

NEWS, NOTES, AND REVIEWS

Record of Three New Pests on Cashew: *Popillia complanata* Newm., *Pingasa ruginaria* Gn., and *Estigmene lactinea* C.

THE cashewnut tree (*Anacardium occidentale*) is attacked by a variety of insect pests. Basheer and Jayaraj (1964) have recorded 38 insect pests as infesting this tree. During November–December 1974, when cashew trees were in flushes, the following three insects, *Popillia complanata* Newm. (Coleoptera : Rutelidae), *Pingasa ruginaria* Gn. (Lepidoptera : Geometridae), and *Estigmene lactinea* C. (Lepidoptera : Arctiidae) were observed to infest it. These appear to be minor pests of cashew.

The adults of the cockchafer beetle, *P. complanata*, feed on unopened and opened flowers of cashew. An adult beetle feeds 10–18 flower buds/flowers in a day. These beetles have been observed to feed on rose flowers in October and on mango flowers in January. They have also been reported to feed on rose flowers in Palani Hills, Tamil Nadu State (Abraham *et al.*, 1970) and cacao foliage in Vittal, Karnataka State (Premkumar, in press). Laboratory feeding studies showed that the beetles do not consume other plant parts of cashew.

The adult beetles burrow into the soil and lay eggs singly. The eggs are white in colour and measure 2 mm in diameter. They hatch out in 10–12 days. The pale white grubs with an 'U'-shaped body feed on decomposing organic matter in the soil. Full grown larvae are 20–25 mm long and 5 mm wide. Larval period extends 41–50 days and pre-pupal period 2–3 days. Pupation takes place in the soil. Pupae are pale yellow in colour and measure 12–15 mm in length. Pupal period lasts 8–12 days. The beetles measure 10 mm in length and 6 mm in width. They are shining metallic blue in colour with two conspicuous white dots on the pygidium.

Caterpillars of *P. ruginaria* feed on both foliage and inflorescence. They are also known to damage red gram in Malabar, Kerala State (Ayyar, 1940). The larvae are characterised by white transverse bands on a black ground

pattern. Final instar larvae are 50–60 mm long and 5 mm wide. Adult is a medium sized moth, pale white in colour with a wide smoky band running along the apical margin of the fore and hind wings. Adults are attracted to lights.

The black hairy caterpillar or the black wooly bear, *E. lactinea*, feeds on cashew leaves. The larvae also attack millets (Ayyar, 1940). Second instar caterpillars feed gregariously scraping chlorophyll from the underside of leaves. The larvae are dirty black in colour with suffused yellow hairs in the middle one-third of the area. As they grow, they become black in colour and exhibit characteristic wooly bear-like movements. Pupation takes place in a rough silken cocoon in the soil. Adults emerge in 13–16 days. Eggs are laid in batches in the soil, leaves or sides of the cage.

CPCRI Regional
Station,
Vittal 574 243,
Karnataka State,
India.

C. SREERAMULU
T. PREMKUMAR
MARIAMMA DANIEL
B. SATHIAMMA

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