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ON THE BIOLOGY OF *EUCHROMIA POLYMENA* (Amatidae : Lepidoptera) A PEST OF SWEET POTATO

Larvae of *Euchromia polymena* has been reported as pest of sweet potato rom various parts of India (Lefroy 1909, Fletcher 1921, Pillai 1921, Ayyar 1940) But no information is available on the biology of this insect. The present paper embodies some observations made on its biology.

Eggs (Fig. 1) are laid in groups of 80 to 100 on the under surface of leaves. They are spherical, cream coloured at first and turn black befor hatching. Incubation period lasts from 8 to 10 days.

First instar larva is 3 mm long with a light yellowish body and black head. Body is sparsely hairy during this instar. Soon after hatching they start feeding on the under surface of the leaves by scraping the green matter. The larva assumes a blackish tinge towards the end of this instar, The first instar period lasts 3 to 4 days. Second instar larva is 4.1 mm in length and is pale yellow in appearance. They exhibit a gregarious tendency and feed on the under surface of the leaves and reach third instar in 3 to 4 days. Third instar larvae are comparatively stout, 8.0 mm in length and black in colour. During this stage the body is hairy all over. From this stage onwards the larvae feed on whole leaves. Third instar period lasts 5 to 6 days. Fourth and fifth instar larvae are black in colour and measure 12 and 20 mm respectively in length. Each of these instars lasts 4 days,

The last (sixth) instar larva, (Fig. 2), 35 mm long, is dark purple to pink in colour. Meso and meta thorax possess two tufts cf black setae each on either side of the mid dorsal line. The first 8 abdominal segments carry dorso-laterally two prominent verrucae, one on either side of the mid dorsal line with a brownish wart in between except on the 8th segment, The verrucae are armed with numerous black setae. The arrangement of hairs on the 9th segment resembles that of the meso and meta thorax. The last abdominal segment is bare without verrucae or setae. The larvae become full grown in 4 days and enters a pre-pupal stage which lasts for a day.

Pupation takes place in a cocoon of silk and felted hairs. The ovo-cylindrical cocoon, 22 mm long and 10 mm broad, is attached by one side to the stem or leaf petiole of the host plant. Pupa (Fig. 3) is darkbrown, 15 x 5 mm, cylindrical, rounded anteriorly and conial posteriorly. Pupal period lasts 10 days.

The adults mate on the fifth day of emergence and oviposition starts 8 days after mating; they live for 15 to 17 days.

REFERENCES

Ayyar, T. V. R. 1940. *Hand book of economic entomology* Govt. Press, Madras. 528 pp.

Fletcher, T. B. 1921. *Annotated list at Indian Crop Pests.* Supdt. Govt. Printing, Calcutta. p. 16-17

Lefroy, H. M. 1909. *Indian Insect life.* Calcutta. 786 pp

Pillai, R. M. 1921. Short notes on Insect Pests of Crops in Travancore. Travancore Dept. Agric. Trivandrum. 53 pp.

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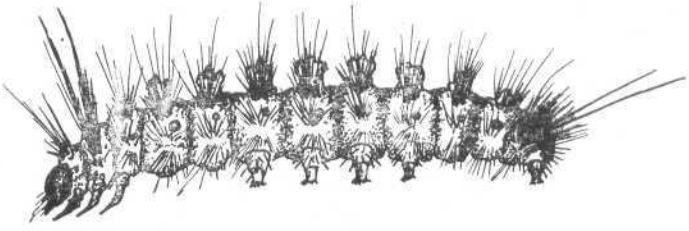
DEVELOPMENTAL STAGES OF *EUCHROMIA POLYMENA*

1



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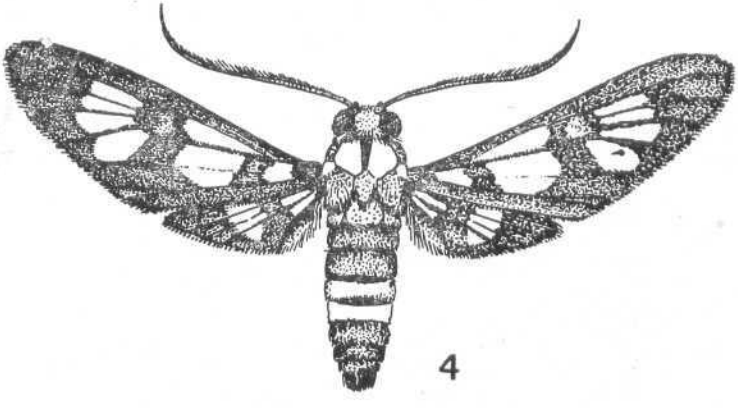

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1. Egg
2. Full grown larva
3. Pupa
4. Adult