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Research Paper

CONSERVATION AND BREEDING STRATEGIES FOR LARIA SILKWORM, *ANTHERAEA MYLITTA* DRURY FOR EXPLOITATION OF SAL FLORA

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ABSTRACT

The wild ecorace population of *Antheraea mylitta* D. is declining alarmingly due to rapid deforestation and rampant human interference. This distressing stage, is consequently affecting the proliferation and sustenance of the insect. Laria is one of the important commercially exploited Sal based ecoraces of tasar silkworm, *A. mylitta.* The ecorace is notable for its small sized and robust cocoons with low denier (8-9). The characteristic voltinism behavior is uni, bi and trivoltine. Suitable strategy is required to protect and sustainably utilize the wild ecorace Laria particularly on Sal flora. With an aim to utilize the vast Sal flora and to conserve Laria ecorace, a programme was initiated to develop a module of *in situ* conservation of the ecorace. The breeding materials of Laria were augmented periodically under net cover at conservation site. This has greatly enhanced the natural proliferation and perpetuation of Laria population. The breeding possibilities of Laria was also studied with that of ruling semi-domestic Daba ecorace and Sal based Raily ecorace for the exploitation of heterosis effect for the utilization of Sal flora. A positive heterosis effect was recorded in fecundity (0.8 to 12 %), hatching (4.4 to 13.7 %) and in some cocoon characters (0.68 to 11.5 %). The present study enumerates the success of conservation of Sal based ecorace and its influence on the natural proliferation of Laria population in Sal forest. Further, Laria can be used as better breeding component along with other ecoraces of tasar silkworm to harness the heterosis potentials to enhance the tasar silk production.

Key words: *Antheraea mylitta*, breeding, conservation, Laria ecorace, Sal utilization.