

David W. Ellis
#8-635 Battery Street
Victoria, B.C.
February 4, 1974.

Dear Professor Duff,

Enclosed is the work on invertebrates that I promised you. It is as yet far from complete, but of course it took years to make any of these studies complete. I am especially interested in topographic comparisons, and in that field especially have a great deal of work to do.

I thank you again for being patient in this mail mix-up.

Yours Sincerely,

David W. Ellis

David W. Ellis

P.S. - Once again I would ask you to keep this material strictly to your self, as it is for educational purposes only and not meant for general circulation. Thank You.

Worksheets

to date, December, 1973.

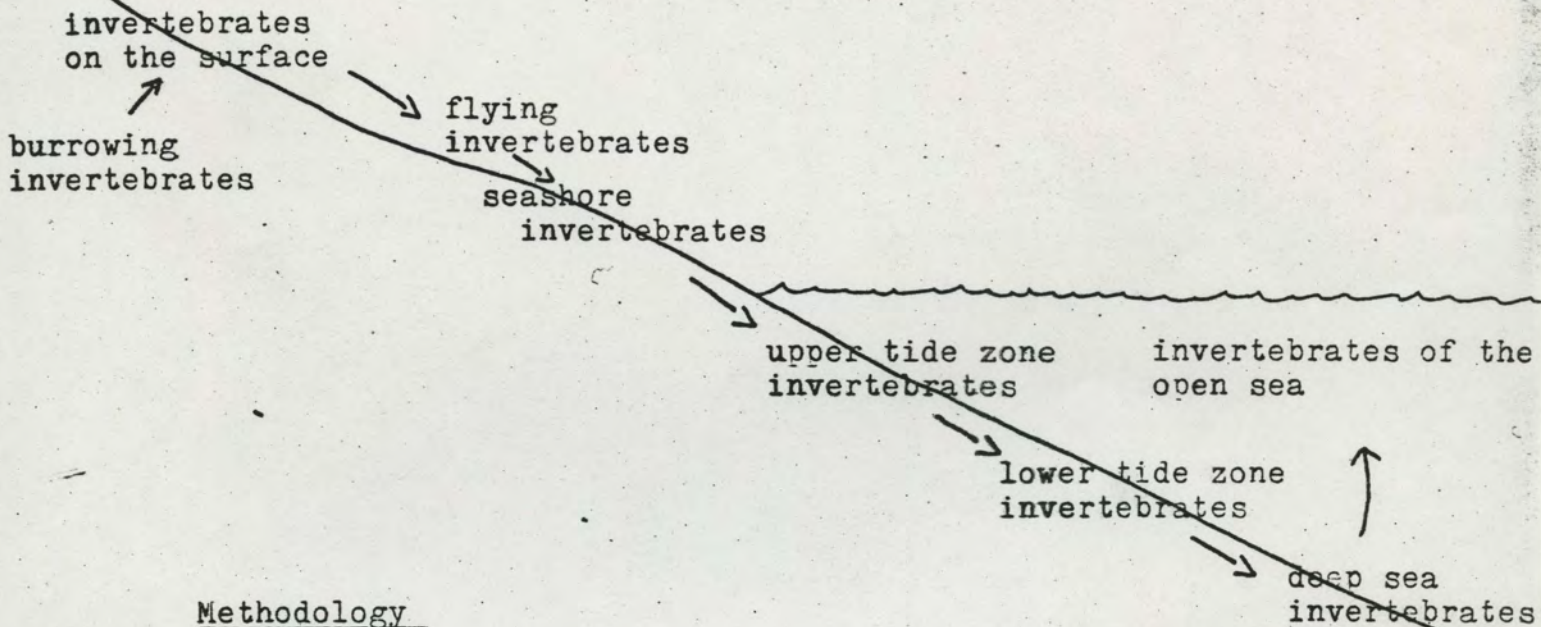
David W. Ellis

#8-635 Battery St.

Victoria, B.C.

Haida Invertebrates, Reptiles, and Amphibians (Skidegate Dialect)

Revised Order (November, 1973) according to environment.



