

Native American Traditional and Contemporary Knowledge of the Northern Olympic Peninsula Nearshore



**A cooperative study by
Anne Shaffer, Coastal Watershed Institute, and
Jacilee Wray, Olympic National Park,
with co-authors
Beatrice Charles,
Vince Cooke,
Elaine Grinnell,
Chris Morganroth III,
Lela Mae Morganroth,
Melissa Peterson,
Viola Riebe, and
Adeline Smith**

©2004

All Rights Reserved

**Olympic Peninsula Intertribal Cultural Advisory Committee
31912 Little Boston Road
Kingston, WA 98346**

and

**Coastal Watershed Institute
P.O. Box 2263
Port Angeles, WA 98362**

**Front Image
Boats at LaPush
by Fannie E. Taylor, circa 1915**

All photos courtesy of Olympic National Park unless otherwise noted.

Table of Contents

Foreword	1
Acknowledgements	2
Project Background	3
Research Design	6
I. "When the Tide is Out" An Ethnographic Study of Nearshore Use on the Northern Olympic Peninsula	8
Introduction	10
On the Beach	11
Nearshore Islands	25
Waterfowl	27
Food Preparation	28
Utilitarian	28
Harvest Restrictions	29
Access	30
Landmarks and Spoken History	34
Ed Ricketts Visits Neah Bay	37
Bibliography	39
Illustrations	
Quileute children on beach with whale	8
Girls on beach at Neah Bay	11
Carrying baskets and digging sticks	13
Canoe run at Ozette Village	18
"Quillayute (sic) Indians Drying Smelt at La Push"	20
Sorting harvested smelt at LaPush	21
Porphyra on Beach, Waada Island at left	22
Rattle at Olympic National Park made of surf grass	23

Illustrations cont.

Along the nearshore at LaPush	25
"Cutting up Jerry's whale at oil well north of mouth of Hoh River"	27
Mussel shell rattle at Olympic National Park	29
Adeline Smith, Ernie Sampson Jr., and Bea Charles at Agate Beach.....	31
Bea Charles, Adeline Smith, and Anne Shaffer at Crescent Bay	32
Map of Pysht showing homes, circa 1930s.....	33
Agate Bay	35
Observatory Point, Freshwater Bay to left	36

II. Nearshore Habitat and Resources of the Olympic

Peninsula Tribes	42
 Introduction	43
 Methods and Materials	43
 Results	43
 Resources	44
 I. Resources: Use, Change, and Priority Concerns	44
 II. Habitat: Use, Change, and Priority Concerns	45
 III. Desired Changes in Resource and Habitat Management	46
Discussion	47
Acknowledgements	49
Sources Cited	50

Foreword

This report pulls together much interesting information concerning use of marine resources by the members of five tribes living on the Olympic Peninsula. The transcripts of interviews with women and men give us valuable insights into the way the tribes have depended on animals and plants for food, clothing, medicine, and raw material for producing household objects. They also offer some fascinating observations with respect to cultural traditions and spiritual concerns. You will probably be saddened by testimonials that tell how stocks of some sources of food for the tribes had begun to decline as long as nearly a hundred years ago, and how the situation with respect to some species and habitats has worsened in recent years. You should be encouraged, however, by the fact that the tribes themselves, with their own knowledge and biological staff, are working closely with other biologists with a view to co-managing these resources effectively. We may even hope that scientific studies and application of their results will lead to increases in stocks-and improvements in habitats-of at least some species upon which the tribes depend.

Eugene Kozloff
15 September 2004

Acknowledgements

Thank you to the following people for their critical manuscript review: Katie Krueger and Mel Moon, Quileute Natural Resources; Ruth S. Ludwin, Pacific Northwest Seismograph Network, University of Washington; Russel Barsh, Director, Center for the Study of Coast Salish Environments, Samish Indian Nation; Kathy Duncan, cultural resource director, Jamestown S'Klallam Tribe; and Eugene Kozloff, marine biologist, University of Washington. Thank you to Eric Enno Tamm who provided valuable information on Ed Ricketts' work and to Ed Ricketts Jr. for his wonderful recollections of his family's trip to Neah Bay in about 1934. We are grateful for the funding received from the NPS Challenge Cost Share Program and the support of the Olympic Peninsula Intertribal Cultural Advisory Committee.

Project Background

This is a small, modestly funded project, with support by the NPS Challenge Cost Share Program. The research was conducted by Anne Shaffer, marine biologist with the Coastal Watershed Institute and Jacilee Wray, anthropologist at Olympic National Park in collaboration with the following Olympic Peninsula tribal members.

Adeline Smith and Beatrice Charles - Elwha Klallam

Adeline is Bea's aunt, although they are only a year apart in age. Bea was born in 1919 at Pysht and lived at Deep Creek with her father Ernest Sampson while they stayed to help out Bea's great grandfather's¹ brother, Pysht Jack.

Adeline was born on the Elwha River in 1918. Her father Charlie Sampson died when she was quite young and her mother Susan Pysht, daughter of Tim Pysht, raised her on the family farm under the Elwha River one-lane bridge. Bea and Adeline were raised together here for some years and both went on to attend Chemawa Indian Boarding school in the 1930s and then both worked in Seattle during World War II.

Bea spent many years with her mother Sadie Elliott's family (Cowichan) in Duncan, B.C. She returned to Elwha and married Elmer Charles, also from Elwha, in the 1960s. Bea served as an expert witness for U.S. v. Washington on shellfish use areas. Adeline married Roy Smith (Makah) and they resided at Neah Bay for about 25 years. She worked seasonally in Seattle for the Acme Poultry Company and retired to the Elwha Reservation in the 1980s. Today these two women carry forward the Klallam language and have devoted their time to passing on traditional knowledge.

Elaine Grinnell - Jamestown S'Klallam

Elaine was born in 1936 and spent her first ten years at Jamestown, then continued her education in Port Angeles. Elaine was raised by her grandparents, David and Elizabeth Prince, who took her clamming and crabbing early on. Elaine is retired from commercial fishing and crabbing, but continues to clam. She is a state certified Klallam language instructor and served as the Native American student councilor at Port Angeles High School from 1967-2002. Elaine teaches basketry, drum making, and story telling and is a master story teller.

Viola Riebe - Hoh Tribe

Vi was born in 1934 in Forks and grew up at Hoh and Queets with her parents Steve Penn (son of Essau and Mary South Penn; Quileute/Makah) and Nellie Fisher (daughter of Frank and Amy Cole Fisher; Hoh). Vi went to elementary school at Clearwater and High School at

¹ Tim Pysht is Bea's great grandfather and Adeline's grandfather. Bea's father, Ernest Sampson, is Adeline's oldest brother.

Lake Quinault. She spent a lot of time on the beach at Hoh and traveled up the coast with her parents. She has lived in Forks throughout her adult life. She worked at Hubbell's store at Queets, managed the café at LaPush, and taught English in Forks. Vi has been weaving baskets since she was a little girl, and weaving continues to be her favorite thing to do. Vi is the co-author of the Hoh tribal chapter in *Native Peoples of the Olympic Peninsula: Who We Are*.

Lela Mae Morganroth - Quileute

Lela Mae Morganroth was born in 1937. She grew up at LaPush and was raised by her grandmother, Susie Morgenroth. Her grandfather was Chris Morgenroth, the first U.S. Forest Service ranger in the Olympics. Lela learned her traditional knowledge from her paternal grandmother Susie, and her maternal grandmother and namesake, Lela Pulsifer (Skokomish), as well as her aunt Eleanor Wheeler (Quileute). Lela taught the Quileute language for 12 years and has been instrumental in passing down lessons and protocol in drumming, dancing, and singing. Lela is an exceptional basket weaver who utilizes both Quileute and Skokomish weaving styles.

Chris Morganroth III - Quileute

Chris Morganroth is Lela's brother, born in 1939; he was also raised by his grandmother Susie at LaPush. He attended the University of Illinois while in the Air Force (1958-1962) where he studied fisheries and became a trained commercial diver. He served as the Quileute Tribe's Director of Fisheries from 1974 until the 1980s and represented 21 tribes on a panel for the US - Canada Salmon Treaty. Chris has taught classes at the Quileute Tribal School over the past ten years, including Quileute language, carving, story telling, environmental education, tribal history, and tribal law. He also teaches environmental science for the University of Washington MESA program. Chris is the author of the Quileute tribal chapter in *Native Peoples of the Olympic Peninsula: Who We Are* and was featured in the Discovery Channel's *Ocean's of Air* about the peninsula's coast. Chris is a master carver and professional canoe carver, who received instruction in the art from Laven Coe, Charlie Howeattle, Fred Penn, and his father Chris Morganroth II.

Melissa Peterson - Makah

Melissa Peterson was born in 1956 in Seattle. When she was ten she reconnected with her tribal heritage and began to spend the summers with her aunt Helen Peterson at Neah Bay. At 14 she moved to Neah Bay permanently. Melissa is an Evergreen State College graduate and the mother of four children and grandmother of seven. She acquired her traditional knowledge of indigenous basketry materials and her knowledge of the nearshore from her aunt Helen and her aunt's elder friends. Melissa was one of the first to work on the Makah language program in the 1970s, and has continued to work with language preservation and curation for the Makah Cultural and Research Center. Melissa has been a basket weaver since she was 12, and now specializes in traditional functional basketry. She is the co-author of the Makah chapter in *Native Peoples of the Olympic Peninsula: Who We Are*.

Vince Cooke - Makah

Vince was born in 1968 in Port Angeles to John and Loretta Cooke. His maternal great grandmother is Isabell Ides, who participated in the last historic whale hunt in the early 1900s. Isabell gave Vince his Makah name of Hápinax', which has been passed down through seven generations. Vince went to high school at Neah Bay and is completing his degree at Concordia College in Portland, Oregon. He has worked for the tribe for 15 years, addressing the tribe's environmental issues for ten years, and serving as environmental division manager for two years.

All of the co-authors were selected because of their knowledge of cultural resources and the nearshore environment, both in contemporary times and from what they have learned from their elders.

Anne Shaffer worked for the Quileute Tribe for two years in their Natural Resources Department and has worked as a marine biologist for the Washington State Department of Fish and Wildlife for fifteen years. She has volunteered her personal time as the director of the Coastal Watershed Institute for this research. Ever since Anne Shaffer worked with the Quileute Tribe she has highlighted the importance of marine resources from both a natural and cultural resource standpoint, and has wanted to bring the two together.

Jacilee Wray has been Olympic National Park's anthropologist for 15 years. She has brought together ethnographic information on the peninsula's 8 tribes for the park's Ethnographic Overview and Assessment and was the editor for the intertribal book *Native Peoples of the Olympic Peninsula: Who We Are*. She worked with Anne Shaffer on the Sol Duc watershed analysis where they discovered their overarching interest in traditional knowledge.

The goal of this project for Shaffer and Wray is to compile information on the traditional and current tribal knowledge of nearshore resources of the northern Olympic Peninsula—nearshore being defined as the area of tidal influence extending from tree line to minus 30 meters Mean Low Low Water—and then to apply the information in a context that provides natural and cultural resource information for baseline and future studies.

Research Design

The process for this research was to interview tribal members, at least one person from each of the five northern Olympic Peninsula tribes: The Hoh, Quileute, Makah, Elwha Klallam, and Jamestown S'Klallam. This was accomplished in a relatively short time period. The interviews focused on a set of questions prepared by Shaffer and Wray (Appendix A) and maps with Mylar sheets were used to pinpoint specific areas. The process resulted in two reports, three tables of important species and habitat (with Native language terms), historic and contemporary photos, and professional maps using GIS technology prepared by Randall McCoy. The maps synthesize the resources and habitats identified for general reference and do not depict settlement sites or geographic boundaries.

Writing the report was somewhat problematic. Since Shaffer's and Wray's training and methodology significantly differ (marine biology and anthropology), their focus was different. Shaffer looked at the resources and habitats today and noted changes, such as species that no longer occur in a given location, or that are now present that were not there before; whereas, Wray is interested in the traditional use of plants and shellfish, especially for utilitarian and practical or medicinal purposes. In the essence of time and to keep the data clear, two reports have been written, rather than attempt to consolidate the two.

