

# First contribution to the knowledge of the shining beetles of Sardinia (Coleoptera: Phalacridae)\*

Alessio DE BIASE

Dipartimento di Biologia e Biotecnologie "Charles Darwin" (Zoologia), Sapienza Università di Roma, Viale dell'Università 32, I-00185 Rome, Italy. E-mail: [alessio.debiase@uniroma1.it](mailto:alessio.debiase@uniroma1.it)

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## ABSTRACT

The author presents a short contribution concerning Coleoptera Phalacridae collected in Sardinia primarily during the surveys organized by the Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana" of Verona in 2003–2008. Ten species were scored (8 *Olibrus* species, 1 *Phalacrus* species and 1 *Stilbus* species) representing 40% of the species known to occur in Sardinia (14 *Olibrus* species, 6 *Phalacrus* species, 3 *Stilbus* species, 1 *Tinodemus* species and 1 *Tolyphus* species) that, in turn, represent 68% of the species occurring in Italy. For all Sardinian species, the list is integrated with original data or data gathered from literature.

**Key words:** Phalacridae, Coleoptera, Sardinia, faunistics.

## RIASSUNTO

Primo contributo alla conoscenza dei Falacridi di Sardegna (Coleoptera: Phalacridae)

L'autore presenta un breve contributo relativo ai Coleotteri Falacridi raccolti in Sardegna principalmente durante le ricerche organizzate dal Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana" di Verona nel 2003–2008. Le dieci specie raccolte (8 specie del genere *Olibrus*, 1 specie di *Phalacrus* e 1 specie del genere *Stilbus*) rappresentano il 40% delle specie note per la Sardegna (14 specie del genere *Olibrus*, 6 specie del genere *Phalacrus*, 3 specie di *Stilbus*, 1 specie di *Tinodemus* e 1 specie del genere *Tolyphus*) che complessivamente rappresentano il 68% delle specie presenti in Italia. L'elenco delle specie sarde è integrato con dati faunistici inediti o raccolti dalla letteratura.

## INTRODUCTION

Shining beetles (Phalacridae) are a very little family of the superfamily Cucujoidea (Polyphaga, Cucujiformia), the evolutionary relationships of which with other related families are still uncertain. They are small insects (average length between 1 and 5 mm) with a generally oval body, dorsally convex, apparently glabrous, almost flat on the ventral side. The colour is nearly always dark, brown to black, and generally very shining (Thompson 1958; Steiner 2002). The family includes about 500 species worldwide (cf. Steiner 2002). *Olibrus* Erichson, 1845 and *Tolyphus* Erichson, 1845 are all apparently anthopagous species, feeding on inflorescences of several genera and species of the Asteraceae botanical family (Guillebeau 1892; Thompson 1958; De Marzo 2008). Species belonging to the genera *Phalacrus* Paykull, 1800, *Stil-*

*bus* Seidlitz, 1872 and *Tinodemus* Guillebeau, 1894, seem to be instead related to rust fungi (Uredinales) parasitizing mainly plant species belonging to the Poaceae family, feeding on their spores (Guillebeau 1892; Thompson 1958; Steiner 1984).

According to the "Catalogue of Palaearctic Coleoptera" (Švec 2007) 16 genera occur in the Palaearctic region (147 species), and five of them are found in the Italian peninsula with a total of 37 species (*Olibrus*: 20; *Phalacrus*: 9; *Stilbus*: 4; *Tinodemus*: 1; *Tolyphus*: 3). The faunistic, bionomic and systematic knowledge of the group still remains poor and largely incomplete for Italy. More recent publications (e.g. Angelini 1986, 1987; Angelini & Montemurro 1987; Angelini 1991; Angelini et al. 1995; Bordoni 1995; Canepari 1995; Angelini 1996; Švec & Angelini 1996; De Biase 1997; Angelini 1998, 1999; Canepari 2007) have contributed with some new records but a

concentrated effort is still to be planned in order to gain a satisfactory knowledge of this family for Italy. Overall, the available data for the country are mainly found in the works of Luigioni (1929), Porta (1929) and Švec & Angelini (1996).

Faunistic records regarding shining beetles from Sardinia are very scarce, and again are mainly found in the contributions by Luigioni (1929), Porta (1929) and Švec & Angelini (1996), and no data come from recent field surveys. At the present day 14 *Olibrus* species, 6 *Phalacrus* species, 3 *Stilbus* species, 1 *Tinodermus* species and 1 *Tolyphus* species are known to occur in Sardinia, corresponding to 68% of the species occurring in Italy (see complete list below) and listed by Švec (2007).