Methodology

- Latin name
- common English name, folk names
- Indian name and translation into English (where possible)
- associated vocabulary list
- method of procurement
- how the tools of procurement are made, and their care
- preservation and preparation of the species as food,
- described in an anatomical order.
- care of preserved food
- reference to species in Indian stories
- topography (special diagram if extensive)

Anatomical Order

"State of Invertebrate" Order

Methods of Cooking

entire animal

fresh

raw

entire gutted animal

pounded

soaked and eaten raw

entire vicera

slightly smoked, sundried

roasted beside fire

gonads

roasted briefly and dried

roasted over fire

foot

frozen

roasted in fire

meat inside legs
and body

steamed(in pit)

boiled briefly and scrap

boiled(about 20 min.)

boiled a long time

soaked and boiled

fried

soaked and fried

baked

any snake or worm

generic

siiga (ALL)

anything that "wiggles" and has no fins. may include the eels
(staaxam- generic)

snail

st'aa7e1 () ()

these were used to catch hummingbirds. the slime about the head
was rubbed on a perch which was put where the birds were expected
to land. the bird's feathers stuck to the perch and they were
caught.

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tiny white multilegged food destroyers

k'aam (L)(3)

one had to be very careful these did not get into the food storage boxes, as they would completely destroy things like herring eggs and smoked fish. one could detect them in time and extract them from the boxes. (S)(H)

cadisfly

sk'aa daas skwul (S)(H)

the larvae of these were used for trout bait. pulled out of their cases and put on the hook. (S)(H)

bluebottle fly

diidan (ALL)

these were a great pest when drying fish in the open air. if the fish was cut properly they had a harder time laying on. the eggs or k'ay sky'aal can be taken off, but if they developed into maggots the fish was thrown out.

7
6
chiixwuu () generic- any seafood that lives on the bottom

Balanus sp.

any barnacle

gawduuwaal (ALL)

-occasionally eaten when they reach a good size, usually when they are growing on california mussels. which are steamed. The body is pushed inward from the mouth, and the membranous base eaten. It is picked out with a small stick. ()

-story about a character at Sandspit, who, during a famine, ate barnacles by himself while his people starved.

any small limpet

skaájaaguuskay () (oystercatchers food)

-seem to include just the smaller limpets. ()

larger limpets and any other small shellfish.

generic

skay (ALL)

-a very general name, used for species that do not have a specific name. includes large limpets, oregon triton, spindle shells, whelks, etc.

-some of the larger limpets were eaten - boiled or steamed briefly. very sweet.

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Mytilus californianus

California Mussels

taaxaaw (ALL)

sgũns k'aaxaaw - large ones which grow by themselves.

ts'ii7in - "gills"

- shell

gitgii - small crabs found inside. (fabia subquadrata)

- when dried

- when roasted

-one of the few shellfish that is never eaten raw.

-roasted beside the fire, first with the hinge toward the fire, then with the open end towards the fire. They must be well roasted or they are slimy. When the hinge gives way, they are ready. The ctenidia or gills are removed, and they are eaten.

-steamed open, with fresh water in the bottom of the pot. eaten as is? strung on waxberry stems, which are pushed through them from the side. made into platters and dried. usually eaten as is later on, but sometimes boiled with seaweed.

-boiled till free of the shell, then chopped up and boiled again with seaweed. also some times fried in seal grease

-the shell was used to scrape diitwaa sgyuúway.

-in some localities the california mussels are sweet, in others, bitter. people knew where to go to get the good ones.