Shaffer's is an ecological synthesis of the marine resources and habitat with data from the tribal interviewees. Shaffer summarizes the resources, their uses, and geographic areas historically and currently important, using a habitat model with a focus on desired future conditions.

Wray utilized the tribal interviews to prepare what could be characterized as a rapid ethnographic assessment. Wray prepared the overview as a co-authored report with the tribal members, and sent drafts to the authors to review and edit at various stages.

The focus of this study has been limited by time and cost constraints, but future work could expand upon this to include many more interviews, and an exhaustive review of the ethnographic literature relating to nearshore use, as well as faunal analyses at archeological sites like Ozette. Knowledge of contemporary tribal fishery enterprises could also provide valuable insight.

The time period referenced in this report is important, as the knowledge is within the memory of the authors, or as they remember stories related to them by elders. In this way the report is a contemporary look at the nearshore, something that has not been done to our knowledge on the peninsula.

In addition, we have the benefit of referring to a report Dr. Jay Powell compiled for Olympic National Park from his research with the Quileute and the Hoh over the past 35 years that pertains to the nearshore. Dr. Powell's work is of the utmost importance, not only because he worked with elders of two or three generations ago, but also because of his incredible

knowledge and sensitivity to the spiritual aspect of the landscape. As Jay says, this is not simply about where you go to get clams, the "foreshore" is "emphatically spiritual" (Powell 2003:2).

A special note of interest occurred during the finalization of this report. Both Wray and Shaffer were very interested in the intertidal research trip that the famous "Doc" or Ed Ricketts took to Neah Bay in the 1930s. Ricketts' research notes from this trip were probably lost in the fire that took his Cannery Row lab in 1936 (Tamm 2004), however, his son, Ed Ricketts Jr. has provided some incredible reminiscences of this trip by his mother, his sister Nancy, and himself. Young Ricketts has graciously allowed Wray to include these memories in her report.

In summary, the product of this work contains two distinct papers that address the traditional and contemporary use of the nearshore from different perspectives, as well as three tables, and four maps compiling the data. In the end, Shaffer and Wray plan to write two formal papers and combine the information presented here; to merge the ideas of the marine biologist and the anthropologist in a way that highlights the connection between cultural and natural nearshore resources.

"When the Tide is Out"
An Ethnographic Study of Nearshore Use
on the Northern Olympic Peninsula



by

**Beatrice Charles (Elwha), Vince Cooke (Makah), Elaine Grinnell (Jamestown),
Chris Morganroth III (Quileute), Lela Mae Morganroth (Quileute),
Melissa Peterson (Makah), Viola Riebe (Hoh), Adeline Smith (Elwha),
and Jacilee Wray (Olympic National Park)**

November 2004

**Quileute children on beach with whale
(previous page)
by Harvey Smith, circa 1890, courtesy Ed Maupin**

Introduction

This ethnographic study concerning nearshore species and habitat contains recollections and knowledge from members of the Elwha Klallam, Jamestown S'Klallam, Hoh, Quileute, and Makah tribes. The report is enhanced by anthropological and linguistic research with the Quileute and Hoh conducted by Dr. Jay Powell from the 1960s to the present. A few early ethnographic works are also referenced, including Erna Gunther's ethnographic research with the Klallam and T.T. Waterman's early place name research with the Makah and Klallam. This is only a small representation of information and is not an exhaustive study. If a species is not discussed, this does not mean that it was or is not important to the tribes of the peninsula, or that it did not exist in a given area. It must also be noted that the focus here is individual use, and does not address commercial fisheries and tribal enterprises. Within the text the first time a person's name is given, their birth year is included to help the reader recognize the time frame.

Native language words appear in several phonetic font systems. The Klallam and Quileute words are standardized, with the assistance of linguists Dr. Tim Montler and Dr. Jay V. Powell, and using the International Phonetic Font system provided by Montler. Many of the Makah words have been standardized with the help of Melissa Peterson, while other Makah words retain the system developed for a regular typewriter early in the tribe's language documentation program.

The place names recorded by T.T. Waterman (1920) are problematic, as he did not use any of the standard transcription systems of his time; therefore, it is difficult to convert them to a standardized form. Waterman's names are interesting, in that several of the resource area names are actually references to a specific use. Since this use occurred in the early 1900s, change in species habitat at these locations might be ascertained from these descriptive names, even if the place names themselves are not accurate.

In addition, Wray has included Ed Ricketts Jr.'s unpublished family memories of his father's intertidal research trip to Neah Bay in the early 1930s.

On The Beach

"I used to be at the beach all of the time. That was the only place my aunt would ever let me go because she could watch me from her house and always see what I was doing. She lived right across the street from the beach. I have a lot of fond memories of the beach and interacting with her, while digging clams and doing all the things kids do. We had fires and created things with shells" (Melissa Peterson {1956}).



**Girls on beach at Neah Bay
Photo by Fannie E. Taylor, circa 1915**

"My great grandfather and my younger brother, who was four years younger than me, used to go beachcombing at Pysht and we picked up things that were lying on the beach... we found things that washed in. The one that I remember was one of those steamships, those ocean liners. About that long [6 inches]. It was carved and looked exactly like a steamship. My little brother cried for it and I had to give it to him because he was a boy and I was a girl and girls don't own ships. That was always the way that it was. The boys got the things" (Beatrice Charles {1919}).

Eleanor Wheeler (Kaikaka) reminisced to Jay Powell about playing a'achida'al ("rock dollies") on the beach when she was growing up on the Lower Hoh River. She said the girls were always on the lookout for perfectly round, very thin and flat stones to use for doll faces. They would paint faces on them. Then, they'd take a green willow stick about 15" long with two 1½" long branches for shoulders, split the end (with the shoulders on it) and lodge the "face" in this willow neck. Then, they'd weave a cloak and skirt of cedar bark and play all afternoon (Powell 2003:12).

"When the tide is out the table is set" is often heard on the Olympic Peninsula. The daily larder was kept fresh in a refrigerator of cold ocean water and when the tide pulled back, the refrigerator door was opened. It is striking how customary the activity of harvesting from the nearshore was. The traditional dependence on these resources provided so much that it was indeed similar to the act of going to the refrigerator; well, maybe not that similar, as you don't have to go out in the cold and rain to get to the refrigerator!

Melissa Peterson of Neah Bay recalls "that sometimes they went out in the middle of the night, even when it was raining and blowing, because when the tide is low, that's the time you gather seafood." Vi Riebe {1934} never had a store at Hoh River, but "always had food on the table." Crabs were caught by wading out at low tide until the water became calm enough to see them, then you stepped on them to catch them. Sea cucumbers, chitons, anemones, and urchins were picked up at minus tides.

The wealth located within the nearshore was not owned like property today, but was shared among members of village groups. Outside of the village, people visited other beaches with permission. The families who obtained resources at important areas often claimed use-rights, which they established by building a house, smokehouse, garden, drying rack, or fishing weir at that location (Powell 2003:4). Specific families often claimed the right to the flotsam or jetsam within sections of beach. These claims were consecrated through the potlatch.

Anthropologist, Jay Powell, who has worked with the Quileute for over 35 years, recalled one day when Fred Woodruff was on the beach.

Sitting on the driftwood and calling out to raven at the tide line, saying, "Kitax̣ tixwal, Bayax̣! Wa'alishaxw alita x̣ax̣i' okił chi' lawawat Ila'lich pakit!" ['Go home, Raven! There's getting to be no wealth on the beach anymore. You will have to get a job' (in order to become a noble chief)]. He was referring to the mythic origin of the potlatch feast. According to oral tradition it was wily Raven who originated the potlatch ritual feast by inviting all the animal chiefs to the beach in the Time of Beginnings, and when the tide pulled back, he pointed to the beachlife that was exposed and said, "Here's your feast!" Traditionally, the Quileute and Hoh, like other Northwest Coast peoples, used the potlatch as a social mechanism to rise in status by ritual generosity. You couldn't become a chief or maintain high status without potlatching, giving away your wealth to make good your name. Mr. Woodruff, longtime chief councilor of the LaPush people, was saying to Raven that the gradual deterioration of the foreshore was resulting in the destruction of the wealth that the old people used for potlatching, and, thus, if Raven wanted to become a chief he would have to go out and get a job to accumulate the wealth for potlatching (Powell 2003:2).

According to Powell, "the collection, consumption and trade of the subsistence and material resources of the foreshore areas are the most focal traditional use of these areas. These resources were more consistently available and more readily at hand than foodstuffs that were

hunted or fished for" (Powell 2003:5). Hazel Bright remembers "my Gramma used to tell me that every beach was loaded/filled with clams everywhere, too full, all over Quileute territory" (Powell 2003:6). Powell believes the intertidal resources were so plentiful that people did not have to travel elsewhere to get them (unless of course they lived upriver). By 1972 the resource base must have shifted, as Pansy Howeattle spoke to Powell about the Quileute having to keep their clam-digging spots a secret. "While in the old days this would be like keeping the places where the grass grows a secret" (Powell 2003:7).

Women often did the clam digging, carrying them on their backs in a large burden basket with a tumpline. The basket was open-weave of split vine maple, or spruce or cedar root that allowed water to pass through. A clam digging stick of hard wood with a pointed end and a straight handle, sometimes with a knobbed grip, was used to dig clams. The clam-digging stick was different from the root-digging stick, which had a curved handle for maneuvering the wrist to cut through the roots. Although clamming is often viewed as a female occupation, gathering activities were not stigmatized for men, although men "seldom did it in traditional times" (Powell 2003:5). After the turn of the century, clam digging became more of a family activity and men joined in; "but Hal George and Chris Morganroth II agreed that women dug the clams in the old days" (Powell 2003:5). Vi Riebe remembers the men going "out in a canoe on a good day at minus tide" to get china slippers (chitons) from the offshore rocks.



**Carrying baskets and digging sticks
Photographer unknown**

Powell says that there was no spirit-power or secret society for nearshore foragers as there were for hunters, fishermen, whalers, and weathermen, all male pursuits. However, "traditional women prayed before foraging, giving thanks and asking for empowerment to succeed, as they did before any activity" (Powell 2003:6). Anthropologist William Elmendorf discusses the power Skokomish women exhibited to gather plants. For example, the silverweed wiggles when dug up and contains a spirit that gives a woman power to locate abundant roots (Elmendorf 1992:128-131). It is quite possible that there were spiritual pursuits associated with women's nearshore gathering activities that we are not aware of.

Extensive knowledge is necessary for gathering. Melissa Peterson tells how to identify clams by their hole. "The empress clam² is really deep, 2-3 feet. The butters and steamers are a little shallower; they only go a foot down.... The empress clams' holes are about as big as a quarter or a 50-cent piece and they always have a little seaweed sticking out. During the low tide you can see their necks, their siphons.... The little butter clams' holes are oval shaped, and the littlenecks' have tiny holes."

Knowledge about harvesting locations and necessary precautions are learned through years of harvesting. Chris Morganroth III {1939} explains you can find keyhole limpets at Ruby Beach, *prícha tsikati'fhił*, "Red Sand" in Quileute, but you need to take the scale worm off first, as it contains iodine that burns your lips. Therefore, you should eat only the foot. Second Beach is where Chris and his sister Lela Mae Morganroth {1937} used to go for the purple sea urchin or sea eggs, *tsitsk^wök^wa?* in Quileute. Sea eggs could also be obtained at Hole-in-the-Wall, Toleak, and the Giants Graveyard. You had to wait for the tide to go out quite a ways to harvest them. The green and red sea urchins were eaten, but the purple are the preferred. Urchins are eaten raw; you crack the shell open and suck out the insides. When Melissa was small, she used to go out and pick them for her aunt, who showed her how to fix them "right from the rock. We would crack the urchin in half and scoop out the orange roe and swallow it raw." Urchins live among kelp, which need solid rock, and sedimentation is affecting this habitat. Bea and Adeline were told not to eat sea eggs when there was a white milky substance in them.