## MATERIAL AND METHODS

In the framework of the CONECOFOR Project (cf. Mason et al. 2006) and during recent researches in Sardinia (cf. Cerretti et al. 2009), material mainly collected in the region-owned forests of Marganai and Montimannu (Carbonia-Iglesias and Medio Campidano provinces), mainly with Malaise traps, has been studied. A few more specimens, mainly collected in areas of the Nuoro province, were studied from the P. Cornacchia collection (Porto Mantovano). Malaise traps are not always the best way to collect phytophagous insects associated to herbaceous plants such as the Phalacridae, and the studied samples certainly confirm that not all the diversity for this family has been detected by the above surveys. Specimens were identified to species level using Thompson's (1958) monograph and some other keys (Guillebeau 1892; Švec 1992a, 1992b; Švec & Angelini 1996). All species known to occur in Sardinia, on the basis of a critical review of the literature records, are listed below and their nomenclature follows Švec (2007); data from the Italian literature (e.g. Bargagli 1871) are translated from Italian. Records for "Tutta Italia" [= All of Italy] by Bertolini (1904) and Porta (1929) are also listed since they include also Sardinia and Sicily (cf. Penati 2009), whereas citations for "Tutta It." [= All of Italy] by Luigioni (1929) were ignored since they include only mainland regions (Luigioni 1929: 18). For each species the known distribution is listed as published by Švec (2007), using symbols adopted by the "Catalogue of Palaearctic Coleoptera" (Löbl & Smetana 2007). For species (marked by an asterisk) for which Sardinian specimens were examined, more details are given with regard to number of examined individuals, habitats where samples were

collected, collecting methods (cf. Bardiani 2011) and specimen depositories. Sampling sites of such material are listed according to the current administrative provinces, using alphabetically ordered abbreviations (see below); geographic coordinates are listed in the UTM WGS84 format (cf. Bardiani 2011); environmental information on these sites is given by Bardiani (2011). Unless otherwise stated, literature records refer to the typical form. Information on general distributions is taken from Švec (2007).

## ABBREVIATIONS

SAMPLING SITES. **A01** = Medio Campidano prov., Arbus, Piscinas, 0 m, 32S 452927 4376897; **A02** = Medio Campidano prov., Arbus, Marina di Arbus, 0 m, 32S 454504 4383252; **A21** = Oristano prov., Terralba, Stagno di Marceddi, 0 m, 32S 457917 4397594; **AV** = Nuoro prov., Baronia, Siniscola, Capo Comino, 32T 567817 4488085; **AW** = Nuoro prov., Baronia, Siniscola, S. Lucia; **AZ1** = Cagliari prov., Castiadas, 160 m, 32S 543208 4342960; **AZ2** = Cagliari prov., Chia, 32S 488004 4303894; **C11** = Medio Campidano prov., Villacidro, Can.li Serci, 381 m, 32S 472208 4359497; **C20** = Medio Campidano prov., Villacidro, Rio Cannisoni, 382 m, 32S 468980 4362541; **C23** = Medio Campidano prov., Villacidro, radura sponda sinistra Rio Cannisoni, 401 m, 32S 468459 4362806; **C29** = Medio Campidano prov., Gonnosfanadiga, Genna Mirratta, 794 m, 32S 465363 4366138; **C31** = Carbonia-Iglesias prov., Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916; **C35** = Carbonia-Iglesias prov., Iglesias, "Mamenga", 610 m, 32S 462170 4356618; **C36** = Medio Campidano prov., Villacidro, dint. Lago di Montimannu, 256 m, 32S 474156 4363150; **C58** = Medio Campidano prov., Villacidro, dint. P.ta piscina Argiolas, rigagnolo, 282 m, 32S 472049 4360081; **C81** = Carbonia-Iglesias prov., Domusnovas, Valle Oridda, 643 m, 32S 465399 4362770; **C85** = Carbonia-Iglesias prov., Iglesias, M.ti Marganai, 540 m, 32S 463010 4355249; **GR** = Nuoro prov., Baronia, Siniscola, S.S. 125 km 243, fonte Bérchida, 32T 566814 4484051; **GT** = Nuoro prov., Baronia, Siniscola, Monte Albo, 600–800 m; **GW** = Nuoro prov., Gennargentu, Desulo, Bruncu Spina, 1220–1500 m; **GW1** = Nuoro prov., Lago di Posada, Concas, 140 m, 32T 548698 4498793; **S1** = Carbonia-Iglesias prov., Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441; **S2** = Carbonia-Iglesias prov., Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384; **S3** = Carbonia-Iglesias prov., Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228; **SAR1** = Carbonia-Iglesias prov., Iglesias, Marganai, plot CONECOFOR SAR1, 700 m, 32S 462853 4355582.