major implements to get low tide food

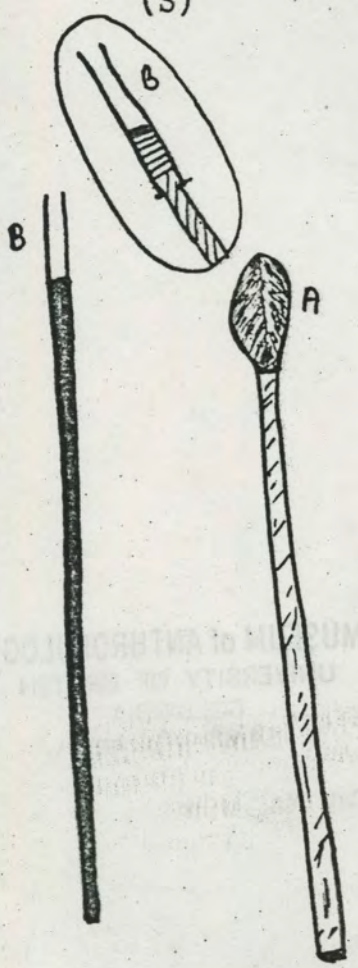
A.deŋguu (ALL)

In recent time, these have been made from a length of copper pipe, the head being of a file pounded quite flat. The pipe was pounded where the file was put into it to hold it firm. The head was just thick enough that it would not bend while in use. The edges were pounded quite sharp.

These were used for taking many kinds of food off the rocks, and for gardening, as well as for digging clams. Many old people continued to use them after modern gardening tools became available.

(S)

B.kiit'uu



In recent time, these have been made by lashing two nails or spikes to the end of a long pole. The nails were usually sharpened. The pole varies in length and thickness. They are usually made from a trimmed cedar pole, and well sanded. Experienced people could handle a very long one, up to about 18 feet. Abalone and sea urchin are the main things taken with them, though those of a larger size were used to spear rockfish.

Mytilus edulus

Edible Blue Mussel

Gal (ALL)

- very small mussels

Often eaten raw, but one can not eat too much or they will make your throat itchy. To open them, the valves are pushed slightly ajar and an empty valve forced between them to cut the adductor muscle.

Roasted beside the fire in a small depression. They are moved quite frequently with a stick as they roast, and are ready when they open. They are also eaten when only half cooked, and are especially good this way.

Boiled and steamed open as well.

These are often referred to as being poisonous, especially when they are taken off of wood. A number of people were poisoned by these about the southern end of the islands in the early days.

Mitella polymerus

Goose Barnacles

tl'el ky'aaw (ALL)

not eaten raw. . .

Scraped off the rocks and boiled. When the skin near the head, or capitulum can be torn off easily, they are ready. . .

Le pas anatifera

drifting Goose Barnacles

chaagan tl'el ky'aaw

These drift ashore on various objects, especially on the west coast. They are sweeter tasting than the other goose barnacles. . .

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Purple Shore Crab

Hemigrapsus nudus

ts'aa'am (ALL)

-no use, except to bears who turn over rocks for them.

Red Rock Crab

Cancer productus

sguús k'aalhel

-no use, too small.

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Cancer magister

Dungeness Crab

kw'uústáan (All)

- pinchers
- legs

In the early days these were mostly steamed in pits. They are said to taste extremely good this way.

Today these are mostly boiled briefly and eaten. The thin legs are used to pull the meat out of the other legs.

These used to be quite common about Skidegate Village in the eel grass beds, but are rare today.

Lopholithodes mandtii

King Crab

huúga (ALL)

-steamed in pits in the early days, boiled briefly now.

-speared in march when they are mating near the shore. One always has another clinging to it. They are found commonly about Skidegate inlet then, and are about a foot long.

Spirontocaris any shrimp

gwuút gaagiigiit

no use.

Pycnopodia helianthoides

Sunflower Starfish

naaw k'aanaás (ALL)

-no use.

Pisaster ochraceus common starfish

sk'aa7am (ALL)

-used for fertilizer in potato gardens. Makes the potatoes especially dry. T'al was also used.

