



<http://dx.doi.org/10.11646/zootaxa.3616.2.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:BB88D592-8430-473C-BC40-7D43AC5149AA>

Identity of *Eumenodora encrypta* Meyrick, a cryptic Australian moth (Lepidoptera: Gelechioidea)

LAURI KAILA

Finnish Museum of Natural History, Zoology Unit, P.O.Box 17, FI-00014 University of Helsinki, Finland.

E-mail: lauri.kaila@helsinki.fi

Abstract

A hitherto neglected gelechioid moth genus *Eumenodora* Meyrick (Gelechioidea: Elachistidae; Cosmopterigidae; Xyloryctidae) is redescribed. The genus, originally assigned to the Elachistidae and later transferred to the Cosmopterigidae, is monotypic. The single constituent species, *E. encrypta* Meyrick, 1906, has long been known only from the holotype, collected in Brisbane, Queensland (Australia). The specimen lacks its abdomen. The genus is characterized and the single recognized species redescribed based on recently collected adult males and a female. Evidence from morphology, supported by DNA sequences, is provided to support the placement of the taxon in the *Hierodoris* group of the Xyloryctidae, in spite of its atypical external appearance.

Key words: systematics, Gelechioidea, Cosmopterigidae, Elachistidae, Xyloryctidae, *Hierodoris* group, re-description

Introduction

Australia is notorious for harbouring a vast diversity of moths belonging to the superfamily Gelechioidea where it is by far the largest lepidopteran superfamily (Nielsen et al. 1996). While the Oecophoridae is the largest of gelechioid families in Australia, families such as the Gelechiidae, Xyloryctidae, Cosmopterigidae, Elachistidae and Stathmopodidae are also particularly diverse there (Common 1990, Nielsen et al. 1996, Kaila 2011). Among well-defined groups there occurs also a large diversity of species, both described and undescribed, whose systematic position has never been thoroughly scrutinized. For convenience, many of these have been placed in families where they best seem to fit. A family of such a ‘waste-paper basket’ nature for smaller and narrow-winged gelechioids in Australia has traditionally been Cosmopterigidae, part of which will prove when studied to belong to other groups, for example Parametriotinae (Elachistidae s. l.) and Scythirididae (L. Kaila, personal observation; see also Sinev 2002).

One of the Australian taxa that has never received attention is *Eumenodora encrypta* Meyrick, 1906. The genus is monotypic, and was originally described in the Elachistidae. At the time of the description, though, the family concept was different from the current one. The Elachistidae s. *stricto*, equating to the present-day Elachistinae (see e.g. Nielsen & Traugott-Olsen 1977, Kaila 1999, 2004) was first defined by Busck (1909) and Walsingham (1909). Nye & Fletcher (1991) place *Eumenodora* at Cosmopterigidae without comment. Edwards & Nielsen (1996) follow this placement in the check-list of Australian Lepidoptera. Cosmopterigidae and several other groups of Gelechioidea were characterized by, e.g., Hodges (1978) and Koster & Sinev (2003). Apart from Meyrick (1906) and the Australian check-list, the genus seems to have been mentioned only twice in the literature: in the list of generic names of Microlepidoptera by Nye & Fletcher (1991), and by Kaila et al. (2011) where it was included as unassigned in a molecular study of the Gelechioidea. The species has been only known from the holotype, held in the Natural History Museum, London. It lacks the abdomen which hampers its identification. This taxon caught the present author’s interest during revisionary work on Australian Elachistinae (Kaila 2011), due both to its superficial similarity to the Elachistinae, and Meyrick’s initial placement of the taxon in this family. An examination of the holotype (Fig. 1) has permitted the identification of recently collected material as this species (Figs 2, 3). Although the genitalic characters could not be used in the identification of the recently collected specimens, these specimens agree in all other respects with the holotype, and no other closely similar species is known. Based on this material, the species is re-described here, and its systematic position is discussed.