COLLECTORS. DA = D. Avesani; DB = D. Birtele; DW = D. Whitmore; EG = E. Gatti; EM = E. Minari; FC = F. Chessa; FM = F. Mason; GC = G. Chessa; GN = G. Nardi; GS = G. Scaglioni; LF = L. Fancello; MB = M. Bardiani; MM = M. Mei; MT = M. Tisato; MZ = M. Zapparoli; PCe = P. Cerretti; PCo = P. Cornacchia;

PL = P. Leo; SF = S. Ferro.

DEPOSITORIES. CADR = A. De Biase (Rome); CNBFVR = Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana" di Verona (Marmirolo, Mantua); CPC = P. Cornacchia (Porto Mantovano, Mantua).

OTHER ABBREVIATIONS. dint. = surroundings of; ex = specimen/s; f.typ. = nominal form; lt = light trap; mt = Malaise trap; nr. = near; pt = pitfall trap; prov. = province; sn = sweep net; S.S. = State road.

## FAUNISTIC LIST

### 1. \**Olibrus aenescens* Küster, 1852

LITERATURE RECORDS. Sardinia (Küster 1852: 60; Gemminger & Harold, 1868: 800; Bertolini 1873: 85; Bertolini 1904: 53, as f.typ. and *O. aenescens* v. *lucidus* Gub.; Luigioni 1929: 467, as f.typ. and *O. aenescens* a. *lucidus* Guillb.; Porta 1929: 203; Angelini et al. 1995: 14; Švec & Angelini 1996: 208; Švec 2004).

MATERIAL EXAMINED. **GR**: 10.VII.2004, PCo GS, 1 ex (CADR). **S2**: 13.VI–27.VI.2006, GC, mt, 1 ex (CADR). **S3**: 11.VII–25.VII.2006, GC, mt, 1 ex (CADR).

DISTRIBUTION. Europe (FR IT PT SP) and North Africa (AG MO).

### 2. \**Olibrus affinis* (Sturm, 1807)

LITERATURE RECORDS. All of Italy (Porta 1929: 203). Sardinia (Küster 1852: 61, as *O. discoideus* Küst.; Gemminger & Harold, 1868: 800, as *O. discoideus* Küst.; Bertolini 1873: 86, as *O. discoideus* Küst.; Bertolini 1904: 53 as f.typ. and *O. affinis* v. *discoideus* Küst.; Luigioni 1929: 467 as f.typ. and *O. affinis* a. *discoideus* Küst.; Porta 1929: 203, as *O. affinis* v. *discoideus* Küst.; Angelini et al. 1995: 14; Švec & Angelini 1996: 209; Švec 2004). **Cagliari prov.**: nr. S. Bartolomeo, May (Bargagli 1871: 359). **Carbonia-Iglesias prov.**: S. Antioco, May (Bargagli 1871: 359). **Sassari prov.**: Porto Torres, flying on the beach and on *Melilotus* (Strassen 1954: 274).

MATERIAL EXAMINED. **A21**: 25.V.2006, PCo MB DB DW, sn, 10 ex (CADR; CNBFVR); 25.V.2006, MB DB PCo, sn, 2 ex (CNBFVR). **C11**: 11.IX.2006, DA MB DB GN, lt, 1 ex (CADR). **C20**: 25.III.2006, DW, sn, 1 ex (CNBFVR). **C23**: 19–24.V.2006, MB DB PCo DW, mt, 1 ex (CADR). **C31**: 12.XI.2006, GN, sn, 1 ex (CADR). **C35**: 12.V.2002, LF, 1 ex (CADR). **C58**: 12.IX.2006, DA MB DB GN, lt, 2 ex (CADR). **C85**: 29.IX–21.X.2003, DB PCe EM MT DW, mt, 1 ex (CADR). **GR**: 10.VII.2004, PCo GS, 2 ex (CPC). **S1**: 21.III–4.IV.2006, GC, mt, 2 ex (CADR; CNBFVR); 18.IV–2.V.2006, GC, mt, 1 ex (CNBFVR); 2.V–16.V.2006,

