



## The Cholevidae (Coleoptera) of Sardinia\*

ACHILLE CASALE<sup>1</sup>, GIUSEPPE GRAFITTI<sup>2</sup> & LEONARDO LATELLA<sup>3</sup>

<sup>1</sup>Dipartimento di Zoologia e Genetica Evoluzionistica, Università di Sassari, via Muroni 25, I-07100 Sassari, Italy. E-mail: casale@uniss.it

<sup>2</sup>Gruppo Speleologico Sassaese, Via dei Navigatori 7, I-07100 Sassari, Italy. E-mail: giuseppe.grafitti@tiscali.it

<sup>3</sup>Museo Civico di Storia Naturale, Lungadige Porta Vittoria 9, I-37129 Verona, Italy. E-mail: leonardo.latella@comune.verona.it

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### Abstract

We present a synthesis of the knowledge on the cholevid fauna of Sardinia, with an annotated checklist and an updated list of both published and unpublished collecting localities.

The Cholevidae (Coleoptera, Staphylinoidea) are a group of small to medium-sized beetles, most of which are saprophagous; a significant percentage of Cholevidae are cave-dwellers, and some are highly specialized troglobitic elements. In Sardinia, twenty-five species have been recorded so far. More than half of them are endemic to the island, while some are sub-endemic (i.e. present also in Corsica or in Sicily and/or the Balearic Islands); nine species, belonging to the genera *Ovobathysciola* and *Patriziella*, are specialized hypogean elements. Four more species, belonging to the genus *Bathysciola*, are soil-inhabiting or cave-dwellers.

The authors stress the high biogeographic and biospeleological interest of Sardinian cholevids. In particular, the colonization processes appear to be in good agreement with the current hypotheses about the origin and composition of the existing fauna of Sardinia. The hypogean species of the genera *Ovobathysciola*, *Patriziella* and species of *Speonomus* of the subgenus *Batinoscelis* are currently accepted as being related to the Baetic and Pyrenean lineages of *Anillochlamys* and *Speonomus*, respectively; therefore, they should belong to the most ancient stock of elements, originated during the Miocene drift of the Corso-Sardinian massif in the western Mediterranean. Some other endemic or sub-endemic taxa, with W-Mediterranean affinities, are probably derived from more recent colonizers as a consequence of the several connection/isolation phases which existed between Sardinia, Corsica, and other Mediterranean areas during the late Miocene (Messinian) salinity crisis, and during the Plio-Pleistocene ice-phase-related strong variations in the sea level. Finally, some widespread taxa, all epigeal and winged, reached the island in more recent times, through active and passive dispersal.

**Key words:** Coleoptera, Cholevidae, Sardinia, research history, taxonomy, zoogeography

### Introduction

The Cholevidae are a group of Coleoptera which has undergone several changes in taxonomy and nomenclature. Cholevidae were related, during the XIX<sup>th</sup> century, to the families Scaphidiidae or Anisotomidae; a single genus (*Leptodirus* Schmidt, 1832) was also related to the Scydmaenidae. From the beginning of the last century they were included in the Silphidae when Jeannel, in a series of works culminating in a monograph (Jeannel 1936), separated the family Catopidae (and other families) from the Silphidae. In accordance with the principle of priority, the name Catopidae was recently changed to Cholevidae by Zwick (1979); this taxon is currently widely treated as a subfamily (Cholevinae) of the family