Short notes

In this section 218 species of arthropods are recorded, collected in Sardinia mainly during the researches carried out by CNBFVR (cf. Bardi 2011). All or part of the records of most species (207) come from the Marganaí and/or Montimannu wilderness areas. They belong to taxa not treated in the previous pages nor by Cerretti et al. (2009). All taxa are listed in alphabetical order according to the nomenclature and systematics of the Fauna Europaea Web Service (de Jong 2011) unless otherwise stated. Collecting sites from the region-owned forests of Marganaí and Montimannu and neighbouring areas are listed under "Records", while those from other Sardinian sites are listed under "Other records". Almost all the sites investigated during the faunistic survey carried out by CNBFVR on the island are indicated with abbreviations (see further on), while all the other sites are listed in full. All sites and/or their abbreviations are listed in alphabetical order. Sites listed in full are listed after those abbreviated, alphabetically according to province. Further details on most of the sampling sites are provided by Bardi 2011). The material, unless otherwise stated, is stored in the CNBFVR collection.

ABBREVIATIONS

CNBFVR SAMPLING SITES. A01 = Medio Campidano prov., Arbus, Piscinas, dune, 0 m, 32S 452927 4376897; A02 = Medio Campidano prov., Arbus, Marina di Arbus, 10 m, 32S 454504 4383252; A04 = Oristano prov., Arborea, Stagno di s'Ena Arrubia, 0 m, 32S 462842 4408878; A05 = Carbonia-Iglesias prov., Buggeru, R. Mannu, foce, dune, 3 m, 32S 449437 4365545; A06 = Carbonia-Iglesias prov., Buggeru, Cala Domestica, 10 m, 32S 446540 4358436; A08 = Medio Campidano prov., Arbus, Capo Pecora, 15 m, 32S 446760 4367599; A09 = Medio Campidano prov., Arbus, Piscinas, guado del R. Piscinas, 18 m, 32S 454087 4376193; A10 = Oristano prov., San Vero Milis, sa Marigosa, spiaggia, 5 m, 32T 448490 4432720; A11 = Oristano prov., San Vero Milis, sa Marigosa, stagno, 5 m, 32T 449217 4443297; A12 = Cagliari prov., Domus de Maria, Torre di Chia, spiaggia di Su Portu, 1 m, 32S 490072 4305296; A13 = Carbonia-Iglesias prov., San'Anna Arresi, Porto Pino, dune, 5 m, 32S 467025 4311362; A15 = Carbonia-Iglesias prov., Gonnos, Plage Mesu, Sa Punta e s'Arena, 5 m, 32S 450884 4347330; A16 = Carbonia-Iglesias prov., Gonnos, Fontanamare, 3 m, 32S 451423 4348717; A17 = Carbonia-Iglesias prov., Fluminimaggiore, Portixeddu, 6 m, 32S 449437 4365741; A18 = Carbonia-Iglesias prov., Sant'Antioco, Stagno di S. Caterina, 0 m, 32S 455569 4326716; A19 = Carbonia-Iglesias prov., Sant'Antioco, Cala Sperone, spiaggia, 0 m, 32S 451831 4314957; A21 = Oristano prov., Terralba, Stagno di Merceddi, 0 m, 32S 457917 4376194; C01 = Carbonia-Iglesias prov., Iglesias, P. Serra Pirastu, 65 m, 32S 466946 4368997; C02 = Carbonia-Iglesias prov., Iglesias, Case Marganai, 725 m, 32S 463890 4355925; C05 = Carbonia-Iglesias prov., Iglesias, Vecchia Cantoniera Marganai, 491 m, 32S 462272 4354677; C06 = Carbonia-Iglesias prov., Iglesias, P. Cangia, 636 m, 32S 462440 4355161; C08 = Carbonia-Iglesias prov., Domusnovas, Valle Oridda, pineta, 595 m, 32S 467000 4305296; C10 = Medio Campidano prov., Villacidro, dint. P.ta piscina Argiolas, Serbatoio, 282 m, 32S 468713 4362692; C11 = Medio Campidano prov., Villacidro, Can.lì Serci, 381 m, 32S 472208 4359497; C12 = Medio Campidano prov., Villacidro, Can.lì s'Otti, versante destro, 520 m, 32S 471690 4359611; C13 = Medio Campidano prov., Villacidro, dint. P.ta Pranu llixis, 563 m, 32S 471221 4359310; C14 = Carbonia-Iglesias prov., Domusnovas, Sedda Pranu Cardu, 549 m, 32S 470926 4358926; C15 = Carbonia-Iglesias prov., Domusnovas, Gutturu Seu, 140 m, 32S 471646 4355238; C16 = Carbonia-Iglesias prov., Domusnovas, Gutturu Seu, 174 m, 32S 471577 4355716; C19 = Medio Campidano prov., Villacidro, R. Cannisoni, 375 m, 32S 468713 4362692; C20 = Medio Campidano prov., Villacidro, R. Cannisoni, 382 m, 32S 468980 4362541; C21 = Medio Campidano prov., Villacidro, R. Cannisoni, s'acqua Frischedda, 372 m, 32S 468391 4362826; C22 = Medio Campidano prov., Villacidro, R. Cannisoni, radura sponda sinistra, 401 m, 32S 468459 4362806; C25 = Medio Campidano prov., Villacidro, R. Cannisoni, 375 m, 32S 468980 4362541; C26 = Carbonia-Iglesias prov., Domusnovas, Bega d'Aleni, 621 m, 32S 467855 4361336; C27 = Medio Campidano prov., Gonnosfanadiga, M. Idda, strada per M. Linas, 474 m, 32S 466946 4368997; C28 = Medio Campidano prov., Gonnosfanadiga, sa P.ta de's Erbaceu, strada per M. Linas, 744 m, 32S 465989 4368410; C29 = Medio Campidano prov., Gonnosfanadiga, Genni Miratta, 794 m, 32S 465363 4366138; C30 = Medio Campidano prov., Gonnosfanadiga, dint. Ovile Linas, 710 m, 32S 466346 4365201; C31 = Carbonia-Iglesias prov., Domusnovas, L. Siusu, 322 m, 32S 467069 4357916; C32 = Medio Campidano prov., Villacidro, L. di Montimannu, diga, 255 m, 32S 475380 4363486; C33 = ConServaZione habitat invertebrati 5: 819–882 (2011)
Sampling methods. al = collecting at light; ba = bait (small pieces of meat mixed with hay placed in an open plastic tube); bz = glass trunk trap (beer and sugar); cn = car net; dc = direct collecting; lt = light trap; mt = Malaise trap; nt = hand net; oe = entomological umbrella; pt = pitfall trap (vinegar and salt); sn = sweep net; vg = sieve; wn = water net; wt = window flight trap.

