



New data on some Curculionoidea (Coleoptera: Anthribidae, Apionidae, Curculionidae) from Sardinia*

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Abstract

Torneuma curtulum vastum Stüben, 2007 (Curculionidae) is raised to species level (**stat. rev.**). *Choragus aurolineatus* Abeille de Perrin, 1893, *Melanopsacus grenieri* (C. Brisout, 1867) (Anthribidae), *Hemitrichapion pavidum* (Germar, 1817), *Holotrichapion barbirostre* (Hoffmann, 1952) (Apionidae), *Ceutorhynchus resedae* (Marsham, 1802), *Tychius cupriferoideus* (Ragusa, 1922) and *Orchestes erythropus* (Germar, 1821) (Curculionidae) are newly recorded from Sardinia. *Melanopsacus grenieri* is newly recorded from Sicily, and its association with the pyrenomycete fungus *Hypoxylon mediterraneum* is newly reported.

Key words: Apionidae, Anthribidae, Curculionidae, Sardinia, Sicily, faunistics, *Torneuma*

Introduction

The present note is primarily based on the researches made in Sardinia by the Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale “Bosco Fontana” of Verona (Italy) during the years 2003 to 2006. Collecting methods and description of habitats are explained by Mason *et al.* (2006) and are not repeated here.

According to Colonnelli (2003, and unpublished data), taxa of Curculionoidea of specific or subspecific rank occurring in Italy (Sardinia and Sicily included) approach the number of 2,300.

In Sardinia over 600 taxa are recorded (Abbazzi & Osella 1992, and unpublished data), and every year additional species – some new to science – are indicated from this large island. The number of endemics (98 species by the end of 2006, according to our unpublished data) is noteworthy, and it is increasing as soon as exploration of quite remote mountain areas of the relatively unspoiled and little known interior takes place. The goal of this paper is to provide new data on the taxonomy, distribution or ecology of eight species recently collected in Sardinia.

The nomenclature follows Colonnelli (2003) and Rheinheimer (2004). Taxa within each family are listed alphabetically. Botanic nomenclature follows Conti *et al.* (2005).

The following abbreviations are used: dint. = environs; ex = specimen/s; prov. = province. Acronyms of specimen depositories are: CCO = Enzo Colonnelli collection, Rome, Italy; CGN = Gianluca Nardi collection, Cisterna di Latina, Italy; CNBFVR = Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale “Bosco Fontana”, Verona, Italy.

List of taxa

Anthribidae

Choragus aurolineatus Abeille de Perrin, 1893

Material examined. Sardinia: Carbonia-Iglesias prov., Iglesias, Marganai, 700 m, UTM 32S 0462853 4355582, 5.VIII–13.IX.2005, G. Chessa leg., Malaise trap, 1 ex (CNBFVR); same data but 16.VI–14.VII.2006, 2 ex (CCO CNBFVR); Medio Campidano prov., Villacidro, Rio Cannisoni, 401 m, UTM 32S 468459 4362806, 19–24.V.2006, M. Bardiani, D. Birtele, P. Cornacchia & D. Whitmore leg., Malaise trap, 1 ex (CCO).

Notes. The occurrence of this anthribid in Italy and in Europe was firstly reported by Abbazzi *et al.* (1999), a series of specimens having been collected in two localities of Tuscany, central Italy. No additional data were reported by Pedroni (2004), Rheinheimer (2004) or Alonso-Zarazaga (2004).

Four specimens were caught by Malaise traps at two localities (see above): these are the first records for Sardinia. At the first site this species was trapped in a *Quercus ilex* (Fagaceae) forest, at the second in a clearing with *Q. ilex* and *Q. suber* trees along a stream.

Nothing is known on the biology of this rare species, only occurring in Algeria (Rheinheimer 2004) and in the above-mentioned Italian regions.