GC, mt, 2 ex (CADR; CNBFVR); 16–30.V.2006, GC, mt, 1 ex (CNBFVR); 11–25.VII.2006, FC, mt, 1 ex (CADR). **S2**: 2–16.V.2006, GC, mt, 15 ex (CADR; CNBFVR); 16–30.V.2006, GC, mt, 5 ex (CADR; CNBFVR); 30.V–13.VI.2006, GC, mt, 1 ex (CNBFVR). **S3**: 23.III.2006, PCo, sn, 1 ex (CADR); 18.IV–2.V.2006, GC, mt, 1 ex (CNBFVR). **SARI**: 16.VII–1.VIII.2004, GC, mt, 1 ex (CADR); 16.VIII–8.IX.2004, GC, mt, 1 ex (CNBFVR); 6.X–5.XI.2004, GC, pt, 1 ex (CNBFVR); 22.XI–17.XII.2004, GC, mt, 1 ex (CNBFVR); 13–30.IX.2005, GC, mt, 1 ex (CADR).

DISTRIBUTION. Europe (AL AN AU AZ BH BU BY CR CZ DE EN FR GB GE GR HU IR IT LA LS LT MA MR NL PL PT RO RU SK SP SV SZ TR UK), North Africa (AG EG LB MO MR TU) and Asia (ES FE IS JA MG SY TR).

### 3. \**Olibrus bicolor* (Fabricius, 1792)

LITERATURE RECORDS. All of Italy (Porta 1929: 202). Sardinia (Bargagli 1871: 359, as *O. bicolor* var. *flavicornis* Sturm; Bertolini 1873: 85, as *O. bicolor* v. *flavicornis* Sturm; Bertolini 1904: 53; Angelini et al. 1995: 14; Švec 2004). **Cagliari prov.**: nr. S. Bartolomeo, May (Bargagli 1871: 359).

MATERIAL EXAMINED. **S3**: 11–25.VII.2006, GC, mt, 1 ex (CADR).

DISTRIBUTION. Europe (AL AN AU BH BU BY CR CZ DE EN FI FR GB GE GR HU IT LA LT MA MR NL NR NT PL RO SK SP SV SZ YU UK), North Africa (MO TU), Asia (ES FE KI KZ MG TM TR) and the Nearctic Region.

### 4. \**Olibrus bimaculatus* Küster, 1848

LITERATURE RECORDS. Sardinia (Bargagli 1871: 359; Bertolini 1873: 85; Luigioni 1929: 467; Porta 1929: 202; Angelini et al. 1995: 14; Švec & Angelini 1996: 210; Švec 2004).

MATERIAL EXAMINED. **S3**: 18.IV–2.V.2006, GC, mt, 1 ex (CADR); 13–27.VI.2006, GC, mt, 1 ex (CNBFVR).

DISTRIBUTION. Europe (AU BH CR CZ EN FI FR GE GR HU IT MA NR NT PL PT RO SK SP SV SZ UK YU), North Africa (AG MO) and Asia (ES FE TR).

### 5. \**Olibrus castaneus* Baudi di Selve, 1870

LITERATURE RECORDS. Sardinia (Luigioni 1929: 467, as f.typ. and *O. castaneus* a. *Reitteri* Flach; Angelini et al. 1995: 14; Švec & Angelini 1996: 204; Švec 2004).

MATERIAL EXAMINED. **A01**: 26.III.2006, PCo, sn, 1 ex (CADR). **AW**: 3.VII.2004, PCo GS, 2 ex (CADR; CPC). **C36**: 6.IX.2006, GN, sn, 1 ex (CADR). **GR**: 10.VII.2004, PCo GS, 3 ex (CADR, CPC). **S1**: 5–19.IX.2006, GC, mt, 1 ex (CNBFVR).

DISTRIBUTION. Europe (BH CR FR Corfu IT MA SP), North Africa (AG MO) and Asia (CY LE SY TR UZ).

#### 6. *Olibrus caucasicus* Tournier, 1889

LITERATURE RECORDS. Sardinia (Švec 2004, 2007: 508). **Nuoro prov.**: Pratabello, 6.V.1995, 1 ex (Švec & Poneš 1999: 237).

DISTRIBUTION. Europe (Corsica, Sardinia, "Caucasus") and Asia (TR).

