

**First records of *Pachyrhinus lethierryi lethierryi* (Desbrochers, 1875)
and *Otiorhynchus armadillo* (Rossi, 1792) (Coleoptera: Curculionidae: Entiminae)
from Turkey**

Bariş ÇERÇİ

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Abstract. *Pachyrhinus lethierryi lethierryi* (Desbrochers, 1875) and *Otiorhynchus armadillo* (Rossi, 1792) are recorded for the first time from Turkey. Habitus and aedeagi of both species are illustrated. The distribution and biology of the recorded species are also discussed.

Key words: Coleoptera, Curculionidae, Entiminae, *Otiorhynchus*, *Pachyrhinus*, new records, Turkey.

With about 62,000 species of Coleopteran, Weevils (Coleoptera: Curculionoidea) are one of the most diverse animal superfamily on the earth. The subfamily Entiminae, with more than 12,000 described species, is the largest Weevil group (Oberprieler et al. 2007). Beside its high diversity it also distributes in all biogeographical regions of the world (Thompson 1992).

The genus *Pachyrhinus* (Schoenerr 1823) belonging to the tribe Polydrusini (Schoenerr 1823) of the subfamily Entiminae (Schoenerr 1823) has a wide distribution in the Nearctic and Palearctic region from West Canada to Japan (Alonso-Zarazaga 1999). It has a total of 29 species described (Löbl & Smetana 2013) with 9 species in Europe. 6 of them are endemic to the Iberian Peninsula. Only one species of the genus was recorded from Turkey up to now.

The *Otiorhynchus*-complex comprises about 1,500 species and its systematic is very complicated (Magnano 1998). About 200 species are recorded from Turkey so far, and common and widespread species of the genus are mostly important pests of some agricultural crops. The species of the genus feed on plants at the larval stage. While the adults of most of the species feed on fungus, some of the species feed on agricultural crops and cause big damages in agricultural areas (Keskin & Çevik 2007).

The present paper is based on material collected in the Istanbul province of Turkey. The reference specimens for the records in this study are deposited in the private collection of the author. The specimens and aedeagi were photographed using a biological microscope (Celestron 44125 Microscope) combined with a digital camera (Canon SX150).

***Pachyrhinus lethierryi lethierryi* (Desbrochers, 1875)** (Habitus, Fig. A)

Material examined: İstanbul: 1♂, 17. -IV. -2015; 1♂, 08. -V. -2015; 1♂, 1♀, 23. -V. -2015; 1♂, 1♀, 29. -V. -2015, Esenyurt, 41° 3' 02"N, 28° 40' 39"E, 50 m, leg. B. Çerçi;

The genus *Pachyrhinus* (Schoenerr, 1823) is represented by 9 species in Europe. 6 of these species [*Pachyrhinus cedri* (Chevrolat, 1866), *P. dentipes* (Seidlitz, 1867), *P. eusomoides* (Desbrochers, 1904), *P. glabratus* (Chevrolat, 1866), *P. javeti* (Desbrochers, 1871), *P. lopezi* (Hoffmann, 1956)] are only known from the Iberian Peninsula (Löbl & Smetana 2013). The most widespread species of this genus is *P. squamulosus* (Herbst, 1795) which is recorded from Austria, Bosnia and Herzegovina, Hungary, Germany, Bulgaria, Croatia, Liech-

tenstein, Luxembourg, Czech Republic, Slovakia, Slovenia, San Marino, mainland Italy, Romania, Switzerland, Vatican City and recently from England (Löbl & Smetana 2013). *P. squamulosus* (Herbst, 1795) was also the only species of this genus occurring in Turkey until this new record of *P. lethierryi lethierryi* (Desbrochers, 1875). *P. squamulosus* (Herbst, 1795) can be distinguished from *P. lethierryi lethierryi* (Desbrochers, 1875) by having patterns on its elytra because *P. lethierryi lethierryi* (Desbrochers, 1875) has plain green elytra (Fig. A).

