Prepared for:
Council of the Haida Nation
by:
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- Ernie Gladstone
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- Frank Russ
- Gary Russ
- Gladys Vandal
- Harvey Williams
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- Bert Wilson
- Ernie Wilson
- Richard Wilson (Captain Gold)
- Lonnie Young

Companion Reports:
- Volume 1: Methods and Results Summary
- Volume 2: Seascape Unit Summary

*Front cover photos (clockwise from top left):* Abalone – Bart DeFreitas; Interview participant Diane Brown – Judson Brown; Ancient murrelet – Ian Jones; Salted k’aaw – Lynn Lee; Haana Edenshaw harvesting edible seaweed – Jaalen Edenshaw; China rockfish – Lynn Lee; h Interview participants

*Back cover: Sunset off Skedans – Lynn Lee.
All other photos Haida Oceans Technical Team unless noted.*
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Introduction

In January 2007 the Council of the Haida Nation initiated the ‘Haida Marine Traditional Knowledge Study’ (HMTKS) to document Haida culture, traditions and knowledge relating to the marine area in a manner that respects its context, richness and complexity. It was conducted by the Haida Fisheries Program and funded by Gwaii Trust Society, Fisheries and Oceans Canada through the Aboriginal and Aquatic Resource and Oceans Management (AAROM) program, and the Gordon and Betty Moore Foundation. Between February 2007 and March 2009, fifty-two interviews were conducted with Haidas from the communities of Massett and Skidegate. The interviews included short, semi-structured formats as well as longer, oral history interviews conducted over multiple sessions. Participants were chosen because of their expertise and knowledge of the marine environment; they are acknowledged here as co-authors. All interviews were audio or video recorded and fully transcribed. Information was documented on marine charts, entered into a database and linked to digitized spatial data in a GIS. The results are now available for use in Haida marine planning processes.

To complement the research conducted for the HMTKS Study, we obtained permission to include a series of interviews conducted in Skidegate in 1998 by Russ Jones. The focus of these interview sessions was herring fisheries, populations and trends (see Jones 2000 and 2007).\(^1\) While there were no spatial results, existing audio-recordings were transcribed and the results combined with the more recent work. A full description of the study methods, summary of the results, and participant biographies can be found in *HMTKS Volume 1: Methods and Results Summary* (HMTKS Participants et al., 2011a).\(^2\)

This compilation presents some of the information that was documented regarding Haida knowledge and use of six focal species or groups of species: Northern Abalone, Clams and Cockles, Edible Seaweed, Pacific Herring, Rockfish and Lingcod, and Seabirds. Each species chapter includes the following topics: Haida Harvest, Use and Stewardship; Ecological Observations and Trends; and Management Issues and Suggestions. Within the chapters spatial information is organized into distinct regions or “seascape units” – areas identified and defined by ecological factors – relevant to PNCIMA marine planning. More comprehensive information on the seascape units can be found in *HMTKS Volume 2: Seascape Unit Summary* (HMTKS Participants et al., 2011b).\(^3\)

Throughout this summary we use interview excerpts to present Haida traditional knowledge in the words of the participants. Quotations are referenced with the participant’s name, followed by the interview date. In many cases text has been edited for clarity and is occasionally distilled from multiple pages. It should be noted that Haida spellings and language included in these reports have been

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reviewed and corrected for dialect when possible. While this study did not consistently document Haida names of species or landscape features, we felt it was appropriate to include them when available and relevant. For quotations containing Haida words, we have attempted to have all spellings confirmed in the dialect of the speaker – either the northern or Massett dialect, or the southern or Skidegate dialect. Haida spellings for traditional place names are also provided within quotations, but gazetted equivalents are included in all other contexts (e.g. most maps and written summaries). An abbreviated glossary of Haida names for some common marine species is included at the beginning of Volume 1.

**Limitations**

The information presented here should not be considered complete for four reasons: 1) there was no review of historical or ethnographic sources or notes or recordings that may have been made by others; 2) traditional knowledge is continually evolving; 3) in-depth interviews on each individual species were not conducted as part of this project; and 4) only a fraction of the Haida community could be interviewed (i.e. there are many other Haidas that were not consulted for their knowledge). Despite the fact that a substantial amount of information has been documented during the course of this study, we recognize that it in no way represents the totality of Haida knowledge in regards to marine species and the marine environment.

> “See everything we tell you is going to cover every bit of the shoreline, just because we’ve been travelling this land.” (Captain Gold, Mar. 2009)

It is important to note that roughly 150 marine species were discussed in the HMTK interviews. Topics spanned ecological and cultural themes, including information on important Haida sites, stories, harvesting and stewardship practices, relationships between species, and many other types of observations. While there was an overall emphasis on finfish and shellfish, occasionally participants included information about terrestrial plants and mammals. This information was recorded, but has generally not been included in these reports, as was not covered consistently during the interviews. Terrestrial activities are only discussed in these three volumes when they have been documented in marine, estuarine or intertidal areas.

