



Charcoal as evidence of fire regimes in the Pleistocene of the California Islands

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Charcoal has been recovered from a range of late Pleistocene sites both in Santa Cruz Island and Santa Rosa Island, belonging to the California Channel Islands. Sediments have been dated using radiocarbon measurements based on wood charcoal, fungal sclerotia, glassy carbon and fecal pellets and are given as calendar years bp. Charcoal assemblages from samples dating from 24,694 to 12,900 years are dominated by coniferous wood charcoal. Little angiosperm charcoal was recovered in any of the samples. Fungal sclerotia are frequent in a number of samples from a range of ages both on Santa Cruz and Santa Rosa. Fecal pellets are common in most samples and abundant in others. Some of the fecal pellets have hexagonal sides and are likely to represent termite frass. The sediments are fluvial in origin and the distribution of charcoal is irregular. The charcoal records a significant record of fire before the earliest documented human arrival on the islands and there is no evidence for a catastrophic fire triggered by a cometary impact at the onset of the younger Dryas, 12,900 cal years bp.