

## Selection Intensity in the Sonowal Kacharis of Assam

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**KEY WORDS** Selection Intensity, Tribal Group, North East India.

**ABSTRACT** Data on two components, one due to fertility and the other due to prereproductive mortality being the contributing factors towards the selection intensity, were collected in the Sonowal Kachari in Neezmancotta village of Dibrugarh District in Assam in the month of February, 1993. The values of two components,  $I_m$  and  $I_f$  are 0.086 and 0.330, respectively. The value of selection intensity is 0.445 which has been calculated after Crow (1958). It indicates that selection in this community is acting with moderate intensity.

### INTRODUCTION

The Sonowal Kacharis are one of the seven Kachari tribal groups. They are mainly concentrated in the district of Dibrugarh in Upper Assam. Their original mother tongue was Bodo, but presently they speak Assamese which belongs to the group of Indo-Aryan languages (Singh, 1990). Their primary occupation was agriculture, but most of them are now engaged in government services, medical practice, legal practice, business, etc. The present paper aims to measure the change in fitness from specific birth and death rates.

### MATERIALS AND METHODS

Data for the present study, was collected by means of a structured schedule at random from 50 Sonowal households residing in a village called Neezmancotta in Dibrugarh during 1993. Crow's indices were computed in analysing the data (Crow, 1958).

### RESULT AND DISCUSSION

Table 1 gives the result of the analysis, the mean variance of live births along with their  $I_m$ ,  $I_f$  and  $I$  values. The present analysis on

pregnancy outcome of 36 Sonowal Kachari ever married women aged 40 years and above have been presented in view of relatively early menopausal age and early decline of fertility in the rural Indian women (Mukherjee, 1971; 1972; 1974).

The total live births were 139. Mean live births were calculated to be 3.86 with the variance of 4.92 which is however low compared to the mean live birth in this group as observed by Deka (1978). This could be a result of literacy as the present population sample live adjacent to Dibrugarh town and are thus exposed to the urban environment.

Table 2 gives a comparative account of the other tribal groups from north-east India. The mortality component ( $I_m$ ) is seen to be the lowest compared to the other tribal groups. This reduction in  $I_m$  seems to be related directly to the better economic situation having easy access to public health facilities.

The fertility component ( $I_f$ ) was found to be the highest in this group as compared to the other. It is due to the fact that the women included in this sample belong to the period when the adoption of family planning measures were not so popular with few exceptions. Moreover, polygamy is prevalent in this group till today. So this can be considered to be one of the major cause that have influenced fertility.

The index of selection ( $I$ ) in this group is 0.445 which within the range (0.312 - 1.070) as observed among other populations (Table 2). It is also towards the lower limit if the range 0.6 - 3.7 as estimated in 10 tribal population groups studied by Spuhler (1962) and in the intermediate position of the range (0.24 - 2.25) observed for 96 Indian population groups by Reddy and Chopra (1990)

However it may be concluded from the above discussion, that selection is operating with moderate intensity, in fertility, mortality and total selection potential, respectively amount the Sonowal Kachari of Dibrugarh district.

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**Table 1 : Crow's Index of opportunity for selection**

Number of mothers aged 40 years and above	36
Number of livebirths	139
Proportion of surviving ( $P_s$ )	0.9288
Mean livebirth ( $X$ )	3.86
Variance of livebirths ( $V_p$ )	4.92
Index of mortality ( $I_m$ )	0.086
Index of fertility ( $I_f$ )	0.330
$I = I_m + I_f / P_s$	0.445

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**Table 2 : Selection intensity in the Sonowal Kacharis and some other tribal populations of North East India**

Population	No.	$I_m$	$I_f$	$I$	Source
Sonowal Kachari	36	0.086	0.330	0.445	Presnet study
Jaintia	39	0.456	0.125	0.638	Deka, 1978
Apathani Guchri	64	0.435	0.190	0.710	Padmanabham & Jaswal, 1982
Apathani Gath	120	0.440	0.312	.0889	Padmanabham & Jaswal, 1982
Singphos	143	0.437	0.406	1.020	Padmanabham & Jaswal, 1982
Hajongs	51	0.443	0.131	0.631	Barua, 1983
Pnar	42	0.236	0.134	0.401	Khongsdier, 1990
Kaibarta	35	0.204	0.110	0.336	Sengupta & Gogoi, 1995
Khamti	29	0.179	0.113	0.312	Sarkar et al., 1994
Gallong	36	0.750	0.180	1.070	Chakraborty & Ahmed, 1989

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