Due to the sensitivity around seaweed and abalone harvesting areas and habitat, some references to specific locations or place names, and/or spatial results for these species have not been included in this document. In addition, we have not presented any spatial information for marine mammals here. While observations about marine mammal abundances, trends and any Haida harvesting activities are noted, these topics were not consistently documented during the interviews.
1. Northern Abalone

Before presenting the results that were documented for Haida traditional knowledge of abalone, two limitations must be noted. First, abalone are a traditional and favourite food for many Haidas; their decline in the waters of Haida Gwaii is perceived as a profound loss. There is both sadness and resentment in the Haida communities that make the topic extremely sensitive for discussion and documentation, with a particular reluctance to share abalone distribution information. Second, most participants have not harvested abalone for many years. As a result, it is likely that abalone information is under-represented in the study results.

Did you notice that the abalone spots were limited, what I told you? ...the reason for that is because those abalone spots I knew of were just gone then... See a lot of the knowledge I have about abalone spots too is just pointed out to me by like [an elder fisherman] saying, ‘Oh, yeah... they used to be there, they used to be there.’ (Ed Russ, Jul. 2008)

Because there is such sensitivity around abalone, no detailed maps of abalone observations and harvesting areas have been included here. The one map that is included is presented with a scale and masking technique intended to disguise specific areas, but indicate Haida knowledge and use. In addition, throughout the text place names have been removed to protect specific locations.

Haida Harvest, Use and Stewardship of Abalone

Most Haidas have harvested abalone much less frequently in recent decades than in years past. They also tended to harvest fewer abalone as they saw the population begin to decline, most often getting only enough for a meal instead of quantities that could be preserved or traded. Because of this, much of the information in this section is presented in the past tense. However, abalone are dearly missed and people hope for a time in the future when they may resume their traditional harvesting activities.

... [my grandfather] taught us a lot. Yeah. I have very fond memories of him, fishing with him... you know, I must have really enjoyed it. And harvesting food too—abalone, urchins, mussels, scallops—we harvested all of that when we were young. Yeah... he taught us a lot ... if he didn’t show us that... I probably wouldn’t have such an interest in the ocean. But he was the one that showed us everything about the ocean. (David Martynuik, Nov. 2008)

Underlying most traditional Haida harvesting practices, no matter what the species, is an ancient and intimate relationship with the ocean and a deep respect of the plants and animals that live within. This is manifested in strict rules about not making fun of anything you harvest, as well as never taking more than you need. Many participants described Haida values of respect and moderation when asked about rules learned from parents and grandparents.

“That’s one in the olden days we used to eat, abalone, and... it was just part of our diet.” (Roberta Olson, Apr. 2007)

“You were taught not to make fun of any kind of seafood. No matter what came from the sea, we had to respect it.” (Norman Price, May 2007)
... a lot of times we only took half a sack and...kept that for while we were moving back and forth, doing our gathering, food-gathering there... just so that it... well, grandmother used to say, ‘Only take enough for what you need. You don’t need to take anymore than that.’ Hence, they were very concerned about preserving things like that, making sure that we had enough. I know grandmother ... always told us, ‘Never get too greedy about that. If you look after it, it will always be there.’ (Herb Jones, Mar. 2007)

They used to pick around here; everything was there, chitons, k’yyu [butter clams]. Everything thing was there, all the shellfish. And they used to get all the clams here, at Kiusta... Yeah, abalone – they used to get that at low tide too... and they used to get lots on that island out there, Gwaay T’uwwans... on the other side. Gee, it was just loaded! People used to just get enough to eat; they never take more than what they want. (Mary Swanson, May 2007)

The Haida harvest of abalone may occur at any time of the year. More important than particular seasons are suitable weather conditions and extreme low tides, as the traditional Haida practice is to hand-pick or spear on the big tides, “That was the only time we went to get it was when the tide was down low enough to get it—like a 24-foot high to a zero,” (Oliver Bell, Dec. 2008). “I use a spear. My husband made me a beautiful 14-foot spear. I could get guuding ngaay [red sea urchins] I could get abalone with it. I taught quite a few people how to spear with it...” (Diane Brown, May 2007).

June Russ said she used to harvest abalone by prying them off rocks with a sharp knife at low tide. Rolly and Martin Williams both talked about how they were taught to harvest abalone around Old Massett.

