

Incidence of Colour Blindness Among the Nicobarese of Car Nicobar

Nitin Maurya, M. P. Sachdeva and A. K. Kalla

INTRODUCTION

The Nicobarese tribals have been living in the Nicobar Islands of the Andaman and Nicobar group of islands since time immemorial. It is estimated that they are about 20,000 in number of which some 15,000 live in Car Nicobar itself. Christianity is the major religion and the mainstay of their financial income is the sale of coconut and areca-nut. In the present paper an attempt has been made to study the frequency of colour blind among the Nicobarese.

MATERIALS AND METHOD

Ishihara's Colour Vision Chart (1972) was used for detecting colour blind individuals on 501 persons— 248 males and 253 females. The plate numbers from 1 to 25 were used for those who could read the numerals, whereas for illiterate, the plates 26 to 38 were used. The individuals were examined in adequate daylight by avoiding direct sunlight and direct artificial light. The subjects were asked to read the numerals as quickly as possible and the results reported for each plate were recorded within 3-5 seconds.

RESULTS AND DISCUSSIONS

Out of a total of 501 subjects 8 were found to be colour blind which works out to be 1.59 percent of the total. 2.82 percent of the males i.e. 7 out of 248 were found to be colour blind whereas 1 out of 253 of the females tested was colour blind and was unable to read any of the plates except 1st and last. The results have been tabulated in Table 1.

Earlier Gopal Krishan et al. (1980) reported a prevalence rate of 1.41% of colour blindness among the Nicobarese of Car Nicobar. Also, Agrawal (1968) has reported 2 colour blind

individuals among 91 screened in the coastal Nicobarese of Great Nicobar. Colour blindness is reported absent among the Onges of Andaman Islands, whereas among the Shompens of Nicobar Islands its frequency is quite high (see the excellent reviews by Bhasin et al., 1994; Bhasin and Walter, 2001).

Table 1: Incidence of colour blindness among the Nicobarese of Car Nicobar

Population	Sex	No. tested	Normal		Colour blind	
			No.	%	N	%
Nicobarese	Male	248	241	97.17	7	2.82
Nicobarese	Female	253	252	99.60	1	0.39

Since each colour blind man is hemizygous for the mutant allele, the frequency of the allele comes to be 0.028 and the frequency of the normal allele to be 0.972.

KEYWORDS Colour blindness. Variation. Nicobarese. Car Nicobar.

ABSTRACT The study deals with the incidence of colour blindness in the Nicobarese population of the remote island of Car Nicobar in the Bay of Bengal. The sample comprises of 501 individuals (248 males and 253 females) of which 8 were found to be colour blind (7 males and 1 female).

REFERENCES

- Agrawal, H.N.: ABO, Blood Groups, PTC taste insensitivity, sickle cell trait phalangeal hair, and colour blindness in coastal Nicobarese of great Nicobar. *Acta Genet. Stat. Med.*, **18**:147-154 (1968).
- Bhasin M.K., Walter H and Danker Hopfe, H: *People of India: An Investigation of Biological Variability in Ecological Ethno economic and Linguistic Groups*. Kamla-Raj Enterprises, Delhi (1994).
- Bhasin, M.K. and Walter, H.: *Castes and Tribes of India*. Kamla Raj Enterprises., Delhi (2001).
- Krishan, G, Rao. K.R. and Saheb, S.Y.: Colour blindness among Nicobarese of Car Nicobar Island. *Anthropologist*, **26**(2): 149-50 (1980).
- Ishihara, S.: *Test for Colour Blindness*, Kaunchara, Shippain, Tokyo, Japan (1972).

Authors' Address: Nitin Maurya, M. P. Sachdeva and A. K. Kalla, Department of Anthropology, University of Delhi, Delhi 110007, India