#### 7. *Olibrus corticalis* (Panzer, 1797)

LITERATURE RECORDS. All of Italy (Bertolini 1904: 54; Porta 1929: 202). Sardinia (Bertolini 1904: 54, as *O. corticalis* v. *assimilis* Fl.; Luigioni 1929: 467, as f.typ. and *O. corticalis* a. *assimilis* Flach; Angelini et al. 1995: 14; Švec & Angelini 1996: 204; Švec 2004). **Cagliari prov.**: nr. Cagliari, April, very frequent (Costa 1883: 40).

MATERIAL EXAMINED. **AV**: 27.VI–3.VII.2004, PCo GS, 1 ex (CADR).

DISTRIBUTION. Europe (AB AU BU BY CR CT CZ DE FR GB GE IR IT LA LT NL PT PL RO SK SP ST SV SZ UK YU), North Africa (AG CI EG TU) and Asia (SY TR).

#### 8. *Olibrus flavicornis* (Sturm, 1807)

LITERATURE RECORDS. All of Italy (Bertolini 1904: 53; Porta 1929: 203). Sardinia (Angelini et al. 1995: 14; Švec 2004).

DISTRIBUTION. Europe (AU CR CZ DE FI FR GB GE GR HU IT NL NR NT PL SK SL SP SV SZ UK), North Africa (AG MO) and Asia (ES IS TR).

#### 9. \**Olibrus liquidus* Erichson, 1845

LITERATURE RECORDS. Sardinia (Küster 1848: 27; Bertolini 1873: 85; Luigioni 1929: 467; Angelini et al. 1995: 14; Švec & Angelini 1996: 208; Švec 2004). **Carbonia-Iglesias prov.**: S. Antioco, May and June (Bargagli 1871: 359). **Medio Campidano prov.**: Monte Vecchio [sic!], May and June (Bargagli 1871: 359).

MATERIAL EXAMINED. **S1**: 21.III–4.IV.2006, GC, mt, 1 ex (CNBFVR). **S2**: 30.V–13.VI.2006, GC, mt, 2 ex (CADR); 13–27.VI.2006, GC, mt, 2 ex (CNBFVR). **S3**: 4–18.IV.2006,

GC, mt, 3 ex (CADR); 18.IV–2.V.2006, GC, mt, 1 ex (CADR); 2–16.V.2006, GC, mt, 4 ex (CNBFVR).

DISTRIBUTION. Europe (AN AU AZ BE BH BU CR CZ FI FR GE GB GR HU IR IT LS MA MR NL NT PL PT RO SK SP SZ UK), North Africa (AG EG MO MR TU) and Asia (CY IQ UZ).

#### 10. *Olibrus millefolii* (Paykull, 1800)

LITERATURE RECORDS. Sardinia (Bertolini 1873: 86; Bertolini 1904: 53; Luigioni 1929: 466; Porta 1929: 202; Angelini et al. 1995: 14; Švec & Angelini 1996: 203; Švec 2004). **Cagliari prov.**: nr. S. Bartolomeo, May (Bargagli 1871: 359).

DISTRIBUTION. Europe (AU AN BY CZ DE EN FI FR GB GE HU IT LA LT NL NR NT PL SK SL SP SV SZ UK), North Africa (AG) and Asia (ES KZ UZ).

#### 11. *Olibrus particeps* Mulsant & Rey, 1861

LITERATURE RECORDS. Sardinia (Luigioni 1929: 467; Porta 1929: 203; Angelini et al. 1995: 14; Švec & Angelini 1996: 204; Švec 2004).

DISTRIBUTION. Europe (FR GR IT MC PT SP SZ), North Africa (AG EG MO TU) and Asia (CY ES IS JA LE).

#### 12. \**Olibrus pygmaeus* (Sturm, 1807)

LITERATURE RECORDS. All of Italy (Bertolini 1904: 53; Porta 1929: 203). Sardinia (Luigioni 1929: 467; Angelini et al. 1995: 14; Švec & Angelini 1996: 204; Švec 2004). **Nuoro prov.**: Sorgono (Krause 1913a: 184).

MATERIAL EXAMINED. **S3**: 21.III–4.IV.2006, GC, mt, 2 ex (CADR); 19.IX–3.X.2006, GC, mt, 1 ex (CNBFVR).

DISTRIBUTION. Europe (AU BH CR CZ DE FI FR GB GE Corfu IT LA MA NL PL PT RU SK SP SV SZ UK), North Africa (AG EG MO TU) and Asia (SY TR).