T.T. Waterman's Klallam place names include a location near the Lyre River that he calls *LlmLlmuqanuk*, which in standardized fonts might be *łəŋłəŋənəq*. Waterman says it refers to "turning rocks over" to look for sea eggs. Tim Montler, Klallam linguist, says that the suffix of this word indicates a regular activity, while the root means "remove" or "comes off." Bea and Adeline identify the meaning as "to pry something off." The first part of the word means to take something off, and the second part is the person doing that, so Waterman was probably told by his consultant that this location is where urchins are harvested from among the rocks. The fact that Waterman identifies this as an important urchin harvesting area is significant.

Boots are very popular, also known as gooseneck barnacles, *Pollicipes polymerus*, they look like little boots growing in clusters with their heads sticking out. Vi Riebe always finds them growing with mussels and eats the outer skin she peels off. During minus tide you can harvest them on the rocks south of the Hoh River or go out in canoes to get them, as that's where the

² *Tresus nuttalli*, Pacific gaper.

best ones are. "Everybody had canoes in those days." The Quileute name for boots is baláyit, the Makah word is ɕ'eʔidiʷ, and the Klallam word is nəqʷsəʔí. Bea and Adeline recall being told that they are tenderer if you harvest them from under the kelp.

Bea Charles remembers the elders telling her "you are never to eat ɕ'úncəʔn̩, barnacles,³ until you are as old as we are" because they will make you have pimples or boils. Now Bea realizes that "they were just conniving so that they could eat them all themselves, as they are so tasty and so much work to get out of the shell." Melissa says that the barnacles that grow on the mussels are boiled together, and then you pop the barnacle off and take a toothpick to push it through. It's just small meat, but it's delicious to nibble on. Vince Cooke's grandma would tell him "to go get her mussels. She said make sure there are 'varnacles' on there. She didn't call them barnacles, she called them varnacles. Make sure there are varnacles on those mussels." The Makah name for the barnacle is ʔipsi'ka'd and they are collected at kadickub, near Warm House and C'uyas Rocks. The Quileute word for the barnacle is tso'bayit.

There are still an abundance of mussels, but not like there used to be according to Chris Morganroth. People don't eat the little blue mussel now because they are too small. Habitat and environmental change along the coastline have created a smaller mussel because of the nutrients in the water. The Quileute word for the little blue mussel is tsabiʔiw and the large mussel is chikw tsabiʔiw.

Adeline Smith {1918} and Bea Charles note that there are two types of chiton, one that is not edible. The non edible chiton is greenish and hairy and the Klallam call it sləpúnə, which is slang for someone who is a weakling. The edible chiton is called fəʔsuʔéʔɕ in Klallam and means "braided back." This black skinned chiton is also known as button back or Chinese slipper. Adeline and Bea recall fəʔsuʔéʔɕ at Deep Creek, but there were more at qqímuʔ (Pillar Point), ʔcánt (Agate Beach), and sčaʔq'aʔítən (west of the Elwha River). Chinese slippers, fłáʔachiyit in Quileute, are found on the rocks at minus tide. They feed on the kelp along the coast at areas near the Hoh River and Second Beach. They are also found at Clallam Bay. According to Vi Riebe, they are not harvested for sale so their population has stayed fairly constant. Vi remembers collecting about a half gallon for her immediate family, but "if we had company we would gather a full bucket." You find them underneath the kelp and then you pry them off the rocks with a table knife or screwdriver. The medium sized ones are the best (1 to 1½ inch). They are boiled for about 20 minutes. Some Makah ate Chinese slippers raw by taking off the shell, removing their guts, and pounding them tender.

The gumboot or cryptochiton is also eaten, although you don't see those on the coast much anymore. The Klallam name for the cryptochiton is ʔúkʷs, the Makah name is ʔ'íʔ ixsʔaʔ, and the Quileute call them si'disk'wots.

The Klallam call the butter clam sq'xəyuʔ, although this is also the generic Klallam word for clams. There were many butter clams and littlenecks at Pysht. In the late 1920s, Bea's grandmother, Susie Pysht Sampson,⁴ used to go to Pysht from her home on the Elwha River

³ (*Balanus glandula*). The Klallam word for barnacles translates to something like "the waves keep coming."

⁴ Born at Pysht in 1887.

and stay about a week to smoke salmon and dry clams. Big butter clams are found on the outer coast at the Giant's Graveyard, but they are no longer found at Second Beach. Both the littleneck and butter clam have declined between LaPush and the Hoh River. Littlenecks are usually found in gravel among big rocks. "When you see the little bubbles come up, you dig." Vi remembers the best place was north of the Hoh River, but not anymore because too many people have harvested there. "I think there are a lot less clams than when we were younger because there wasn't a campground on the Hoh and there weren't as many people around. But now, if you go there in the summer there's always somebody there every day." According to Vince Cooke, the littlenecks are still quite exceptional at Ozette.

Elaine Grinnell {1936} remembers many clams out from Washington Harbor at Middle Ground and on the outer bank off Jamestown. There used to be a lot more clams down at the Elwha beach. Elmer Charles, Bea's late husband said that when there was a bad storm they would go down there with their big wash tubs and they would fill them up with the clams that washed up with the storm.

Cockles⁵ are found near Village Creek at the far end of Neah Bay. Melissa still finds them there, but you also see a couple now and then by the Coast Guard Station, as it's sandy and rocky with some seaweed there.

Melissa has never eaten *cidiʔu*, periwinkle in Makah, but her aunt Helen told her how her grandmother would go down and get a bucketful of *cidiʔu* and when the other ladies came over they would munch on them like popcorn. It's very "labor intensive, so you have to have some time on your hands." Vince Cooke knows of periwinkle at Sooes, Waatch, Hobuck, and the Cape Flattery area. He says that the elders still eat them. T.T. Waterman's (1920:#198) Makah place names indicate a location near Seal Rock called *sidE3'u*, meaning "little snails on rocks." He writes that the animals are hard to pick out of the shell, but they are considered to be very fine to eat. Bea and Adeline used *čúčən*, periwinkle in Klallam, for fish bait when they were children.

Olive shells are important for regalia, necklaces, and to give away at gatherings. Melissa explains "they are found in the sand, grouped together. If you know what you are looking for you can find a whole bed." The little white olive shells, sometimes called the queen, are highly valued and some people believe it is taboo to take them. Olive shells are found at Hobuck Beach or *C'uyas* according to Melissa, Giants Graveyard and Toleak according to Chris, and at Ozette according to Lela Mae. In the 1950s Chris noticed that at Toleak the olive shells died and hermit crabs moved into their shells.

Melissa heard that there might be a relationship between the olive shell and the razor clam. When there are a whole lot of olive shells there are not many razor clams at Hobuck and Sooes. For a couple of years razor clams were not showing up, but last year they came back. Whether or not there is a connection to the olive shell isn't certain.

To prepare the shells for use requires a lot of patience. When Melissa was young she would sit all day helping her aunt pick the meat out with a little toothpick or needle. Now Melissa

⁵ *Clinocardium nuttallii*

grinds the top of the shell off and blows the critter out with water. Before she does this she boils them just for a moment to kill them, as it seems more humane to kill them first. It doesn't dull them. What dulls them is if you wait too long to clean them. A lot of people will bury them to remove the inside and some folks take a burlap sack and hang it over the dock at the marina. There's a little flea, about a half-inch big, that attach themselves to the bag and feed through the holes to get the critters out of the shells.

Melissa's aunt Helen made a hair tonic out of octopus. She told Melissa that her hair started getting a little gray and thinning so she boiled the octopus and put the tonic on her hair and it came in dark. It wasn't the ink sack that was used, just the juice of the octopus.

"When an octopus comes running out of its hole, be ready and grab it by the head and turn it inside out," according to Adeline's late husband Roy Smith (Makah). There is a membrane that you have to cut through that separates the head from the body. Elaine used Blue Stone or Purex to get the octopus out of hiding, but then she found that once you did that they wouldn't come back to their home for several tides because you had contaminated the place. Plus you killed all the other things that were under the rocks. Now Elaine uses a sharp stick like her grandfather did. You can tell where the octopus' home is because of the ground up shells at the entrance. Usually they have a back door too. Elaine uses the sloshing method to get them to come out:

First, I find out if they're even there just by inserting a stick and searching for its fingers and push it in there. Poke, poke, poke, poke. And then once I find it... I poke around different rocks. And if one is in there it will grab a hold of it and ever so gently it will move that around. And then, yes we do have one in there, okay. Then I just jab it a couple of times and I get water and go around the back door and just slosh it. It makes them think that the tide is coming in. Hit the front hole with water too. And then wait. Pretty soon it will send out one leg. Then it will usually go back. Soon it will come out again and it will keep coming. Maybe two legs will come out, and then two legs will go back in. You wait until it comes out. I just poke at the front door until I can see the head, then grab the head and just lift it up out of its environment. Hopefully, you have some kind of container for it, like a bucket. Otherwise you just throw it up on the beach. But you don't want it to get gravel in the suckers you know. So I have a bucket I put it in and then I put something dark over it so that it thinks its back under the rock again. Otherwise, it will start coming back out of your bucket and get all over you.

Chris Morganroth can tell where an octopus is by its eating habits. They usually live where there is a cavity in a big rock near a ledge. When they eat they keep their house pretty clean. They kick all the shells out that they broke up, so there is a layer of shells around the outer perimeter of their entrance. That's the telltale sign that the octopus is there. You use a probe with something tied onto it that irritates their skin, and if they get irritated enough they come out.

Ocean fish were often caught in the nearshore. Lyle Prince, Buck Prince, and Elaine's grandfather, David Prince fished for halibut year around on the east side of Dungeness Spit where there is a drop off. It goes from two feet for about ten feet and then "bang, it goes out of sight. It goes to eighty feet, to two hundred feet about one mile to the east of the lighthouse. That's where the big drop off is." On a clear day you can see the halibut lying out there so clearly you could harpoon them. There were also lingcod, flounder, skate, and pink and silver salmon there.

Bea relates that her late husband, Elmer Charles, caught flounder and silver salmon inside the bay at Port Angeles. There were a lot of flounder in the Pysht River too. "You could watch for them in the river and my great grandpa would spear them with a three-prong spear up where the wharf was." Vi remembers catching perch right off shore at Hoh River. According to T.T. Waterman's (1920:#36) Makah place names there was once a rock enclosure or trap at Ozette for catching perch in the falling tide. Archeologists have documented a canoe run at this site, but not the fish trap. There may have also been the remains of an ancient tidal weir at Goodman Creek up until recent years. Trout and salmon used to be caught in just a few minutes at Goodman Creek.



**Canoe run at Ozette Village
Olympic National Park photo by Louis Kirk, April 1961**

When Bea was very young she went out fishing with her Uncle Ed's mother, Susie Hall, at Deep Creek. Susie caught a great big skate and put it across the canoe. Bea was up in the front and Susie was in the back; she didn't have any room to paddle, the fish was so big. When Bea got home her mother was very angry; "you're not going to go fishing with her again. You might have lost your life. She should have towed it instead of putting it on the boat. What if you had tipped over out there in the ocean, you would have been gone!"

Tribal members from one area often traveled to areas far from home to garner resources. This was permissible when families had relations through marriage within that tribe, or else they had to seek permission. Vi Riebe from Hoh River remembers camping in the 1940s with her dad, who is half Ozette (his mother was Mary South), at the mouth of the Ozette River⁶ where he would fish for blueback. While they were there they also harvested clams and fabulous littlenecks, as well as mussels, chitons, and little steamers, but not many butter clams. In the fall they would go to the bogs at Ahlstrom or Roose prairies for cranberries.

Adeline and Bea recall going to Jamestown with Adeline's mom Susie Pysht. After church there would be a large feast for which Susie would take buckets and buckets of prunes, plums, cherries, and apples she picked at her farm below the one-lane Elwha Bridge. Susie also took the girls to Ediz Hook where she would give Jenny Talicus a sack of potatoes, and in return "Jenny used to give us clams or halibut or skate. Each fish had a different taste. A lot of barter was going on during the era we grew up in. So we had all sorts of food."