We used to just go pick what was above... the water line, because they’d be crawling around in the kelp. And we wouldn’t touch anything else that’s in the water. I mean, we didn’t dive for them... yeah, that’s the way we did it up here. There used to be abalone all the way right from here right out to Langara and anywhere you were out there, if the tide was down, you’d find some—they would be just crawling around. (Martin Williams, Feb. 2009)

Roberta Olson remembers gathering abalone along with sea urchins and rock scallops.

“On the backside of Hotspring Island, [urchins were] easy to get to because we almost lived on Hotspring Island because Chinaay Albert...put claim to that years ago when we were young. So we’d go there as much as we could in the wintertime and the summer. But going back to the backside of the island, there’s rock scallops and oh, rock scallops all along. That’s one in the olden days we used to eat. ... [We ate abalone] off that part and over here...and...yeah, rock scallops were where the abalone were. And of course the guuding ngaay [red sea urchins] was all there as well.” (Roberta Olson, Apr. 2007)

As mentioned, abalone is often enjoyed raw, or just lightly cooked.
Most seafood...was cooked just a few minutes. If you cooked it any longer, it would turn like rubber. All seafood was like that. Like if you make clam chowder out of fresh clams? You cut it up and your potatoes are boiling, you throw your clams in and as soon as the first bubble comes up, you take it off the stove. That way they claim it was nice and tender; if you boil it, they get like rubber. That's the way all seafood is cooked. Seafood is all tender when it's raw ... Most everything from the sea we used to eat it raw—nice and tender and tasty. When you cook it all the taste comes out of it. It gets... what the Indians call k'unx̱uw; it means there's no taste. (Norman Price, May 2007)

People most often spoke about just getting enough abalone for fresh food or a meal while harvesting other species, “... when I fished commercially, whether it was chum fishing, ...pink fishing ...when we had some down time and the tide was low, I’d go and look for abalone and harvest them—just for use at that point in time,” (Gary Russ, Mar. 2007). While this seems to be a practice rooted in tradition, it was likely reinforced at least in part by the steady decline of abalone in more recent times. Older participants remembered their parents preserving larger quantities of abalone for storage and for trade. Ernie Wilson’s grandmother used to put abalone on sticks and smoke-dry it to trade with people on the mainland.

[We used to] look for whatever we can pick up ... if it’s possible, we used to get quite a few abalone. Granny used to cook it and string it up to bring to Skeena to sell, yeah. Used to do alright from it. Yeah... Lot of times they traded for ‘as ... soapberries and [eulachon] grease... taw. That’s what the main things they used to trade, yeah. (Ernie Wilson, Aug. 2008).

Reynold Russ also remembers people canning abalone.

...and that’s when I seen...you know, when they were canning [abalone]. Oh, this was in Langara. When mum was canning it, she’d slice it real thin and...put it in cans, maybe about four or five abalone would fill a quart jar, eh? ...and that was our... winter food, and it was tasty! Tastes... I don’t know. I [could] eat a whole jar myself if I had a chance to. Yeah, that’s how tasty it was. (Reynold Russ, Jun. 2007)

Roy Jones Sr. said that while people used to dry and can abalone, it was never salted, as salting made it tough. Both Reynold Russ and his wife June witnessed people drying abalone years ago; “Yeah, abalone they were sliced real...you know, not that thin. But they’d lay it out on a rack...they dried it, yeah. And it was tender...” (Reynold Russ, Jun. 2007).

A younger participant, Tommy Greene, said he used to harvest abalone when scuba diving, also many years ago. He had these observations from working on abalone dive surveys:

There’s one starfish there that you cut a leg off and you just go and put it right by the end of it and the ab will go nuts trying to get away and you just take it. (chuckling) ... yeah, they twist real hard trying to get away; they go nuts. You wouldn’t think so, something with no brain, but I guess they have a nervous system that senses that. Yeah. Then you just pick them up and then measure them, tag them; that’s what we were doing. But ... yeah, they move along, travel too; you just pick them up. No, I didn’t like spearing them. But we didn’t... you know, even then we didn’t get very many to eat. I don’t know; it’s just one of those things we never really loaded up on. To ourselves it was sort of like a treat, and we took care of it. But then they all got wiped out. (Tommy Greene, Oct. 2008)
During the HMTK interviews we were told on more than one occasion that Haidas have experimented with transplanting abalone in past years.

...well, they say abalone don’t grow in [Skidegate] Inlet—they won’t grow in this inlet. There’s been over numerous years guys dropping abalone in this inlet, that I know of. Like Uncle Roy and them ...said they dropped it in the late ’70s. You know, not ...just a couple; they did, you know, quite a few just to try... (Ed Russ, Jul. 2008)

One participant, Captain Gold, said that he once transplanted about 30 abalone from Hotsprings to Skidegate Inlet in the mid-1970s; no one could confirm whether the transplanted abalone have established a population there.