Other abbreviations and recurrent terms used in faunistical lists. C. = Casa = House; Can. = Canale = Canal; Can. li = Canali = Canals; Cant. = Cantoniera = Roadman’s house; coll. = collection; D = deutonymph/s; dint. = surroundings of; ex = specimen/s; dune = dunes; eucalipteto = eucalyptus plantation; foce = river mouth; F. = Fiume = River; Foresta = Forest; fontana = fountain; greto del = bed of [river]; Grotta = Cave; ingresso = entrance of; Isole = Island; L. = Lago = Lake; lecceta = holm-oak forest; leg. = collector/s; litoranea = coastal road; loc. = locality; Miniera = Mine; M. = Monte = Mount; M. ti = Monti = Mounts; P = protonymph/s; pineta = pinewood; prov. = province; Pta = Punta = Peak; R. = Rio = stream; radura = clearing; radura con = clearing with; radura lungo strada = clearing alongside road; reg. = region; rigagnolo = rivulet; riva = bank; S. = San/Santa/Santo = Saint; sdb = same data but; Serbatio = Reservoir; sorg. = sorgente = spring; sotto corteccia = under bark; spiaggia = beach; sponda sinistra = left bank; Stagno = Pond; strada = road; strada per = road to; su cadavere di = on carcass of; T. = Torrente = Torrent; tfi = translation from Italian; Tr = tritonymph/s; versante = slope; Valle = Valley; verso = in direction of; wdc = without date of collection.