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Katharina tunicata

Black Katy Chiton

- t'aa (ALL)
- t'angaal - foot
- ts'ikal - gonads (orange)
- gwuung-wel plates
- ts'ii7in gills

kw'uuguudas ^{raw} raw bitten and pulled in two.
 - raw - soaked for two or three hours in fresh water, till the tongue or foot swells. Wounded ones do not work - too tough. The plates can be taken out with a knife, or the chiton can be ripped in half and the plates and inards ^{gonads eaten} taken out from the side. The skin is eaten this way as it can not be removed. "You need good teeth" ()

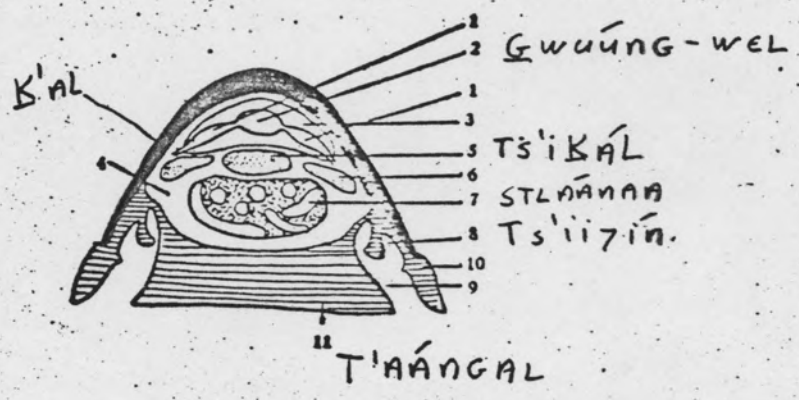
-roasted beside the fire in a small pit, or depression. They are continually moved to make the skin loose. The plates are tested till they can be taken out, the guts ^{gonads eaten} removed, and the whole washed and eaten. They taste very different this way - the salt is still in them.

in salt water ?

-boiled for about one minute first, while they are constantly being pressed down upon with a spoon. This must be done to loosen the skin. As soon as the skin is loose, they are taken out of the pot, put in fresh water to cool them, and the skin peeled off. This must be pulled off quickly, or it will adhere. (it is removed mainly for ediquette, as it is tasteless.) The chiton is put back into the boiling water for a few more minutes, then put into cooling water again. Now curled, when they are pulled out straight a white substance comes out of them which is a great delicacy. The valves are then removed from the back, and the gut thrown out, except for the gonads which are very sweet. After washing, the whole is eaten.

? 2 NAMES FOR GONADS?

-The gonads or taajiikal are often put aside and later beat into a soupy froth that is used to resoak sgyuu. It is also sprinkled on dried sgyuu. This gives it a better flavour - sweetens it. clam juice also used.



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sgiidaa (ALL)

- large inedible ones found at Cumshewa

- raw - pounded first with rocks till they become soft and the valves are crushed and taken out. Soaked in fresh water for some time, and eaten as is. The guts are taken out with the valves. Only done in the early days.
- boiled - laid on their backs first so they lay flat, then put into boiling water for about 30 seconds. Put into cold water to cool them, and the red skin is scraped off the back with a knife. A cut is then made vertically down the back and through the middle of the tongue, right through to the plates. The gut are then removed, and the whole returned to boiling water till it is quite soft. The longer it is boiled, the softer it gets, but it is usually put on about 5 or 10 minutes. Returned to cool water again^{and} the two halves separated. The plates can then be removed individually. The gills are scrapped with the thumb nail and the tongue with a knife before the whole is eaten.

Mopalia muscosa etc. Mossy Chiton etc.

sdélguu taáгаа () (land otters food)

no used. This seems to include and chitons with a "hairy fringe".

Lepidochitona hartwegii etc. Olive Green Chiton etc.

xwuúya taáгаа () (ravens food)

no use. Seems to include and chitons with smooth, bony plates. ()

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Octopus dofleini

Common octopus

- naw (ALL)
- iinaa - skin
- in-gii - to pull the skin off with the help of sand.
- delna - legs
- kwun - beak
- gyuu - siphons or "ears"
- ka'w-g-wel - ink
- xang-akw'aawel - eye part one stabs for.
- ? - suckers
- gaff
- spear
- naw lhgay - octopus rock

Old people knew the low tide area—they could get octopus any time, even during small tides. A young, curved hemlock stick was used to stab them. One tried to stab the xanga kw'aawel, or eye area to wound them. The idea is to wound them quickly and stand back while they come out. If you stab them too much they will not move. Sometimes they are stabbed and quickly gaffed out. They are then eviscerated by turning the head inside out, and beaten against the rocks to tenderize them. They are then hung for a while, and the skin can be pulled off with the help of sand. Other times they are boiled with the skin on, and when it is well done the skin peels off easily.