Melanopsacus grenieri (C. Brisout, 1867)

Material examined. Sardinia: Medio Campidano prov., Villacidro, Rio Cannisoni, 401 m, UTM 32S 468459 4362806, 19–24.V.2006, P. Cornacchia, M. Bardiani, D. Birtele & D. Whitmore leg., UV light trap, 5 ex (CCO, CNBFVR). **Tuscany:** Arezzo, downtown, Via Curtatone, 16.IV.2001, G. Nardi leg., on a parked car, 1 ex (CGN). **Latium:** Latina prov., San Felice Circeo, Peretto, 190 m, UTM 33 T 335435 4567895, 1–15.VI.2005, Cecchetti & A. Noal leg., Malaise trap, 1 ex (CNBFVR); Viterbo prov., Acquapendente, Monterufeno, from oak with *Hypoxylon*, 25.III.1995 (larvae and pupae), 20.IV.1995 (adults), A. Vannini leg., 4 ex (CGN). **Sicily:** Palermo prov., Bosco della Ficuzza, Pulpito del Re, 865 m, UTM 33 S 358963 4194405, 20.V.2004, G. Nardi leg., sweep net, 1 ex (CNBFVR).

Notes. This species was first indicated for Italy by Abbazzi *et al.* (1999, as *Araecerodes grenieri*) based on a specimen reared from tiny branches of *Quercus suber* collected in northern Latium, central Italy. Pedroni (2004) recorded a pair of specimens from Lombardy, northern Italy, moving the species to *Melanopsacus* Jordan on the base of a personal communication by the Czech specialist Miloš Trýzna; this new combination was also formally made in the same year by Rheinheimer (2004), both authors not agreeing with the synonymy of *Melanopsacus* with *Araecerodes* Blackburn proposed by Zimmerman (1994), followed instead by Alonso-Zarazaga (2004).

Five specimens of *M. grenieri* were collected in Sardinia by UV light trap near *Quercus ilex* and *Q. suber* trees along a stream, and this is the first record for the island. A single specimen was hand-collected in Sicily in a clearing of a *Q. suber* forest, being a new record for this region, whereas the Tuscan record may be occasional, the single specimen having been collected on a car.

Other localities are in Latium, where one specimen from the Latina province was collected by a Malaise trap placed in a *Q. ilex* forest with isolated *Q. suber* trees (San Felice Circeo, Circeo National Park) (*cf.* Mason *et al.* 2006), whereas those from the Viterbo province were already recorded as *Tropideres* sp. by Vannini *et al.* (1996). As stated by these authors, these specimens were reared from dead wood of *Q. cerris* with mature stroma of *Hypoxylon mediterraneum* (Pyrenomycetes, Sphaeriales, Xylariaceae), the beetles probably being vectors of the fungus. Also other species of Anthribidae are known to feed on *Hypoxylon* and other pyrenomycete fungi (Valentine 1999).

These new records indicate that *M. grenieri* is probably more widespread in Italy. It is reported from Spain, southern France, Corsica, Slovakia, Algeria (Hoffmann 1945, as *Choragus grenieri*; Strejček 1993, as *Melanopsacus grenieri*; Rheinheimer 2004), Bulgaria and Finland (Alonso-Zarazaga 2004, as *Araeocerodes grenieri*).

As for its biology, the few data given by the above authors and the new records indicate that the species lives on *Quercus* spp. Most probably adults are night flyers and their association with pyrenomycete fungi, often ignored by most entomologists, can explain why *Melanopsacus grenieri* is so infrequently collected.

Apionidae

Hemitrichapion pavidum (Germar, 1817)

Material examined. Sardinia: Carbonia-Iglesias prov., Iglesias, dint. colonia Beneck, 636 m, UTM 32S 0462391 4355441, 2–16.V.2006, G. Chessa leg., Malaise trap, 1 ex (CNBFVR).

