

**A NEW RECORD OF A PUPAL
ENDOPARASITE, *EXORISTOBIA
PHILIPPINENSIS* ASHMEAD
(HYMENOPTERA: ENCYRTIDAE), OF THE
UZI FLY, A SERIOUS PARASITE OF
SILKWORM**

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A few pupal parasites of uzi fly, *Exorista bombycis* Louis (Diptera: Tachinidae), have been recorded in recent years^{1, 2}.

Adults of *Exoristobia philippinensis* are black (figure 1). The females are larger and have an almost pointed abdomen whereas the males are smaller and have a blunt abdomen. Both males and females are very active and make hopping movements. The males are polygamous. Oviposition starts within a day of emergence. The adult female inserts its ovipositor into the host's puparium and eggs are laid within the body. The average numbers of eggs laid per female were 94.55, 99.27 and 135.6, when fed with 10% solutions of glucose, sucrose and honey respectively. Starved females laid an average of 44.37 eggs. The maximum fecundity recorded was 272, when fed with honey solution. The eggs hatch in 2-3 days. The larval period is 5-6 days. The pupal stage lasts for 6-7 days. The development from egg to adult takes 14-16 days. The adults cut almost round holes in the puparium to emerge out. The number of holes in each puparium varies from 1 to 5, the average being 2. From a single host pupa 60



Figure 1. Adult *Exoristobia philippinensis*.

individuals developed (60 average, range = 20-98). A single female parasitizes 1-6 host pupae.

The longevity of adults was prolonged by feeding them with sugary syrups. The average longevity was 10.25 days (range 5-19 days) when fed with 10% glucose solution, 14.84 days (range 3-24 days) when fed with 10% sucrose solution and 10.61 days (range 4-18 days) with 10% honey. However, unfed adults survived for 3 to 4 days only.

Females dominate the population (female:male = 95:5) ($n=35$). Parthenogenetic development gives rise to only males.

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**EFFECTS OF *TRIBULUS TERRESTRIS* LINN.
ON THE DEVELOPMENT OF POTATO TUBER
MOTH, *PHTHORIMAEA OPERCULELLA* Z.
(LEPIDOPTERA: GELECHIIDAE)**

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PLANTS are known to possess growth regulatory activity affecting the development of insects. The 'Paper factor' was earlier reported to alter the development in *Pyrrhocoris apterus* L¹. Stall² surveyed a large number of plants for Juvenile hormone activity by using *Dysdercus koenigii* (F.).

Juvenile hormone activity has been detected in *Tectona grandis* L., *Pterocarpus marsupium* Roxb., *Terminalia paniculata* Roth., *Verteria indica* L., *Lantana camera* L., *Anthocephalus cadamba* Miq³, *Morus alba* L⁴, *Tribulus terrestris* L. and *Parthenium hysterophorus* L⁵, to produce 'adultoids' in *Dysdercus cingulatus*.

The effects of *T. terrestris* (Zygophyllaceae) on the