#### 13. *Olibrus reitteri* Flach, 1888

LITERATURE RECORDS. Sardinia (Guillebeau 1892: 176, as *O. Baudii* Flach; Bertolini 1904: 53, as *O. Baudii* Flach; Sainte-Claire Deville 1914: 246, as *O. Baudii* Flach; Luigioni 1929: 466, as *O. desbrochersi* Guillb., 467, as *O. castaneus* a. *Reitteri* Flach and 467, as *O. Baudii* Flach; Porta 1929: 203, as *O. Baudii* Flach; Gridelli 1930: 137, as *O. baudii* Flach; Angelini et al. 1995: 14,

as f.typ. and as *O. desbrochersi* Guillebeau, 1892; Švec & Angelini 1996: 204, as *O. desbrochersi* and 206, as f.typ.; Švec 2004). **Olbia-Tempio prov.:** Olbia, on grass (Strassen 1954: 274, as *O. baudii* Flach).

MATERIAL EXAMINED. **AV:** 27.VI–3.VII.2004, PCo GS, 5 ex (CADR; CPC). **AW:** 3.VII.2004, PCo GS, 1 ex (CPC). **GR:** 10.VII.2004, PCo GS, 1 ex (CPC). **GT:** 30.VI.2004, PCo GS, 2 ex (CADR; CPC). **GW:** 4.VII.2004, PCo GS, 5 ex (CADR; CPC).

DISTRIBUTION. Europe (BU CR FR GR IT MA SP SZ), North Africa (AG EG LB MO TU) and Asia (TR).

#### 14. \**Olibrus stierlini* Flach, 1888

LITERATURE RECORDS. Sardinia (Bertolini 1904: 53; Luigioni 1929: 467; Porta 1929: 203, as *O. Stierlini* [sic!] Flach; Angelini et al. 1995: 14; Švec & Angelini 1996: 210; Švec 2004). **Olbia-Tempio prov.:** Tempio east, grassy clearings of forest (Strassen 1954: 274).

MATERIAL EXAMINED. **A01:** 25.V.2006, PCo MB DB DW, sn, 1 ex (CADR). **A02:** 25.V.2006, PCo MB DB DW, sn, 2 ex (CADR; CNBFVR). **AV:** 27.VI–3.VII.2004, PCo GS, 1 ex (CPC). **AZ1:** 3.IV.2004, GS SF, 5 ex (CADR; CPC). **AZ2:** 4.IV.2004, GS SF, 5 ex (CADR; CPC). **C29:** 12.IX.2006, GN, sn, 1 ex (CADR). **C35:** 12.V.2002, LF, 1 ex (CADR). **C81:** 7.VI.2004, GN, sn, 2 ex (CADR). **GW1:** 8.VII.2004, PCo GS, 2 ex (CADR; CPC). **S1:** 27.VI–11.VII.2006, GC, mt, 4 ex (CADR; CNBFVR). **S2:** 23.III.2006, PCo, sn, 1 ex (CADR); 4–18.IV.2006, GC, mt, 2 ex (CADR; CNBFVR); 18.IV–2.V.2006, GC, mt, 2 ex (CADR; CNBFVR); 30.V–13.VI.2006, GC, mt, 2 ex (CNBFVR); 13–27.VI.2006, GC, mt, 8 ex (CADR; CNBFVR); 27.VI–11.VII.2006, FC, mt, 5 ex (CNBFVR); 11–25.VII.2006, FC, mt, 2 ex (CADR). **S3:** 18.IV–2.V.2006, GC, mt, 1 ex (CADR); 13–27.VI.2006, GC, mt, 2 ex (CNBFVR); 27.VI–11.VII.2006, GC, mt, 1 ex (CNBFVR).

DISTRIBUTION. Europe (BU CR FR GR IT PT RO SP SZ), North Africa (AG LB TU) and Asia (TR).

#### 15. \**Phalacrus corruscus* (Panzer, 1797)

LITERATURE RECORDS. All of Italy (Bertolini 1904: 53, as f.typ.). Sardinia: Spread in various parts of the Island, April, May and June (Costa 1883: 40). Sardinia (Bertolini 1904: 53, as *P. corruscus* [sic!] m. *Doebneri* Fla.; Luigioni 1929: 466, as *P. corruscus* [sic!] Panz. and *P. corruscus* [sic!] a. *Doebneri* Flach; Porta 1929: 201 as *P. corruscus* [sic!] Panz.; Giachino 1980: 573, as *P. corruscus* Paykull [sic!]; Angelini et al. 1995: 15; Švec & Angelini 1996: 202; Švec 2004). **Cagliari prov.:** beach of Molentargiù [= Molentargius] pond, May (Bargagli 1871: 359, as *P. corruscus* Payk. [sic!]). **Sassari prov.:** Sassari, June (Bargagli 1871: 359, as *P. corruscus* Payk. [sic!]).