**Ecological Observations**

Because the Haida MarineTraditional Knowledge interviews attempted to cover such a wide range of species and topics, we documented relatively little ecological information about abalone. It is important to point out that there is in all likelihood a vast amount of this type of information held in the Haida communities; there simply was not time in the interviews to cover each topic in that level of detail. Further research could be very beneficial to all of the topics touched on in this section.

In discussions of where abalone might be found or harvested, species associations with scallops, sea urchins, seaweed and kelp were identified by many participants. Abalone were often mentioned in conjunction with harvesting clams, cockles, mussels, halibut, and rockfish. It was pointed out that they tend to be found along shorelines, but not up inlets, and very often found in kelp patches; “We used to pull the kelp up and they’d be hanging on the kelp. Stuck to the kelp and I’d just throw it aboard,” (June Russ, Jul. 2007). There was more than one participant that suggested they are witnessing changes in the kelp beds, which may be influencing abalone distribution and/or abundance.

Well, there’s like I said, no abs... and ... the kelp beds seem to be changing too. Like I always keep an eye on kelp every time we go to do archaeology, note where they are, and they seem to disappear and pop up in another spot—which I’ve never seen before. I don’t know why it would be like that. (Tommy Greene, Oct. 2008)

Only one participant had observations of abalone reproduction; he said it was sometime between April and June in the 1950s that he saw these accumulations of abalone that appeared to be spawning.

... we went down in June, I think, to Hotspring—big tide at that time. We ran down the back end there, I know about this place. That’s where the abalone was. Boy! That’s just when they were spawning; they were mating—eight, nine of them. You just grab the bottom one, work it loose, here you got eight, nine! We got 500 one tide. Peggy was getting up to here. ‘Hey, Peggy you better quit!’ ‘No, not yet!’ she said. First time she’s seen so many! (Ernie Wilson, Aug. 2008)
During the Skidegate verification sessions, Diane Brown mentioned that Jack Pollard once told her that he saw abalone travelling. He was near Jiinang.nga [Government Creek] when he saw a lot of abalone moving at a really fast pace (Jun. 2010).

One further ecological observation is that abalone don’t suffer from red tide – only shellfish that “dry up” in the intertidal zone experience red tide – abalone are too deep (Ernie Wilson, Aug. 2008). Captain Gold had the same observation about the depths at which abalone are usually found.

Abs don’t like to dry up. They like to be just below the extreme low tide ... all these [polygons] here are where the abs would be because it’s in the... active low water. You know what I mean? Because at times, these do dry up, but that’s when it’s a real low tide. And then you can go along in a boat and pick them right off the rock. (chuckling) That’s the way it used to be. Not anymore. (Captain Gold, Mar. 2009)

**Abundance and Population Trends**

At this point it is already abundantly clear that the abalone which used to be widely distributed throughout the islands of Haida Gwaii are no longer found in many of their usual places.

We’ve explored all over Kunga, this island, on our boat. And there’s just seafood all over there; there used to be. Now of course there’s no abalone. Even...when we last started going, even the sea urchins were getting scarce. (Diane Brown, May 2007)

... there was never a limit or anything; you just went to the beach and you got what you needed. Nowadays, you can’t even barely get anything, right? But they’ve noticed a big depletion in like the abalone, the herring, the salmon... (Wally Pelton, Oct. 2008)

... we did ab [survey] diving, I don’t know, so many areas when we did that and there’s no abs. Like what the biologists thought would be really primo ab territory? Nothing. (Tommy Greene, Oct. 2008)

The dramatic decline in abalone abundance that Haidas have witnessed over the last thirty years appears to be widespread and common to most areas of Haida Gwaii. Even the formerly productive areas of the south have experienced this decline.

There’s no more abalone anywhere down south, even like ten years ago there was lots here and there—like, little pockets of it—and then when you go back the next year they’re all gone. Just like...not even one left. In places, like on House Island there’s none. There used to be lots...all in here. And then on Ramsay, there were lots on these reefs here; they’re all gone. Here, they’re all gone. There was some down further south around Burnaby; now there’s no more. No more there. Rock scallops are pretty scarce, too. Well, I’d see some but...when you think of how old they are I just couldn’t gather them anymore because there were so few. Like twenty years ago, you’d think nothing of knocking off three or four and getting enough to eat, but I think twice now. (Diane Brown, May 2007)

Yeah, we dove ... all along in here—Louscoone, Flamingo—there used to be a lot of abs in Louscoone. I remember from herring fishing, going out and getting feeds [1980s]. We went back and at those spots there’s nothing. (Tommy Greene, Oct. 2008)
The decline of abalone is often attributed to intensive commercial harvesting in the past and continued poaching since the commercial harvests were shut down in 1990. The majority of our participants said they haven’t harvested abalone for at least ten to fifteen years, “… I don’t even get a feed any more… after seeing how few there are,” (Tommy Greene, Oct., 2008); “No, not when it’s restricted, because… it’s depleted. I think from after they commercialized everything, we’ve lost all our abalone,” (Margaret Edgars, May 2007).