There are four species of smelt in the Hoh River: candlestick, Columbia River smelt, night smelt, and day (silver) smelt. Jim Jorgenson, fisheries biologist for the Hoh Tribe, states that smelt have historically been used by commercial harvesters, as well as tribal members along the coast. In recent years they have been primarily harvested for personal use, given the decline in the commercial market. The species makeup of the runs in and near the Hoh River has not been studied by local biologists. Jorgenson states that there is a daytime smelt during the summer, and a night smelt that is smaller. They spawn mostly on the ocean side of the river bar and at Ruby Beach⁷ in fine gravels, but occasionally they run in the lowest part of the Hoh River. One summer a few years ago a rare event occurred when Columbia River smelt ran heavily into the Queets River. Vi recalls them coming into the Hoh River as well. The return of the smelt to the Columbia River was significantly reduced that year (Jorgenson 2003).

⁶The Ozette Indian Reservation, held in trust for the Makah Tribe, is south of the Ozette River.

⁷ This was once the location of a commercial smelt fishing operation.



"Quillayute (sic) Indians Drying Smelt at La Push"
Photo by Fannie E. Taylor, circa 1915

Smelt are caught with dip nets in the river or surf. The silver smelt are fried, but the tiny night smelt are boiled. Vi says that "usually somebody at the house knows the night that they are fishing for smelt, so they'll have a pot of boiling water on. As soon as the smelt come in they'll flip them in that water. They are so good. So you just eat boiled night smelt real fresh."

The Klallam fished smelt at Twin River and Deep Creek and Bea thinks she caught smelt at Pysht when she was a child. "I used to keep my great grandfather's fish box with me and my line and hook with my bait on it. As soon as I put it down something would bite and I would flip it into the box. All I had to do was keep baiting it and flipping it in. Then I would get enough to eat and go home to fry them and eat them."

Bea remembers a lot of smelt at Deep Creek. Bob Mike had a launch with one long net. He would throw the net out and make one sweep and come in. The women had their washtubs and would fill them right to the top with smelt. They kept doing that until everybody had their smelt. Adeline says that "they found different ways of cooking the smelt so that we never got tired of them, ever."



**Sorting harvested smelt at LaPush
Photo by Fannie E. Taylor, circa 1915**

Chris Morganroth III recalls how herring roe were collected by hanging salmonberry withes upside down in the lower tidal course of the Dickey River in early April. Vince Cooke's Canadian relatives used to bring herring roe over on sticks. "Like a huge lollypop and his grandma loved it."

This past summer the kids at Neah Bay caught a lot of herring. They were making more money than the resorts on the herring. Herring used to be impaled by using a rake, with 20-40 sharp projections, which was slapped into the water and pierced the fish. Another fish that was impaled were flounders. The Quileute waded out at low tide to t'achos-t'ocha'wa, "hit the target between the toes," in other words spear the flounder, don't spear your foot! (Powell 2003:10).

Kelp is an indicator of the health of the nearshore. Chris remembers that after a storm in 1948 the kelp was piled on the beach at LaPush 2-3 feet deep and 10-15 across. Kelp used to grow three miles offshore, both to the north and south of LaPush, but it started to diminish in the mid 1950s. Where kelp is no longer prominent, other species such as sea urchins, clams, crab, and small fish have diminished. Without the kelp at places like First Beach, Second Beach, Rialto, and Toleak there are no longer sand fleas, so many of the shore birds are also gone. The kelp bed and seaweed are still plentiful at Ozette.

When Vi was little there was a lot of kelp and seaweed along the beach. "When we were kids there would be a long rope and they would have the round bulb at the end with all of the little strings. We loved to play with those and we would run on top of the kelp beds when the winter storms would bring them in.... But anymore it's hard to find kelp or seaweed along the beach." In 1996 tribal elder Helen Lee referred to apparent coastal erosion and loss of kelp beds, as she remembered rocks and tide pools on the beach south of the mouth of the Hoh River where tribal members frequently captured octopus in the past, but now these rocks are never exposed.⁸ She also spoke of the disappearance of dense kelp beds where lingcod spawned and people gathered quantities of eggs to eat. Research is necessary to establish whether coastal erosion and the possible sedimentation of kelp beds as reported at Rialto Beach and the Quillayute River has impacted the gathering of these nearshore food resources (Silver 2004).

Bull kelp was used for rope or jigging line. Melissa says that "you stretch it out, then dry it and reconstitute it for halibut and bottom fishing." Chris Morganroth said that the smaller kelp was plaited for rope and the feather boa was used as fishing line for small cod.

The Quileute visited the Ozette area during social occasions, and while there they sometimes harvested kelp and different species of seaweed, laminarias, and alarias. Porphyra was also collected at Ozette and was eaten like nori.



**Porphyra on beach, Waada Island at left
Photo by Fannie E. Taylor, circa 1915**

⁸ This suggests that the shoreline has either receded bluffward, and/or the nearshore has eroded and deepened. This could happen with loss of kelp, as a result there is heavier wave action against it, and thus more material is moved.

Lela Mae Morganroth mentioned that her mom made quick baskets of Desmarestia aculata or stingy acid hair to "pack clams and the rock oysters. Whatever we got from the beach. I remember Mom did one [basket] real quick and put it together."

Pansy Hudson told Jay Powell how her father-in-law, Billy Hudson, favored "sea onions," possibly eelgrass stalks. According to Nancy Turner the root-stalks and lower stem-stalks of eelgrass look something like thick green-onions, but taste sweet and have no onion flavor. These were eaten by Vancouver Island tribes and probably all the way down to the Columbia River (Powell 2003:11). Eelgrass, Zostera marina, is found at Clallam Bay, Rialto Beach, and other sandy areas.

Melissa said that some types of seaweed were used for dyes, such as a pink, rubbery seaweed and a certain color of green (ʔuʔubačcuk) seaweed. The Makah used to eat the roots of some of the surf grasses and they used the surf grass for basket weaving.

Surf grass, Phyllospadix spp., turns both black and white. It is used in designs on baskets and when white it is used for basket spacers. Melissa says that very early basket weavers utilized the white surf grass as their contrasting color with cedar bark; she saw examples of this while conducting research at the Smithsonian last year.

Mrs. Young Doctor "used a black seaweed instead of the commercially died grass, retaining in this way a much finer native feeling for the basketry and also giving a more lasting color" (Gunther n.d.).

According to Andrews and Putnam (1999:12) it is Phyllospadix scouleri that is used for wrapping wefts. "When worked into a basket, bleached surf grass is more or less bone white, lighter in color than either bear grass or swamp grass; unbleached it can turn dark brown. Surf grass is not common in later baskets." Early baskets were sometimes woven entirely from the bleached sea grass, such as the rattle seen here.



Rattle at Olympic National Park made of surf grass

Vi doesn't remember eating seaweed, but she does remember using it when they cooked clams and mussels on the beach. "After you get the fire and the coals real hot you put the seaweed on. Then you put your clams and mussels on and cover them with seaweed again, and then cover it all with sand. You need to put a lot of seaweed on it so the sand doesn't get in. At the same time you can make bread. Whatever you wanted to cook you could put in that fire pit. When it is steaming it salts the food. You've never tasted seafood until you eat it that way." Fish were sometimes wrapped in alaria and cooked in a pit covered in the same way.

Although none of the tribal authors recall having eaten seaweed, historically there was a bread "made of pounded-together kelp, sea weed, berries, fish eggs, and clam juice." A piece of it was donated to the Washington State Museum in 1916 and it was labeled a "long-keeping Coast Salish foodstuff;" how's that for a catchy marketing name? (Duncan 2000:118).

Adeline and Bea recall eating dried salmon eggs with salmonberry sprouts. Bea remembers carrying around the dried salmon eggs in a little cloth drawstring sack. Adeline's mother (Bea's grandmother) "used to smoke a lot of salmon eggs because she knew that we kids really liked them. She put the salmon eggs in the pouch and we tied it around our belts and away we would go looking for salmonberry sprouts. We ate them with salmon eggs."

Vi talks about going out to get "cod eggs, big huge bunches of white cod eggs that came on the kelp." Immediately after a storm, Vi's grandfather, Frank Fisher, used to walk the beach and come back with enough eggs to feed everybody.

We would take the eggs out of the kelp that they had come in on and our parents and grandparents put it in a pot of boiling water. They would clean the sand off and drop the eggs in. There were millions of eggs in a big bunch. You slice the eggs like you do bread and then everyone would take a slice or two. They were real crunchy and looked like little plastic-itsy bitsy, smaller than a salmon egg, not even half as big and tight together. The last twenty years we have hardly seen any eggs come in.

Vi says because there is so little kelp she is the last of her generation to see and eat the eggs. Her daughter was born in 1959 and was tiny when the last eggs were coming in.

Some people still harvest lingcod eggs at Neah Bay when they wash up in the winter storms. Lingcod eggs are laid in December and a string of them can be 2 feet long and 6-7 inches thick. Chris Morganroth's grandmother Susie wrapped the eggs in kelp and ate them. "The further the incubation, the better the old people liked them" as they contained more nutrients. One method of keeping lingcod eggs fresh was to tie the kelp down with a rock in the water. Bea's late husband, Elmer Charles, said there used to be a lot of lingcod eggs off of Ediz Hook. When they would go there to get the eggs, the lingcod would be fighting back, protecting their young. Adeline recalls dunking the eggs in boiling water and eating them. "Not boil it, just dunk it."



Along the nearshore at LaPush
Photo by Fannie E. Taylor, circa 1915

Nearshore Islands

Sea Gull eggs were collected at the Quillayute Needles and Alexander Island. To ensure a fresh harvest all the eggs are either broken or thrown into the ocean, and then a few days later the newly laid eggs are collected. This method works well because seagulls continue to lay eggs until they have a successful hatch (Powell 2003:9). Vi Riebe remembers people going out and getting rid of all the eggs on the islands and timing it so when they returned they would get a fresh batch. She recalls harvesting a tub full of seagull eggs on Destruction Island in April. Then they would build a fire and boil them for a village feast. The eggs had to be used right away; they were not kept long. "My grandmother (Amy Cole Fisher) would put them in pancake batter, and in her biscuits, which she made for every meal, except breakfast. She used them for scrambled eggs. But you know they had a fishy taste to them. And I don't think today that I would eat a seagull egg after eating chicken eggs."

Harbor seals came close to the nearshore islands, while fur seals were off shore 25-50 miles. The coastal tribes were permitted to hunt seals using traditional methods (Wray 1997; Convention... 1911). Anthropologist George Pettitt recalls the last seal hunt at LaPush was prior to WWII, as the Quileute were prohibited from going out into the ocean during the war years (Pettitt 1950:45). Although the war may have temporarily limited sealing, and commercial sealing is no longer viable, today the "Quileute and other coastal treaty tribes

continue to take seals for ceremonial and subsistence purposes with full knowledge and accord from NOAA." They secured a formal interpretation of the Marine Mammal Protection Act after negotiations a decade ago (Krueger 2004).

The sea lion was taken at Sea Lion Rock north of Mora. They were a very dangerous game mammal, as they would charge you, but the Quileute commonly ate them. The sea otter had already been gone a long time before WW II according to Pettitt (1950).

Seal hunting was a profitable occupation for Quileute men before the turn of the century. For many years the Hudson Bay Fur Co.⁹ had a trading post at LaPush and vessels brought merchandise and supplies in to the post (U.S. v. Taylor 1928). The Washington Fur Company succeeded the Hudson Bay Fur Co. in 1885 and continued to maintain a store and wharf at the mouth of the river to supply settlers. The Washington Fur Company operated until about 1898; thereafter, the Quileute shipped their furs to large buyers.

Fannie Taylor, postmistress at Mora across the river from LaPush, recorded some details on shipping pelts in her 1915 diaries (Wray 2004).

1915 Thursday 18 March

Arthur Howeattle in and sent out some furs. The Indians sold the last years seal catch and did not average over \$6.50 a piece for them.

January Monday 4, 1915

Conrad Williams mailed a bear hide to Weil Bros, postage \$1.44, that seems rather steep as furs are so low in price that the postage will eat up all the profit. The Indians have a few sealskins but they are too heavy to ship east and they have to be shipped green.

February Monday 15, 1915

Two of the Indians, Conrad and Mark [Williams] came up and mailed three seal skins to New York. Billy [Hudson] mailed his to the Hudson Bay Co. in Seattle and think he is wise. It takes so much to pay the postage to the 8th zone¹⁰ that there is not much left because the Eastern houses are not giving any better prices.

