

## The endogeal 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 endogeal beetles are recorded from the Marganai-Oridda-Valle del Leni area, belonging to six different families: Carabidae (*Typhloreicheia holdhausi* Magrini, Fancello & Casale, 2006, *T. leoi pilosa* Magrini & Fancello, 2007, *T. tanit* Leo, Magrini & Fancello, 2005), Leiodidae [*Bathysciola damryi* (Abeille de Perrin, 1881)], Staphylinidae [*Eudesis aglena* Reitter, 1882, *E. minima* Binaghi, 1948, *Mayetia* sp., *Trimium amplipenne* Reitter, 1908, *Tychobythinus dentimanus* (Reitter, 1884), *Tychus* sp., *Pselaphostomus* sp., *Phloeocaris 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* Fancello & Leo, 1991), Curculionidae (*Torneuma* sp.) and Raymondionymidae [*Alaoxyba carinulata* Perris, 1869, *Raymondiellus sardous sardous* (Perris, 1869)]. One species (*Langelandia reitteri*) is W-Mediterranean, one is a Sardo-Corsican endemic (*Tychobythinus 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, endogeal 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 endogeal 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 endogeal 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 microphthalmic, non-vagile and with a usually very reduced distribution range. The current knowledge of Sardinian endogeal beetles is quite satisfactory compared to other Mediterranean regions, but still insufficient considering the