Kashmir's Traditional Rice

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Why in News?

Recently, a study conducted by researchers at SKUAST-Kashmir revealed that traditional rice landraces of the Kashmir Valley trace their primary genetic roots to temperate japonica rice from Northeast Asia.

Key Genomic Findings

Parameter	Traditional Kashmir Landraces	Modern Introduced Varieties
Primary Lineage	**Temperate *Japonica***	**Subtropical *Indica***
Geographic Origin	**Northeast Asia** (East Asia/Trans-Himalayan routes)	Indo-Gangetic & Peninsular India
Adaptive Phenotype	High cold tolerance during early germination and reproductive stages in alpine high-altitude climates (>*1,500* m CO_2e MSL).	Thermal adaptation to warm, low-altitude plains.
Notable Cultivars	***Mushq Budji*** (aromatic landrace), ***Kamad***, ***Zag*** (red rice).	Modern high-yielding varieties (HYVs).

Archaeobotanical Significance

- **Mapping Trans-Himalayan Trade & Migration**
  - Traditional theories posited that rice spread exclusively northward from the Gangetic plains into the Himalayan valleys.
  - The presence of strong temperate *japonica* genetic signatures suggests that ancient agricultural exchange occurred directly across trans-Himalayan corridors.
  - It connects East Asia/Northeast Asia to the high-altitude Northwest Himalayas.
- **Corroborating Neolithic Archaeology**
  - This genetic inference aligns with archaeological findings from Neolithic sites in the Kashmir Valley such as **Burzahom** and **Gufkral**.
  - It pointing to a complex prehistoric exchange networks extending toward Central and East Asia.



Reference

[The Hindu | Kashmir's traditional rice]

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