

to each other, but the differences are slight. *Selidosema panagrata* pupae can be readily identified by the presense of a reniform spiracular groove on A_5 . In all the genera examined, the transverse dorsal groove and the lateral groove delimiting the cremaster are of variable shape; the transverse groove is invariably irregularly crenulate and minutely pubescent.

The pupal cremaster (Fig. 7a, b) bears a strong resemblance to the anal shield, and on position only, the setae of the pupal cremaster and the larval anal shield are considered homologous. In the "Ennomine" type of pupa, setae SD_1 , D_1 , L_1 and D_2 are present; in the New Zealand genera the D_2 setae form the apical prong. In the "Boarmiine" type, the setae SD_1 , D_1 , and L_1 are lost, only D_2 remaining to form the bifid cremaster apex.

As do the pupal characters, so do the adult genitalic characters bear out the consistency of the characters used to classify the larvae of New Zealand Ennominae. The genitalia of the Ennomine spp. listed in the introduction were examined except for the female of *Declana egregia*; in addition the genitalia of the following species were examined (*denotes female not examined):

Selidosema adusta Phlp.*; *S. argentaria* Phlp.; *S. fluminea* Phlp.*; *S. lupinata* (Feld.)*; *S. ombrodes* Meyr.*; *S. terrena* Phlp.*; *Declana callista* Salm.*; *Azelina nelsonaria* Feld. The male genitalia of *Hybernia indocilis*, *Selidosema suavis*, *S. productata*, *Sestra flexata* and *Declana griseata* are shown in Fig. 9 a-e; the female genitalia of *Declana leptomera* and *Selidosema suavis* are shown in Fig. 10a, b. These six species show most of the characteristic features of their genera or groups of genera. Terminology of the structures is that advocated in Tuxen's (1956) glossary.

Pierce (1914) distinguishes eight tribes in the Ennominae, each distinguishable from the other by differences in the genitalia: Ennomini, Macarini, Ourapterygini, Bistonini, Boarmiini, Erannini, Gnophini and the Abraxini. Of these tribes, the Boarmiini, Ennomini and possibly Erannini are represented in the New Zealand fauna. The characters selected by Pierce to distinguish these three tribes are:

(a) *Ennomini*: Gnathos dentate; valves generally broad, with setose areas on their inner surfaces; furca (where present) forked; uncus strong; coremata (a bush of long hairs) on A_9 ; females with a dentate signum on the bursa copulatrix.

(b) *Boarmiini*: uncus strong; gnathos strong; valves of variable shape with spiny armature; female with ovipositor retractile; signum dentate.

(c) *Erannini*: foreshortened uncus with two apical points; valve spinose, juxta a thin bifurcate plate.

The genera *Declana*, *Sestra*, *Azelina* and *Gargaphia* have similar male genitalia; this group is not excluded by Pierce's definition of the Ennomini. The genus *Selidosema* (including *S. dejectaria*) have genitalia which are typical of Pierce's Boarmiini, which includes European species of *Selidosema*. The genus *Hybernia*, while lacking the double-apexed uncus, otherwise resemble Pierce's figures of European Erannini.

The genitalic characters of the New Zealand Ennomini, Boarmiini and Erannini are listed below.

Ennomini: Males: uncus elongate, sparsely haired beneath, base small; socii present or absent (see below); gnathos strong, either billhook shaped, or with expanded, spinose apices joined by a transverse bar, gnathos extending to near costal process; valves long, broad, with the cucullus as a setose band extending alongside the costa; no valvular or saccular processes; inner costal process ("transtilla") strongly sclerotised, often massive, scobinate, or spinose, usually joining in midline or greatly curved outwards (in which case uncus is short, socii absent, cucullus is terminal and a true transtilla is present). Juxta plate-like, furca forked,