“In all the years I went down it was good; you could go get a meal anywhere… at low water, you could grab them… that was in the eighties, eh? Late… in the eighties. … Yeah, because… after that I seen it drop, drop, drop, drop. Like, you know, you could go to an island where you used to go get a meal for everybody and there was nothing. Little guys. No one took the little ones. But you noticed the years after it just seemed to all go.” (Rolly Williams, Feb. 2009)

Abalone numbers do not seem to be recovering despite fishery closures.

… I’ve looked for [abalone] and the numbers … they seem to be continuing to go down. There’s a few spots were you’ll find them but … not like it used to be. Even … well, I know the commercial fishery that took place where it, you know, really wiped them out was quite a few years ago, and that was before I even was spending any time down there, but even in my time I’ve seen the numbers still… going down. So I don’t know… you hear stories about them being poached all the time. So I don’t know if it’s that or if they’re just not repopulating themselves. I don’t know, but there’s something going on there, that’s causing them to not… come back. (Ernie Gladstone, Nov. 2008)

**Abalone Distribution and Harvesting Areas by Seascape Unit**

The many islands, reefs and rocky islets that make up Haida Gwaii can provide a wealth of habitat for a species like Northern Abalone. Many Haidas remember a time when abalone could be found throughout Haida Gwaii; “… wherever there’s a reef there used to be lots of abalone…” (Ernie Wilson, Mar. 2007).

Figure 1 shows some of the abalone observations and harvesting areas identified during the Haida Marine Traditional Knowledge Study interviews. Due to the sensitive nature of the spatial information, actual locations have been masked with random radial buffers. Locations of single and/or multiple occurrences may be within the boundaries of the masked areas.

“[Abalone] can be anywhere too, eh? Anywhere in the shallows, but what I’ve noticed when I’ve been diving is—we used to dive and get a feed of abalone—but now… I don’t see enough to pick.” (Monte Stewart-Burton, May 2007)
Figure 1: Map showing abalone observations and harvesting areas documented during the HMTK study. Actual harvesting locations are masked with random radial buffers.
The historic widespread distribution of abalone meant that they have been a widely available and reliable food source for Haidas for generations. While we have documented evidence of abalone being preserved on a larger scale for storage and trade, most commonly abalone tend to be harvested at convenient places and are taken in small quantities as a source of fresh food while harvesting a variety of other species. This fact has necessarily influenced the distribution of abalone documented by this study – we have a higher representation and more knowledge documented about abalone habitat located in proximity to other harvesting areas, close to camps and travel routes, and in locations where it is safe and easy to harvest; fewer locations were identified on the west coast where conditions can be rougher and sites are more exposed. Where possible, we have tried to indicate areas that were known to be particularly productive or rich habitats, but this is one topic that would benefit greatly from future research.

In this section, abalone distribution and harvesting information has been organized into the relevant Seascape Units used for marine planning by the Haida Marine Work Group.

**Dixon Entrance**

Some of the areas mentioned as formerly good for abalone were around Langara Island and along the north shore of Graham Island between Cape Knox and Striae Island. Many Haida elders remember harvesting abalone while staying at Langara (North) Island years ago. Francis Ingram used to go to Langara as a child for the summer seasons; abalone was part of what they harvested and lived on while there, “The whole summer right from probably April until September. We stayed down there, food-fished ... seaweed, mussels, abalone—just about everything you can get down there—all our halibut, all our salmon,” (Francis Ingram, Nov. 2008).

Percy Williams mentioned getting abalone in the 1930s and 1940s nearby, “...in behind Henslung Bay... behind that island, around in there,” along with mussels, chitons, and sea urchins, “Everything in that little bay,” (Percy Williams, Sept. 2008). Tom Hans, Edgar Sills and John Bennett also shared memories of harvesting and eating the plentiful abalone in the waters near Langara. One small island in particular was often identified as an important abalone harvesting area.

... abalone beds were pretty well all over the place. You know, not much but enough. At ... [location]? Right on the outside, this rock right here? We used to pick them at low tide, zero tides. We’d go get enough to eat.... But this whole beach here...you can get enough, more than enough, right there. (Robin Brown, Apr. 2007)

Unfortunately, most of these experiences now only exist in memories as the abalone have all but disappeared from sites around Langara.

