ISSN 2230-7052
BUGS RAL
#228
21 February 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Additions to the larval host plants of the Indian Moon Moth from Chiplun, Maharashtra

The Indian Moon Moth *Actias selene* (Hübner, 1806) belongs to the family Saturniidae, which contains some of the largest moths in the world. The typical characteristic of the genus *Actias* (Leach, 1815) is the presence of long tails on their hindwings. The adults of *Actias* lack functional mouthparts and their lifespan ranges from a few days to a week. The *Actias selene* is distributed in India, Nepal, Bhutan, Bangladesh, Sri Lanka, and China (Hampson 1892; Shubhalaxmi 2018). It's known to be widely distributed in the Western Ghats of India.

The moth is unmistakable due to its whitish-green wings with brown or pink margin of the forewing and a long tail on the hindwing. The polyphagous larvae of *Actias selene* is known to feed on a variety of host plants (Robinson et al. 2010; Chutia et al. 2016; Shubhalaxmi 2018). In this small note, we report some more host plants of this species from Chiplun, Ratnagiri District, Maharashtra, India.

On 21 November 2006, an *Actias selene* female was seen while laying eggs on a paper box, in Chiplun, Ratnagiri District, Maharashtra, India (17.523N, 73.528E; elevation 16 m). After the female had laid all the eggs, the eggs were kept in a closed container to keep them safe. A literature search was carried out to know about the larval host plants of the *Actias selene*. In 2006, due to paucity of published literature and limited access to the internet, the literature search did not result in finding any familiar host plants in the area. On 28 November 2006, the larvae hatched in a closed container. Hence, after hatching, the larvae were given the tender leaves of 10 plant species in the area. The larvae were seen feeding on three species. Every day fresh tender leaves of these plants were provided to the larvae. The old remnants of the leaves and the larval frass were taken out daily to keep the container clean. The plants upon which larvae fed were identified. Early stages were photographed with the help of Nikon D50 camera and 18–55 lens.

The larvae were seen feeding on the *Ficus rumphii* Bl., *Lagerstroemia speciosa* (L.) Pers., and *Syzygium cumini* (L.) Skeels (Table 1). A literature search for the larval host plants of *Actias selene* was carried out again

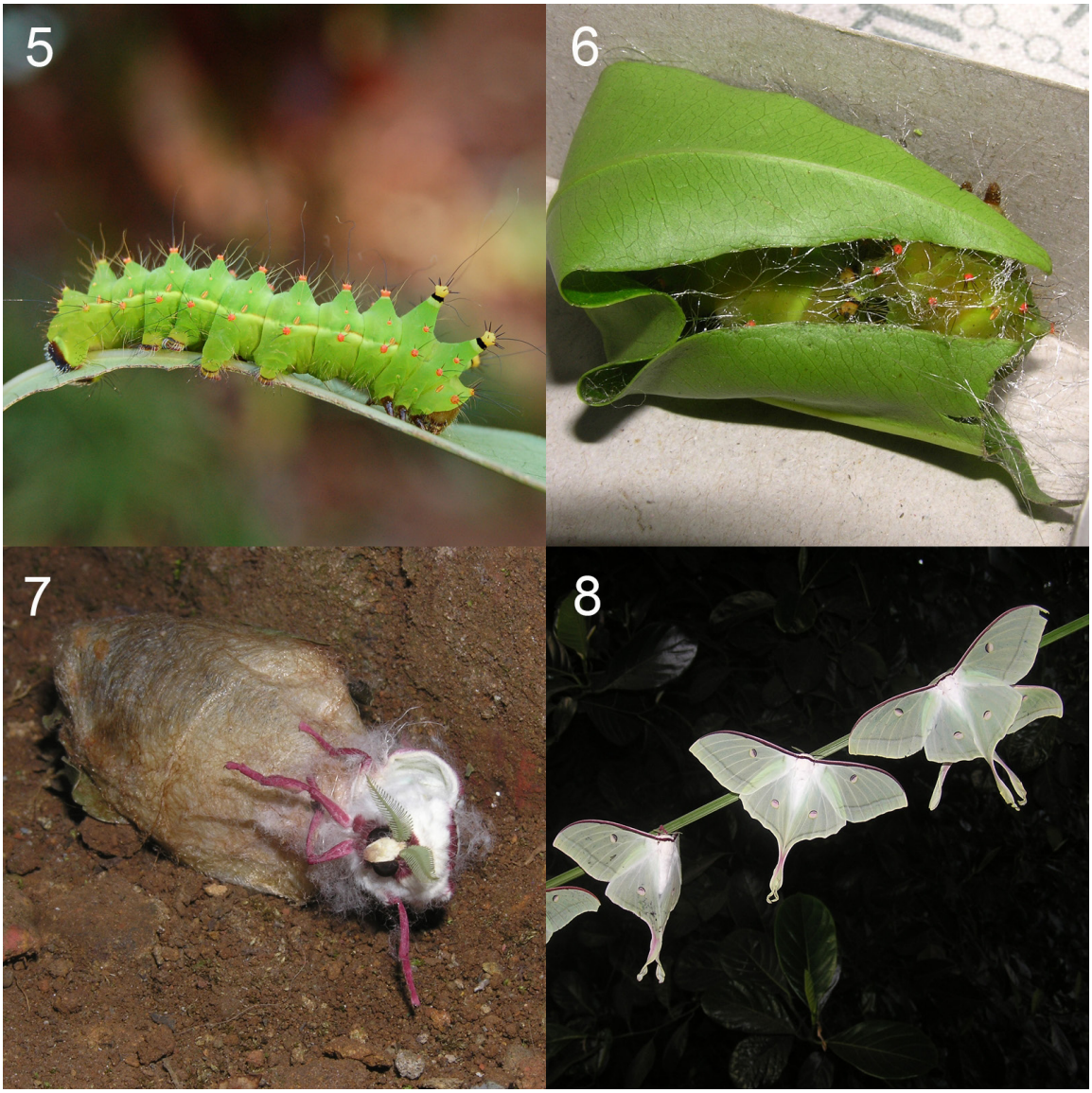
ISSN 2230-7052
Bugs R All
#228
21 February 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Table 1. All plant species given to the caterpillars

