

**BETWEEN ANDES AND AMAZON: GENETIC TRACES
OF SEX BIASED SERIAL CONTACT IN THE ARAWAK-SPEAKING YANESHA**

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The Yanéscha are a Peruvian population who inhabit a transitional area between the Andes and Amazonia; their intermediate position may have favored contact flows both in their gene pool and in their cultural characteristics. In particular, the language they speak belongs to the Arawak language family, which suggests an Amazonian origin. However, a strong influence by Quechua, the most widespread language family of the Andes, makes for a more complex demographic past. The Yanéscha are investigated here as a case study of language and population dynamics across the Andes-Amazonia divide, with 214 individuals genotyped for both Y chromosome (17 STRs and 16 SNPs diagnostic for assigning haplogroups) and mtDNA data (control region sequences and 4 SNPs diagnostic for assigning haplogroups). We uncover sex-biased genetic trends that probably arose in different stages: first, a male-biased gene flow from Andean regions, genetically consistent with highland Quechua-speakers and probably dating back to Inca expansion; and second, traces of European contact consistent with Y chromosome lineages from Italy and Tyrol, in line with recent migrations. Most research in the history, archaeology and linguistics of South America has long been characterized by perceptions of a sharp divide between the Andes and Amazonia. Our results serve as a clear case-study confirming demographic flows across that 'divide'.

Key words: *Yanéscha, mtDNA, Y chromosome, South America, language*

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