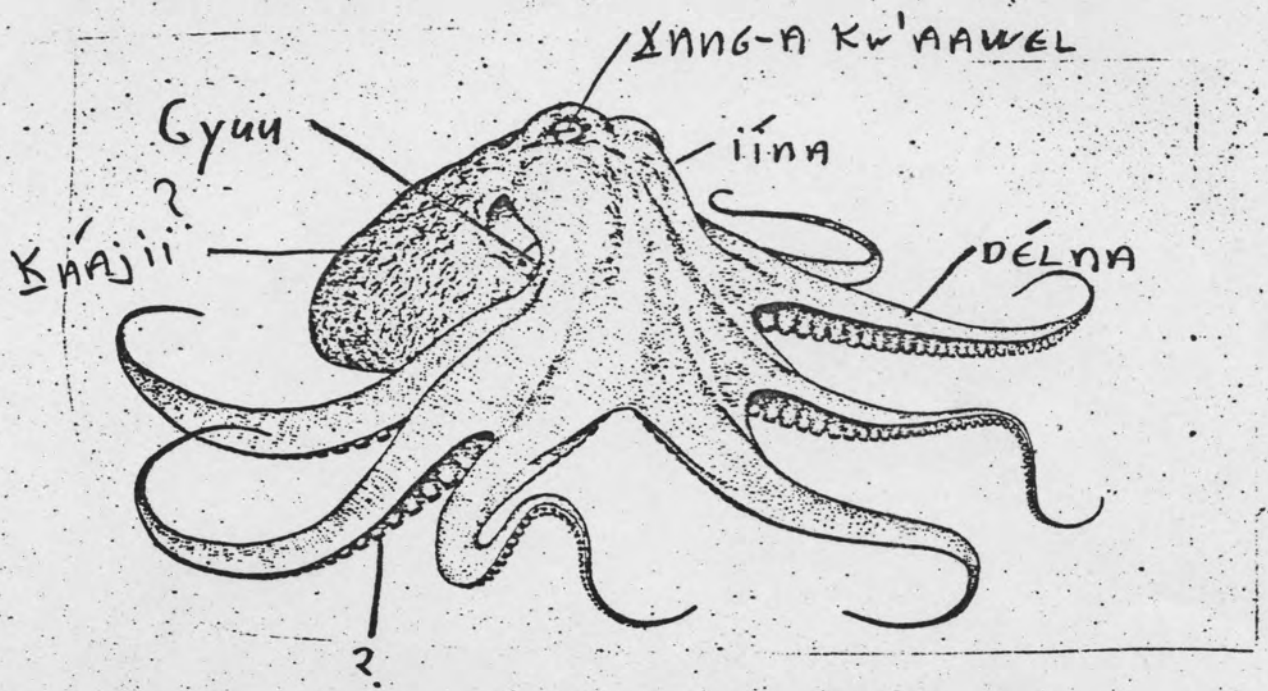
?

-raw - the nose was eaten raw when the octopus was first caught.

-boiled for a long time until tender and eaten. (5)

The ink was believed to be poisonous and never eaten. The siphons or gyuu were not eaten by young girls as they were said to give their babies "ears" like that. Only men and older people ate them. (1)

-dried and used for bait



BEAK - KWUN.

INK - KÁWGWEZ

Stichopus californicus common sea cucumber

giinuu (ALL)

- when strung on a limb.


-These are said to be one of the most common seafoods. In the stories, they were always available, even in times of famine. (CW) When found, the head is cut off and eaten raw. The guts are squeezed out, and the cucumbers are strung by their uncut ends on a peeled, sharpened, cedar limb as thick as one's little little finger. They are then brushed vigorously over barnacles. This hardens them and rids them of slime. They are then soaked overnight in water.

-steamed in the early days.

-boiled for about two hours and eaten in their entirety.

-used for bait.

Cucumaria miniata ? an under-rock cucumber

stan 

-no use. very common, so they have a name.

