August 2017

Definition of the Subfamily Hedobiinae Based on Larval Characteristics (Coleoptera: Anobiidae)

Manuel G. de Viedma

Universidad Politecnica, Madrid

Follow this and additional works at: https://scholar.valpo.edu/tgle

Part of the Entomology Commons

Recommended Citation

de Viedma, Manuel G. 2017. "Definition of the Subfamily Hedobiinae Based on Larval Characteristics (Coleoptera: Anobiidae)," The Great Lakes Entomologist, vol 6 (2)
Available at: https://scholar.valpo.edu/tgle/vol6/iss2/3

This Peer-Review Article is brought to you for free and open access by the Department of Biology at ValpoScholar. It has been accepted for inclusion in The Great Lakes Entomologist by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu.
DEFINITION OF THE SUBFAMILY HEDOBIINAE BASED ON LARVAL CHARACTERISTICS (COLEOPTERA: ANOBIIDAE)

Manuel G. de Viedma
Department of Entomology, College of Forestry,
Universidad Politécnica, Madrid, Spain

Recently, Español (1968, 1970) redefined the subfamily Hedobiinae and, using the anatomy of adults, presented a key to separate the eight genera which form it. He also introduced some notable modifications, among them the inclusion of Ptilineurus and Clada in the subfamily and the elevation of Ptinomorphus Mulsant and Rey to generic rank. The latter genus includes, among others, the species P. imperialis Linnaeus and regalis Duftschmid, from Europe and P. granosus LeConte and angulatus Fall from the United States of America.

Hedobiinae is one of the most isolated and well-defined divisions of the Anobiidae. Information from research now in progress, in which I am describing the larva of Clada fernandezii Español from the Canary Islands, makes it possible at this time to define the subfamily on larval characters and to present a key to genera, including Clada.

The main larval characters defining the subfamily Hedobiinae are: head retracted; pigmented field behind epistoma present (except in Ptilineurus); lacinia distally armed with one or three strong spines; prodorsal asperities absent (Clada) or not hooked (Eucrada, Ptinomorphus) or present and hooked (Ptilineurus); basal part of pretarsus long, with four or more setae; tormae and labral rods forming a pair of Y-shaped, strong, parallel features; larvae spinning a silken cocoon for pupation. [The use of a silken cocoon for pupation was reported in the genus Ptilineurus by Fisher, 1919; in Clada by Español, 1968; in Eucrada and Ptinomorphus by Rozen, 1957; and in Hedobia by Wachtli, 1876.]

Data from larval anatomy and life history support the inclusion of the genera Ptilineurus and Clada in the subfamily. Particularly significant here are the characters of the modified lacinia and the form and vestiture of the basal part of the pretarsus, as well as the construction of the silken cocoon.

KEY FOR THE SEPARATION OF THE FOUR GENERA WITH KNOWN LARVAE

1. Prodorsal asperities hooked, basal part of pretarsus sclerotized and with numerous ovate setae, lacinia distally armed with 3 strong, pointed spines .... Ptilineurus

1'. Prodorsal asperities either absent or not hooked, basal part of pretarsus membranous and with 4-6 setae; lacinia distally armed with one strong spine .......... 2

2. Prodorsal asperities absent .......................................................... Clada

2'. Prodorsal asperities present on most segments ........................................ 3

3. Maxillary palpus with 4 articles; spiracles with numerous short air tubes on one side of peritremata; mandible without teeth projecting from the edge of the distal part .... Eucrada

3'. Maxillary palpus with 3 articles; spiracles with a single short air tube; mandible with 3 teeth slightly projecting from the edge of the distal part .......... Ptinomorphus

LITERATURE CITED


Viedma, M. G. de. (in preparation). Descripción de la larva de *Clada fernandezi* Esp. y consideraciones acerca de la subfamilia Hedobiinae (Col. Anobiidae).