

Distribution pattern of Lepidoptera (Butterflies) of Hazaribag Sanctuary, Jharkhand

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ABSTRACT

In the sanctuary insects have great role in the nutrient cycling and they play significant role in the niche of bird community. This paper deals with distribution pattern of Lepidopteran population. A comprehensive distribution pattern of butterflies has been studied. In the sanctuary area five study sites were selected considering habitat differences. present investigation was made only in the months of October 2002. Only nineteen species have been observed. Inter - specific association was calculated from two components (1) the statistical tests of significance (using a chisquare test statistic) and (2) indices Centroid Strategy index). the variance ratio test of schluter was used to assess the presence and absence of association. During the present investigation nine pairs of negative association. Negative interaction may be due to different resource requirement and positive interaction may be due to common response so a supply of unlimited reasons. Establishing the existence or absence of an association tells us nothing about the possible causes.

Key word's : Topographical factors, Vegetation, Nested plots, Classification, TWINSpan

Introduction

Literature revealed that no comprehensive list of butterflies has been published for any area of South Bihar (now Jharkhand) as yet, except one by Morrison Godfrey (1948) of which most of the material was collected from topchanchi (Raj Daha Reservoir) since Topchanchi is situated very near to Hazaribag. Frequent reference is made of Morrison-Godfrey's list. A preliminary text of the butterflies collected during dry season only from Hazaribag Sanctuary was published first by authors- Varshney and Nandi 1976. Later on a ZSI team made a consolidated detail account of all species collected from the Sanctuary and nearby area, during 3 trips in 1970, 1973 and 1975 in both dry and wet season.

A comprehensive survey has been made recently on the diversity of butterflies of the Sanctuary in 2002. Considerating that Hazaribag Sanctuary in domi-

nated by insectivorous birds and most are diurnal (Thirumunthi *et al.* 1993) a comprehensive distribution pattern analysis of butterflies has been attempted here below.

Materials and Methods

In the Sanctuary area five study sites were selected considering habitat differences.

Station- I	-	Near Tower- 1
Station - 2	-	Near Tower - 6
Station - 3	-	Tower - 5
Station - 4	-	Near Dumri Village
Station - 5	-	Main Road area

In each station a quadrat of 200 M² was selected and butterflies were collected by aerial sweeping method with the help of a large insect net. For counting a 50 meter long transect was laid in all the stations. Counts were made once in a week walking through each transect.