The endogean beetle fauna of the Marganai-Oridda-Valle del Leni area (SW Sardinia), with description of seven new species of Staphylinidae Leptotyphlinae (Coleoptera)*

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Abstract

Twenty-six species of endogean beetles are recorded from the Marganai-Oridda-Valle del Leni area, belonging to six different families: Carabidae (Typhloreicheia holdhausi Magrini, Fancell & Casale, 2006, T. leoi pilosa Magrini & Fancell, 2007, T. tanit Leo, Magrini & Fancell, 2005), Leiodidae [Bathysciola damryi (Abeille de Perrin, 1881)], Staphylinidae [Eudesis aglena Reitter, 1882, E. minima Binaghi, 1948, Mayetia sp., Trimium amplipenne Reitter, 1908, Tychobytthinus dentimanus (Reitter, 1884), Tychus sp., Pselaphostomus sp., Phloeocharis ichnusae Dodero, 1900, Octavius raymondi Saulcy, 1878, O. sardous Coiffait, 1965, four new species of Entomoculia, three new species of Leptotyphlus], Zopheridae (Langelandia reitteri Belon, 1882, Lyreus septemstriatus Fancell & Leo, 1991), Curculionidae (Torneuma sp.) and Raymondionymidae [Alaocyba carinulata Perris, 1869, Raymondiiellus sardous sardous (Perris, 1869)]. One species (Langelandia reitteri) is W-Mediterranean, one is a Sardo-Corsican endemic (Tychobytthinus dentimanus), the remaining 24 species are all Sardinian endemics and 16 of these are strictly localized within the study area or restricted to SW Sardinia. The following species of Staphylinidae Leptotyphlinae are described: Entomoculia villascemae sp. nov., E. carbonaria sp. nov., E. shardana sp. nov., E. melonii sp. nov., Leptotyphlus nardii sp. nov., L. minator sp. nov. and L. villacidrinus sp. nov.; all are easily distinguishable from their congeners by the structure of the male copulatory organ and female genital armature. The morphology of the copulatory organ in the newly described Leptotyphlus species indicates that the classical subgeneric categories used in Leptotyphlus are probably based on characters not reflecting a natural subdivision of the genus.

Key words: Coleoptera, endogean beetles, Carabidae, Leiodidae, Staphylinidae, Zopheridae, Curculionidae, Raymondionymidae, new species, Entomoculia, Leptotyphlus, SW Sardinia

Introduction

From a zoogeographical and taxonomic point of view, beetles are one of the main components of the endogean arthropod fauna, i.e. the interstitial fauna inhabiting the portion of the soil comprised between the lower humus layer and the maximum depth of plant roots. The endogean beetle fauna of Sardinia is rich in species, mostly endemic, from the families Carabidae, Staphylinidae, Leiodidae, Zopheridae, Curculionidae, and Raymondionymidae; all are small to minute, depigmented, flightless, anophthalmic or microphthallic, non-vagile and with a usually very reduced distribution range. The current knowledge of Sardinian endogean beetles is quite satisfactory compared to other Mediterranean regions, but still insufficient considering the