

# 1. PaDIL Species Factsheet



## Scientific Name:

*Scirpophaga excerptalis* Walker, 1863  
(Lepidoptera:Crambidae)

## Common Name

Top Shoot Borer

Live link: <http://www.padil.gov.au:80/pests-and-diseases/Pest/Main/142297>

## Image Library

Australian Biosecurity

Live link: <http://www.padil.gov.au:80/pests-and-diseases/>

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Museum Victoria

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CRC National Plant Biosecurity

<http://www.crcplantbiosecurity.com.au/>



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<http://www.planthealthaustralia.com.au/>



Department of Agriculture, Fisheries and Forestry

<http://www.daff.gov.au/>



Department of Agriculture and Food, Western Australia

<http://www.agric.wa.gov.au/>

## 2. Species Information

### 2.1. Details

**Specimen Contact:** DAFF Biosecurity Darwin - [daff.gov.au](http://daff.gov.au)

**Author:** S. Anderson & L. Tran-Nguyen

**Citation:** S. Anderson & L. Tran-Nguyen (2012) Top Shoot Borer (*Scirpophaga excerptalis*) Updated on 2/24/2012 Available online: PaDIL - <http://www.padil.gov.au>

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### 2.2. URL

Live link: <http://www.padil.gov.au:80/pests-and-diseases/Pest/Main/142297>

### 2.3. Facets

**Commodity Overview:** Field Crops and Pastures

**Commodity Type:** Grains, Rice, Sugarcane

**Distribution:** Australasian - Oceanian, South and South-East Asia

**Group:** Moths

**Status:** Exotic species - absent from Australia

### 2.4. Other Names

*Chilo excerptalis* Walker, 1863a

*Schoenobius melanostigmus* (Turner 1922)

*Scirpophaga butyrota* Meyrick, 1889

*Scirpophaga excerptalis* (Walker) Hampson, 1895

*Scirpophaga monostigma* Zeller, 1863

*Scirpophaga ochroleuca* Meyrick 1882

*Scirpophaga sericea* Snellen 1880

*Sugarcane top borer*

*Sugarcane top moth borer*

*Tipanaea innotata* (Walker 1863)

*Topeutis (sic) rhodoproctalis* Hampson, 1919b

*Tryporyza butyrota* (Meyrick) Common, 1960

*Tryporyza intacta* Snellen, 1890

*Tryporyza nivella intact* Snellen, 1890

*White top borer*

### 2.5. Diagnostic Notes

Common symptoms of infestation are the appearance of parallel rows of 'shot holes' on leaves, a red streak caused by mining the inside of the midrib, dead hearts and a bunched top appearance of shoots (Arora 2000).

The young larvae tunnel through the unexpanded leaves and cause a series of parallel horizontal holes to appear across the blade of the unfolded leaf (Sallam et al 2010). More mature infested plants show irregular, yellow patches on the underside of leaves. The larvae attack the growing point and continue to tunnel into the main stem of the plant. The 3rd generation causes the highest losses in cane yield, sucrose and commercial sugar (Sallam & Allsopp 2003).

*Scirpophaga excerptalis* lay their eggs in masses on the lower surface of sugarcane leaves covering their eggs with hairs from their orange red anal tufts. Young larvae enter the midrib of the first leaf and tunnel from the lower epidermis to emerge through the upper epidermis. Usually only one larvae survives due to food competition in the growing point of the stem (Sallam & Allsopp 2003).

Head with the frons smooth; labial palpi porrect, about 1.5 times the diameter of the compound eye, sometimes slightly longer but never more than twice the diameter of the eye; ocelli small and present; antennae simple in both sexes, profusely ciliated in males, sparsely in females, about half the length of forewing-costa in males and two-fifths the length females.

#### Forewing

Vein R1 anastomised fully with Sc, arising almost in line with Cu1b below; R2 a little before upper angle of cell; R3 + R4 stalked, the stalk generally shorter than R4 which is longer than R3; R5 from below the upper angle of cell; M1 below R5; M2-M3 very close to each other but not connate; Cu1a slightly before lower cell angle, close to M3 and in line with the origin of R2 above; Cu1b from before the cell angle and Cu1a.

#### Hindwing

Sc free till about cell angle, beyond which it is anastomised with Rs for halfway toward margin; M1 from cell angle; M2-M3, Cu1a, Cu1b as in forewing; frenulum single in both sexes (Arora 2000).

