

Genetic Divergence of Life History Traits in Indian Populations of *Drosophila bipectinata*

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Abstract : Temperature is one of the most important climatic parameter for explaining the geographic distribution of ectothermic species. Empirical investigations on norms of the reaction according to developmental temperatures are helpful in analyzing the adapture capacity of a species which may be related to its ecological niche. In the present investigation, we have compared the effects of developmental temperatures on fecundity, hatchability, viability, and duration of development in five natural populations of *Drosophila bipectinata* along the latitudinal range. The clinal patterns for fecundity, as well as ovariole number, were observed which showed significant positive correlation ($r=0.97$). Similarly, hatchability and duration of development also revealed a positive correlation with latitude. Hence, suggesting the role of natural selection in maintaining the genetic divergence for life history traits along the north-south transect of the Indian Subcontinent.

Keywords : growth temperature, fecundity, hatchability, viability, duration of development, *Drosophila*

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020