I remember where the abalone sites were ... right in here. Now we can’t even get any. It’s just sad. We used to get them by big sackfulls [by Langara]. Yeah. Now we can’t even get anything. (Margaret Edgars, May 2007)

“There used to be lots of abalone, but you never get it any more ... they cleaned it out.” (Claude Jones, May 2007)

Apart from sites around Langara and on nearby islands, there were also plenty of abalone beds along the north coast of Graham Island. Traditional Haida village sites such as Kiusta were often located in very close proximity to some of these harvesting areas.
... abalone beds ... where I remember I used to get them was right in here, all Langara, where the reserves are on the island. Kiusta, right out in front of Kiusta is an abalone bed there. ... Naden...right here—there’s a little island right here ... where we picked seaweed. There used to be lots of abalone there until the commercial sea urchin divers came through and cleaned it all out. (Rolly Williams, Mar. 2007)

Some other areas mentioned as having a lot of abalone were Cape Edenshaw, between Mary Point and Jorey Point, the Mazarredo Islands and also Nankivell Point. Closer to the Massett townsite, a number of important abalone harvesting areas were identified by participants; Striae Island was one such place.

All along here used to be abalone; people used to gather it. It’s called Striae Island. ... this little island right here is called Hidden Island... we used to get abalone ... and devilfish.... Right there, like that, and all the way down. That’s where we used to gather when we were allowed to gather it. But we only used to take enough for like a meal, for two families. Never got greedy. (Rolly Williams, Mar. 2007)

Reynold and June Russ used to gather abalone at Striae Island also. The last time they were there was in the 1950s, “...it used to dry up and we used to try to poke the abalone off the rocks... Gee, they were just tight together like this... You had your pick! Leave the small ones alone and get the big ones,” (June Russ, Jul. 2007). Reynold and June also told us about another productive abalone area very close to Massett where they could harvest abalone on the lowest tides.

And the biggest butter clam bed is on the north beach of Massett...that’s the biggest butter clam beach that I know of. You can get butter clams. You can get cockles... and you can get octopus... and all kinds of mussels and we used to get ...abalone there, but this was just on zero tides ...

(Reynold and June Russ, Jul. 2007)

Reynold and June said that the whole area from Entry Point to Chown was equally productive, “...from Entry Point to Chown Point, about halfway out, you could get a lot of seafood... anything you want...” (Reynold Russ, Jul. 2007). A number of elders talked about abalone washing up along with scallops, clams and cockles on North Beach during winter storm events.

...Yakan Point...that’s another place...you can get...rock cod and... you can get chitons. If the tide’s big enough you can get sea urchins. And ...you can also get abalone there, too...twice now that’s happened, in the winter months... one time we were out there with Adelia and Uncle David, June and myself ... picking below high water and ...of course you know, there was a big pile of kelp. So I pushed the kelp aside and I seen one abalone sticking ... I’m not sure if you’ve seen the peat moss bags? You know, they’re about that big... and anyhow... we started using sticks and pushing the kelp away and talk about abalone! All de-shelled. No shells on them ... so we were busy. They would be picking it and Dave and I would be running it back to the car, eh? Filling up the peat moss bag. And we filled it right up plus a five gallon can. Oh, we got lots of abalone... and another time Harvey and I was out there and ... you know, there was lots of butter clams on the beach. I thought of the abalone, so I walked over and... I raked it and didn’t get very much but there was still lots there yet. Still lots, you know, I got quite a bit. (Reynold Russ, Jul. 2007)
**Hecate North**

Heading south from Sandspit down the east coast of Moresby Island, many different areas were identified as being very good for abalone, very plentiful. Traditionally, families from Skidegate would move south in the spring to places like Cumshewa and Selwyn Inlets to harvest seafood; abalone was one of the staples harvested in this area. Tom Hans talked about getting seaweed, halibut and abalone just offshore from Cumshewa and Skedans. Norman Price remembers wintering in Cumshewa where his family had a longhouse and they would fish and gather seafood:

...we built a longhouse here. And there was a lot of seafood all the way along here. You didn’t have to go very far for seafood, just walk from the cabin and you got seafood... abalone, sea urchins... chitons, too (Norman Price, May 2007)

...I can’t remember exactly what year it was we started... driving to Cumshewa and launching the boat and going all around in Cumshewa Inlet ... going to Cumshewa village for clams and *guuding.ngaay* [red sea urchins] and abalone. [Father would] also troll for coho and... in there.... there’s a spit that dries up. Yeah, so we’d get clams around here ...and we’d get *guuding.ngaay* and abalone out on the reefs out here. ... And then we started venturing further and further, like from Cumshewa to Skedans and staying at Skedans, and harvesting ... clams and abalone and... sea urchins. (Diane Brown, May 2007)

