

Research Paper

LIFE TABLE ANALYSIS OF BIVOLTINE FORM OF INDIAN WILD TASAR SILK MOTH, ANTHERAEA PAPHIA LINN. (LEPIDOPTERA: SATURNIIDAE)

D. G. Dey¹, B. K. Nayak² and N. Mohanty³

¹Department of Zoology, Udala College, Udala, Mayurbhanj - 757041, Odisha, India. ²Directorate of Textiles, Govt. of Odisha, Bhubaneswar, 751007, India. ³P.G. Department of Zoology, North Orissa University, Baripada- 757003, Odisha, India. E-mail: nmohanty@rediffmail.com

ABSTRACT

On an altitudinal gradient with differential photoperiod, humidity and temperature conditions, wild tasar silk moth, *Antheraea paphia* exhibits differences in voltinism, *i.e.*, univoltine, bivoltine and trivoltine generations. Hence, life table studies in different seasons at different altitudes will provide valuable information on its population dyanamics. The present study deals with the life table analysis of *A. paphia* both in rainy and autumn seasons at higher altitudes where it shows bivoltine life cycle. Considering various life table parameters, it was established that the autumn season is more favourable than the rainy for rearing the univoltine Modal ecorace of wild tasar silk moth at higher altitude where two crops are possible because the expectancy of life (e_x), net reproductive rate (R_o), mean length of generation (T) and potential fecundity (P_t) were maximum in this season (164.78, 108.60, 275.78, and 320, respectively) whereas, it was less in the rainy season (44.39, 100.33, 71.26 and 300, respectively).

Key words: *Antheraea paphia*, bivoltine, life table, Modal ecorace, tasar silk moth.