The Makah word for seal oil is katuk, while the word cisiuyas means "dipping" food into the oil. Melissa Peterson says that she loves seal oil, but doesn't get it very much any more. After the Marine Mammal Protection Act (1972) there was a real decline in people harvesting seals. "So now we have another generation of kids that didn't grow up on oil. It's real sad if you ask me." Bea and Adeline also recall eating seal and seal oil.

⁹ Not to be confused with the Canadian Hudson Bay Co.; The Hudson Bay Fur Co. was based in Seattle (Duncan 2000:233).

¹⁰ Postal zone for shipping over 1,800 miles.

Jay Powell provided an interesting practicality of whale hunting. "Big Bill Penn, who was the last living Quileute to have gone out on a traditional whaling trip, said that you always wanted to beach your whale where there were lots of ferns so you had them for wiping, which was really important in the messy job of cutting up the whale carcass" (Powell 2004).



**"Cutting up Jerry's whale at oil well north of mouth of Hoh River"
Photo by Harvey Smith, April 2, 1903, courtesy of Ed Maupin
Scanned by Larry D. Burtness for UW Community Museum Project (Em0003)**

Water Fowl

Erna Gunther documented the interesting process of harvesting water fowl at Washington Harbor (Sequim Bay), known as $sx^{w\check{c}k}w\acute{e}y\grave{o}n$ ¹¹ in Klallam and meaning "going towards (in the direction of) the fire." The hunter places a net in his canoe and hunts at night, making a "pitch fire" in the rear of the canoe.¹² The ducks are netted as they fly into the net from the front of the canoe (Gunther 1927:205). The implication is that the fire lured the ducks toward the light, and one could theorize that the meaning of $sx^{w\check{c}k}w\acute{e}y\grave{o}n$ relates to the ducks going toward the fire in the hunter's canoes (Wray 2002).

Elaine says that today you see a change in Canadian geese, as they now stay here all year. The brant will leave but not the geese and this is because they feed at the local farm. There are a lot of teal and coots that used to be hunted down at Washington Harbor. They fly down past the cannery and follow the water course out.

¹¹ This is the word that became Sequim.

¹² This is called "pit-lamping" and was done by tribes all up and down the coast (Montler 2003).

Food Preparation

Clams, mussels, and barnacles were dried or smoked and stored for winter or to trade. Steaming was done by burying them in a shallow earth-oven covered with a layer of sand, skunk cabbage, or seaweed, and then more sand and water was poured on top to create steam. This cooking process declined with the arrival of trade items such as cooking pots. Fish were also dried in the rafters of the home or smokehouse.

Today Melissa freezes and smokes clams. Elaine dries horse clam necks by stringing them and letting them dry behind the woodstove or in the oven, or you can smoke them with fish. As a child, Elaine remembers carrying around that string of clams like jerky. "And you always, always had those in your pocket."

Bea's grandmother used to have a string of butter clams behind the kitchen stove and "every now and then you would just stop and grab some and run out and play while you're eating." Each clam had their own little taste. The horse clam necks are really sweet and the cockles are sweet too. Adeline says, "Gee I love clams." And Bea agrees Adeline is the one that loves clams! And Bea loves the cockle!

To prepare octopus you cut between the head and the legs with a knife and take the stomach, beak, and lungs out, being careful of the black ink. After you remove that, everything that's left is edible. Out of a thirty-one pound octopus you can probably get about twenty-nine pounds of meat, so there is very little waste. Elaine usually takes a leg off and then freezes the rest. They didn't have that luxury a long time ago when everything had to be cooked, dried immediately, or given away.

Elaine warns that you "don't boil octopus because it gets about the texture of your rubber boots.... You put it in a Dutch oven and simmer it; you don't even have to add water. If it makes you feel good to add water go ahead and just put a little bit to cover the bottom. Otherwise it will make its own juice, and you just keep testing it until its tender, about two or three hours."

Utilitarian

Much that comes from the nearshore is used for utilitarian and ceremonial purposes. Rattles for various ceremonies were made by placing white rocks inside a mussel shell that was larger than 8 inches, which is woven together with cattail fiber. Mussels that come from Dadila¹³ are ten or eleven inches long and made exceptional knife blades and whaling harpoon heads. Mussels are also used for scrapers, split for awls and tatoo needles, and used in jewelry. Chris believes there are more pearls in mussels today than previously. Anthailius or dentailium (tusk or tooth shell), which was used in trade and for ornamentation was collected near Toleak and Ozette in rock crevices; but now they are all gone.

¹³ An island north of Cake Rock.



Mussel shell rattle at Olympic National Park

Cedar trees along the shoreline were used for all types of utilitarian purposes, but one that Jay Powell has highlighted must be mentioned here. "Often when the old people had gone up the creeks and gotten so many fish that they would swamp a canoe, especially humpies, they would string the fish on long cedar bark stringers (10-15 feet long, holding dozens of fish each), which would float along in the water beside the canoe, and the canoe would be buoyant with lots of free-board." Hal George told Powell that "you could see little yellow flashes continuously while paddling along the coast. These were the patches where bark had been harvested from individual trees" (Powell 2004).

Harvest Restrictions

There are periods of time when you don't eat clams. This is widely acknowledged. Vi Riebe's grandmother told her "in June and July they are not as wonderful as in the wintertime. In the fall they start getting nice and plump and full." There were certain times of the year when you don't gather, not because of the red tide,¹⁴ but because everything is laying eggs and reproducing. Bea also relates that when "they're mating, you're not supposed to eat them."

Melissa says that from the middle of May until August or September you don't collect. "I am sure folks must have been aware of the red tide because it was something that you didn't do during those summer months." Elaine has never had any symptoms from red tide and she believes that she has built up immunity. Some people used to test the clam by touching it on their lip, and if it burns, it's not good. One woman in Canada did this and died just from

¹⁴ Paralytic Shellfish Poisoning (PSP).

touching her lip. Elaine's uncle, Lyle Prince, would take the clam neck and give the tip of it to a cat, and if the cat started going around in circles and falling and acting drunk then you better not eat it. Vince recalls a man in Neah Bay who didn't believe Vince's red tide warning, so he went and got some clams and cooked them up, but to be certain he gave them to his cat first. The next day he came into Vince's office and his eyes were as round as half dollars and he said "my cat died last night!"

In asking how long red tide has been here, many people believe it is a relatively recent event. However, Hudson Bay Company records for Fort Simpson document a case of red tide poisoning in 1842. "Hudson's Bay people apparently regarded all shellfish as poison" after an incident on September 2, 1842 when "about 30 canoes of the Chymisyanns [Tsimshian] who have been up the canals to the E. and N.E.... returned. They have come sooner than they intended owing to four of them having been poisoned by eating mussels. Two of them died almost immediately, the other two were very near going too, but are likely to recover" (Meilleur 2001:99-100).

One of the saddest stories occurred in 1942 when two Klallam boys, Danny Charles (10) and Edward Charles (8) died "a few hours after lunching on boiled mussels" (PAEN 1942). Although the Port Angeles newspaper reported that the mussels came from Crescent Bay, Adeline remembers it to have been at Deep Creek. According to Bea, the boy's sister, Irene Charles took them to the beach, where they ate the mussels both boys died from. Irene was taken to the hospital; she would never touch mussels, ʔaʔcʔm, again.

Access

Bea and Adeline can't go down to their favorite spot, sčaʔqʔaʔitən, west of the Elwha River anymore because a property owner will not let anyone pass through on the old trail. This is where Adeline and Bea harvested shellfish and fished for trout as young girls.

They would send us kids to go trout fishing. We used to have a common pinhead and we would bend it. Then you would use thread. We'd get thread from my mom and she would fix it up for me. And then we would get a pole from one of the trees and they would cut it for us and then they would tie the thread on the end of the pole. We used salmon eggs or sometimes periwinkles. Periwinkles are good bait.

Adeline had to turn to her husband's tribe at Neah Bay for access to seafood. Even after the 1968 establishment of the Elwha Klallam Indian Reservation and the Boldt decision, Adeline says, "we never passed square one again" regarding nearshore access.

In the 1950s, before the Boldt decision adjudicated tribal usual and accustomed areas, Vi Riebe started going to Clallam Bay for chitons because there is "a good road going there." For the Makah, the Coast Guard beach at Neah Bay has become increasingly popular because it's just a short walk. Melissa says that some folks in Neah Bay will provide for people that don't get out and harvest on the beach anymore. They will go door to door or they already know who wants clams and other intertidal foods and they provide that service.



**Adeline Smith, Ernie Sampson Jr., and Bea Charles at Agate Beach
Circa 1926. Photo courtesy Adeline Smith**

Bea and Adeline have fond memories of Agate Beach. Bea recalled walking out to Agate Beach when she was very young with her grandparents and Adeline. They brought blankets and slept in the open or else they walked all the way back again. It was just like a vacation, taking all of the kids down there.

Bea also recalls one time standing by the fire where they were cooking mussels, *ᑭᐱᑦᑭᐱᑦ*, and her dad was taking the mussels out and feeding her. "I must have been little, but I remember that." Bea says, "They would tell us to go look for agates." Her aunt Ethel had a ring made from an agate found there. Today access to Agate Beach is completely off-limits. During this project we offered to pay for access at the Crescent Bay campground, but were told the owners never let anyone go to Agate Beach anymore.

There were little shortcuts to get to Agate Beach. Adeline describes the Indian trails that the old people had, "they knew which way to go. Wherever there was a big curve on the highway

they used to make a trail to cut the corners. We just stayed out in the open. But after my dad got his little Star car, when we went camping he could take his old tent."

Trail routes along the beach were a common mode of travel. There was a route from Elwha to Pysht along the beach for most of the way, as well as from Ediz Hook to Elwha, and one out to Dungeness. Waterman's Klallam place name for the beach south of "New Dungeness" is Tcutc tsts e nm, referring "to travel up and down the beach, instead of by trail" (Waterman 1920:#75).



**Bea Charles, Adeline Smith, and Anne Shaffer at Crescent Bay on July 3, 2003
Agate Beach is just behind the point visible on the right**

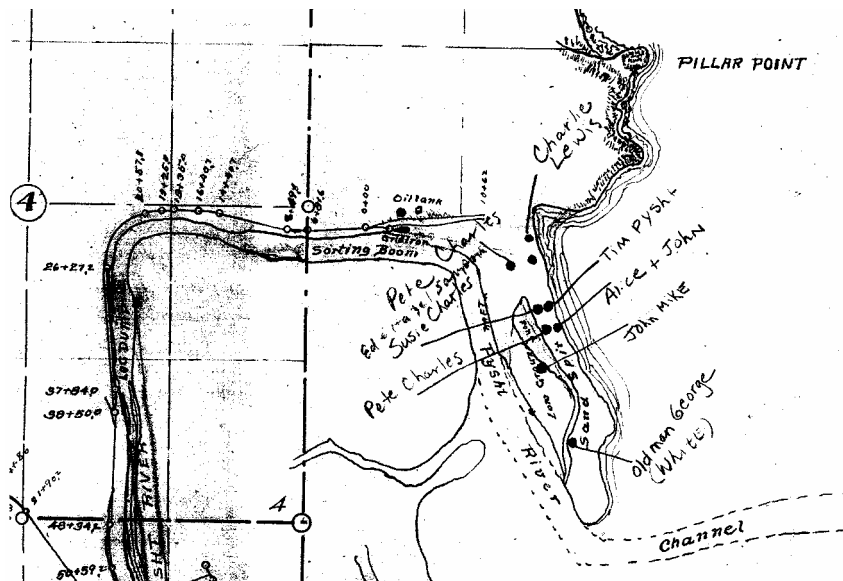
Tim Pysht's¹⁵ mother, ttəsc'ə, and father, čúʔəcən, were originally from Pysht, long before Merrill and Ring timber company acquired the land. Tim and his second wife, yuyáw, lived there in the 1920s and 30s.¹⁶

¹⁵ Bea's paternal grandfather.

¹⁶ yuyáw's niece, ei ch howath (Annie George), a Klallam woman, married Phillip Butler, a white man from Port Townsend. When their marriage ended, yuyáw brought Annie George and her son Tom Butler to Pysht to live. Tom Butler married Mary Hunter from Neah Bay and they proved up on a homestead to the east of Pysht, at what today is called Butler's Cove.

