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## DEFINITION OF THE SUBFAMILY HEDOBIINAE BASED ON LARVAL CHARACTERISTICS (COLEOPTERA: ANOBIIDAE)

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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 fernandesi* 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 Wachtl, 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 peritrema; mandible with 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*

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