

2087 (10351) Turnip Moth *Agrotis segetum* ([Denis & Schiffmüller], 1775)

2088 (10350) Heart & Club *Agrotis clavis* (Hufnagel, 1766)

2089 (10348) Heart & Dart *Agrotis exclamationis* (Linnaeus, 1758)

Common

Common

Common

Diagnostic external characters

Most examples of these three species can safely be identified using external characters given by Waring *et al.* (2009) and Heath and Emmet (1979). However, they are highly variable in colour and wing markings, and identification of atypical or worn examples may prove impossible without examination of genitalia, which show clear differences. The lack of pectinations visible to the naked eye on the antennae of the male *exclamationis* is useful in separating that species from the others.

Key to diagnostic morphological characters of the males

If the abdomen is soft, the diagnostic features of the valva can be seen if it is extruded.

- 1. Antennae shortly bipectinate (to the naked eye, projections not visible or barely visible).
Harpe narrow, fairly straight (Fig. 60, A).....*exclamationis*
- Antennae strongly bipectinate in basal half. Harpe stout, curved (Figs. 58-59, A).....2
- 2. Harpe comparatively short, broader (especially basally) (Fig. 58, A).....*segetum*
- Harpe comparatively long, narrower (especially basally) (Fig. 59, A).....*clavis*

Key to diagnostic morphological characters of the females

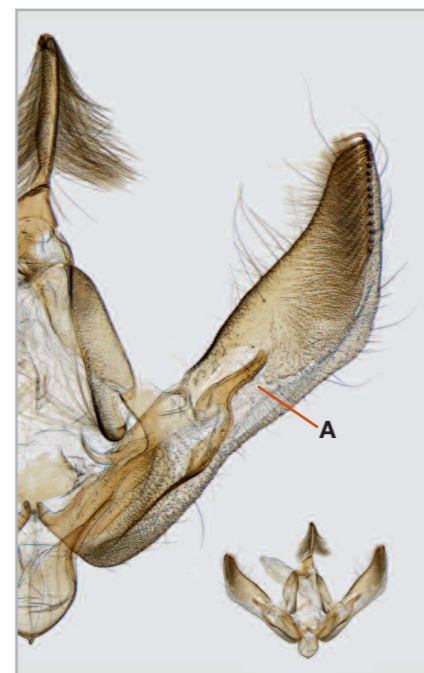
- 1. Ostium not cupped (Fig. 61, A). Eighth sternite with a pair of curious large, round processes, one either side of ostium (B). Corpus bursae with a single long, linear signum (C).....*segetum*
- Ostium cupped (Figs. 62-63, A). Corpus bursae lacking signa (C).....2
- 2. Appendix bursae shorter (Fig. 62, B).....*clavis*
- Appendix bursae longer (Fig. 63, B).....*exclamationis*



