

## *Minthea rugicollis*

### Introduction

*Minthea rugicollis* was first described by Walker in 1858. This Lyctid beetle is of considerable importance in the timber industry and is known to attack seasoned or partially seasoned wood, representing 24 families, 52 genera and 93 species (Browne, 1919).

This beetle occurs in Sri Lanka and is found throughout the tropics having been reported from South East Asia, Australia, Ethiopia and the Neotropical region including some states of the Caribbean.

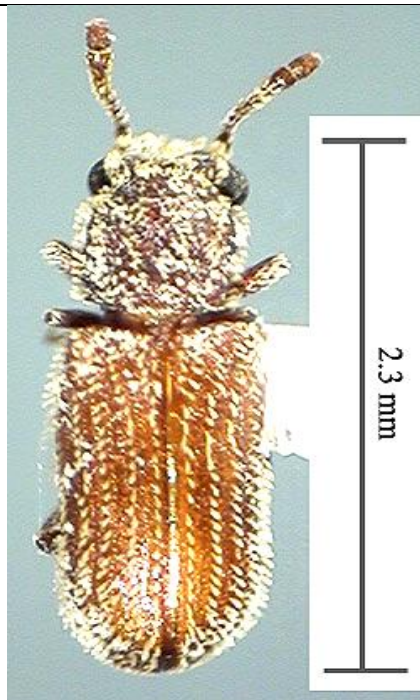
### Identity

Authority	: Walker
Classification	
Kingdom	: Animalia
Phylum	: Arthropoda
Class	: Insecta
Order	: Coleoptera
Family	: Lyctidae
Genus	: <i>Minthea</i>
Species	: <i>rugicollis</i>
Synonyms	: <i>Ditoma rugicollis</i> (Wlk.), <i>M. similata</i> (Pascoe), <i>Lyctus rugicollis</i> Wlk.
Common name	: Powder post beetle
Role	: Pest

### Signs & Symptoms

The larvae tunnel into seasoned or partially seasoned wood reducing the wood to a fine powder. The adult galleries are empty but the larval tunnels are tightly packed with fine dust. Damage caused by *M. rugicollis* is evidenced by small piles of frass (associated with the emergence holes) that collect on the surface of infested timber or fall nearby. Emerging adults push a small amount of frass out but larvae moving within the sapwood also cause frass to continue to fall from emerging holes.

## Morphology



*Fig. 1: Minthea rugicollis*  
(Photo located at <http://www.dpi.qld.gov.au/forestry/5035.html>)

*M. rugicollis* is a small beetle 2.0 – 3.0 mm in length with greyish white hair. It can be distinguished by the terminal segment of the antenna, which is slightly longer than the penultimate segment and the lateral margin of the pronotum bears approximately 19 squamous hairs. Elytra are approximately twice as long as they are wide with side margins subparallel widening slightly posteriorly with erect spatulate hairs forming 6 yellowish white rows on each elytron (Fig. 1).

## Biology & Ecology

There are three generations per year. Both adults and larvae feed on dried wood materials throughout the year, but are relatively less active in the winter season (Peters *et al.*, 1996). After mating, the female beetle seeks a suitable place for egg laying usually the open pores of the sapwood. A female lays up to 70 eggs. Eggs hatch after about 14 days and larvae feed on the starch of the sapwood until fully grown. The development period for the larvae varies from 2-12 months dependent on climatic conditions. Fully grown larvae tunnel towards the wood surface and excavate small oval cells where pupation occurs. Two to three weeks later mature beetles emerge each making a round hole (1-2 mm) in diameter as it emerges.

## Dispersal / vectors

Dispersal is effected mainly through the movement (transport) of infested lumber.

## Management

### Chemical Control

- Infested wood e.g. furniture, can be fumigated. Small items such as carved souvenirs are disinfected by placing items in the freezer for about one week.
- When fumigation and freezing do not prevent damage, residual pesticides should be used. The insecticides should be diluted in oil.

## Host Notes

Browne (1957)

Wood of the following genera of trees is most susceptible: *Afzelia*, *Artocarpus*, *Avicennia*, *Bomhax*, *Helicia*, *Koompassia*, *Shorea*.

## Distribution

*M. rugicollis* is widespread in tropical and subtropical regions. It has been reported from the Orient, Australia, Ethiopia, Africa and Neotropical regions including French Guiana, Guyana, Trinidad & Tobago, Dominican Republic and Puerto Rico.

### Pest significance

*Minthea rugicollis* occurs in a few states of the Caribbean and can pose a threat to the regional timber industry.

## Bibliography

- Anon (1957) A revision of the New World species of Powder Post Beetles belonging to the family Lyctidae. *Tech 1157.USDA* pp. 33-34.
- Browne (1957) A Revision of the New World Species of Powder Post Beetles belonging to the family Lyctidae. *Tech. Bull. 1157 USDA*.
- Peters, B.C., King, J. & Wylie, F.R., (1996) "Pests of Timber in Queensland". (*Queensland Forestry Research Institute, Department of Primary Industries, Brisbane*), 175pp..

### Web Resources -

<http://www.dpi.qld.gov.au/forestry/5035.html>