

**Birbal Sahni Institute of Palaeosciences**  
**Monthly Summary of Research Activities**  
**(January 2024)**

**1. Areas of Focus:**

The institute carries out research on fundamental as well as applied aspects of Palaeosciences that includes Evolutionary history of biota, Paleoclimate, studies of past civilization, Human history and contemporary Climate Change issues, following an integrated and multi-disciplinary approach.

**2. Important Highlights of Major Research Activity**

**a. Key Scientific Findings of the Month (Jan 2024)**

**The Maternal Genetic Origin and Diversity of the Extant Populations of the Ladakh Region in India:** For the first time we have generated and published genetic data of 108 unrelated individuals from Ladakh belonging to three population groups namely, Changpa (n=38), Brokpa (n=32) and Monpa (n=38). We reported that maternal ancestry of the three Ladakhi groups are highly diverse carrying lineages specific to Tibet (A21) and South Asia (M3, M30, U2) (Figure1). In our analysis we found that Changpa and Monpatribes shares maternal ancestry compared to Brokpa, which is very distinct and also later suffered possible historical Bottleneck. We also observed that maternal lineage of Changpa and Monpa communities of modern day Ladakh share some genetic history with Tibeto-Burman speakers in past. These findings conclusively indicate possible matrilineal genetic inflow in Ladakh from three directions, primarily from Tibet and South East Asia during post-glacial, West Eurasia and also from South Asia (Kumar et al).

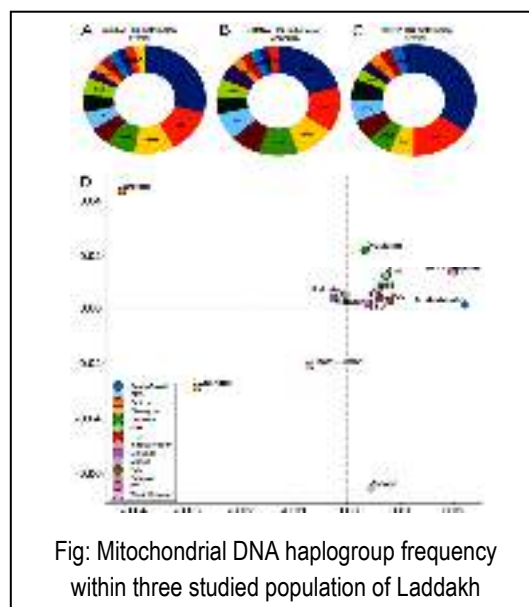


Fig: Mitochondrial DNA haplogroup frequency within three studied population of Laddakh

**b. तिमाही हिंदी कार्यशाला (27<sup>th</sup> December 2024)**

**c. Science Outreach Program-Indian International Science Festival (IISF) (29<sup>th</sup> December 2024)**

**d. 10<sup>th</sup> B.S. Venkatachala Memorial Lecture (2<sup>nd</sup> January 2024)**

**e. Student Interaction Forum (SIF) Lecture (18<sup>th</sup> January 2024)**

**f. Scientific Visit to KDMIPE, ONGC (19<sup>th</sup> – 27<sup>th</sup> Jan 2024)**

**g. Outstation Scientific Outreach Program**

- BSIP participated and showcased good scientific practices and unique fossil collection in India International Science Festival held from 17<sup>th</sup> to 20<sup>th</sup> January 2024 in Faridabad, Haryana. The stall was visited by honourable minister of science and technology, Dr Jitendra Singh, DST Secretary, Prof. Abhay Karandikar, Dr S. Somnath ISRO, Chairman and other member dignatories along with schools and college students.

**Total 8 research papers were published during the month**