Depositories. CGG = G. Gardini collection (Genoa, Italy); CGN = G. Nardi collection (Cisterna di Latina, Latina, Italy); CGP = G. Platia collection (Gatteo, Forlì-Cesena, Italy); CKR = K. Rognes collection (Stavanger, Norway); CMM = M. Mei collection (Rome, Italy); CNBFVR = Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale “Bosco Fontana” di Verona (Marmirolo, Mantua, Italy); CPC = P. Cornacchia collection (Porto Mantovano, Mantua, Italy); MHNG = Muséum d’histoire naturelle (Genève, Switzerland); MSNM = Museo Civico di Storia Naturale di Milano (Milan, Italy); MCZR = Museo Civico di Zoologia (Rome, Italy); TCUB = M. von Tschirnhaus collection, University of Bielefeld (Bielefeld, Germany); ZSM = Zoologische Staatssammlung München (Munich, Germany).

Quotation-sample of single notes:

References
1 \((2)\): 1–109.


6. Coleoptera, HELOPHORIDAE

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The Helophoridae are a fairly large family with about 180 species world-wide, about 150 of which occur in the Palearctic. There are three species in the Ethiopian region and one in the Oriental. Most species occur in temporary pools (the larvae are terrestrial), a few in rivers, and a small number are terrestrial. Rocchi (2005) lists 15 species from Sardinia, and the seven species listed here include two, *Helophorus (Rhopalhelophorus) longitarsi* Wollaston, 1864 and *H. (R.) rinki* Angus, 1985, which are not on that list, and which would bring the total down to 17, a not unreasonable number for an island of the size of Sardinia. However, some of the records appear doubtful. Thus, *H. (R.) flavipes* Fabricius, 1792 and *H. (R.) obscurus* Mulsant, 1844 are likely to refer to *H. (R.) subarcuatus* Rey, 1885, *H. (H.) aquaticus* (Linnaeus, 1758) may well refer to *H. (H.) milleri* Kuwert, 1886 – especially as where it occurs *H. (H.) aquaticus* is a common species and more records would be expected – and *H. (R.) dorsalis* (Marsham, 1802) is also doubtful. This would take the total down to 13 species, perhaps reflecting an impoverished island fauna. Classification and nomenclature follow Angus (1992).

*Helophorus (Trichelophorus) alternans* Gené, 1836


*Carbonia-Iglesias prov.:* Iglesias (cf. Gené 1836; Rocchi 2005).

**Other records.** G06: 5.IX.2006, GN, wn, 2 ex. G31: 15.VI.2004, GN, wn, 2 ex.

**Notes.** Helophorus (T.) alternans was described from Sardinia: “In aquis stagnatibus frequens Karali, Pulae, Pulci, Cabras, etc.” (Gené 1836: 184, as Helophorus alternans). It is widespread in the western Mediterranean and western Europe as far north as southern England (Angus 1992).

*Helophorus (Helophorus) milleri* Kuwert, 1886


**Other records.** G31: 15.VI.2004, GN, wn, 9 ex.
Notes. Helophorus (H.) milleri is a member of the H. (H.) maritimus Rey, 1885 species complex, members of which are reliably identified only by study of the chromosomes. Angus (1992) mentions chromosomes of Sardinian material.

Helophorus (Rhopalhelophorus) rinki Angus, 1985


Notes. A little-known species, hitherto known only from mainland Italy (cf. Rocchi 2005). This is the only record outside mainland Italy.

Helophorus (Rhopalhelophorus) minutus Fabricius, 1775


Notes. Angus (1992) placed H. (R.) subarcuatus as a subspecies of H. (R.) obscurus Mulsant, 1844 but later (Angus 1996), on the basis of chromosomal differences, showed it to be a separate species. It is endemic to Corsica and Sardinia. This species is widespread and common in Sardinia where it apparently replaces H. obscurus Mulsant, 1844, but very rare and sporadic in Corsica where H. obscurus is widespread.