MATERIAL EXAMINED. **GT:** 30.VI.2004, PCo GS, 1 ex (CADR). **S1:** 2.III–4.IV.2006, GC, mt, 1 ex (CADR). **S2:** 18.V–2.VI.2006, GC, mt, 1 ex (CADR). **S3:** 18.IV–2.V.2006, GC, mt, 1 ex (CADR); 2–16.V.2006, GC, mt, 11 ex (CADR; CNBFVR); 16–30.V.2006, GC, mt, 26 ex (CADR; CNBFVR); 30.V–13.VI.2006, GC, mt, 3 ex (CNBFVR); 13–27.VI.2006, GC, mt, 2 ex (CADR).

DISTRIBUTION. Europe (AL AN AR AU AZ BH BU CR CT CZ DE EN FI FR GB GE GR HU IR IT LT MA MD NL NR PL PT RO SK SL SP ST SV SZ UK YU), North Africa (AG CI EG MO) and Asia (CH CY FE IN KZ MG SY TD TM TR UZ).

#### 16. *Phalacrus fimetarius* (Fabricius, 1775)

LITERATURE RECORDS. Sardinia (Tournier 1889: 27, as *P. genei* n.sp.). **Nuoro prov.:** Sorgono (Krausse 1913b: 184).

DISTRIBUTION. Europe (AU BE BU CZ DE FR GB GE GR HU IT LA MA NL PL RO SK SV SZ UK), North Africa (AG), Asia (CY TR).

#### 17. *Phalacrus grossus* Erichson, 1845

LITERATURE RECORDS. Sardinia (Bertolini 1873: 85; Bertolini 1904: 53; Porta 1929: 201; Angelini et al. 1995: 15; Švec & Angelini 1996: 201; Švec 2004). **Cagliari prov.:** grasslands near Cagliari and Decimoputzu, April (Costa 1883: 40); beach of Molentargiù [= Molentargius] pond, June (Bargagli 1871: 359).

DISTRIBUTION. Europe (AU BH CR CZ FR GE GR HU IT NL PL RO SK ST SV SZ) and Asia (ES KZ MG MO TR XIZ).

#### 18. *Phalacrus maximus* Fairmaire, 1852

LITERATURE RECORDS. Sardinia (Bertolini 1904: 53; Luigioni 1929: 466; Porta 1929: 201; Angelini et al. 1995: 15; Švec & Angelini 1996: 201; Švec 2004).

DISTRIBUTION. Europe (Corsica IT SP) and North Africa (AG LB MO TU).

#### 19. *Phalacrus seriepunctatus* C.N.F. Brisout de Barneville, 1863

LITERATURE RECORDS. Sardinia (Bertolini 1904: 53; Luigioni 1929: 466; Porta 1929: 201; Angelini et al. 1995: 15; Švec & Angelini 1996: 201; Švec 2004).

DISTRIBUTION. Europe (FR IT SP), North Africa (AG MO) and Asia (CY SY).

20. *Phalacrus substriatus* Gyllenhal, 1813

LITERATURE RECORDS. All of Italy (Bertolini 1904: 53; Porta 1929: 201). Sardinia (Angelini et al. 1995: 15; Švec 2004).

DISTRIBUTION. Europe (AU BY CR CZ DE EN FI FR GB GE HU IR IT LA LT MA NL NR NT PL SK SP SV SZ UK).

21. *Stilbus (Stilbus) atomarius* (Linnaeus, 1767)

LITERATURE RECORDS. All of Italy (Bertolini 1904: 54, as *Eustilbus atomarius* L.; Porta 1929: 201). Sardinia (Luigioni 1929: 468, as f.typ. and *S. atomarius* a. *picatus* Flach; Švec & Angelini 1996: 211; Švec 2004).

DISTRIBUTION. Europe (AU BH CZ DE EN FI FR GE GB Kriti HU IT NL NT PL SK SP SV SZ UK), North Africa (AG MO), Asia (FE IS JA TR SY) and the Nearctic Region.

