

Review Article

FAMILY SATURNIIDAE (INSECTA: LEPIDOPTERA) OF SRI LANKA: AN OVERVIEW

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Abstract

Since the work of Moore (1880-1887) and Hampson (1892-1896) nomenclature of Sri Lankan moth fauna has remained largely unchanged. Four valid species of family Saturniidae, *Actias selene taprobanis*, *Attacus taprobanis*, *Antheraea cingalesa* and *Cricula ceylonica* are recorded. Former three species were confirmed by recent field records. *Actias selene taprobanis* and *Attacus taprobanis* are confined to Sri Lanka and wet biomes of southern India. *Antheraea cingalesa* and *Cricula ceylonica* are endemic to the island. Presence of other Saturniidae mentioned in literature requires further confirmation with field records.

Key words: Endemic, Pest, Silk moths, Silk industry, Southern India, Wet zone

Geotags: Colombo, Kandy, Yala, Anuradhapura [6.904614, 79.897213 | 7.302536, 80.616817 | 6.670064, 81.429806 | 8.314777, 80.441036]

INTRODUCTION

The Saturniidae moths are remarkable among lepidopterous insects for their economic importance as silk moths and ornamental value as well as the biological diversity. After Moore's (1882 - 1887) studies of Sri Lankan Lepidoptera, publications on moths experienced a sharp decline. Contemporary reports focus on species of moths regarded as agricultural pests (Rajapakse and Kumara, 2007; Wijesekara and Wijesinghe, 2003).

Sri Lanka does not involve in any ornamental trade, farming or collection of Lepidoptera, except the limited sericulture industry (Uragoda and Wijekoon, 1991; Datta *et al.*, 2005), leaving the importance of moth fauna to food and agriculture (Wijesekara *et al.*, 2003; Anandaraj and Devasahayam, 2004). Though scientific nomenclature of moths has extensively changed over the last century, local moth fauna lists have not been updated. Current studies on

moth species in Sri Lanka are hampered by the unavailability of updated literature (Wijesekara and Wijesinghe, 2003). This article reviews the available literature and brings the latest nomenclature to the Saturniidae of Sri Lanka.

METHODS

Valid species, descriptions, field distributions and life history records are based on published literature, personal communications to, and records of author. The Lepidoptera card index of The Natural History Museum, London (Beccaloni *et al.*, (2003) was checked for correct nomenclature. A list of Saturniidae of Sri Lanka based on the insect catalogue and specimens including the National Museum of Sri Lanka (Nandasena *et al.*, (2010) were also examined. Main references for nomenclature and valid species are Moore (1883), Jordan (1909), Peigler (1989), Paukstadt and Paukstadt (1999), Beccaloni *et al.*, (2003) and Rougerie *et al.*, (2009). All unpublished records, including personal

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Female: Deep yellowish-ochreous; the ocelli larger, the subbasal streaks and submarginal purple line prominent, the latter with broad purplish-white outer border. Front of thorax, and collar, hoary; front of head, palpi, and 6 ochreous.

Early stages:

Mature larva with two dorsal rows of yellow tubercular prominences, from which radiate a few short hairs; colour green, with a yellow lateral band ending in a dilated brown band on anal segment; a lateral purple-bordered pearly-white lunate spot on sixth and seventh segment; spiracles yellow below which is a row of black dots; head small; head and forelegs purple-brown. Cocoon oval, hard, brownish-grey, attached to a twig by a short coarse silken peduncle.

Host plants: *Anacardium occidentale*, *Terminalia arjuna*, *Terminalia catappa*, *Camellia sinensis*, *Eucalyptus leucoxylon*, *Hevea brasiliensis*

Distribution: Endemic to Sri Lanka (Figure 01)

***Cricula ceylonica* (Jordan, 1909)**

[SRI LANKAN CRICULAR]

Expanse 6 cm to 10 cm

Adult: Male: Clayish ochraceous, transparent spot of forewing more heavily edged with black than usually. The process of the penis-funnel siunate; subapical lobe of clasper broad.

Female: Tawny ochraceous. The three transparent spots of forewing heavily edged with black, especially on distal side; upper spot deeply incurved, its lower angle pointed; very little purplish grey shading on forewing. Antemedian line of hindwing heavy; transparent spot with conspicuous black border; marginal area purplish grey from anal angle nearly to third radial. On underside the transparent spots of both wings more strongly edged with black, the spot of hindwing transverse, anal area of both wings densely shaded with purplish grey like the disc,

and this area more sharply defined than usually. Legs red (Jordan, 1909).

Early stages: Not recorded, known to be a pest of crops which it hosts (Yadav and Kumar, 2003).

Host plants: *Cinnamomum zeylanicum*, *Mangifera indica*

Distribution: Endemic to Sri Lanka (Figure 01)

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