P. lethierryi lethierryi (Desbrochers 1875) was originally known from the south of France and the Tyrrhenian islands Corsica and Sardinia (Hoffmann 1950) and Sicily (Hoffmann, 1950, confirmed by Abbazzi & Maggini 2009). Due to its good flying skills it spreaded fast in Europe and is now known from the north of France (Neid 1966, Tempère & Péricart 1989, Delalande 2002), Germany (Rheinheimer, 2003, Germann et al. 2005), Switzerland (Germann 2005), England (Plant et al. 2006), the Netherlands (Heijerman, 2008), Luxembourg (Braunert 2009), Belgium (Delbol 2009), Spain (Germann 2013) and Turkey as documented in this report.

Biology and host plant: This species live on Cupressaceae trees such as *Cupressus* L., *Chamaecyparis* Spach, *Thuja* L. and *Juniperus* L. Larvae live in the soil in roots of the host plant where they feed. Adults slip out from pupa in spring and appear on the branches of the host plant between the middle of April and June. Then the eggs are laid and the adults die during the summer (Alziar 1977).

The specimens collected by the author were found on a Cupressaceae tree (genus and species is unknown) which is located in a densely populated suburban neighbourhood.

Comments: This species can be confused at first sight with *Dichorhynchus korbi* (Schilsky 1911) but the scrobes are laterally open in *Pachyrhinus* unlike in *Dichorhynchus*. (Fig. B). The male genitalia of these species are different especially at the apex (Fig. C-D). See (Germann 2013; Fig. 2, K-O) for the male genitalia of *D. korbi* (Schilsky 1911).

***Otiorhynchus armadillo* (Rossi, 1792)** (Habitus, Fig. E)

Material examined: İstanbul: 1♂, 04. -V.-2015; 1♂, 15.-VI.-2015; 1♂, 19.-VI.-2015, Esenyurt, 41° 3' 02"N, 28° 40' 39"E, 50 m, B. Çerçi leg.

Although *O. armadillo* (Rossi, 1792) is a widespread species in Europe and is known from Austria, Croatia, Czech Republic, France, Germany, Hungary, Italy, Poland, Roma