Notes. This is the first definite record for Sardinia of this species, doubtfully indicated for this region by Abbazzi and Osella (1992), Abbazzi *et al.* (1995), Colonnelli (2003) and Alonso-Zarazaga (2004). This weevil is distributed in Europe, Siberia, west Asia, the Middle East and Algeria (Dieckmann 1977).

According to Dieckmann (1977), *H. pavidum* is monophagous in eastern Germany on *Coronilla varia* (Fabaceae). Ehret (1990) added *Coronilla emerus*, *Lathyrus pratensis* and *Ononis spinosa* (Fabaceae), although the finding of adults of this apionid on the last two plants is probably only occasional. None of these plants occur in the above-mentioned Sardinian locality; *H. pavidum* probably feeds on congeneric plant species present in the area (Ballero & Angiolini 1991; Angiolini *et al.* 2005).

Holotrichapion barbirostre (Hoffmann, 1952)

Material examined. Sardinia: Medio Campidano prov., Arbus, Piscinas, 0 m, UTM 32S 452927 4376897, 26.III.2006, P. Cornacchia leg., sweep net, 2 ex (CCO, CNBFVR); Medio Campidano prov., Arbus, Marina di Arbus, 0 m, UTM 32 S 454504 4383252, 26.III.2006, P. Cornacchia leg., sweep net, 1 ex (CCO).

Notes. This species was indicated from Morocco (Hoffmann 1952; Kocher 1961), Tunisia (Normand 1937, as *Apion saturnium* n. sp.), southern Spain, Sicily (Caldara & Angelini 1997), and was quoted also from central Italy by Colonnelli (2003) without further detail, based on a wrong identification of a rubbed specimen of *H. ononis* (Kirby, 1808) from Latium. This is the first record for Sardinia, based on three specimens collected at Marina di Arbus and Piscinas; the first site is a sandy marine beach, and the second is characterized by high sand dunes. Nothing is known about the biology of this species, overlooked by Alonso-Zarazaga (2004).

Curculionidae

Ceutorhynchus resedae (Marsham, 1802)

Material examined. Sardinia: Carbonia-Iglesias prov., Domusnovas, sa Duchessa, 371 m, UTM 32S 0464990 4358384, 19.IX–3.X.2006, G. Chessa leg., Malaise trap, 1 ex (CNBFVR).

Notes. Although this quite uncommon species has been reported from several central and southern regions of Italy and from Sicily (Colonnelli 2003), the collecting of a single specimen at Sa Duchessa is the first record for Sardinia.

Ceutorhynchus resedae is known from England, several countries of central and south-western Europe,

and Tunisia (Colonnelli 2004). Development takes place at the base of stems of *Reseda alba*, *R. phyteuma* and *R. luteola* (Resedaceae) (Colonnelli 2004), the first two plants occurring in the above Sardinian locality (Ballero & Angiolini 1991).

***Orchestes (Orchestes) erythropus* (Germar, 1821)**

Material examined. Sardinia: Carbonia-Iglesias prov., Iglesias, Marganai, 700 m, UTM 32S 0462853 4355582, 29.IV–20.V.2004, G. Chessa leg., Malaise trap, 1 ex (CNBFVR).

Notes. One specimen of this European (Alonso-Zarazaga 2004) leaf-miner weevil was collected at Iglesias, Marganai, and this is the first record from Sardinia of this uncommon species, in Italy only known from Trentino (northern Italy) and Latium (central Italy) (Abbazzi & Osella 1992). However, it is possible that its distribution in Italy is more continuous, owing to the difficulty of separating *O. erythropus* from the closely related *O. tricolor* (Kiesenwetter, 1851).

***Torneuma (Torneuma) vastum* Stüben, 2007 stat. rev.**

Material examined. Sardinia: Carbonia-Iglesias prov., Iglesias, Case Marganai, 725 m, UTM 32S 463890 4355925, 1.IV.2002, L. Fancello leg., 3 ex (CCO, CNBFVR).