Pysht is a Klallam word that means the wind or the breeze comes down and makes the trees low and the limbs grow right down on the ground. Ed Sampson told the Klallam authors "that wind-they called it in Indian, pŏšct, that's the way I heard it. They named it after that low wind that comes in there, and made the trees short and wide. Spread the limbs..." (Ed Sampson).

Susie Pysht¹⁷ took her father Tim Pysht back to Port Angeles to live with her in his later years so that she could take care of him. He did not intend to stay, as he left all his belongings in his house at Pysht. Bea recalls that during the 1930s there were many Klallam families living at Pysht, and some had Makah spouses. The families included Rosie and Phil Charles, Charlie Lewis (Makah/Klallam), Eddie Lewis (Makah) and wife Hazel Talicus, John Lewis (Makah) and his wife Alice Charles, Nellie Charles and her husband Jill Sullivan, Wilson and Ellen Charles, Pete Charles and his wife Lena Qwidasa, John Mike, Ed and Hazel Sampson, and Marie and Joe Johnson (Makah). There were about eight homes there (see map). Nellie and Jill and Pete and Lena had just built brand new homes. When the families were away at Port Angeles during fishing season, Merrill and Ring bulldozed the homes. After that a lot of the Klallam families moved to the spit at Ediz Hook.



Map of Pysht showing homes, circa 1930s
Houses documented by Beatrice Charles, 2004

Deep Creek is tribal trust land; once the home of Pysht Jack (Tim's brother), and his wife Shouda Ward (Quinault). Today the heirs in trust must get a lease from the state to use the tide lands. Adeline always thought that since her grandfather had the homestead, "that we owned the frontage, but its not so, we have to renew the lease every three years."

¹⁷ Adeline's mother and Bea's grandmother.

Access to traditionally used areas has affected tribal use of nearshore harvest, but depletion is also a factor. Vi is most concerned about the health of the shellfish population at Second Beach and the smelt population on the Hoh River.

Changes have occurred in habitat, and there has been a corresponding change in clamming locations. Melissa has noticed a decline of littlenecks at Sooes. At the Makah marina, boat discharge and fish carcasses are polluting nearby habitat; however, discharge restrictions seem to be helping the situation. Melissa was told by a non-tribal biologist that out by the boom at Neah Bay there is a large eelgrass population that is being smothered, perhaps because of the pontoons.

Bea's aunt, Annie Bennett {1894}, told her the beach at the mouth of the Elwha River used to extend way out. Ediz Hook has changed quite a bit as well. When Bea used to go down there with her dad to visit relatives and friends she could go way out on the Strait side at low tide and "us kids would just run around up and down the beach there. We would have a lot of fun." Adeline adds that during World War II they changed the spit quite a bit by adding those great big boulders to save the spit from sediment starvation. All of these factors "did away with a lot of seafood."

At Jamestown non-point pollution is creating ulvoid mats that turn into mulch, which smells just like a septic tank. The ground around the ulvoid mats is real soft in long stretches here and there. Elaine says there might be ten or fifteen-foot-long sections where it's really "sinky, sucky, dirty." When it gets on you it sticks on your boots. It's to the point where you want to call the Health Department to see if there is a drainage problem at Jamestown, but it's not a septic tank, it is that seaweed. During the summer of 2003, Elaine's nine year old grandson got caught in the mire and was buried to his chest. The tide was quickly coming in, as rescuers worked to free him from the suction holding him down. He was released just in time to escape the incoming tide (Sequim Gazette 2003).

Landmarks and Spoken History

Bea recalled a cave at Agate Beach that was quite accessible when the tide was low, but she and the other children were told not to look at it because a monster lived in it that would get them. It was a dangerous place so "they scared us and told us that st'ət'é?, the monster, was there" in order to keep the kids out. Years and years ago an old lady went in the cave to get seafood and they didn't miss her until she was gone for quite a while. She was half blind and when the tide came in she drowned. So that was one of the reasons they told the kids never to go near there. They probably added on the monster to keep the kids away. T.T. Waterman's (1920:#26) Klallam place names identifies the promontory west of Crescent Bay as TL!teu'dlt, "abounding in mussels," and states that people were afraid of some supernatural influence here. Perhaps this is the location of the st'ət'é?. If the word Waterman recorded is supposed to be ʔcánt (Agate Beach), then it does not mean "abounding in mussels." As Klallam linguist Timothy Montler has said, Waterman's method was to get a description of a place and assume that it was a place name.



Agate Bay
Historic Photo, Courtesy Polly Polhamus

The nearshore was "emphatically spiritual" according to Jay Powell (2003:18). There existed important areas where mythological beings and spirit powers were located. For example, a monster the size of a whale lived at the earlier Quillayute River mouth at Rialto Beach and anyone who saw this monster would die. If a person encountered the monster on a moonless night so he couldn't see it, he would gain great spirit power. There was a monster by the name of Tastas that lived near the slough at what used to be Harley's Resort. Tastas had huge, sharp toenails that he speared fish with. Anyone who saw him became an excellent fisherman. A monster called Hawilxib lived around James Island; if encountered it would provide whaling and sealing power. The monster living in a pond on the north side of the Hoh River was "a whale that kept blowing bubbles which rose to the surface and burbled or popped" (Powell 2003:17). Many people went to the places where freshwater and saltwater met to perform rituals and seek power. Both the Quileute and Hoh people were "created" at the mouths of the rivers in their territories.



Observatory Point, Freshwater Bay to left
Courtesy of Washington State Department of Ecology, Aerial Photos

A Klallam story relates to a landmark at Freshwater Bay. Sam Ulmer {1880} told the story of how tánʔiʔya's father was real mean to her mother, so the people banished him from the tribe. When he left, tánʔiʔya tried to follow him, but she only went a little ways off shore and stopped, and that's where she is today. The mother is the rugged cliff on Freshwater Bay where you can see cracks on the bluff from the wounds that she got from her husband, who is now Mt. Baker, living in the northern part of Washington State.

Elaine tells when slapúʔ, the sea witch, fell out of a fisherman's boat and went down to the bottom of Washington Harbor (Sequim Bay). The fisherman in the boat was looking over the side for her. He intended to save her, but he wasn't going to go down into the deep water; she would have to come up and then he would pull her aboard. She got those huge feet moving around in that soft mud and started sinking. As he watched her, she was staring right up at him and she was getting shorter and shorter as she sunk. Her long, long hair started rising up in the tide, and it appeared to be eelgrass because it was waving back and forth.

When Elaine goes clam digging or out to look for crabs she can see all the hair going to the east, around the bar. When the tide is still, the grass is standing straight up and that means the tide is slack. Then when it starts coming in, it bends the other way and the tide is flooding. That's one of the ways that you can tell where she went over the boat. Her hair moves back and forth. Where she went over, there's still a whirlpool and bubbles.¹⁸

¹⁸ See map showing location where slapúʔ went down in *Native Peoples of the Olympic Peninsula: Who We Are* (Wray 2002).

Ed Ricketts Visits Neah Bay

A historical anecdote to this research came to light just as we are about to finalize the report. In 1934 Ed Ricketts, the marine biologist made famous as John Steinbeck's "Doc" in Cannery Row, visited Neah Bay. He made the trip to Neah Bay to conduct research for his important book on the outer coast's intertidal zone, *Between Pacific Tides*. In the book he mentions Neah Bay three times; the first two references were in relation to specific species, the limpet and chiton, and the third to tidal range and zonation (Ricketts, et al. 1939:29, 163, 432). Ricketts included two brief mentions of his visit to Neah Bay in his journal, published by Joel Hedgpeth. The first reference in this publication is to the similarity between Neah Bay and Stubbs Island on Clayaquot Sound (Hedgpeth 1978:72), while the second refers to Ricketts' stay at Neah Bay; "... once I spent a week or so on an Indian's land at Cape Flattery and got to know him and his wife" (Hedgpeth 1978:74). So the intriguing questions are "when exactly did Ricketts stay at Neah Bay?" "who was the family whose land he stayed on?", and "what was the traditional or tribal component to his research there?"

In communicating with the author of a fabulous new book on Ed Ricketts, which focuses mostly on the outer coast of Vancouver Island, Eric Tamm¹⁹ sent my questions to Ed Ricketts Jr. who wrote back with a wonderful attachment, a page full of memories of the visit to Neah Bay that his mother, Anna, recalled for Ed Jr. when she was 83 or 84, as well as the childhood memory of the 11-year-old Ed Ricketts Jr. and his younger sister Nancy. Ed Jr. believes the trip to Neah Bay was in June or July of 1934 or 1935. In a telephone conversation with him, he told me they would drive up to the Puget Sound region every summer, but this is the only visit to Neah Bay that he knows of. Ed Jr. believes they stayed at Neah Bay only one night, while his father's journal mentions it being "a week or so...." Perhaps Ricketts returned at a later date without the children, or the time is closer to a day or two. Regardless, these memories offer a wonderful addition to this report and provide more details about Ed Ricketts' trip to Neah Bay than will probably ever be found elsewhere. Therefore, we offer them here in their entirety.

CAPE FLATTERY

NANCY: We were young; the trip was one of my earliest memories of going north. I traded to a little girl one of my dresses, one that Mother had made for me, one that I didn't like. I traded it for a basket, which I still have. Mother was angry with me.... I think we went quite far out towards the coast. The land was flat and treeless.

ED JR: We drove slowly into a dusty and dry Indian settlement. Indian children watched us curiously. We had never seen Indians before. Dad met an Indian, an old man - the Chief? They went to the beach at the water's edge and lit a bonfire and talked throughout the night. Mom and the three of us slept in the car. From time to time I awakened and looked towards Dad and the old Indian, and still they talked. At sunrise they were still there, crouched over a fire.

ANNA RICKETTS: The next interesting place we went to was Neah Bay. It was about five in the afternoon and still very light, but we couldn't find a cabin. Ed drove down a very narrow dirt road through a field of grass that was hip deep. We spotted a small man coming towards the car, half covered

¹⁹ *Beyond the Outer Shores The Untold Odyssey of Ed Ricketts, the Pioneering Ecologist Who Inspired John Steinbeck and Joseph Campbell* by Eric Enno Tamm. Published by Four Walls Eight Windows, 2004.

in the deep golden grass. He was so friendly looking that we were not about to drive away before we talked with him. It seemed that we were on a reservation, and he owned the land we were on. We told him that we were traveling further north and were unable to find a cabin, and had come here hoping to camp out. He made us welcome to camp on his land. He said he lived in that big house we saw way off. It looked like a three story house, and there were two tumbledown shacks made of cedar (I just ached to have some for the furniture I was making, but I knew we couldn't get an ounce more in our car). He let us clear a place and use our Sterno cans to prepare our meal. I had a fear of fires so was very careful not to do too much cooking because of all that dry grass around.

The man was an Indian, over 90 years old. He looked not more than 70. We invited him to have a bite of supper with us. Soon all of his dogs, mostly puppies, joined us. We didn't know his name, nor if he had anyone living with him, other than the dogs. There was a large hole in his big house and we asked if he had had a fire. He said the chimney caught fire and burned the hole in the roof long ago, and that sometime he was going to have it fixed. He stayed and talked for hours. Since I was tired after a long day, I didn't stay up all night to listen to the interesting stories he was telling Ed. I put the children to sleep in the back of the car and made our bed on the tall grass. But I was not to sleep alone - the puppies wanted to join me. They were so full of fleas that I had to move into the front seat of the car.

The next morning we fed the children a cold breakfast. Ed and I wanted hot coffee, and finally found some, but it was awful. Somehow we got entangled with the people of the reservation. The leader of the tribe was among them, a well educated man who was interested in knowing what we were collecting. The children of the tribe were very curious about our big Packard that had stopped in their territory. Some of them were so poorly dressed that I felt we could share some of the dresses I brought along for our two girls, since they didn't like to wear the dresses I smocked. I decided to give them to the little girls who were of that size. Though Nancy never wanted to wear those dresses, neither did she want me to give them away. I felt we needed very few dress up clothes, since the children were in play clothes most of the time. Before we left, the tribal leader invited Ed to go down the rapids with him sometime when we came through again.