Caterpillars fed on		Caterpillars did not feed on	
Family	**Species**	**Family**	**Species**
Moraceae	*Ficus rumphii*	Anacardiaceae	*Anacardium occidentale*
Lythraceae	*Lagerstroemia speciosa*	Moraceae	*Artocarpus heterophyllus*
Myrtaceae	*Syzygium cumini*	Malvaceae	*Hibiscus sp.*
		Rubiaceae	*Neolamarckia cadamba*
		Myrtaceae	*Psidium sp.*
		Lamiaceae	*Tectona grandis*
		Combretaceae	*Terminalia tomentosa*

Early stages of *Actias selene*: 1 – Eggs | 2 – Hatched larvae | 3 – 1st instar larva feeding on *Lagerstroemia speciosa* | 4 – 2nd instar larvae feeding on *Syzygium cumini*. © Sachin Palkar.

ISSN 2230-7052
Bugs ALL
#228
21 February 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)



Early stages of Actias selene: 5 – 5th instar caterpillar| 6 – Spinning a cocoon | 7 – Eclosion| 8 –Adult moth. © Sachin Palkar.

later on 20 July 2020 in which we did not see these three plants reported. These new larval host plants are added in the appendix with an asterisk mark (*), which becomes a compilation of all reported host plants of this species (Robinson et al. 2010; Chutia et al. 2016; Shubhalaxmi 2018). Our study reports three new host plants of *Actias selene* (Hübner 1806) and highlights the wide range of food preference by the caterpillars. More work is needed to discover more host plants which will help us in conservation and understanding the biology of the species.

ISSN 2230-7052
BugsCAL
#228
21 February 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Appendix: Host plants of Actias selene (Hübner, 1806) from Oriental region

	Family	Species	Reference
1	Betulaceae	*Alnus cremastogyne*	Robinson et al. 2010
2	Betulaceae	*Alnus formosana*	Robinson et al. 2010
3	Betulaceae	*Alnus glutinosa*	Robinson et al. 2010
4	Betulaceae	*Alnus nepalensis*	Chutia et al. 2016
5	Ericaceae	*Andromeda ovalifolia*	Shubhalaxmi 2018
6	Ericaceae	*Andromeda polifolia*	Robinson et al. 2010
7	Meliaceae	*Azadirachta indica*	Robinson et al. 2010, Shubhalaxmi 2018
8	Betulaceae	*Betula alnoides*	Robinson et al. 2010, Shubhalaxmi 2018
9	Fagaceae	*Castanea mollissima*	Robinson et al. 2010
10	Meliaceae	*Cedrela paniculata*	Robinson et al. 2010,
11	Lauraceae	*Cinnamomum camphora*	Robinson et al. 2010
12	Coriariaceae	*Coriaria nepalensis*	Robinson et al. 2010, Shubhalaxmi 2018
13	Betulaceae	*Corylus colurna*	Robinson et al. 2010, Shubhalaxmi 2018
14	Rosaceae	*Crataegus sp.*	Robinson et al. 2010, Shubhalaxmi 2018
15	Moraceae	**Ficus rumphii*	This study
16	Rhamnaceae	*Frangula alnus*	Robinson et al. 2010, Shubhalaxmi 2018
17	Malvaceae	*Hibiscus syriacus*	Robinson et al. 2010
18	Juglandaceae	*Juglans regia*	Robinson et al. 2010, Shubhalaxmi 2018
19	Lythraceae	*Lagerstroemia calyculata*	Robinson et al. 2010
20	Lythraceae	*Lagerstroemia indica*	Robinson et al. 2010
21	Lythraceae	*Lagerstroemia lanceolata*	Shubhalaxmi 2018
22	Lythraceae	*Lagerstroemia microcarpa*	Robinson et al. 2010
23	Lythraceae	**Lagerstroemia speciosa*	This study
24	Lythraceae	*Lagerstroemia subcostata*	Robinson et al. 2010
25	Anacardiaceae	*Lannea coromandelica*	Robinson et al. 2010, Shubhalaxmi 2018
26	Lythraceae	*Lawsonia inermis*	Robinson et al. 2010, Shubhalaxmi 2018
27	Oleaceae	*Ligustrum robustum*	Shubhalaxmi 2018
28	Hamamelidaceae	*Liquidambar formosana*	Robinson et al. 2010
29	Hamamelidaceae	*Liquidambar styraciflua*	Robinson et al. 2010
30	Ericaceae	*Lyonia ovalifolia*	Robinson et al. 2010
31	Anacardiaceae	*Malosma laurina*	Robinson et al. 2010
32	Rosaceae	*Malus asiatica*	Robinson et al. 2010
33	Rosaceae	*Malus pumila*	Robinson et al. 2010
34	Rosaceae	*Malus sylvestris*	Robinson et al. 2010
35	Anacardiaceae	*Mangifera indica*	Robinson et al. 2010
36	Moringaceae	*Moringa oleifera*	Robinson et al. 2010,

