

# The families Malachiidae and Dasytidae in the collections of the Goulandris Natural History Museum, Athens, Greece

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## ABSTRACT

Entomological collections of the Goulandris Natural History Museum in Athens were reviewed. Eleven species of the family Malachiidae and six species of the family Dasytidae (Insecta: Coleoptera) were identified in the collections of the museum. A species list is provided, where the locations and dates of findings, as well as the distribution of each species and short comments are given.

KEY WORDS: Coleoptera, Dasytidae, distribution, fauna, Malachiidae, museum collection.

## Introduction

The beetles of the family Malachiidae are mostly small species with a soft cuticle, with vesicles that may be swollen and protrude from the sides of the thorax and abdomen. The males possess an organ (excitator) on the head or on the tip of the elytra giving off a gustatory substance, changing the initial aversion of the female to mating. The adults of most species feed mainly on pollen of plants, although they occasionally turn carnivorous and prey on aphids. The larvae develop in wood and are predacious (Mirutenko 2004, Plata-Negrache 2012). Four thousand species have been described worldwide, while more than 1440 of them are palaeartic (Kolibáč et al. 2005, Mayor 2007).

The species of the family Dasytidae are elongate-oval, soft-bodied beetles. They are often found on flowers, in the grass or on conifers. The larvae develop in wood and are carnivorous too (Mirutenko 2004, Kolibáč et al. 2005). Approximately 1500 species have been described worldwide. The

Palaeartic fauna includes more than 920 species (Kolibáč et al. 2005, Mayor 2007).

The Dasytidae and Malachiidae beetles share common biological and ecological characteristics. They are widespread in all zoogeographical regions of the world and occupy a wide variety of natural and anthropogenic biocenoses, being common components of biological communities in open landscapes and forests. In the imago stage, they inhabit mostly the grassy vegetation layer, and most species of both families are first order consumers. Their larvae are second order consumers.

The aim of the publication is to present results of a study of entomological collections of the Goulandris Natural History Museum in Athens and to compile an annotated list of Malachiidae and Dasytidae species for these collections.

## Materials and Methods

In this article, author presents results after processing the entomological collections of the Goulandris Natural History Museum in

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Athens. Forty specimens of Malachiidae and Dasytidae were examined. They have been collected by different researchers during the 20th century. The collection of P.G. Moazzo includes very interesting material. However, some specimens are undated. For the presentation of the entomological material the original writing of labels has been kept. However, when necessary we provide clarification and explanation in square brackets. The names of the collectors are given according to the original writing.

Abbreviations used besides the generally accepted ones:

CME – Collection of P.G. Moazzo: “Faune Egyptienne”;  
 ex. – exemplar, specimen;  
 exs. – exemplars, specimens;  
 leg. [légit] – collected by;  
 vil. – village.

## Results and Discussion

Investigations of the fauna of any region should be carried out for a long time. Faunistic findings from different years allow conclusions about changes in the fauna of a particular region. Scientific entomological collections, including museums, make it possible to trace such changes.

As a result of research an annotated list of species compiled for the Malachiidae and Dasytidae families and clarified data of labels. In the collections of the Goulandris Natural History Museum eleven species of the family Malachiidae and six species of the family Dasytidae are identified in total. Examined materials were collected in Southern Europe, Turkey and Northern Africa.

Below, the annotated list of species is provided.

### Family MALACHIIDAE Fleming, 1821

#### *Laius venustus* Erichson, 1840

**Material examined:** CME: Alexandrie, 15.Juin.1923 [15.06.1923], 1 ex., leg. A. Carneri.

**Distribution:** Egypt, Saudi Arabia, Yemen (Mayor 2007), Iran (Arefnia and Tshernyshev 2004).

**Comments.** Obviously, the species is distributed towards the East as evidenced by findings in Iran in 2003. It is also likely that this species has penetrated the central and western regions of Africa.