58. *Agrotis segetum*

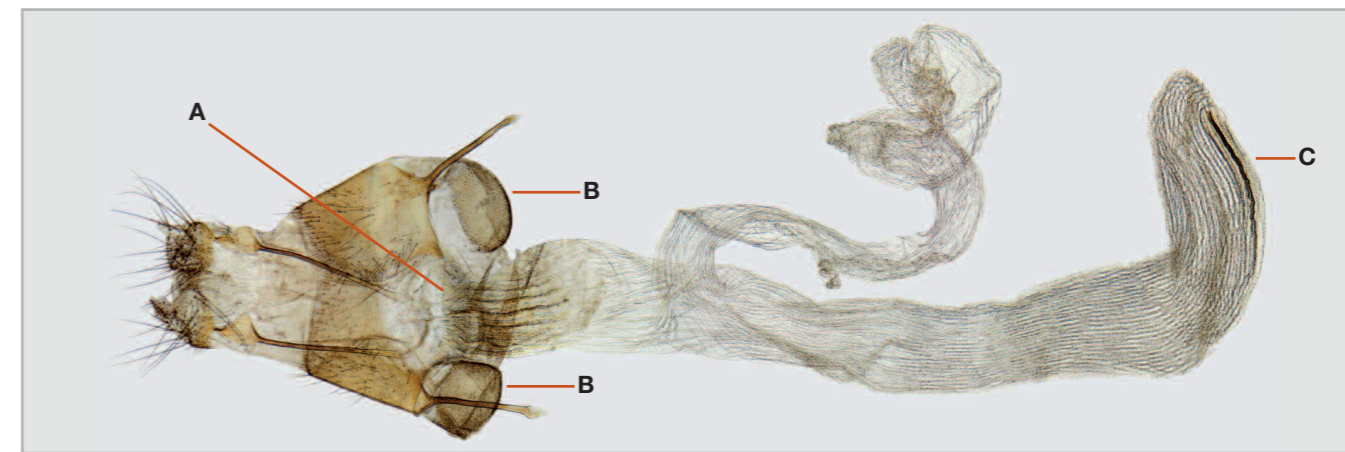


59. *Agrotis clavis*

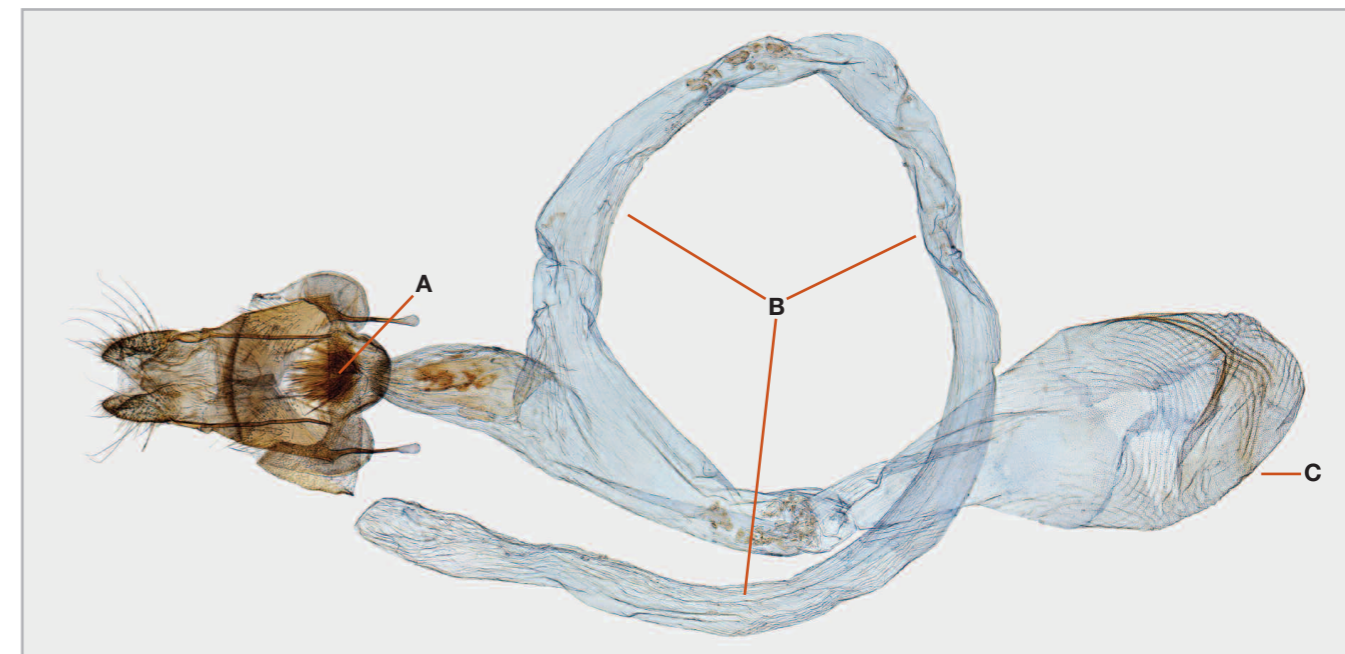


60. *Agrotis exclamationis*

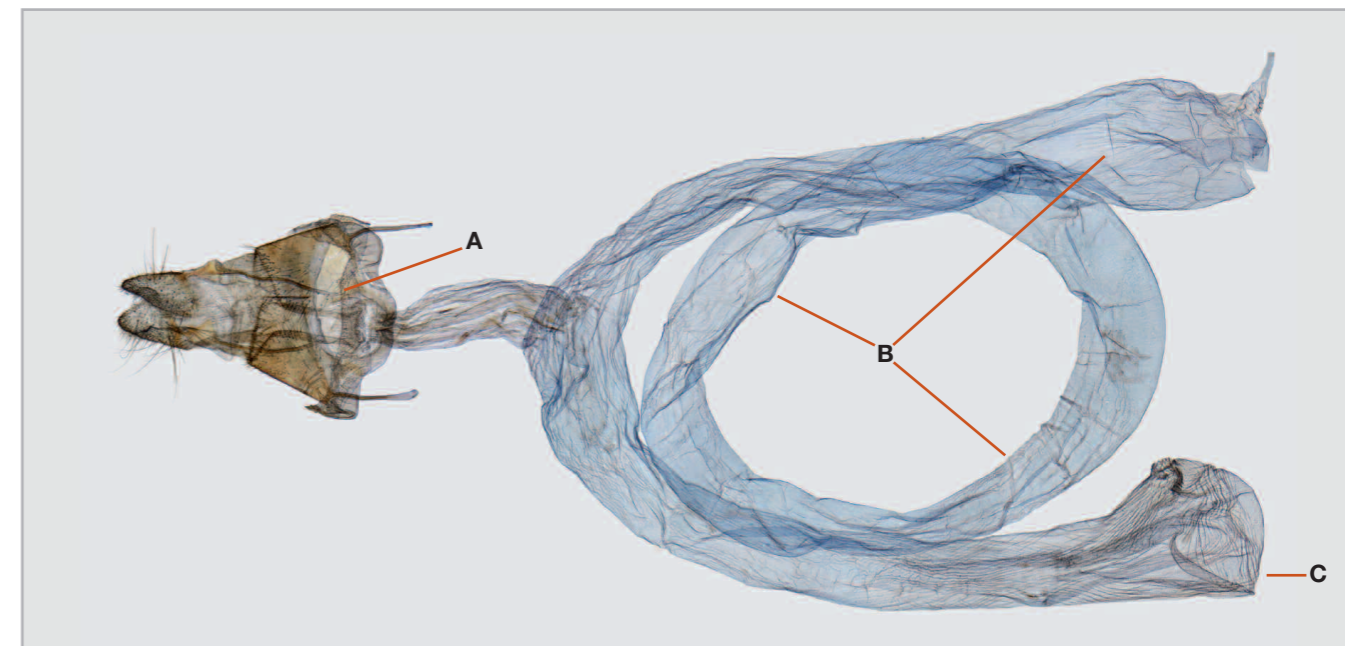
Plate 14. Genitalia of male *Agrotis* species (aedeagus not shown).



61. *Agrotis segetum*



62. *Agrotis clavis*



63. *Agrotis exclamationis*

Plate 15. Genitalia of female *Agrotis* species.