#9794 head with the frons white, labial palpi white, sometimes suffused with fuscous; antennae generally dark. Thorax upper side white, underside pale ochreous, suffused with fuscous; legs generally white on inner side, fuscous on outer side generally throughout up to claws, particularly on forelegs, fuscous suffusion sometimes reduced in tibia of mid- and hind legs. Abdomen white on upper side, pale ochreous on underside. Wings slightly shining white on upper side, pale ochreous on underside, sometimes suffused with fuscous, without or with a dark prominent spot at lower angle of cell in forewing.

#9792 as in male but legs are more shining white, with less of fuscous suffusion on underside. Anal tufts brilliant orange-red.

#### \*\*Genitalia\*\*

#9794 uncus moderately long, gnathos slightly wrinkled at apex; subteguminal process a long spine; valva expanded distally; manica with 2 sclerotized bands, at one end bearing a group of spines; aedeagus slender, vesica with coarse spines.

#9792 ostium bursae broad, wrinkled, strongly sclerotized, lined with spines; ductus bursae membranous; corpus bursae with dense spines (Lewvanich 1981).

\*\*Coming soon - PBT link with DNA Barcoding\*\*

## 2.6. References

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### 3. Diagnostic Images



Ramu Sugar, N. Sallam, 23.vii.2009 PNG  
**Adult female:** S. Anderson DAFF Biosecurity



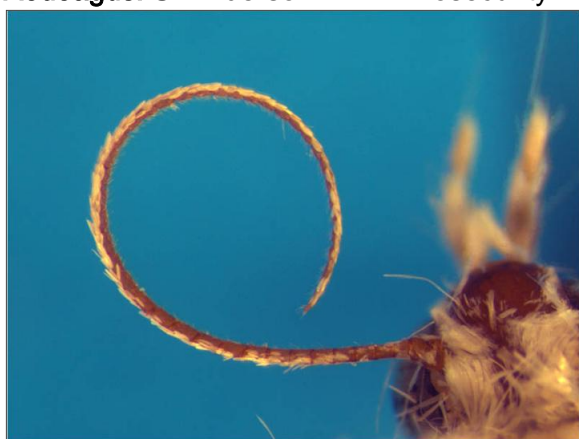
Gusap Madang Prov. B. Rutu 24.vii.1996 PNG  
**Adult male:** S. Anderson DAFF Biosecurity



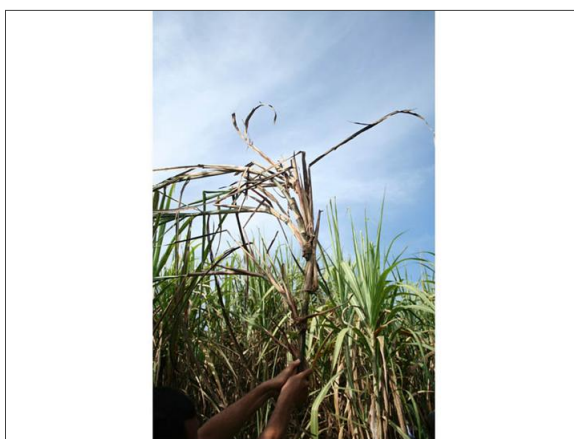
Gusap Madang Prov. B. Rutu 24.vii.1996 PNG  
**Aedeagus:** S. Anderson DAFF Biosecurity



Ramu Sugar, N. Sallam, 23.vii.2009 PNG  
**Anal tuft:** S. Anderson DAFF Biosecurity



Ramu Sugar, N. Sallam, 23.vii.2009 PNG  
**Antenna:** S. Anderson DAFF Biosecurity



PNG (BSES)  
**Dead heart:** N. Sallam Bureau Sugar Experimental Station



Gusap Madang Prov. B. Rutu 24.vii.1996  
PNG  
**Face:** S. Anderson DAFF Biosecurity



Ramu Sugar, N. Sallam, 23.vii.2009 PNG  
**Female forewing:** S. Anderson DAFF Biosecurity



Ramu Sugar, N. Sallam, 23.vii.2009 PNG  
**Female genitalia:** S. Anderson DAFF Biosecurity



Ramu Sugar, N. Sallam, 23.vii.2009 PNG  
**Hindwing:** S. Anderson DAFF Biosecurity



Gusap Madang Prov. B. Rutu 24.vii.1996  
PNG  
**Labial palps:** S. Anderson DAFF Biosecurity



Ramu Sugar, N. Sallam PNG  
**Larvae:** S. Anderson DAFF Biosecurity



Gusap Madang Prov. B. Rutu 24.vii.1996  
PNG  
**Male genitalia:** S. Anderson DAFF  
Biosecurity



PNG (BSES)  
**Shot hole damage:** N. Sallam Bureau Sugar  
Experimental Station

## Results Generated:

Tuesday, April 7, 2020

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