Population Growth and Sociopolitical Change in Late Pre-Contact Hawaii: Insights from Household Archaeology in Leeward Kohala, Hawaii Island

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Since 2001 the Hawaii Biocomplexity Project, a multidisciplinary team including archaeologists, ecologists, soil scientists, demographers, and quantitative modelers has investigated long-term human ecodynamics in the Hawaiian archipelago. Our current phase of research focuses on the non-linear dynamics of population growth, agricultural intensification, and sociopolitical change. This requires, in part, the acquisition of data on late pre-contact Hawaiian households. We report on the archaeological investigation of households in leeward Kohala, on the island of Hawai‘i. Our analyses of marine and terrestrial fauna, domestic animals, and identified charcoal over a 500 year period provide several indices for anthropogenic change in Hawai‘i, and also indicate distinct trends in population growth and sociopolitical change. We also discuss how household chronology and settlement patterns can be used to detect the formation of new socioeconomic units (ahu pa‘a), and how this processes is mirrored in the development of the Kohala field system.

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