Haliotis kamtschatkana

pinto abalone

gálah iina

- foot
- gonads
- when smoked

KiiT'uu - spear used for these and sea urchin

- Picked at extremely low tides, but usually speared with a kiit'uu during normal tides when they are not exposed. If they are speared from the side they come off easily, but when speared facing them the spear must be quickly twisted before the abalone tightens it's hold on the rock. People who are good at handing a long spear can get them at half tide.
- raw - commonly eaten this way in the early days. The foot and the orange gonad are eaten.
- boiled and dried. They are first cut out of the shell, and the foot boiled for about 45 minutes. A needle of crabapple, with a thread of spruce root? was pushed through the base of the foot, and a number of spacers of wood tied onto the line. When a string of the desired length was threaded and properly spaced, it was smoked for perhaps two days, then dried till they are hard. As long as they do not touch, they will dry properly. They must be dried WELL or they will go bad and smell. In recent time people dried numbers of these in the spring and sold them to the chinese when they were working in the canneries on the mainland.

Haliotis fufescens

California abalone

Guuxa

-this name was more for the shell when in place as a decoration. (S)

Astraea gibberosa

Red Turban Shell

gwaálhgiidang k'aál the shell

gwaálhgiidang the operculum

-the shell had no use, and the inards were not eaten, but the operculum were collected for use as ornaments on cedar boxes, or taawt'a. The were glued in place with dog salmon or halibut tail glue.

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Dendraster excentricus

Sand Dollar

k'uuluú gaágán (knee cap)

-no use.

Polinices lewisi

Lewis Moon Snail

gyuu daan

- egg cases

-no use, though it has been heard that some white people eat the foot, and that it tastes like abalone.

Pododesmus macroschisma

Rock Jingle

stl'éngwuut gaak'aál

-This is just a name for the shell, which is observed, empty, on the beach.

Hinnites giganteus

Purple Hinged Rock Scallop

lhkw'ii

- When knocking these from the rocks, one must shout loudly the instant you hit them. This frightens them and they let go. These can be speared, but they are usually collected at low tide. (S)
- Boiled. The muscle as well as the viscera were eaten in a jam, though it tended to smell very bad in a stew. Most people today only eat the very sweet muscle.

Pectin caurinus

Weather-vane Scallop

gaabuú (ALL)

- These are found on the north beach near Masset after northerly storms. Smaller, empty shells were found on the east coast.

Dentalium pretiosum

Money Tusk

gwuu ts'ing

-these washed ashore on the west coast. people used to dig for them. in the tidal zone or above it. only the empty dead ones were found. they were made into necklaces.

-these sometimes washed ashore aroundMasset, and they were also bought from people in Alaska.

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Saxidomus giganteus

Butter clam

ky'uu (ALL)

- ky'uu k'aal - empty clam shells
- ky'uu juu - dried clams
- ky'uu k'iida - to string clams
- k'aa k'an - small boxes to store dried clams
- xangii - adductor muscle
- lht'aajii - mantle
- skan ts'el - siphon
- k'ay xyaagii - gills
- wul - foot

-Clams found deeper in the tidal zone tend to be richer than the ones higher up. The leaner clams also tend to have a more bulgy, less tapered appearance - called chii xii ky'uu waat. The fatter ones have a more tapered shell,  and are usually found farther out. A delguu was used to dig clams. During the winter, when the big tides were at night, torches were used for light. After digging, clams are often left in a sack a few days to let them spit out some of their sand, and are left in the tidal zone.

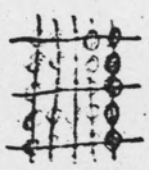
-raw - often eaten this way as a treat, but not as a full meal.

steamed - this was done in pits in the early days, but in pots today. The water is often saved, and used to sprinkle and resoak sgyuu to give it a better flavour. The clams themselves are usually made into a chowder, or boiled with seaweed.