So we went on our way around Cape Flattery, and since we had such a late start the day was gone before we knew it. We were all very hungry. It was the first time we didn't have our regular meals, so we stopped at a small store and bought some food. Also we stopped at a small eating place, where the food was awful but we ate because it was getting late and dark. We rode and rode, hoping to find a cabin. The Indian man had told Ed that he doubted if we would find one anywhere along that coast. So we put the children to sleep in the car and drove until we found a driveway to a farm. Since it was very late, and no life visible was around there, we decided to make our bed on the driveway. I kept rolling from one side to another but no way could I make myself comfortable, and was glad to see the sun coming up. Then I discovered that I had been sleeping on rocks and exposed roots. My back was very sore but it was such a beautiful day, and I was young, so I survived.

I got out the kettle and Sterno cans and made a wonderful breakfast of sausage, rolls, eggs and coffee, while Ed and the children went down to the tidepools. The tide was very low, and Ed found lots of sea cucumbers and I don't know what else. All in all it was a wonderful morning, and everyone was full and happy.

From these descriptions the field of grass may be near Sooes or Hobuck. Edie Hottowe (2004) says that it sounds like Hobuck, where Frank Smith lived among the tall bracken fern. Yvonne Burkett (2004) thought it could be at Sooes where Lands Kalapa lived. From the account it appears as if the Ricketts' drove around Cape Flattery, however, according to Edie there was no road around Cape Flattery until after WWII. The Ricketts made their way into the village at Neah Bay that evening where they ate, then headed east, off the reservation and camped in the car on the Strait the second night. This is the location where Anna mentions collecting sea cucumbers. Further research is needed to see if any record of this trip, perhaps in the form of field notes or correspondence, survived Ricketts' 1936 lab fire.

Bibliography

Andrews, Rebecca and John Putnam

1999 *Makah Trinket Baskets, A Unique Enterprise*

Unpublished manuscript, Burke Museum, University of Washington, Seattle.

Burkett, Yvonne

2004 Personal communication. November 4, 2004.

Convention Between The United States, Great Britain, Russia and Japan for the Preservation and Protection of Fur Seals

1911 *Signed at Washington July 7, 1911; ratification advised by the Senate July 24, 1911; ratified by the President November 24, 1911; ratified by Great Britain August 25, 1911; ratified by Japan November 6, 1911; ratified by Russia October 22/November 4, 1911; ratifications exchanged at Washington, December 12, 1911; proclaimed December 14, 1911.* (Treaty Series, No. 564; 37 Statutes at Large, 1542).

Duncan, Kate

2000 *1001 Curious Things: Ye Olde Curiosity Shop and Native American Art*
University of Washington Press.

Elmendorf, William W.

1992 [1960] *The Structure of Twana Culture*
Pullman: Washington State University Press.

Gunther, Erna

n.d. *The Modern Basketry of the Makah*
RG-75 BIA, Box 168, file 904 - "Native Arts". National Archives and Record Administration, Sand Point, Seattle.

Gunther, Erna

1927 *Klallam Ethnography*
University of Washington Publications in Anthropology 1 (5):171-314, Seattle.

Hedgpeth, Joel W., editor

1978 *The Outer Shores, Part 1: Ed Ricketts and John Steinbeck Explore the Pacific Coast.*
Mad River Press, Eureka, Ca.

Hottowe, Edie

2004 Personal communication. November 4, 2004.

Jorgenson, Jim

2003 Personal communication, Hoh Fishery Biologist, November 4, 2003.

Krueger, Katie

2004 Personal communication, Environmental Attorney, Quileute Natural Resources, January 20, 2004.

Meilleur, Helen

2001 *A Pour of Rain: Stories from a West Coast Fort*
Raincoast Books, Vancouver.

Montler, Timothy

2003 Personal communication, Klallam Linguist, October 8, 2003 and December 11, 2003.

PAEN [Port Angeles Evening News]

1942, May 5.

Pettitt, George

1950 *The Quileute of LaPush: 1775-1945*.
University of California Anthropological Records 14(1). Berkeley.

Powell, J.V.

2003 *The Quileute and Hoh Use of the Foreshore in Their Traditional Territory*
Report to Olympic National Park 2003. Port Angeles, Wa.

2004 Memo to Jacilee Wray, comments on Nearshore Study. 23 April 2004.

Ricketts, Edward F. Jack Calvin, and Joel W. Hedgpeth

1939 *Between Pacific Tides*. Stanford University Press, Stanford, Ca.

Sequim Gazette

2003 "Sand, mud trap boy on local beach," August 13, 2003.

Silver, Jill

2004 Personal communication, Hoh Watershed Habitat Biologist, February 19, 2004.

Tamm, Eric Enno

2004 *Beyond the Outer Shores: The Untold Odyssey of Ed Ricketts, the Pioneering Ecologist Who Inspired John Steinbeck and Joseph Campbell*. Four Walls Eight Windows, New York and London.

2004 Personal communication, September 13, 2004.

U.S. v. Taylor

1928 court case. Affidavit of Walter L. Ferguson, July 28, 1928. US District Court.

Waterman, T.T.

1920 [*Puget Sound Geography*] (Manuscript No. 1864 in National Anthropological Archives, Smithsonian Institution, Washington).

Wray, Jacilee.

2004 *Fannie E. Taylor: Postmistress, Mora, Wash.* [to be published]
Olympic National Park, Port Angeles, Wa.

Wray, Jacilee

1997 *Olympic National Park Ethnographic Overview and Assessment*
National Park Service, Port Angeles, Wa.

Wray, Jacilee, ed.

2002 *Native Peoples of the Olympic Peninsula: Who We Are.*
University of Oklahoma Press, Norman.

Nearshore Habitat and Resources of the Northern Olympic Peninsula Tribes

Compiled by Anne Shaffer, Coastal Watershed Institute

**From interviews with
Beatrice Charles (Elwha),
Vince Cooke (Makah),
Elaine Grinnell (Jamestown S'Klallam),
Chris Morganroth III (Quileute),
Lela Mae Morganroth (Quileute),
Melissa Peterson (Makah),
Viola Riebe (Hoh), and
Adeline Smith (Elwha Klallam)**

*This work is dedicated to
Willie and Anna Talicus and their much loved son, Thompson.*

Introduction

Coined "the fourth corner of Washington State," the Olympic Peninsula is ringed by nearshore habitats that play a critical role in the marine ecosystem of the Pacific Northwest. Assemblages that depend on these nearshore habitats include no fewer than three federally listed salmon species, numerous rockfish and shellfish species, and abundant marine mammals, including sea otters and orca whales.

The tribes of the northern Olympic Peninsula, which include the Hoh, Quileute, Makah, Elwha Klallam, and Jamestown S'Klallam, have an integral relationship with, and are co-managers of, the collective nearshore environment. The tribal communities are located in physical proximity to the nearshore. In this geographically large and remote region, the tribes constitute the single largest knowledge base for nearshore marine habitats and resources. Tribal knowledge is therefore critical for accurately defining the contemporary and historic status, and prioritizing future management issues of Olympic Peninsula nearshore habitats and resources. Indeed, early ecologists relied on tribes for access to sampling sites (Ricketts and Steinbeck 1978). Surprisingly, tribal knowledge of nearshore marine habitats and resources has not been cataloged to date. This paper offers an overview of tribal knowledge of the current and historic state of nearshore marine resources and habitat of the Olympic Peninsula tribes. It also offers priorities stated by the tribal interviewees for nearshore marine habitat and resource management.

Methods and Materials

Tribal members from the Makah, Hoh, Quileute, Elwha Klallam, and Jamestown S'Klallam were interviewed. Interviewees were requested to participate based on their traditional knowledge and/or their role in cultural and natural resource management. The discussions were framed by a set of standard questions provided in Appendix A, which focused on: 1) historic and current state of nearshore habitats and resources; 2) temporal differences noted in nearshore habitats and resources; 3) trends in changes noted; 4) reasons theorized for noted trends; and 5) recommendations for priority habitat and resources. Interviews lasted for approximately four hours and were recorded. Results were tabulated and mapped.

Results

A total of seven members from the Hoh, Makah, Quileute, Jamestown S'Klallam, and Elwha Klallam tribes were interviewed. The results are broken into resources and habitats sections. Resources discussed in interviews are summarized into two geographic areas, outer coast and Strait, and presented in Table 1. Habitats delineated by type, geographic location, and use, which include social and cultural base, collection of resources, tribal knowledge, and travel are presented in Table 2.

Resources

I. Resources: Use, Change, and Priority Concerns

Resource Use

Tribal nearshore marine resource uses include geographic identification, social and religious cornerstones, food, basketry, tools, regalia and jewelry (Table 1).

Use extended throughout the nearshore, from lower rivers and riparian zones to subtidal areas. Lower rivers were noted repeatedly for smelt and salmon harvesting, and cedar and spruce root harvesting. Intertidal areas were sources of dune vegetation, beach logs, numerous species of seaweeds, eelgrass and seagrass (attached and drift), and numerous shellfish, including bivalves, crab, snails, chitons, urchins, barnacles, and octopus. Nearshore subtidal resources mentioned include numerous fish species and their eggs, including salmon, lingcod, smelt, herring, rockfish, halibut and other flat fish; numerous shellfish, including crab, octopus, and snails. Numerous marine birds and mammals were also noted (Table 1).

Resource Change

Changes mentioned in all interviews include numerous stock declines and loss of access. Stock declines were noted for almost all stocks and emphasized for salmon, rockfish, and shellfish. Resource declines for the Strait include a decrease in most fish species, with emphasis on rockfish and salmon. Declines in eelgrass and water fowl were noted for Sequim Bay and Dungeness Bay and attributed to water quality declines and related ulvoid blooms. Resource declines include kelp beds on the outer coast, particularly around the mouth of Hoh and Quillayute rivers. These declines were attributed to changes in sedimentation due to upland management practices.

Resource Priority Concerns

Priority concerns in all of the interviews conducted emphasized the stock declines described above, as well as loss of access, and loss of cultural knowledge for resource use in all interviews conducted in this study. Stock declines noted included salmon, rockfish, and shellfish.

Access was a stated priority for both Strait and coastal tribes. Strait tribes have been severely impacted by a dramatic decline in access to sites. Access limitations include physical, temporal, and biological access barriers and restrictions. Private ownership of upland areas adjacent to nearshore harvest sites has significantly reduced tribal harvest of resources along the Strait of Juan de Fuca and is the dominant access issue. Important areas that were noted for limited access along the Strait include Deep Creek, Freshwater Bay, Agate Beach, Pysht, and Dungeness and Sequim bays. Harvesting along the Strait is now confined to either public or tribally owned areas, including Twin Rivers, Freshwater

Bay, and Deep Creek. Contemporary nearshore resource use is therefore limited to a fraction of original harvest area. As a result, resource use is also reduced, and is now primarily limited to the harvest of crab and clams.

In contrast to Strait tribes, outer coast tribal representatives stated that access was not limited - with the noted exception of Strait nearshore harvest sites, which are largely no longer accessible. There is a strong concern for future loss of access to outer coast resources. Preserving access to resources along the outer coast is therefore a top concern.

The outer coast tribes do not currently experience the same restrictions to physical access as Strait tribes. Much of the outer coast is designated tribal and or federal land included in the Olympic National Park, Olympic Coast National Marine Sanctuary, and Coastal Maritime Refuge System. Dialog between the outer coastal tribes and federal managers continue to focus on maintaining tribal access.

Temporal access restrictions include contemporary burn bans which limit times tribal members can smoke fish, so resources cannot be preserved, thereby limiting the quantity of the resources acquired during these periods. Concern is particularly high for impact to tribal utilization of fall salmon runs. Seasonal shellfish harvesting closures due to PSP also limit shellfish use.

The loss of access is also felt to contribute to the loss of cultural knowledge. The resource still exists, but the knowledge of its use may be in the process of being lost, because incorporation into daily life is a necessary component for passing on knowledge.

II. Habitat: Use, Change, and Priority Concerns

Habitat Use

Tribal nearshore marine habitat use includes geographic identification, social and religious cornerstones, travel, harvesting for food, basketry, tools, regalia and jewelry (Table 2).

