

16

www.biodiversityjournal.com

ISSN 2039-0394 (Print Edition)
ISSN 2039-0408 (Online Edition)

with the support of



Biodiversity Journal

SEPTEMBER 2014, 5 (3): 375-444

FOR NATURALISTIC RESEARCH
AND ENVIRONMENTAL STUDIES



Pimelia grossa Fabricius, 1792 - Italy, Sicily, mouth of the Belice river



Cossyphus moniliferus Chevrolat, 1833.
Italy, Sicily, Selinunte, under stones.



Probaticus anthrax (Seidlitz, 1896). Italy,
Sicily, Ficuzza woods, under barks of trees.

The family of Tenebrionidae Latreille, 1802 (Coleoptera). Over 20,000 species belonging to the family Tenebrionidae are part of the fauna of our Planet. They are present in all continents except the areas permanently covered by ice. For Europe, the most abundant faunas are found in the Iberian peninsula and the Balkans, but also the fauna of Italy includes numerous species and subspecies, even endemic, mostly occurring in Sardinia and Sicily. Tenebrionidae are extremely variable in size and shape, adapted to almost all terrestrial environments. There are species large and massive, as many *Blaps* Fabricius, 1775 or *Pimelia* Fabricius, 1775, but also small and delicate, as *Ammogiton* Peyerimhoff, 1919, *Eutagenia* Reitter, 1886 and most Alleculini; there are omnivores and herbivores specialized, for example fungivores as *Bolithophagus* Illiger, 1798 and *Eledona* Latreille, 1796. Many species are related to forest (*Allardius* Ragusa, 1898, *Helops* Fabricius, 1775) or arid coastal environments (*Ammobius* Guerin-Ménéville, 1844, *Xanthomus* Mulsant, 1854, ...) and can be found even in the deserts (*Prionotheca* Solier, 1836, *Mesostena* Eschscholtz, 1831, *Adesmia* Fischer de Waldheim, 1822, ...). Other Tenebrionidae live in the mountains at high altitudes, as some *Pedinus* Latreille, 1796 and *Heliopathes* Dejean, 1834, or take refuge in rotting trunks (*Iphthiminius* Spilman, 1973) or shallow caves (*Elenophorus* Dejean, 1821). Some species are myrmecophilous or anthropophilic, or still parasites of food, through which, taking advantage of humans businesses, spread throughout the world since very ancient times. Very interesting are the environmental adaptations of many species, especially those living in extreme environments, such as the hottest deserts of Africa, Australia or America. They overcome the risk of dehydration, not only limiting their activities to the twilight hours or at night, but also digging underground shelters (*Pimeliini* and *Tentyriini*), or progressing high on their legs alternating them rapidly on the hot ground (*Onymacris* Allard, 1885, *Zophosis* Latreille, 1802, ...), or by a small protective vesicle filled with air, located under the elytra (*Eleodes* Eschscholtz, 1829). A few Tenebrionidae are good fliers, as *Lagriia* Fabricius, 1775, and all Alleculinae, but all the others are usually lacking, even in part, of functional wings, or show fused elytra, so their movements are very limited, or by passive transport. For this reason, Tenebrionidae are excellent biogeographical indicators. In Sicily, where there is about 50% of the taxa reported for Italy, I could see how the distribution of the Eastern Palaearctic, Afro-Mediterranean, European and Western Mediterranean species, exactly overlaps the tracks of human migrations which, over the centuries, often by successive waves, have affected the island where they fused in today's society that has strong trends of multicultural tolerance.

Vittorio Aliquò. Via Umberto Giordano 234, 90144 Palermo, Italy; e-mail: vitaliq@tin.it