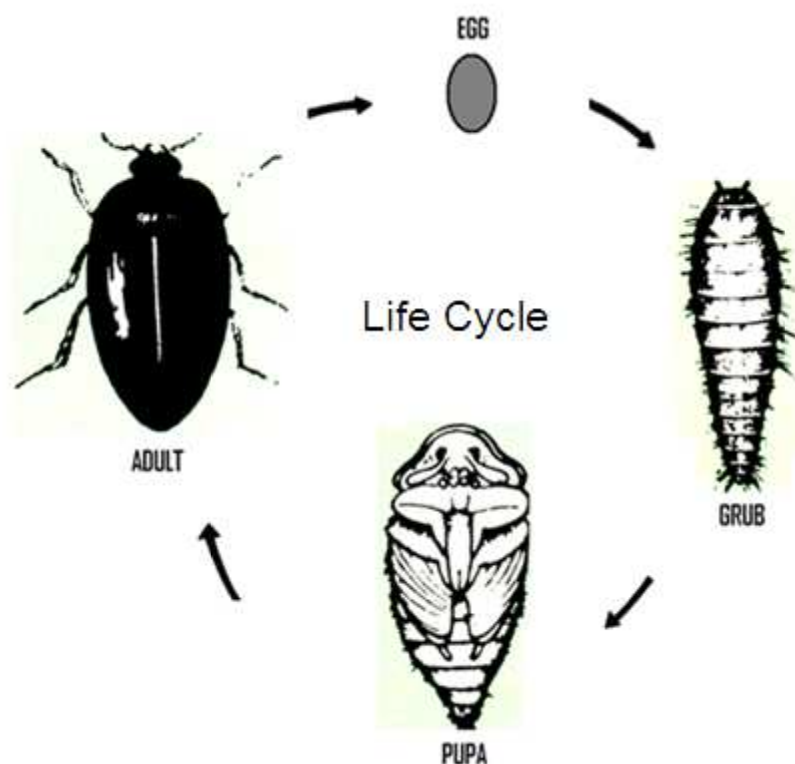


Dermeid Beetle

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Experiment No. 14: Life cycle of dermeid beetles - Dermeid infested silkworm cocoons.

This group of insects belongs to the family Dermestidae of the order coleoptera. They often attack pupae and adult silkworms in the grainages, and mostly cause extensive damage to the stored cocoons. Presence has been reported in India and Japan.



Cocoons damaged by dermeid beetle

(a) Life Cycle (i) *Dennestes ater*

Adults are black in colour, measures about 7 mm in body length. Females start ovipositing in about 5 days after eclosion. The egg is milky white, elongate with 1.90x0.48 mm in size. Incubation period varies from 3-6 days. Newly hatched grub is white which gradually turns to brown in first instar itself. The colour of the grub turns to black from

second instar onward. The first instar grub is about 2.4 mm in length. Grubs are spindle shaped and are covered with hairs of various length. The grub undergoes 4-6 moults in about 27-28 days. On an average, pupal period occupies about 7-8 days. Freshly emerged adult changes its colour from light yellow to dark brown.

Prevention and control

1. Maintenance of strict sanitation in and around the rearing house, grainage and cocoon storage rooms.
2. Wooden article of the storage room and grainage should be dipped in 0.2 per cent malathion solution for 2-3 minutes. After 10 days the trays should be thoroughly washed in water and sun dried for 2-3 days before reusing.
3. Passing of hot air (50-60°C) into the storage rooms and maintaining low humidity like 30 per cent and below help to kill the beetles.
4. Fumigation of dried cocoon storage room with methyl bromide at 0.5 g per 3 m² for three days kills all the stages of beetle. Necessary precautions must be followed for using this chemical as fumigants.

REFERENCES

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