ISSN 2230-7052
Bugs R All
#228
21 February 2022
Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

	Family	Species	Reference
37	Moringaceae	*Moringa pterygosperma*	Robinson et al. 2010, Shubhalaxmi 2018
38	Rosaceae	*Prunus armeniaca*	Robinson et al. 2010
39	Rosaceae	*Prunus cerasus*	Robinson et al. 2010,
40	Rosaceae	*Prunus dulcis*	Robinson et al. 2010
41	Rosaceae	*Prunus padus*	Robinson et al. 2010
42	Rosaceae	*Prunus pseudocerasus*	Robinson et al. 2010
43	Juglandaceae	*Pterocarya stenoptera*	Robinson et al. 2010
44	Rosaceae	*Pyrus communis*	Robinson et al. 2010
45	Fagaceae	*Quercus ilex.*	Robinson et al. 2010
46	Ericaceae	*Rhododendron sp.*	Robinson et al. 2010
47	Anacardiaceae	*Rhus javonica*	Chutia et al. 2016
48	Salicaceae	*Salix babylonica*	Robinson et al. 2010
49	Salicaceae	*Salix fragilis*	Robinson et al. 2010
50	Euphorbiaceae	*Sapium sebiferum*	Robinson et al. 2010
51	Anacardiaceae	*Schinus terebinthifolius*	Robinson et al. 2010
52	Symplocaceae	*Symplocos paniculata*	Robinson et al. 2010
53	Oleaceae	*Syringa vulgaris*	Robinson et al. 2010
54	Myrtaceae	**Syzygium cumini*	This study
55	Combretaceae	*Terminalia crenulata*	Robinson et al. 2010
56	Combretaceae	*Terminalia paniculata*	Robinson et al. 2010, Shubhalaxmi 2018

References

Chutia, B.C., C. Nath & L.N. Kakati (2016). Conservation strategies of *Actias selene* Hubner: A wild silk moth in Nagaland, India. *Environment Conservation Journal* 17(1&2): 41–45.

Hampson, G.F. (1892). *The Fauna of British India, Including Ceylon and Burma: Moths Volume I*. Taylor and Francis, London.

Robinson, G.S., P.R. Ackery, I.J. Kitching, G.W. Beccaloni & L.M. Hernández, (2010). HOSTS - A Database of the World's Lepidopteran Hostplants. Natural History Museum, London. http://www.nhm.ac.uk/hosts. (Accessed: 30 December 2021).

Shubhalaxmi, V. (2018). *Birdwing Field Guide to Indian Moths*. Birdwing Publishers, Navi Mumbai, Maharashtra, 474pp.

Sachin Balkrishna Palkar[1] & Pranav Gokhale[2]
[1]Satyabhama Sadan, House No.100, Near D.B.J.College Gymkhana, Mumbai-Goa Highway, Chiplun, Dist. Ratnagiri, Maharashtra, 415605, India.
[2] S-4, Princess Tower, Parashuram Nagar, Chiplun, Ratnagiri, Maharashtra, 415605, India.
Email: [1]sachinbpalkar82@gmail.com, [2]pranavgokhale1@gmail.com (corresponding author)

Citation: Palkar, S.B. & Gokhale, P. (2022). Additions to the larval host plants of the Indian Moon Moth from Chiplun, Maharashtra. Bugs R All #228, In: *Zoo's Print* 37(2): 04–08.

Bugs R All is a newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA) published with the financial support of Zoological Society of London.
For communication, Email: zp@zooreach.org