22. *Stilbus (Stilbus) oblongus* (Erichson, 1845)

LITERATURE RECORDS. Sardinia (Bertolini 1873: 86, as *Olibrus oblongus* Er.; Bertolini 1904: 54, as *Eustilbus oblongus* Er.; Luigioni 1929: 468; Porta 1929: 202; Angelini et al. 1995: 14; Bordoni 1995: 113; Švec & Angelini 1996: 211; Švec 2004). **Medio Campidano prov.:** Montevecchio, June (Bargagli 1871: 359).

DISTRIBUTION. Europe (AU CR CZ DE EN FI FR GB GE GR HU IT NL NT PL SK SP SV SZ UK), North Africa (EG) and Asia (AF IS KZ SY TR UZ).

23. \**Stilbus (Stilbus) testaceus* (Panzer, 1797)

LITERATURE RECORDS. Sardinia (Bertolini 1904: 54, as *Eustilbus testaceus* Pz.; Luigioni 1929: 468, as f.typ. and as *S. testaceus* a. *unicolor* Flach; Porta 1929: 201; Giachino 1980, as *Phalacrus testaceus* Illiger [sic!]; Angelini et al. 1995: 14; Švec & Angelini 1996: 211; Švec 2004). **Cagliari prov.:** San Sperate, between Olive roots (Lostia 1887: 339). **Nuoro prov.:** Sorgono (Krausse 1914: 98, as *S. testaceus unicolor* Fl.). **Sassari prov.:** Sassari, Rio Mascari, on *Borago* (Strassen 1954: 274).

MATERIAL EXAMINED. **SARI:** 16.II–15.VI.2004, PCo DB GN MT DW, mt, 2 ex (CADR).

DISTRIBUTION. Europe (AB AL AU AZ BH BY CR CZ DE EN FI FR GE GB GR HU IT LA MA MR NL NR PL PT RO SK SP SV SZ UK), North Africa (AG AZ CI LB MO MR TU), Asia (AF CY IN IS KI SY TM TR UZ) and the Afrotropical Region.

24. *Tinodemus polygramma polygramma* (Flach, 1888)

LITERATURE RECORDS. Sardinia? (Angelini et al. 1995: 14, as *Stilbus polygramma* Flach, 1888).

DISTRIBUTION. Europe (Corsica, Gibraltar, GR IT), North Africa (AG EG) and Asia (IS SY TR). *Tinodemus p. rubidus* (Flach, 1889) is endemic of Japan.

25. *Tolyphus (Tolyphus) granulatus* (Guérin-Méneville, 1834)

LITERATURE RECORDS. Sardinia (Tournier 1889: 79; Guillebeau 1892: 162, as *T. granulatus* var. *chalybaeus*; Ganglbauer 1899: 744; Porta 1929: 200, as f.typ. and as *T. granulatus* var. *chalybaeus* Guilleb.; Gridelli 1930: 134; Angelini et al. 1995: 14; Švec & Angelini 1996: 200; Švec 2004).

DISTRIBUTION. Europe (FR GR IT PT SP), North Africa (AG EG LB MO TU) and Asia (IS LE SY TR).

## DISCUSSION

The samples, collected primarily during the surveys organized by CNBFVR, belong to 8 species of the genus *Olibrus*, 1 species of the genus *Phalacrus* and 1 species of the genus *Stilbus*. These ten taxa represent 40% of the species currently known to occur in Sardinia (14 *Olibrus* species, 6 *Phalacrus* species, 3 *Stilbus* species, 1 *Tinodemus* species and 1 *Tolyphus* species) that, in turn, represent 68% of the species occurring in Italy (cf. Švec 2007). It is likely that further surveys, using more specialized collecting methods, will improve the knowledge of the Sardinian fauna, which currently includes only widely or very widely distributed species. However, the presence of two species should be carefully evaluated and confirmed: *Olibrus caucasicus* cited by Švec & Ponel (1999) for Sardinia on the basis of a single examined individual, and *Tinodemus polygramma polygramma* cited as likely present in Sardinia owing to its observed distribution in Mediterranean and North African areas (Angelini et al. 1995, as *Stilbus polygramma*). Overall, knowledge regarding the entire family is still unsatisfactory, not allowing for any zoogeographical or ecological analyses to be made, or even any summary of faunistic data by means of widely used chorotypes (cf. Vigna Taglianti et al. 1999).

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