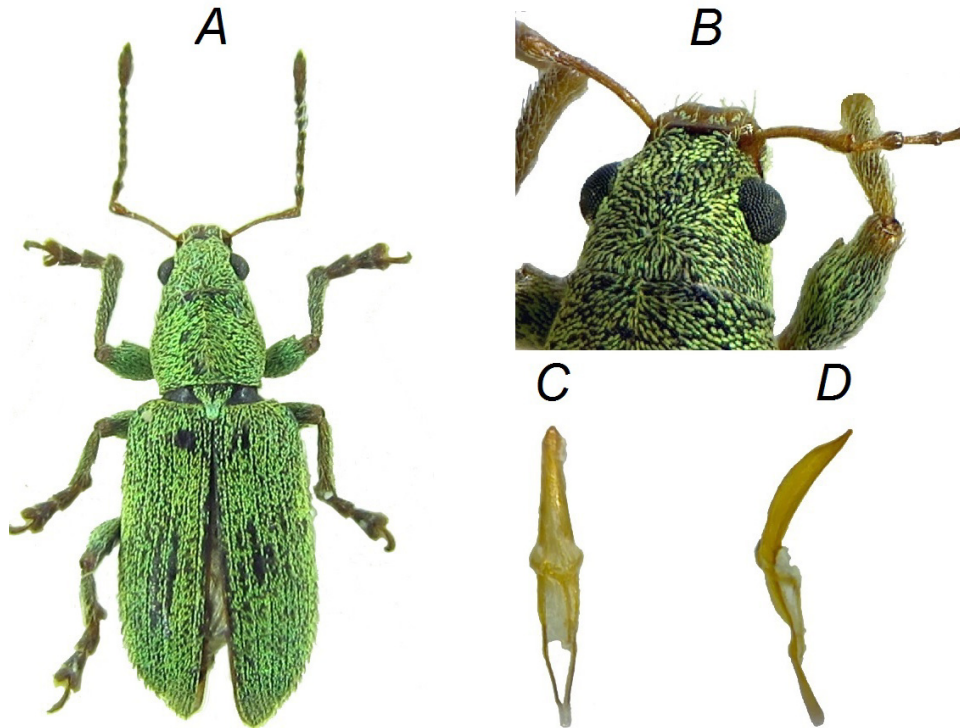


Figure A-D: Fig. A-*Pachyrhinus lethierryi* (Desbrochers, 1875) (♂) dorsal view; Fig. B-Rostrum of *P.lethierryi* (Desbrochers, 1875) (♂); Fig. C-Male genitalia (Aedeagus) of *Pachyrhinus lethierryi* (Desbrochers, 1875) (dorsal view); Fig. D- idem lateral view

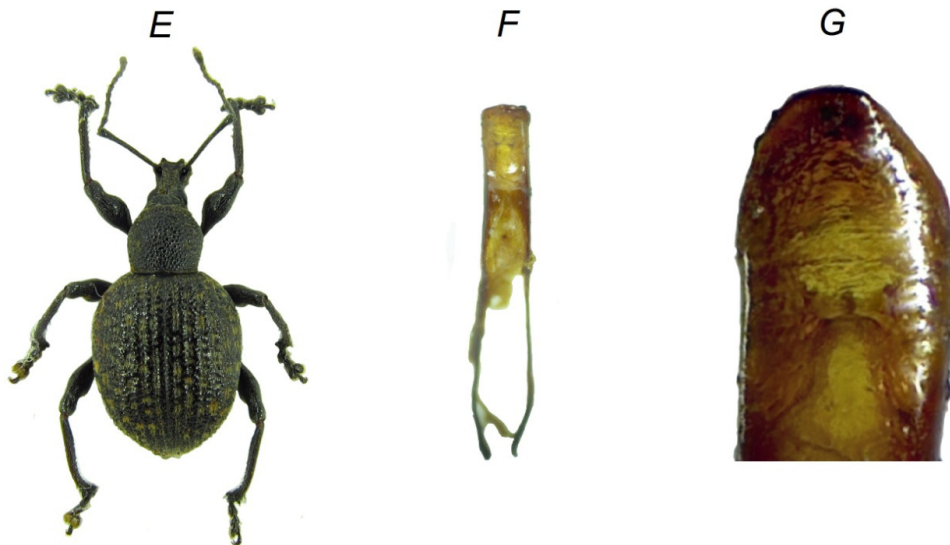


Figure E-G: Fig. E-*Otiorhynchus armadillo* (Rossi,1792)(♂); Fig. F-Male genitalia (Aedeagus) of *O. armadillo* (Rossi,1792); Fig. G-idem apex

nia, Slovenia, the Netherlands, Sweden, Switzerland, the United Kingdom (Magnano et al. 2008), Norway (StaverlØkk 2010), it has not been recorded from Turkey until now. Because of having a lot of host plants and due to the trade of these plants *O. armadillo* (Rossi 1792) can spread fast.

Host plant: Many *Otiorhynchus* (Germar, 1822) species can cause serious damage to a lot of plants and reach large numbers in quite a short time. The adults often feed on the foliage of different host plants making round cuts along the leaf edge, while the larvae feed on the roots.

The species has a big number of host plants. Barclay (2003) and Heijerman & Hellingman (2008) reported from

the UK and the Netherlands 25 different host plants which are from the families Caprifoliaceae, Rosaceae, Ericaceae, Betulaceae, Hydrangeaceae, Oleaceae, Liliaceae, Ranunculaceae, Caprifoliaceae, Asteraceae, Celastraceae, Saxifragaceae, Polygonaceae, Aquifoliaceae, Araliaceae, Lauraceae.

Comments: *O. armadillo* (Rossi, 1792) can be confused with *O. pseudonothus* (Apfelbeck, 1897) (= *O. salicicola* (Heyden, 1908) sensu Magnano & Alonso-Zarazaga in Löbl & Smetana 2013), but it can be distinguished by having a wider abdomen and elytra and a blunt apex of the male genitalia (Fig. F-G).

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