

**Relevance of Surnames in Population Structure:  
A Study Among The Vadde, A Fishing Community of  
Kolleru Lake in Andhra Pradesh, India**

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**ABSTRACT** With the help of demographic data on 2263 couples from the Vadde fisherfolk of Kolleru Lake in Andhra Pradesh, India, an attempt has been made to demonstrate the relevance of surnames in the study of population structure. Preferential mating between surnames is used to ascertain the extent of departures from random mating, of the extent of breeding isolation within a population. Besides the number of surnames, a measure called surname diversity index is defined and its relationship with other population structural measures like village endogamy,  $N_e$ ,  $\alpha$ , and MMD, and also with fertility and mortality explored. A certain degree of preferential mating is present between the surnames in Vadde indicating significant departure from random mating ( $\chi^2 = 265.8$ , df. 26,  $P < 0.0001$ ). A linear relationship between the surname diversity index and village endogamy suggests that the greater diversity of surnames provide between scope for choosing mates within the village. A significant relationship of this diversity measure with child mortality is also apparent in the data. The genetic implications of these findings are discussed.