

***Genetic and Linguistic Affiliations of California Indian Populations:
Reconstruction of Prehistoric Migrations Based on mtDNA Evidence***

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ABSTRACT

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This study examines the biological relations of California Indian populations as a means for evaluating if the high degree of linguistic diversity in aboriginal California had an effect on the genetic structure of these populations. Numerous scenarios of population replacement and language change have been proposed to explain the great linguistic diversity found in California. In a recent study (Johnson and Lorenz 2006), the hypervariable region segment I (HVSI) of the mitochondrial DNA (mtDNA) was characterized for 121 California Indians, each of whom could be traced to a specific tribe or locality in the Pacific Coast region using ethnohistorical evidence. The reconstruction of mtDNA haplogroup network diagrams based on these sequences indicates prehistoric expansions of Yokutsan peoples and particular Uto-Aztecan subgroups into parts of central and southern California. Hypotheses proposed by linguists regarding connections between California, the Great Basin, and the American Southwest are here tested by comparing mtDNA sequences between California and these regions. The wider connections of unusual mtDNA lineages present among Chumashan peoples bespeak of ancient Pacific coastal migrations, at least in part derived from the initial peopling of the Americas.