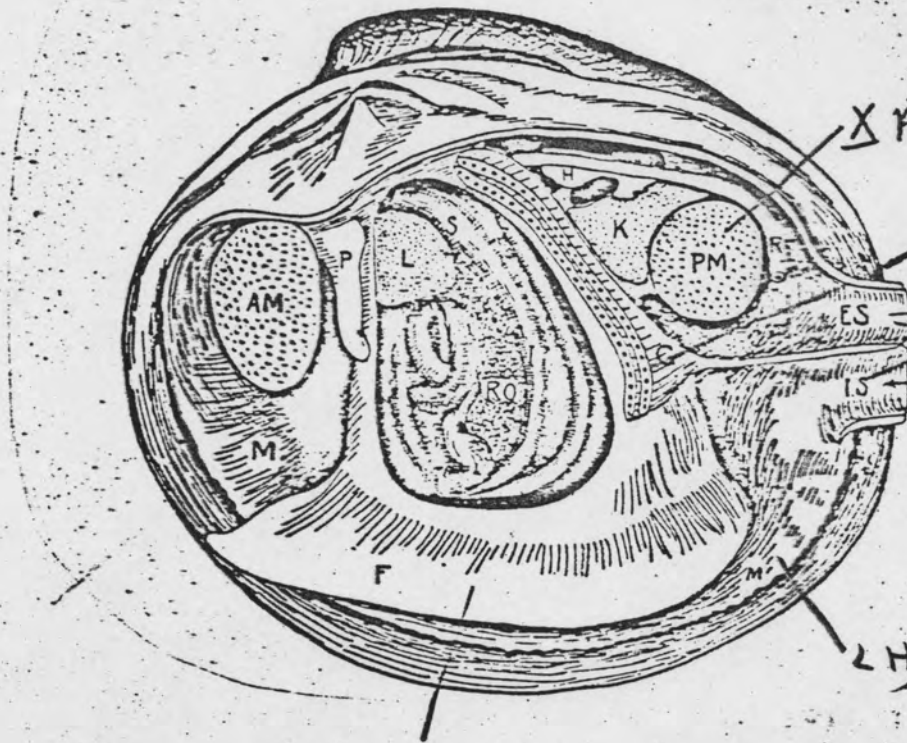
-dried - the clams are first steamed till free of their shell. Peeled waxberry stems are then pushed through the body, the mantle wrapped around the stick, and the siphon also impaled. Then the foot is folded up and also impaled. Platters are made with five sticks of clams and three bracing pieces. The whole is first put beside the

clams contd.

fire on split huckleberry stems to roast, and when well dried out, put in the smoke, on ky'aasaan. They are eaten through all the stages of drying, both as a chowder and as is. When they are well dried, they are soaked overnight before being put in a chowder. They are also occasionally boiled with seaweed.



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X'ANGii

K'AY XyAAGii

SK ANTs'eL

LHT'Añjii

WUL

Clinocardium nuttalli

Cockle

sKyaaal (ALL)

- Cockles found on the surface are always poor, and are not used. They must be buried to be any good. When the tide is low and beginning to come in, the tips of the "eyes" or siphon can be seen by an experienced person, and large quantities collected. It takes considerable skill to be able to see them however, and most people today poke the sand with a sharp instrument or slice the surface with a knife to strike the cockles, which then squirt.
- raw - often eaten this way for a treat. The foot is cleaned out first.
- boiled - need to be boiled for some time to tenderize them. Often cut into small pieces and eaten with seaweed.
- dried - once steamed out of the shell, they are strung on waxberry snoots which have been sharpened had the knots trimmed. As with clams and mussels, the k'ay xyaagii or gills are removed, as these are said to be bitter. The stick is pushed first through the body and then through the foot. Platters of five sticks are made, and roasted for a while like clams. They are then put in the smoke. Chewed as is or soaked to make a chowder.

Protoyhaca staminea

Native Littleneck Clam

k'aáгаа

- Always eaten raw. Very common, and found when after butter clams, but usually discarded. ~~Too~~ bitter.

Siliqua patula

Razor Clams

k'aamalh

- Masset people get these. None near Skidegate.

Panope generosa

Geoduc

Tresus nuttalli

Horse Clam

skaw (ALL)

- Both of these have the same name. They are hard work to dig for and prepare, but still liked. They are boiled, the neck scraped, and the whole chopped into small pieces and boiled with vegetables and seaweed. Two makes a good chowder.