#### *Colotes scutellaris* Pic, 1920

**Material examined:** CME: L Mariout [Lake Mariout in Egypt], 8.04.1923, 1 ex., leg. A. Carneri.

**Distribution:** Egypt (Mayor 2007), Israel (Chikatunov et al. 1999).

**Comments.** This species has also been expanding its areal over the past decades, as evidenced by the findings from the Middle East. Label of this specimen in bad condition.

#### *Colotes javeti* Jacquelin du Val, 1787

**Material examined:** Mariout, 21.08.1937, 1 ex., leg. Houlbert; CME: EGITTO [Egypt in Italian], undated, 1 ex., leg. A. Carneri.

**Distribution:** Portugal, Spain, France, Italy, Algeria, Egypt, Morocco, Tunisia (Mayor 2007).

**Comments.** Described from France, it extends to Portugal, Spain, the Balearic islands, Italy, Egypt, Tunisia, Algeria and Morocco. Thus this species, although Western Mediterranean in its origin, tends to become circum-Mediterranean.

#### *Cordylepherus viridis* (Fabricius, 1787)

**Material examined:** Hellas [Greece], Lakonia, 5 km S. [5 km to the South] Monemvasia, 18.04.1979, 1 ex., leg. G. Christensen.

**Distribution:** Europe, Caucasus, Algeria, Afghanistan, Turkestan, Siberia, Mongolia (Mayor 2007).

**Comments.** Widely distributed in the Palaearctic. From lowlands to mountains, common.

***Malachius bipustulatus* (Linnaeus, 1758)**

**Material examined:** Greece, Sterea, Attiki [Attica], 27.06.1974, 5 exs., leg. S. Stamatia [S. Stamatiadis]; Greece, Sterea, mnt. Parnis, 28.06.1974, 2 exs., leg. S. Stamatia [S. Stamatiadis].

**Distribution:** Europe, Turkey, Western Siberia, Eastern Siberia, Japan (Mayor 2007).

**Comments.** Widely distributed within the Euro-Siberian areal. From lowlands to mountains, very common.

***Malachius coccineus* Waltl, 1838**

**Material examined:** CME: Adana [in Turkey], As min [Asia minor], undated, 1 ex., leg. A. Carneri.

**Distribution:** Greece, Cyprus, Turkey, Syria (Mayor 2007).

**Comments.** Unfortunately, the label of a single specimen is undated. However, one may assume that it dates from the 1920s, because it was collected by A. Carneri. His other collections are dated 1923.

***Ceratistes dilaticornis* (Germar, 1824)**

**Material examined:** Greece, Thessalia-Pilion [Thessaly, mnt. Pelion], 20.06.1974, 2 exs., leg. S. Stamatia [S. Stamatiadis]; Greece, Makedonia [Macedonia], Kastoria, 980 m, 7.05.1975, 1 ex., leg. S. Stamatiadis; Greece, Makedonia [Macedonia], Florina (Vronteron), 1300-1450 m, 8.05.1975, 1 ex., leg. S. Stamatiadis Greece, Makedonia [Macedonia], Amynteon [Aminteo], (vil. Klidi), 900 m, 11.05.1975, 1 ex., leg. S. Stamatiadis.

**Distribution:** France, Switzerland, Italy, Croatia, Bosnia Herzegovina, Serbia, Montenegro, Former Yugoslav Republic of Macedonia, Romania, Bulgaria, Greece, Turkey (Mayor 2007).

**Comments.** Usually it is not common. However, sometimes several specimens are found.

***Clanoptilus falcifer* (Abeille de Perrin, 1882)**

**Material examined:** Greece, Thessalia-Pilion [Thessaly, mnt. Pelion], 20.06.1974, 3 exs., leg. S. Stamatia [S. Stamatiadis].

**Distribution:** Italy, Hungary, Bulgaria, Turkey, Caucasus, South European Russia (Mayor 2007), Ukraine (Mirutenko 1998, 2008), Greece (Constantin 2004).

**Comments.** Rare species. R. Constantin notes the species for Greece in Fauna Europaea. However, there are no other published data on findings in Greece.

