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Research Paper

ASSESSMENT OF HOST PLANT SUITABILITY FOR BEST SILK PRODUCTION EFFICIENCY AND POST COCOON ATTRIBUTES OF *ANTHERAEA MYLITTA* IN UTTARAKHAND

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ABSTRACT

Antheraea mylitta Drury is a silk producing forest insect commercially exploited in nine tasar producing states of India, but still remains untapped of its potential in Uttarakhand. In this study, effect of forestry host plants, rearing season and their interactions were studied on silk producing efficiency and post cocoon attributes of Daba ecorace (BV) of *A. mylitta* at Forest Research Institute, Dehra Dun (Uttarakhand). Four experimental outdoor rearings were conducted on seven forest tree species in six replications during July-August and September-November 2012 & 2013 and data were collected on fourteen variables of silk producing traits and five variables of post cocoon attributes of *A. mylitta*. A two-way completely randomized block factorial ANOVA was done by STATISTICA 10 at significance level of P=0.05. Post HOC test was carried out by using Tukey's HSD test and a common evaluation index (E.I.) was also drawn to ascertain the superiority of forestry host plants for all the studied variables. Results indicated that *Terminalia alata, T. tomentosa, Lagerstroemia speciosa* and *T. arjuna* are the best suitable forestry host plants in their order of merit for most of the examined variables. Interestingly, overall silk production efficiency and post cocoon attributes of *A. mylitta* was found better on *L. speciosa* than *T. arjuna*. In Uttarakhand, *L. speciosa* possessed certain advantages as luxurious growth, non-preference by browsing animals, larger leaf area than *T. arjuna* and ease of propagation and maintenance. It performed as good as a primary forestry host plant of *A. mylitta* in Uttarakhand whereas, in other parts of the country, *L. speciosa* is considered as a secondary food plant of *A. mylitta*.

Key words: Livelihood delivery of the forest, tropical tasar culture,wild silk moth.