Notice of the Final Oral Examination
for the Degree of Master of Arts

of

SEONAID DUFFIELD

BA (University of Victoria, 2012)

“Long-Term Use of Fish and Shellfish Resources Revealed through Vibracore Sampling at EjTa-13, Hecate Island, Central Coast, BC”

Department of Anthropology

Friday, December 15, 2017
1:30 P.M.
Cornett Building
Room A319

Supervisory Committee:
Dr. Duncan McLaren, Department of Anthropology, University of Victoria (Co-Supervisor)
Dr. Quentin Mackie, Department of Anthropology, UVic (Co-Supervisor)
Dr. Iain McKechnie, Department of Anthropology, UVic (Member)

External Examiner:
Dr. Gay Frederick, Department of Anthropology, Vancouver Island University

Chair of Oral Examination:
Dr. Douglas Briant, Department of Biochemistry and Microbiology, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies
Abstract

This Master’s research program was undertaken as part of the Hakai Ancient Landscapes Archaeology Project in Heiltsuk and Wuikinuxv Territories on the Central Pacific Coast of British Columbia, Canada. The project tested the utility of applying vibracore technology to sample a shell midden site on Hecate Island on the BC Central Coast. This revealed that the earliest archaeological occupation began approximately 6,000 years ago, continuing into the 16th Century AD. Analysis using 21 radiocarbon dates from the six cores shows the site was repeatedly occupied and accumulated consistently throughout the tested area and extended to a depth of 544 cm depth below surface. Sampled sediments were utilized to evaluate evidence of fisheries resource management through time with reference to the nearby, intensively-studied archaeological site Namu (ElSx-1). Zooarchaeological results show the herring (Clupea pallasii), salmon (Oncorhynchus spp.), rockfish (Sebastes spp.) and greenling (Hexagrammos spp.) were fished persistently and in similar abundances through the occupation of the site. Overall results for vertebrate fauna reveal the total number of specimens is 19,173 and the total number of identified specimens is 6,566. Results also show a consistent harvest of certain shellfish taxa (e.g., mussel and barnacle), however abundances increase through time. When comparing the relative abundance of herring and salmon through time at Namu and EjTa-13, results show that salmon at Namu was more abundant than at EjTa-13. This is likely due to the productivity of salmon in the Namu River adjacent to the site. Alternatively, herring remains were represented similarly between sites indicating the resource was similarly desirable at EjTa-13 and Namu. Surprisingly, a large number of very small artifacts of various materials were also recovered (an estimated 0.55 artifacts per litre of cultural sediments, or 550 artifacts per cubic metre), which indicates that the field and laboratory methods used are especially conducive to the recovery of small items. These results show a persistent and sustainable local fishery through six millennia until the contact period.