

Paleoenvironmental Reconstruction of the Gulf Islands, Southwestern British Columbia.

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The environmental history of the Gulf Islands of Southwestern British Columbia, Canada is poorly understood relative to other regions of the Pacific Northwest. The research project will characterize plant communities and ecological change during the last 6,000 years through lake sediment core analysis. To achieve this objective fossil pollen and charcoal will be collected from sediment cores to create a baseline regional environmental history for the Gulf Islands, as these data do not currently exist. My dissertation research, of which this project is a component of, focuses on human-plant interactions among pre-contact Coast Salish peoples of the Gulf Islands. In order to understand how people used and managed plants it is essential to characterize the environments that they inhabited. Data derived from archaeological sites can then be compared to natural plant community reconstructions to identify economically and culturally important plants that were managed by prehistoric groups. The original research proposed here will significantly contribute to our understanding of both environmental change and human settlement in the Pacific Northwest, filling critical gaps that limit current understanding of this unique ecosystem.

Preliminary analysis and radiocarbon dates from Shingle Point suggests that at least 4,000 years are present at a depth of less than 2 meters. Changes in plant species diversity, especially cedar, are expected. The timing of the establishment of cedar into the Pacific Northwest at roughly 6,000 years before present (bp) has been tied to increased human occupation of areas such as the Gulf Islands, when the availability of mature cedar allowed for the construction of large plank houses, hunting technology and canoes (Donald 2003). Understanding fluctuations in forest composition can allow us to trace climate and human influenced change in these island environments. Also, species endemic to the islands will be more likely represented in the chronology than in previous off-island studies, allowing for a more fine-grained picture of prehistoric environments.