

Effect of varietal feeding on larval duration and cocoon parameters of six strains of eri silkworm *Samia ricini* Donovan in Nagaland, India**L N Kakati**

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Rearing of six strains of *Samia ricini* (eri silk worm) i.e. Yellow plain (YP), Yellow spotted (YS), Yellow Zebra (YZ), Greenish blue plain (GBP), Greenish blue spotted (GBS) and Greenish blue zebra (GBZ) was conducted on *Ricinus communis* (Castor), *Heteropanax fragrans* (Kesseru), *Evodia fraxinifolia* (Payam) and *Manihot utilissima* (Tapioca) to evaluate the effect of seasonal pattern on larval duration and cocoon parameters in Nagaland, India. Larval duration during spring season was maximum in all strains in all food plants; however minimum for all strains was recorded during summer season on Castor, Kesseru and Tapioca. Cocoon weight was recorded to be minimum (2.8 ± 0.55 gm) in YP on Kesseru and maximum (4.06 ± 0.68 gm) in GBZ on Castor during spring season; shell weight fluctuated between 0.34 ± 0.08 gm during spring in GBS on Kesseru and 0.58 ± 0.09 gm during summer in YZ on Castor and percentage of silk ratio was found to be minimum and maximum in YP on Payam during spring (11.37 ± 1.29) and in GBS on Castor during summer (16.05 ± 1.59) respectively. The variation in larval duration and cocoon parameters reflected variation in nutrient composition of food plants and dynamic environment conditions prevailing in different seasons of the year. Payam and Tapioca plants could be fed either singly or alternately with Castor or Kesseru to attain the commercial advantage to ensure more value added production. While there were differences in the productivity parameters with respect to strains and seasons, the present study shows that all the strains on four host plants expressed adoptability and suitability for commercial rearing under Nagaland climatic condition.

Biography

L N Kakati is presently Head, Department of Zoology, Nagaland University, Nagaland, India and teaches Ecology & Environmental Biology, Biosystematics, Evolution and Bio statistics in the postgraduate level. He has more than 30 years of research experience of wild silk moth biology and travelled extensively in different hilly states of North Eastern region of India for exploration of wild silk moths. He completed three research projects and presently undertaking two new projects sponsored by different funding agencies in India. Four students have been conferred Ph.D degree under his guidance and four students are presently pursuing research with him. He visited Khonkaen University, Thailand and Tokyo Agricultural University Tokyo for presentation of scientific papers in International seminars. He attended 48 seminars, chaired in technical sessions and delivered lectures in seven seminars as invited Resource person/Keynote speaker. He is presently member of 12 scientific associations and published 70 research papers.

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