Many areas around Louise Island were also identified as having good abalone habitat. Limestone Island, Vertical Point, Louise Narrows and Rockfish Harbour were consistently said to be productive areas for harvesting. Ernie Wilson talked about trapping in Louise Narrows when he was much younger, and said there used to be thick patches of abalone in some places. This observation was made in the 1960s by Percy Williams, “Biggest abundance of abalone I ever saw on the island was right here. For area, little area, just loaded with abalone—right in there, behind the island. I don’t know if it’s still like that,” (Percy Williams, Sept. 2008). The location referred to by Percy was mapped not far from Rockfish Harbour. A more recent observation suggests that this was still a productive area for abalone, thirty years later:

... I went for abalone in here—this was probably twenty years ago now—[near] Rockfish Harbour? And this was in the fall because I was out there hunting actually. But I went and got a bunch of abalone and there was a whole bunch of abalone right along the shore. And then I went back there again the following spring and there was none... (Ernie Gladstone, Nov. 2008)

There is little evidence of this former abundance remaining today.

And of course out here was abalone, abalone. South Low and Low Island also. Real rich with abalone one time. Wiped out in the seventies. Still never recovered. *Tah!* That place used to be so rich, you stop on one little rock and if you wanted to you could pick up 80 in one time. Just for the heck of it. And still leave lots. (Captain Gold, Mar. 2009)

**Gwaii Haanas**

Many of the areas visited by Haidas in the southern parts of the islands are now encompassed by Gwaii Haanas National Park and Haida Heritage Site. This area is extremely rich

“[There was] so much abalone it didn’t matter where you stop, you’d get a feed of abalone. When we were seal hunting, we’d run out of bread, so we used abalone for bread. There’s so much around.” (Roy Jones Sr., Apr. 2007)
for many types of seafoods. Some of the sites mentioned most consistently for abalone in the park are near Hotspring Island, Murchison Island, Marco Island and the Bischof Islands.

“Okay, lots of shellfish in here, on the Bischofs—abalone, clams, scallops...circle the whole Bischofs. Yeah. All around there there’s a bit of everything in along the shore here, too...because like all mussels, too, that would be the other one that they’re...Yeah, just around to about that point there...is as far as I went. Yeah. It’s a good place.” (Ed Russ, Jul. 2008)

Figure 2: Photo of Bischof Islands, Juan Perez Sound.

Elder Percy Williams used to gather abalone and other shellfish in the area in the 1930s.

Piles of abalone here. Hotspring and Murchison Island and...there’s a lake in there and there’s lots of abalone and clams in there ... Lots of abalone here, Bischof. All the way around... There’s clams; there’s a lot of clams. There’s a sandy beach up here; a lot of clams there... There’s abalone here, too. Behind the island there... Not a lot, but you can get enough to eat. (Percy Williams, Jul. 2008)

Going to Hotspring and enjoying a feed of abalone while there is an experience cherished by many Haidas.

...the cohos would be coming in in August when we were down there hunting so we got a few...coho, but basically we were there in the month of August for the deer hunting. We’d only take about ten days, and then we’d have everything we wanted and then [we’d go] back because grandfather had to go trolling...to...make some money...but we always took that time out. [Of] course it was always planned in with the big tides too, because then we could go out and get a bit of abalone and that...before the restrictions came on...we travelled all over down there. We’d end up even at Hotspring and we’d gather enough for a feed—we’d always have a little sack hanging off the side of the boat—eat it whenever we wanted. (Herb Jones, Mar. 2007)
Many specific areas around the Lost Islands, Tanu, Richardson Island, Darwin Sound, Shuttle Island, Lyell Island and Thurston Harbour were also mentioned as having rich abalone habitat.

Oh, yeah, Tanu… there’s reefs all out over there. There used to be lots of food. Now, I don’t know; I haven’t been there for a long time but all along these reefs here... just like guuding.ngaay [red sea urchins] right in front of the village. And there’s reefs where we used to be able to get abalone and rock scallops, but I don’t know about any more. (Diane Brown, May 2007)

Percy Williams harvested abalone for food while seal hunting near Murchison Point, “Yeah, there’s abalone here… Right there. They’re like this—little things. Real lots of them. Right in here in this shallow spot...” (Sept. 2008). While Percy’s observation was from his youth, some participants spoke of abundant abalone near this area even in more recent times; “…and of course abalone all through there... When was it? Early eighties they overfished the abalone? It was just before that. Around 1980 I would guess...” (Wally Pollard, Jul. 2008).

