mtDNA microevolution in Southern Chile's archipelagos



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The genetic variability of four predominantly Indian populations of southern Chile's archipelagos was examined by determining the frequencies of four mitochondrial DNA haplogroups that characterize the American Indian populations. Over 90% of the individuals analyzed presented Native American mtDNA haplogroups. By means of an unweighted group pair method with arithmetic mean (UPGMA) dendrogram, a principal component analysis (PCA) derived from a distance matrix of mtDNA, and the exact test of population differentiation, we are able to prove the existence of a North-South cline. The populations in the northern part of the archipelagos are genetically similar to the Huilliche tribe, while the groups from the South are most closely related to the Fueguino tribe from the extreme South of Chile, and secondarily to the Pehuenche and Mapuche, who are found to the North and East of Chiloé archipelago. These results are consistent with a colonization of the southern archipelagos from Tierra del