The most striking feature of this list is its brevity! The most notable absence must surely be H. (Atracthelophorus) brevipalpis Bedel, 1881. Angus (1995) noted his embarrassing failure to find this species in either Corsica or Sardinia.

References


Angus R.A. & Aouad N., 2009. A further chromosomally distinct sibling species of the Helophorus minutus complex from W-Mediterranean species widespread in the western Mediterranean and in France as far north as the Sarthe; in Sardinia so far known only from two coastal sites (Rocchi 2005). Angus (1995) noted his embarrassing failure to find this species in either Corsica or Sardinia.


7. Coleoptera, SCYDMAENIDAE

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The Scydmaenidae live in the shallow ground stratum in rotting vegetable piles and leaf litter, sometimes in wet mosses and under stones, but always in good humidity conditions. They are sometimes associated with ants. Their feeding habits are mainly carnivorous and predatory. Some species are equipped with functional wings with which they perform short flights. Many species show wide distributional ranges, but they are generally uncommon.

According to bibliographic and web-based data, there are little less than 5,000 known Scydmaenidae species in the world, comprised in about 90 genera and distributed in all continents except for Antarctica. Just over 500 species occur in Europe, approximately 200 of which are recorded from Italy and its islands. Especially regarding the Palaearctic Region, the taxonomy and nomenclature of this family are often dubious due to the uncertain identity of many taxa described by early authors, because at that time no studies were available concerning the male terminalia. Some species have probably since been redescribed under different names due to the poor and raw original descriptions, based upon a few external characters only. Sometimes, there is no certain correspondence between a taxon and its name as currently used in the literature. There are several likely cases of synonymy as well as many subspecies based only on one or two individuals from a single location (Castellini 2006). The Scydmaenidae have recently been placed within the Staphylinidae (Grebennikov & Newton 2009), based on an accurate cladistic analysis using molecular and both larval and adult morphological characters of some of the species included in the so-called “Staphylinine Group”. According to the cladistic analysis of these authors, the Scydmaenidae are not an independent family but a subfamily of the Staphylinidae. Similarly, Newton & Thayer (1995) downgraded the Pselaphidae to a subfamily of the Staphylinidae, an issue upon which I recently commented with some general and specific remarks (Castellini 2001) which I also report here as they are applicable also to the Scydmaenidae. Phylogenetic research and classification are two separate things, carry different assumptions and aims and do not necessarily coincide. Phylogenetic research in systematics is a mere hypothesis about the evolutionary path of a certain group of organisms, a hypothesis that only attempts to reflect biological reality. At the same time, classification does not necessarily reflect biological reality: it is simply a means of containing and managing taxonomic information, logically organised within a hierarchical structure. Phylogenetic research is a knowledge tool, while classification is a working tool. Categories on which a phylogenetic inference or a classification are based are totally arbitrary regarding characters and the criteria used to define them (except for the “species” category, the only one confirmed by biological parameters). In its constituent elements, the classification proposed by Grebennikov & Newton (2009) is the same as those found in previous publications on the family (Newton & Franz 1998; Löbl & Smetana 2004): the taxa in the different categories (family, subfamily and tribe) are the same, but the categories have different names; the labels are different, but the content is the same. Today, the term “family” is commonly used in natural history in the need to apply, to a certain classification category, all the features that this term used to have in human relationships. Independent of any phylogenetic considerations, the “family” category defines a certain group of individuals, a group that is immediately recognisable for its features and morphological homogeneity: for over two centuries, the “family” category has been used in natural history as a fundamental rank of natural life organisation. Irrespective of Grebennikov & Newton’s (2009) results about previously unknown phylogenetic affinities (I will not express an opinion on this subject), there is no reason to change a suitable and widely used naming method. In other words, assuming that the group of organisms considered today as a subfamily is the same known yesterday as a family, there is no reason to modify the name of the category which describes them. The Scydmaenidae share affinities, resemblances, most of all in their appearance but also phylogenetically, even for beginners. The Scydmaenidae are a family, for phylogenetic reasons and for practical reasons.