

THE LANGURIIDAE (COLEOPTERA) OF THE MALTESE ISLANDS

David Mifsud¹

ABSTRACT

Four species of Languriidae are recorded from Malta: *Xenoscelis costipennis* (Fairmaire), *Leucohimatium arundinaceum* (Forskål), *Setariola sericea* (Mulsant & Rey) and *Cryptophilus integer* (Heer). Of these, *S. sericea* was not previously recorded from the Maltese Islands.

INTRODUCTION

The Languriidae is a relatively small family of beetles with 98 genera and 1051 described species (Leschen & Wegrzynowicz, 1998). The taxonomic history of the Languriidae is complicated because many of the currently recognized genera were at one time included in either the Cryptophagidae or the Erotylidae and the phylogeny of these beetles is not yet clear. In this account, the classification follows that proposed by Pakaluk et al. (1994) and Lawrence & Newton (1995), in which five subfamilies are recognised within the Languriidae. These are the Languriinae, Xenoscelinae, Setariolinae, Toraminae and Cryptophilinae.

The Languriinae, commonly known as Lizard Beetles, are the most numerous, with over 750 described species in the tropics. Seventy-five described species are included in the Toraminae which are mainly distributed in Central and South America. The Xenoscelinae and Cryptophilinae contain 191 and 33 described species respectively and have a world wide distribution. The Setariolinae is a monotypic subfamily with a South European representative.

Some members of the Languriidae, such as *Cryptophilus integer* (Heer) and *Leucohimatium arundinaceum* (Forskål), are considered as incidental pests of stored grain. Most Languriinae and some Xenoscelinae are strictly phytophagous, while the remaining taxa are either saprophagous, associated with decaying plant material, or mycophagous, or are pollen feeders.

Only three subfamilies of Languriidae are represented in the Maltese Islands. In the list of Coleoptera occurring in the Maltese Islands, Cameron & Caruna Gatto (1907) included three species. *Cryptophilus integer* (Heer) and *Leucohimatium arundinaceum* (Forskål) (= *elongatum* Erichson, 1846) under 'Cryptophagidae' and *Xenoscelis costipennis* (Fairmaire) under 'Cucujidae'. The Italian fauna of this family is represented by the same four species mentioned in this work. However, in the recent checklist of species of the Italian fauna (Angelini et al., 1995) *Cryptophilus integer* was omitted by mistake (Poggi, R., pers. comm.).

Material has been deposited in the following collections:

BMNH The Natural History Museum, London, UK,
CMM private Collection, Mifsud, Malta,
MCSN Museo Civico di Storia Naturale 'Giacomo Doria', Genova, Italy,
NHMB Naturhistorisches Museum, Basel, Switzerland.

ANNOTATED LIST OF SPECIES

Xenoscelinae Ganglbauer, 1899

Xenoscelis costipennis (Fairmaire, 1852)

Material examined. MALTA, St. Thomas Bay (towards tal-Munxar), 1 ex., 25.v.1994, leg. D. Mifsud (CMM); Bidnija, 2 exs., under decaying vegetation, 23.ii.1997, leg. D. Mifsud (CMM).

¹ Naturhistorisches Museum, Augustinergasse 2, CH-4001 Basel, SWITZERLAND.

Comments. *X. costipennis* was previously recorded from Gnejna (Cameron & Caruana Gatto, 1907). It has a Mediterranean distribution.

***Leucohimatium arundinaceum* (Forskål, 1775)**

Material examined. MALTA, 1 ex., (no additional data) (BMNH - Champion Coll.).

Comments. *L. arundinaceum* is almost cosmopolitan in distribution, and has been reported to feed on nutspores. It is frequently found associated with stored products.

Setariolinae Crowson, 1952

***Setariola sericea* (Mulsant & Rey, 1863)**

(Fig. 1)

Material examined. MALTA, Mtahleb, 15 exs., in leaf litter under *Cistus monspeliensis*, 2.v.1997, leg. D. Mifsud & R. Poggi (CMM, MCSN), 6 exs., same data but 5.iv.1998, leg. D. Mifsud (BMNH, CMM), 2 exs., same data but 13.i.1999 (CMM).

Comments. *Setariola sericea* has a South European distribution (Leschen & Wegrzynowicz, 1998). It has been found in leaf litter under *Cistus* shrubs. In the Maltese Islands, *Cistus* shrubs are rare and with a restricted distribution (Lanfranco, 1989). Thus, the status of this beetle is locally vulnerable. A population of *Cistus monspeliensis* is known also from Gozo (Wied Bingemma/Wied ir-Rihan area)

where, most likely, *S. sericea* also occurs. *S. sericea* was not previously recorded from the Maltese Islands.

Cryptophilinae Casey, 1900

***Cryptophilus integer* (Heer, 1841)**

Material examined. MALTA, 6 exs., (no additional data) (BMNH-Champion Coll.); Zejtun, 1 ex., 21.v.1989, leg. D. Mifsud (CMM); Ghammieri (Marsa), 2 exs., under bark of *Eucalyptus* trees, 16.xii.1993, leg. D. Mifsud (CMM); Siggiewi, 1 ex., 10.v.1998, leg. D. Mifsud (CMM); Buskett, 7 exs., under decaying hay and vegetation, 12.ii.2000, leg. D. Mifsud (CMM, NHMB); Bahrija, 1 ex., 20.vii.1997, leg. D. Mifsud (CMM).

Comments. *Cryptophilus integer* was recorded from Buskett (Cameron & Caruana Gatto, 1907). It is a minor pest of stored products but is also found in leaf litter and mouldy vegetation. It has a world wide distribution with most records concentrated in temperate regions.

