

## Tassar Silkworm, *Antheraea paphia* Linn. (Saturniidae : Lepidoptera) on a New Host in Bangladesh

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*Antheraea paphia* Linn. (Saturniidae : Lepidoptera) is a wild silkworm that gives us tassar silk of commerce. The dark buff-coloured silk is coarse and very strong, but of inferior quality as compared to that obtained from the domesticated silkworm, *Bombyx mori*. This wild insect is not domesticated, and cannot be reared in confinement on a commercial basis.

In 1999, some trees of a 3-year old telsius (*Hopea odorata* Roxb.) plantation in the campus of the Bangladesh Forest Research Institute, Chittagong were found infested by a group of wild silk worm. The larvae were found feeding on the tender foliage of the upper canopy of the trees and were kept under observation. They were pale green with a yellow line at each side and rather bulky, distinctly segmented and smooth-bodied except for rows of ornamental metallic spots and tubercles bearing clusters of short spines (Fig. 1). The full-grown larvae were about 10 cm long. Pupation occurred in oval cocoons with a compact surface (Fig. 2). The cocoons were formed in rolled leaves or suspended by a thick silken cord from a twig. The cocoons were collected and reared to adults which were identified as *Antheraea paphia* Linn. (Saturniidae : Lepidoptera). The adult female is a broad-winged moth with a wing-span of about 12 cm. It is bright yellow with a circular semi-transparent area or 'eye' on each wing (Fig. 3).

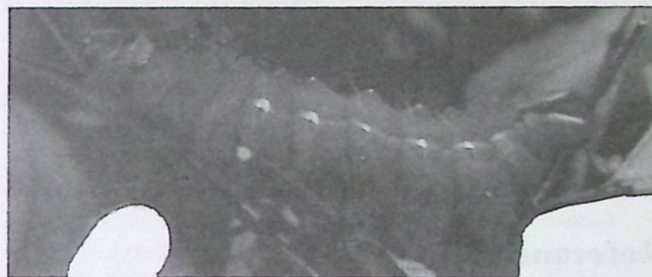


Figure 1. Mature larva of *A. paphia*.

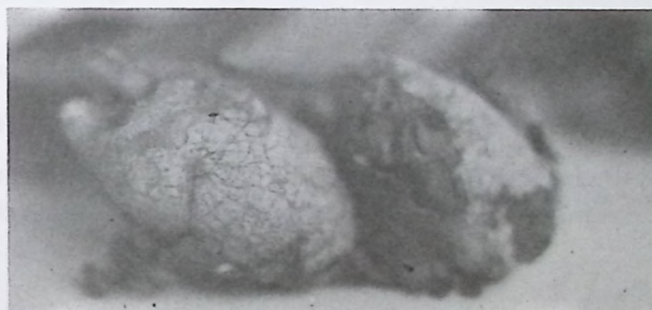


Figure 2. Cocoons of *A. paphia*.



Figure 3. Adult moth of *A. paphia*.

The male is smaller and browner. The eggs are large, thick-shelled and laid in groups on twigs or leaves.

The recorded hosts of the insect in Bangladesh and elsewhere are *Anacardium occidentale*, *Anogeissus latifolia*, *Dalbergia* sp., *Eucalyptus leucoxylon*, *Hevea brasiliensis*, *Lagerstroemia parvifolia*, *Shorea robusta*, *Terminalia arjuna*, *T. catappa*, *T. tomentosa* and *Ziziphus mauritiana* (Lefroy 1909, Beeson 1941, Browne 1968, Mathur and Singh 1961). Therefore, *H. odorata* is a new host record for *A. paphia*.

The silk of this insect is valued to and woven for local use by the tribal people in the eastern hilly areas of Bangladesh. The silk is reeled off from the cocoon in a continuous thread after

the pupa inside has been killed. The eggs and larvae are collected from the wild and placed on selected trees to observe them closely. Sometimes the cocoons are collected from the wild and females are bred and tied to a twig to be fertilized by wild males.

In nature, the existence of several races of *A. paphia* was reported. The adult emergence of the univoltine race occurs in June, July or September and those of the bi- or trivoltine in July-August and again in October-November (Beeson 1941). In the present study, it was not possible to work out the voltinism and the race of *A. paphia* bred on *H. odorata*. However, there is a great scope for selection and breeding of a race of desirable quality.

## References

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