of these habitats, well worthy of further investigations in the future.

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