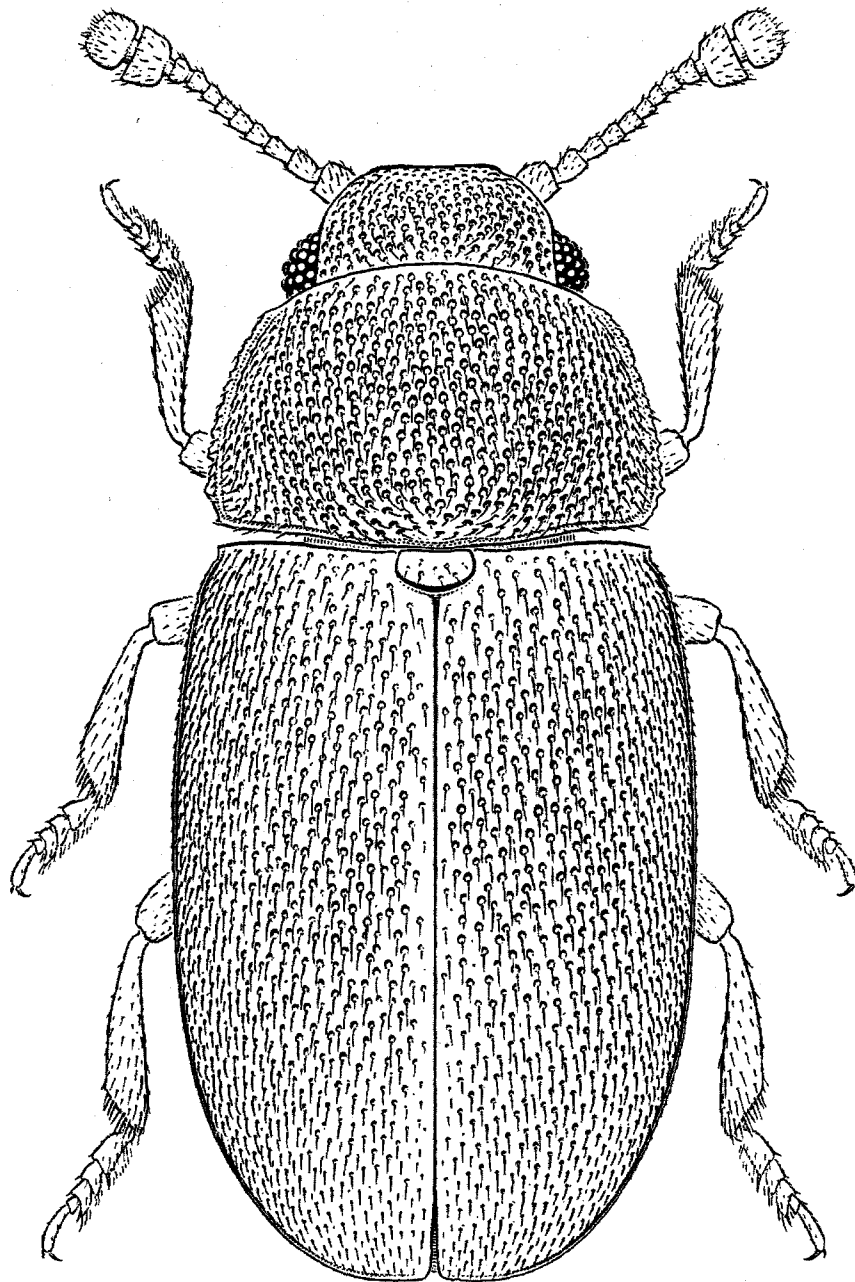
ACKNOWLEDGEMENTS

I would like to thank Roger Booth (BMNH), Roberto Poggi (MCSN) and Stanislaw Adam Slipinski (Warszawa, Poland) for help and suggestions provided during the preparation of this work. I also thank Armin Coray (NHMB) for the habitus drawing.

(Received 27th June 2000)

REFERENCES

- Angelini, F., Audisio, P., De Biase, A., Poggi, R., Ratti, E. & Zampetti, M. F., (1995). Coleoptera Polyphaga X (Clavicornia I). In: Minelli, A., Ruffo, S. & La Posta, S., [eds.], *Checklist delle specie della fauna italiana*, 55. Calderini, Bologna.
- Cameron, M. & Caruana Gatto, A., (1907). A list of the Coleoptera of the Maltese Islands. *The Transactions of the Entomological Society of London*, 59 (3): 383-403.
- Lanfranco, E., (1989). The Flora, pp. 5-70. In: Schembri, P. J. & Sultana, J. [eds.], *Red Data book for the Maltese Islands*. Department of Information, Malta, viii + 142 pp.
- Lawrence, J. F. & Newton, Jr. A. F., (1995). Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family group names), pp 779 – 1006. In: Pakaluk, J. & Slipinski, S. A., [eds.], *Biology, phylogeny, and classification of Coleoptera: papers celebrating the 80th birthday of Roy Crowson*. Warszawa, Museum i Instytut Zoologii PAN, Volume two, vi + 559 – 1092 pp.



1mm

Fig. 1 - Habitus of *Setariola sericea* (Mulsant & Rey, 1863)

Leschen, R. A. B. & Wegrzynowicz, P., (1998). Generic catalogue and taxonomic status of Languriidae (Cucujoidea). *Annales Zoologici*, **48** (3-4): 221-243.

Pakaluk, J., Slipinski, S. A. & Lawrence, J. F., (1994). Current classification and Family-group names in Cucujoidea (Coleoptera). *Genus*, **5** (4): 223-268.
