

## SCIENTIFIC NOTES

**NEW REPORT OF SYONAKA (*OROXYLUM INDICUM* (L.)  
BENTH. EX KURZ.) AS A FOOD PLANT OF ERI SILKWORM,  
*SAMIA RICINI* DONOVAN (LEPIDOPTERA:  
SATURNIIDAE) IN ASSAM, INDIA**

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The Eri silk (*Samia ricini* Danovan) under the family Saturniidae is the only completely domesticated polyphagous silkworm among the vanya silks in North Eastern region of India. India is the largest producer of Eri silk in the world as 96% of total eri silk is produced in India (Rajesh Kumar & S. K. Gangwar, 2010). Assam province alone produces more than 65 per cent of total eri silk production of India providing livelihood to 1.83 lakh farm families. Of late eri culture has been introduced to many non-traditional states of India such as Andhra Pradesh, Orissa, Gujarat, Karnataka and Uttar Pradesh. Out of four promising types of vanya silks, eri silk is considered as comparatively hardy, tolerant to disease and pest attacks and easy to rear in indoor condition that contributes in assured crop. Besides these, the silk is having unique thermal properties for which eri silk garments are best suited during both summer and winter seasons. In tribal dominated states of India, eri pupa is considered as delicious protein food.

The eri silk worm is polyphagous in nature and feeds on leaves of many food plants Castor (*Ricinus coummunis*), Kesseru (*Heteropanax fragrans*) Tapioca (*Monihot esculenta*), Barkesseru (*Ailanthus excelsa*), Payam (*Evodia flaxinifolia* Hook.), Barpat (*Ailanthus grandis*), Jatropha, Papaya, *Ailanthus altissima*, Gulanch, Gamari etc. The type of host plant influences the rearing performance of eri silk into a greater extent. During the process of collection, characterization and exploration of perennial host plants for rearing of eri silkworm at Germplasm Conservation Centre, Central Muga Eri Research & Training Institute, Chenijan, India, the eri silkworm has been reared on Syonaka (*Oroxylum indicum*) locally known as "Bhatgila". The eri silkworm feeding on *O. indicum* is reported for the first time in India. The eri silkworm reared at Germplasm Conservation, CMER&TI, Chenijan, Jorhat during August-September 2011 and observed the average larval period (23 days) and effective rate of rearing (45 per cent).

*Oroxylum indicum* is native to the Indian subcontinent, in the Himalayan foothills with a part extending to Bhutan and southern China, in Indo-China and the Malaysia ecozone. It is visible in the forest biome of Manas National Park in Assam, India. It is also reported from Sri Lanka (Ceylon) (Theobald, W. L., 1981). The plant grows all over India in deciduous forests and in moist areas. It is a medium sized deciduous tree growing 8-12 meters in height. The bark is grayish brown in color with corky lenticels. The leaves are very large, 2-3 pinnate, leaflets 12 cm long and 8 cm broad. The flowers are reddish-purple outside and pale, pinkish-yellow within, numerous, in large erect racemes. The fruits are flat

capsules, 0.33-1 meter long and 5-10 cm broad, sword-shaped. The plant flowers in June-July and bears fruits in November.

The detail studies on rearing performance of eri silkworm feeding on syonaka will be useful to explore the perennial host plant of the silkworm which is need of the hour among farming communities.

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**Fig. 1(a)**



**Fig. 1(b)**

Figure 1 (a & b). *Oroxylum indicum* plant.



Figure 2. Early stage rearing of *Samia ricini* Donovan on Syonaka.



Figure 3. Late stage rearing of *Samia ricini* Donovan on Syonaka.