Notes. Three specimens of this taxon, recently described by Stüben (2007) as a subspecies of *T. curtulum* F. Solari, 1937 from two rather close localities of eastern Sardinia (Escalapiano, and Mt. Narba east of Muravera) were found at Case Marganai, near Iglesias. The known distribution of *Torneuma curtulum* F. Solari, 1937 is, according to our personal records (Fig. 1), much more widespread than that given by Stüben (2007), who only knew this weevil from Domusnovas, Flumentorgius and Fluminimaggiore, all localities in western Sardinia close to the present one. A specimen of *T. curtulum* was collected at Mamenga, just a short distance from Case Marganai (where the above-mentioned 3 specimens were found), so the two taxa can be considered as sympatric. This implies that *Torneuma vastum* Stüben, 2007 (**stat. rev.**) is a self-standing

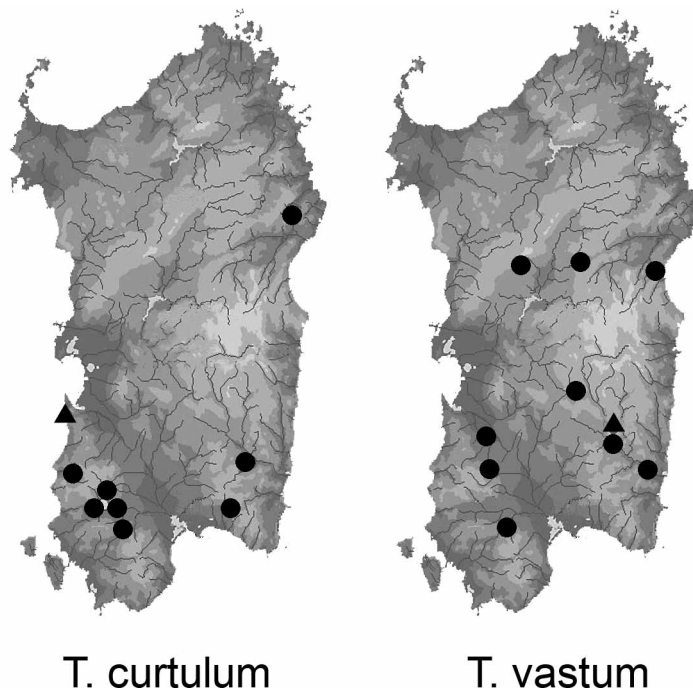


FIGURE 1. Distribution in Sardinia of *Torneuma curtulum* (left) and *T. vastum* (right). Triangles indicate type localities.

species, and not a subspecies of *T. curtulum*. For the subtle characters which differentiate *T. curtulum* from *T. vastum* see Stüben (2007), and for their distribution see Fig. 1. Among the inaccuracies of the cited paper by Stüben (2007) are the descriptions of subspecies of the same species the distributional areas of which largely overlap, a circumstance that clearly weakens the even explicit provisional taxonomy proposed by this author. In the future we will publish additional changes affecting the taxonomy of the Torneumatini, which are beyond the purpose of the present paper.

***Tychius cupriferoide* (Ragusa, 1922)**

Material examined. Sardinia: Medio Campidano prov., Gesturi, Giara di Gesturi, 568 m, UTM 32 S 495926 4401318, 15.VI.2004, G. Nardi leg., aquatic net, 1 ex (CNBFVR).

Notes. This weevil was thus far known in Italy only from Calabria and Sicily (Caldara 1990). The finding of a single specimen from the Giara di Gesturi represents the first record for Sardinia.

In addition to the above-mentioned Italian regions, *Tychius cupriferoide* is known from Greece and Morocco (Caldara 1990; Alonso-Zarazaga 2004), and no data have been thus far reported about its habits. The Sardinian specimen was probably resting on hygrophilous vegetation, since it was collected with an aquatic net near a cattle water trough.

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