Zirfaea nilsbryi

Piddock

k'aas (ALL)

- found at Telel, where they are taken out of clay that is chunked out with sharpened Hemlock limbs. Always eaten raw.

Strongylocentrotus franciscanus

Giant Red Urchin

guúdiingay (ALL)

ts'ii - edible insides (gonads)

ts'iigaada - milky ones (males)

ts'iisgit - nonmilky ones (females)

stélnaa - spines

-These are picked at very low tides or speared with a kiit'uu at half tide or lower. They clutch onto the rock when speared, and for that reason one waits a few minutes, till they begin to "walk" again, before they are brought up. The spear is twisted slightly as they are pulled up to keep a friction hold on them, but can not be twisted to much or they will break loose. Calm water is needed to spear them. During March and April, when they are spawning, many die and float up. They are poor eating at this time, but are at their best during the fall and winter.

-Always eaten raw. Split in two with a few blows of a knife or stone, turned upside down so the guts fall out, and the gonads gathered with the fingers and eaten. One can not tell the males from the females till they are broken open. The males are saltier than the females and generally liked better. They are so rich they will make one very sleepy. An old woman used to eat the sea lettuce the urchins were eating as well. They will keep for two days. In the early days, people would get a canoe load and feed many people. These are much more popular in Skidegate than in Masset.

Strongylocentrotus drobachiensis

Green Urchin

styuu (ALL)

- These urchins were too small to spear, but were sometimes caught by using a small drag net. They are the highest urchin in tide zone, and rocks were turned over to get them, especially during the winter on a reasonably big tide.
- Always eaten raw. The edges of the shell are smashed with a knife or rock and the two halves separated. The gonads are on the top half, and are sucked into the mouth. The males of this species are very salty, and the females preferred.
- In the Raven story, Raven rubbed styuu on old man tide and he stretched his leg out so the tide would go down. The tide went so low Raven collected all the styuu he wanted.

Strongylocentrotus ourpuratus

Purple Urchin

daáws tííway

or

styuu xaásaa

- These were procured from tide pools on the west coast. They were the most prized of all the urchins - much sweeter than the others.

Always eaten raw, in the same fashion as the Giant Red Urchin.

Anthopleura xanthogrammica etc Giant Green Anemone etc.

sii7iip

-This name includes all of the sea anemones. No person today has eaten them, but the old people were observed to clean, soak, and roast them on sticks before the fire in the early days. They were said to smell very good. Some were said to be poisonous, and people are wary of them today. (S)(W)

? Nudibranch

kw'uuskáy tl'el

-Always eaten raw. The hairy skin and egg shape distinguish it. They were cut in half and the insides eaten. One man was poisoned after eating these, although no body was sure the kw'uuskáy tl'el was the cause of it. Mrs. Stevens father would not allow her to eat them.

Poison Jellyfish

ky'aáng-aa (-/)

These jellyfish were identified with the red tide. ky'aáng-aa went about in a canoe, and where ever he went he poisoned the seafood. There is said to never be any red tide in Skidegate Inlet, where you can eat the clams etc all year round. This was because ky'aáng-aa could not get his canoe over Sandspit bar. (S)(W)

Red Tide

chiitáw gáygi diiji

This could occur anywhere in the Islands except Skidegate Inlet, according to the jelly fish story. It seems to have actually been feared more in the southern end of the islands. Apparently a number of people had been poisoned by clams around Burnaby narrows in the early days, and a strict rule of Charlie Williams father was no clam eating from April to September. This included mussels (both kinds) and cockles. Job Moody was once poisoned there, and only saved himself by drinking whisky and "killing the poison". On the west coast this rule did not seem to be so strict, but people kept a wary eye out for the red tide. It is also said that anything growing on wood, or where there is a lot of copper in the rock, is likely to be poison.

Jellyfish

gayuuts'aa uul daang (ALL)

A jellyfish that greatly varies in size. The large ones are said to be poison. used for medicine.

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