

ON THE BIOLOGY OF *Tirathaba mundella* Wlk..  
A PEST OF ARECA PALMS

*Tirathaba mundella* Wlk. (Pyralidae, Lepidoptera) was recorded as a serious pest on the inflorescence of arecanut palms in different parts of India by Appanna (1959), Anonymous (1962, 1965) and Nair (1963). Quite often this pest assumed serious proportions and as no information was available on the biology of the insect it was worked out at the Regional Arecanut Research Station, Palode, Kerala, the results of which are presented here.

The eggs are laid on the tender unopened spathes soon after the leaves fall, mostly on the side facing the stem, in irregular batches of about a dozen. The egg (Fig. 1) is oval and flat, greyish-white in colour and marked by pink spots when laid and turning yellowish-red subsequently. It measures on an average 0.8mm X 0.75mm. The chorion is transparent and finely reticulate. Incubation period lasts for about 5 days in January and February.

The newly hatched larva is 1.4—1.5mm in length, has a prominent black head and pale-white body tapering posteriorly and is covered by rows of hairs of different lengths. It bores into the spathe and starts feeding on the tender floral parts. In about 26 days the caterpillar becomes full fed. A full grown larva (Fig. 2) measures 23-25mm in length and 3 mm width with a greyish-brown body and reddish-brown head; the head is narrower than the body. The body bears a few hairs which are borne on circular or oval dark coloured sclerotized plates. Larval duration lasts for about 26 days covering 5 instars.

Pupation takes place in silken cocoons. The pupa (Fig. 3) measures 12-13mm in length ; pupal period lasts for 9-11 days.

The adult female (Fig. 4) is pale cinereous rosy with a light greenish tinge on the dorsal side and silvery-white on the ventral side. The male is smaller and paler. The body is clothed with an outer layer of coloured scales of different dimensions and having a lustrous appearance. The inner layer is mostly composed of golden-yellow scales of varying sizes. The female is 12-13 mm in length and 4-5 mm in width with an average wing expanse of 25 mm ; the male is 22 mm in wing expanse. The dorsal surface of the fore-wings is ash-grey with a greenish tinge prominent on the outer half and strewn with shining dots of large dark scales. Two sub-circular black patches are present on the fore-wings, the outer being larger than the inner one.

The damage is mainly caused by the larvae boring into the spathes and feeding on the tender floral parts. The infested inflorescence is ultimately reduced to a decaying wet mass of dead tissues and frass bound together with silken strands ; the spathes thus attacked fail to open (Fig. 5). The tender nuts of different stages of development are also attacked by the larvae, which bore into the nuts beneath the

calyx plugging the holes by frass ; the attacked nuts drop or dry up. Besides *Areca catechu*, *A. triandra* and *A. concinna* are also infested by this pest.

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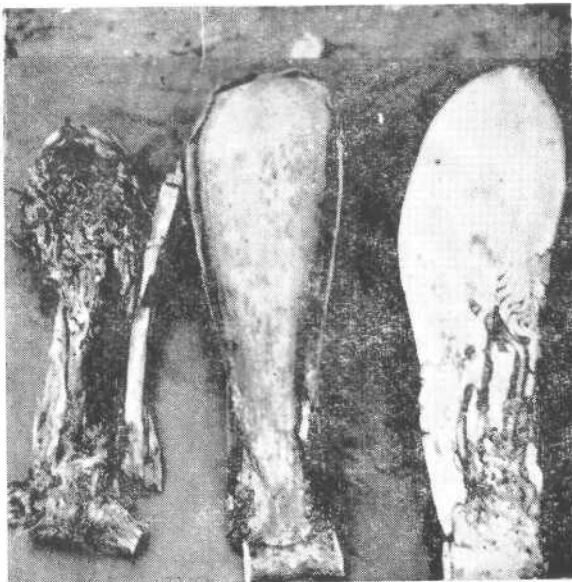
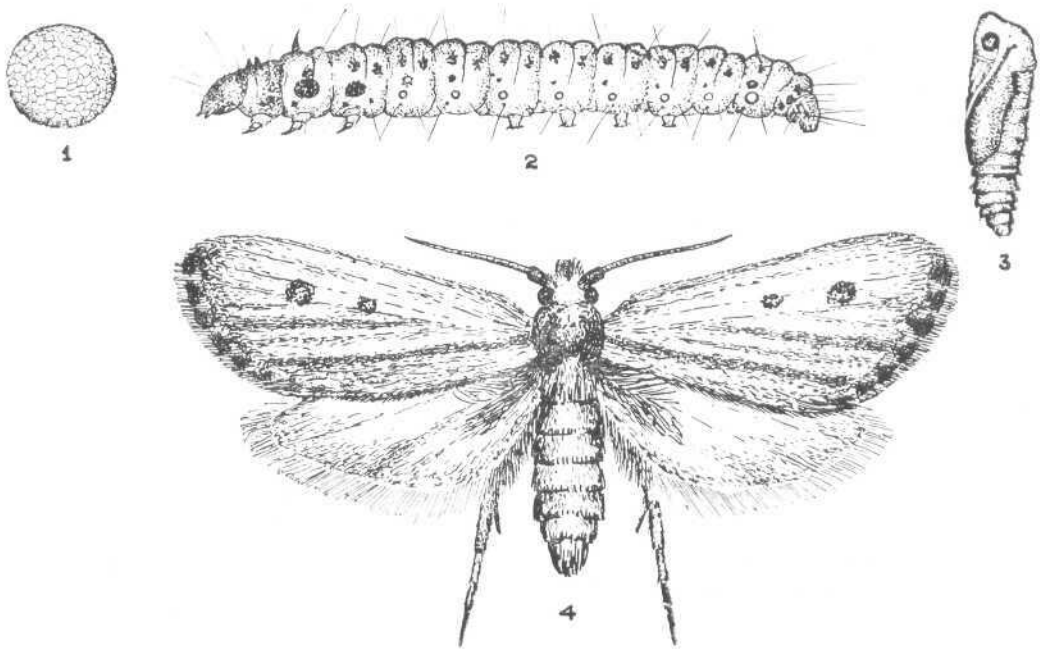
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Figs. 1-4: Life stages of *T. mundella*.  
1. Egg 2. Fullgrown larva  
3. Pupa 4. Adult  
Fig. 5. Areca spathes damaged by  
*T. mundella*

Fig. 5