Habitat use is quite extensive, and includes harvesting of resources for all uses noted above, as well as travel, and settlement sites. The lower river habitat was noted for harvesting of salmon and smelt. Intertidal habitats noted important for harvesting include the fore dune for harvesting of dune grass and logs; the drift kelp habitat from sandy beaches; sandy gravel beaches for clams and crabs; and rocky shorelines for a number of shellfish, seaweed, and eelgrass species. Historically, long stretches of intertidal tide flats were used extensively as travel corridors during low tide. Subtidal nearshore habitats of noted importance include kelp and eelgrass beds, which are currently used for harvest and historically used to determine current velocity and direction.

Habitat Change

Noted changes include declines in nearshore water quality and associated loss of eelgrass and kelp beds (Dungeness Bay, Sequim Bay and LaPush area) as well as an increase in harmful macroalgae blooms, colloquially known as ulvoid mats (Dungeness Bay and Washington Harbor); alteration of nearshore, including lower river mouths (channelizing and diking); shoreline hardening due to beach starvation (Elwha River); increased sedimentation in the nearshore due to river alteration and logging (Quillayute River); and changes in beach topography due to sediment processes (Travis Spit at Sequim Bay). By geographic area, habitat changes noted for the outer coast included significant declines in kelp beds off of the Quillayute River, and associated loss of piddock beds due to increased erosion.

Loss of tidal estuary was also noted. Long shore transport and lower river alterations, as well as increased sedimentation from logging were noted as contributing factors to loss of kelp beds and tidal estuary. Habitat changes noted for Strait tribes includes fill of historic harvest areas, erosion of beach at Deep Creek, hardening of beaches (including Elwha River mouth east past Ediz Hook), and alteration of shoreline and subsequent loss of important fishing landmarks. Eelgrass is stated to be decreasing in the Jamestown and Three Crabs area of Dungeness Bay, and ulvoid mats were noted to be increasing at Jamestown and near Three Crabs. This stretch of beach is described as anoxic and muddy, which is a change from the past. Recently children have become trapped in muddy areas of the beach, which used to be firm (Sequim Gazette 2003). Toxic spraying of shoreline vegetation by the state and county is a significant concern for health of smelt, sand lance, and their spawn, as well as for nearshore kelp and eelgrass beds. Impacts of the rock jetty at Neah Bay are feared to have impacted circulation within the bay, and possibly impacted nearshore resources. Derelict structures in Neah Bay were also noted as a concern.

Habitat Priority Concerns

Loss of nearshore habitat due to water quality declines, shoreline alteration, and lack of access, as well as over harvesting of intertidal shellfish resources by non-tribal harvesters and trampling impacts in high tourist areas, were the priorities of concern among the tribal members involved in this study. Specific order of priority depends on the geographic area.

III. Desired Changes in Resource and Habitat Management

For the Strait tribes, preservation and restoration of access was the number one stated need. Deep Creek, Pillar Point, Agate Beach, and Slip Point were areas of top priority.

For coastal tribes interviewed for this study, maintaining access to nearshore resources and habitats is a top stated priority.

Restoration of resources that have declined, including salmon, rockfish, and shellfish was the next stated priority for both Strait and outer coast tribes.

Restoration of nearshore processes and the habitats they define was the next stated priority. For Strait tribes this recommendation focused on restoration of eroded and filled beaches; restoration of water quality, particularly in nearshore areas important to shellfish harvest; and, prevention of further water quality decline from non-point runoff, including agricultural and lawn treatment practices and septic systems. Repair of riparian zones and cessation of herbicide and pesticide spraying of riparian corridor were also priorities of the tribal members included in this study.

For coastal tribes a stated priority was restoration of coastal kelp and eelgrass beds via restoring nearshore transport processes, including decreasing sedimentation from logging and other practices.

Discussion

Nearshore marine resources and habitats are central to the culture and livelihood of the Olympic Peninsula tribes. Species noted of importance in this work are consistent with those reported by others (Historical Research Associates 2001; Lewallen and Lewallen 1996; Sepez, 2001; Wray 1997).

Of particular interest is the clear delineation of nearshore habitat use. All nearshore areas are of importance. The riparian area, lower creek and river mouths, tidal estuaries, intertidal and shallow subtidal beaches and rocky areas, as well as drift, intertidal and subtidal kelp and eelgrass beds, are important for travel, food, and other cultural and religious uses. Intertidal areas are differentiated as, not only rocky and sandy, but also distinct, well-known areas with abundant shellfish, attached kelp, drift logs, and drift kelp (beach wrack). Intertidal areas and beaches are also noted as very important for transportation, as well as religious and social functions. Nearshore subtidal areas of kelp and eelgrass beds are noted as important for fishing, as well as for current and tidal predictions. Nearshore functions and processes, including natural erosion of lower river areas, are also important for collecting natural resources.

Tribal use of nearshore resources and habitats reflects the complex components of the nearshore, including geographic and seasonal variation. Tribal use of nearshore habitats and resources is partitioned temporally, as well as geographically. Some historic village sites were originally established primarily for summer harvesting. Shellfish harvesting is, and was historically, in some cases partitioned by season. Salmon and smelt harvesting are very seasonal and defined by resource availability. Intertidal kelp, eelgrass, and seagrass harvest is determined not only by the geographic area, but is also dependant on the season and tidal height. This temporal partitioning of use reflects the high seasonal variability of the Olympic Peninsula's physical and biological nearshore that has been documented by others (Hickey 1996; Mackas and Harrison 1997; Shaffer 2000).

The importance of drift kelp for Olympic Peninsula tribes is of interest. While drift kelp habitats are recognized as an important component of the marine ecosystem, they are only partially understood (Shaffer et al. 1995). The cultural importance of this habitat merits further study and management consideration.

The limited access to resources and habitats is the top concern for all tribal contributors of this study (Table 3). For example, the Hoh and Makah representatives interviewed state that a minimum of 70% of their diet comes from nearshore and marine resources. Access is therefore a top concern to maintaining this high use. Access to nearshore areas along the Strait of Juan de Fuca has been severely limited due to private ownership of the shore and tidelands. This has had a huge impact on the tribes that depend on these geographic areas the most, including the Elwha Klallam and Jamestown S'Klallam. When access is denied, nearshore resources cannot be readily harvested and so become more difficult to incorporate into daily life. Detailed knowledge of species used, how they were used and where they were collected, are at greater risk of being lost. Significant loss of historic marine resources is also a stated attribute to severe health declines among the Klallam tribes. The relationships between access to resource, resource use, tribal culture, and human health are very important and require strong consideration in resource and habitat management.

Resource and habitat declines are also of high concern to all tribal members interviewed. Declines in rockfish, forage fish, and salmon noted by all tribal members are consistent with declines well documented by resource co-managers over the last decade. An interesting example is the historic collection of herring roe off of the Pysht River mouth. Herring spawning has not been reported in this area prior to this report. The Washington Department of Fish and Wildlife (WDFW) has never documented this site for herring spawn. However, herring stocks are currently at historic lows, and spawning areas are declining rapidly (Penttila: personal communication 2003). Pysht may have historically been a site of herring spawning, and one of the first spawning sites lost before it could be documented by state managers.

Habitat impact concerns appear to be different between the Strait and outer coast areas. Strait areas of historic use are noted for erosion, hardening, and water quality decline from non-point pollution. This is in contrast to outer coast nearshore habitats that, according to tribal representatives, are experiencing increased sedimentation from upland practices and lower river alterations. Over harvesting by recreational harvesters and trampling by tourists is a concern for the outer coast tribes. Some habitat impacts appear to be shared by both coastal and Strait tribes. Fill of sensitive and important nearshore areas, including tidal estuaries, is a noted impact in both the Strait and outer coast.

With this work we have begun to illustrate the complex relationship of tribal use of nearshore marine resources and habitats. But it is just a beginning. Our list of resources, habitats, and geographic areas is no where near being a complete list.

For example we greatly under represented seabird and marine mammal use due solely to lack of time and resources. We also did not catalogue use of offshore islands, which were noted to be used extensively, as detailed information was not gained due to time and funding constraints.

We also lacked the time and resources to catalog the tribal role in early ecological studies of the Olympic Peninsula. In his 1946 log, Ed Ricketts notes access to sampling sites on Cape Flattery was possible by staying on tribal lands (Ricketts and Steinbeck 1978). Details of Ricketts study, including his biological findings and tribal interactions, would provide keen insight into historic nearshore ecology and allow quantitative comparison of historic and contemporary nearshore habitats and resources. Defining details of Ricketts early work on the Olympic Peninsula and his relationship with Peninsula tribes is therefore a recommended priority for future work.

Despite these limitations this report clearly illustrates that marine resources and habitats are fundamental to Olympic Peninsula tribes, and tribal use of marine resources is fundamental to successful resource and habitat management (Wyllie and Cox 2000). We hope this work will stimulate more focus and result in a larger scale and unified effort to bring natural and cultural resource management of Olympic Peninsula nearshore marine habitats and resources together. Doing so will help insure the future of our shared nearshore marine ecosystem. Each tribe has extensive technical expertise employed in natural resource staff. Tribes, as co-managers, also manage active commercial fishing and shellfishing enterprises, including aquaculture ventures that are not detailed here. A list of contact information for each of the tribe's natural resource departments is presented in Appendix B and readers are directed to them.

Acknowledgements

Thanks to Dave, Kendra, and Charlie Parks, and Lisa McCoy for patience and support of this work. Thanks to Eugene Kozloff, Friday Harbor Labs, University of Washington, and Katie Krueger and Mel Moon, Quileute Natural Resources, for critical manuscript review.

Sources Cited

Hickey, B.

- 1996 Physical Oceanography of the Olympic Coast in Olympic Coast Marine Research. Proceedings of Workshop 24-26 January 1996. Olympic Coast National Marine Sanctuary. Port Angeles, Wa.

Historical Research Associates

- 2001 The Evolution of Human Uses of Estuaries in the Pacific Northwest. A report to the PNCERS, Oregon Department of Environmental Quality. Portland Oregon.

Lewallen, E. and J. Lewallen

- 1996 Sea Vegetable Gourmet Cookbook and Wildcrafter's guide. Mendocino Sea Vegetable Company, Mendocino, California.

Mackas, D.L. and P.J. Harrison

- 1997 Nitrogenous Nutrient Sources and Sinks in the Juan de Fuca/Strait of Georgia/ Puget Sound Estuarine System: Assessing Potential for Eutrophication. Estuarine, Coastal, and Shelf Science 44:1-21.

Powell, J.

- 2003 The Quileute and Hoh Use of the Foreshore in Their Traditional Territory. Report to the Olympic National Park, Port Angeles, Wa.

Penttilla, D.

- 2003 Personal Communication, Washington Department of Fish and Wildlife, LaConner, Wa.

Ricketts, E. and J. Steinbeck.

1978. The Outer Shores, Part 1. Edited by Joel Hedgepeth. Mad River Press, Eureka, California.

Sepez, J.

- 2003 Continuity and Change in Subsistence Use of Aquatic Resources by the Makah Tribe from the Pre-Colonial Era to Today. Abstract, Estuarine Research Federation Conference, 15-18 September, Seattle Washington.

Sepez, J.

- 2001 Political and Social Ecology of Contemporary Makah Subsistence Hunting, Fishing and Shellfish Collecting Practices. PhD Dissertation, University of Washington Department of Anthropology, Seattle, Washington.

Sequim Gazette

- 2003 "Sand, mud trap boy on local beach. August 13, 2003.

Shaffer, J.A.

2000 Seasonal Variation in Understory Kelp Bed Habitats of the Strait of Juan de Fuca. *Journal of Coastal Research* 16 (3):768-775.

Shaffer, J.A., D.C. Doty, R.M. Buckley and J.E. West

1995 Crustacean Community Composition and Trophic Use of the Drift Vegetation Habitat by Juvenile Splitnose Rockfish *Sebastes diploproa*. *Marine Ecology Progress Series* 123:13-21.

Wyllie-Echeverria S. and P.A. Cox

2000 Cultural Saliency as a Tool for Seagrass Conservation. *Biol. Mar. Medit.* 7 (2)421-424.

Wray, J.

1997 Olympic National Park Ethnographic Overview and Assessment. Olympic National Park, Port Angeles, Washington.