***Attalus cyaneus* (Fabricius, 1787)**

**Material examined:** CME: Oran [in Algeria], undated, 1 ex., leg. A. Carneri.

**Distribution:** Spain, France, Switzerland, Italy, Malta, Algeria, Tunisia (Mayor 2007).

**Comments.** The label of a single specimen is undated. However, one may assume that it dates from the 1920s, because it was collected by A. Carneri. His other collections are dated 1923.

***Attalus nourichelii* (Laporte, 1838)**

**Material examined:** CME: Algeria, undated, 2 exs., leg. A. Carneri.

**Distribution:** Italy (Mayor 2007).

**Comments.** Labels are undated. We may assume that it dates from the 1920s, because it was collected by A. Carneri. His other collections are dated 1923. Until now, this is the only report for North Africa.

***Brachemys peragalloi* Perris, 1866**

**Material examined:** CME: Alp. marit [Alpi marit – Alpes maritimes in Italian], undated, 3 exs., leg. A. Carneri.

**Distribution:** France, Italy (Mayor 2007).

**Comments.** Determined by an anonymous person as “*Attelestus Peragalloi*”. Labels are undated. We may assume that it dates from 1923 because it was collected by A. Carneri.

**Family DASYTIDAE Laporte de Castelnau, 1840**

***Psilothrix viridicoerulea* (Olivier, 1790)**

**Material examined:** Chersonissos [=Hersonissos], Kreta [Crete], 6-20.04.1981, 1 ex., leg. W. Gnadt.

**Distribution:** Europe (except Eastern), Canary Islands, Morocco, Algeria, Tunisia, Libya, Turkey (Mayor 2007).

**Comments.** Determined as "*Psilothrix cyaneus*". It is a junior synonym of *Psilothrix viridicoerulea*. The species has a wide distribution in the western Palaearctic.

***Danacea hispanica* (Gougelet & Brisout de Barneville, 1859)**

**Material examined:** CME: Portugal, undated, 4 exs., leg. A. Carneri.

**Distribution:** Spain (Mayor 2007).

**Comments.** Unfortunately, the labels are undated. Probably, it dates from the 1920s, because it was collected by A. Carneri. Until now, this is the only report for Portugal.

***Danacea atripes* Graells, 1858**

**Material examined:** CME: Portugal, undated, 2 exs., leg. A. Carneri.

**Distribution:** Portugal, Spain (Mayor 2007).

**Comments.** The labels are undated. As with the previous species, it may date from the 1920s, because it was collected by A. Carneri.

***Danacea nigritarsis* (Küster, 1850)**

**Material examined:** CME: Touraine [in France], undated, 3 exs., leg. Desbrochers.

**Distribution:** Sweden, Netherlands, Belgium, France, Spain, Germany, Switzerland, Austria, Czech Republic, Poland, Slovakia, Hungary, Romania, Ukraine (Mayor 2007), Bulgaria (Angelov 1989), Greece (Legakis 1990).

**Comments.** Common species.

***Dasytes* sp.**

**Material examined:** CME: Alger [Algeria], undated, 1 ex., leg. A. Carneri.

**Comments.** Determined by an anonymous person as "*Dasytes communiculatus*". The label is undated.

***Haplothrix* sp.**

**Material examined:** CME: Alger [Algeria], undated, 2 ex., leg. A. Carneri.

**Comments.** Determined by an anonymous person as "*Dasytiscus sestitus*". Labels are undated.

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## **Οι οικογένειες *Malachiidae* και *Dasytidae* στις συλλογές του Μουσείου Γουλανδρή Φυσικής Ιστορίας**

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### **ΠΕΡΙΛΗΨΗ**

Εξετάστηκαν οι συλλογές εντόμων του Μουσείου Γουλανδρή Φυσικής Ιστορίας στην Αθήνα. Ταυτοποιήθηκαν έντεκα είδη της οικογένειας *Malachiidae* και έξι είδη της οικογένειας *Dasytidae* στις συλλογές του Μουσείου. Παρέχεται κατάλογος των ειδών αυτών, με τις τοποθεσίες και ημερομηνίες των καταγραφών, δεδομένα για την κατανομή τους καθώς και σύντομα σχόλια.