

Presentation Information

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Abstract:

The NSF-funded Sanak Biocomplexity Project was created as a transdisciplinary research effort focused on a small island archipelago 50km south of the Alaska Peninsula in the Western Gulf of Alaska. This team of archaeologists, terrestrial ecologists, social anthropologists, intertidal ecologists, geologists, oceanographers, paleoecologists, and modelers is seeking to understand the role of the ancient, historic, and modern Aleut in the structure and functioning of the local and regional ecosystem. Using techniques ranging from systematic surveys to stable isotope chemistry to dynamic modeling, the interactions between long-term shifts in social dynamics and ecosystem structure are investigated in the context of changing climatic regimes. This project makes explicit the approach that humans are an integral part of the North Pacific ecosystem and that many ecosystem dynamics are structured around the presence of the Aleut on the regional landscape.

Specifically, we have found that the interactions of people with other aspects of the ecosystem have changed vegetation regimes, conditioned the behavior of sea mammals, structured the intertidal zone, and altered the distributions of a number of species. Conversely, climatic shifts, volcanic eruptions, and other major events have caused changes in human social behavior, economic intensification, and regional interactions.