



Genetic ancestries of the South-west coast populations of India

Hyderabad, 1st Jan, 2024: South-west coast of India is one of the regions of high genetic and cultural diversity resulting from millennia of migration, settlements and admixture of human populations. Earlier studies on the recent migrants, who are inhabited in South-west India, including Jews, Parsis and Roman Catholics reveals existence of rich genetic heritage of this region. However, one major group of populations in this region with historical status of warriors or feudal lords have debatable genetic history. Historians and written records relate them to migrants from Ahichhatra (Iron age civilization) in Gangetic plain, while others relate them to Indo-Scythian clan migrant from North-West India.

The recent high-throughput genetic study conducted by team of researchers led by Dr Kumarasamy Thangaraj, JC Bose Fellow, CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad has found answers to end the debate. The researchers have analysed the DNA of 213 individuals of traditional warriors and feudal lord communities from South-west coast India. They looked for genome-wide autosomal markers and maternally inherited mitochondrial DNA markers, and compared their results with ancient and contemporary Eurasian populations ranging from the Bronze age to present day groups. They concluded that the Nairs, Thiyyas and Ezhavas from Kerala, and Bunts and Hoysalas from Karnataka are genetically closer to populations of North-west India. This finding has been published recently in the journal *Genome Biology and Evolution*.

“Our genetic study revealed that the Nair and Thiyya warrior communities share most of their ancestry from ancient migrants of North-west India, and have enhanced Iranian ancestry, similar to Kamboj and Gujjar populations”, said Dr. K. Thangaraj. He further added, “Their maternal genome reflects higher distribution of West Eurasian mitochondrial lineages, suggesting female-mediated migration, unlike most of the recent migrant groups such as Siddis”.

“Our machine-learning based study suggests that the migration of these groups happened following North-west to Central Indian to the South-west coast during late Bronze age or probably Iron age ”, said Dr. Lomous Kumar, first author of the study, who was the PhD student of CCMB and presently at the Birbal Sahni Institute of Palaeosciences, Lucknow.

“This study suggests that the South-west coastal groups are remnants of very early migrations from North-west India following the Godavari basin to Karnataka and Kerala” said Dr. Vinay K. Nandicoori, Director, CCMB.

Other researchers who were involved in this study are Dr. Moinak Banerjee, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram; and Dr. Mohammed S. Mustak, Mangalore University, Mangalore.

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