Diane Brown said she remembers “just hundreds of abalone” in the surrounding areas (May 2007). Unfortunately, like the areas formerly harvested around Langara Island, this abundance of abalone may now be a thing of the past.

Yeah. This area’s really good for... used to be really good for abalone and scallops too—this whole Murchison Narrows area. And then this... right at the mouth of this little lagoon too... just two years ago. I had my kids down there and we were just drifting around here at low tide, just you know, showing them all the stuff... and I never saw not even one abalone in there. (Ernie Gladstone, Nov. 2008)

And here’s the Hot springs... all along here there used to be abalone and urchins galore and we used to stop in this one here—just Marco it’s called. Marco we used to stop to... pick abalone for our food fish, years ago, and there’s nothing there now; it’s cleaned out. (Robin Brown, Apr. 2007)

Further south still, Burnaby Narrows was another area Haida families often went to gather food. According to many of the HMTK participants abalone could be harvested along the shores from north of Dolomite Point to Burnaby Narrows, all around Alder Island, Huxley Island and Wanderer Island, and generally throughout the surrounding area; “There’s so much there you don’t even have to go anywhere

Leah: And did you guys collect any seafood while you were there [Hotspring]?
Diane: ...yes, of course, wherever you went. If the tide was good...you collected. And that would be abalone and mussels and sometimes they would bring that up to the beach and after you were bathing, everybody would feast on abalone.

Leah: Did you eat it just raw?
Diane: Yeah, eat it raw and then they would cook some. And just throw them in the shell into the fire. Yeah, that would be pretty good. (Diane Brown, interviewed by Leah Young, Apr. 2007)
else.” (Roy Jones Sr., Apr. 2007). Many families would stay in the area for months on end, harvesting a wide variety of species.

*K’iid, we call it, Burnaby Narrows. K’iid. Just about everything there—there’s mussels, there’s abalone, sea urchins, clams—millions of clams there. If you wanted cod, you just paddled offshore a little ways and got cod. Food in abundance, lots. (Percy Williams, Oct. 2008)

Diane Brown talked about the same experience—staying at Burnaby Narrows in the spring and getting abalone, along with other shellfish, in the area. Lonnie Young also remembered going to Burnaby Narrows with his family to food-gather, “... guys would go out fishing for halibut, we’d go along the shore, get abalone, clams, smoke the clams,” (Apr. 2007). He said that most often the abalone were “...just for eating...just sustenance for that day, type thing...” (Lonnie Young, Apr. 2007). But like stories from the northern part of the islands, some of our older participants remember harvesting and preserving larger quantities of abalone. Sometimes surplus abalone were traded.

Other gathering areas included the Copper Islands, Bolkus Island, and from Jedway to Bush Rock. Few of our participants had extensive experience fishing or gathering on the very southern end of Haida Gwaii, however Percy Williams told us about getting abalone in places such as Louscoone Inlet, Flamingo Inlet and Carpenter Bay in the past. His experiences spanned the 1930s to 1970s, “Yeah. Flamingo Inlet in here. Real huge abalone in that. Real big ones... Mostly around this area. ... I don’t know if they’re there still; there must be a few around there,” (Percy Williams, Jul. 2008). According to Tommy Greene and Ernie Gladstone – two of our younger study participants – there were also productive abalone areas in Houston Stewart Channel. This observation comes from Gaudin Passage:

... when I first started the [dive] surveys it was loaded with abs. [Now] nothing. Nothing. ... But now diving, going doing surveys through there there’s nothing; no abs at all. This [was] ... when they first started putting that longhouse in? On Ellen Island? I don’t know what year that was. So I helped put that in and you could see the abs all over, like the water went out.... it didn’t even have to be a real low water. And then we did surveys through there and they’re gone. I don’t know what’s happening. ... like we searched all the primo spots where the biologists thought would be abs—where there’s kelps... kelp growing—kelp forests, and there would be nothing. Because they like kelp. Ah, I think they got poached... (Tommy Greene, Oct. 2008)
Captain Gold and Bert Wilson – brothers who often fish and gather around South Moresby and Kunghit – mentioned Howe Bay, Luxana Bay, High Island, Heater Harbour, Rose Harbour and Woodruff Bay as some southern areas where they would consistently find abalone, “... right from the middle of Treat Bay on the east side all the ways out to Bowles, Prevost Point, is ... one heavy, rich food area—lots of abs,” (Captain Gold and Bert Wilson, Mar. 2009). They also mentioned Sgang Gwaay, Cape St. James and the Kerouard Islands.

**West Coast**

Despite generally rougher conditions on the West Coast of Haida Gwaii, participants nonetheless named several sites known to be good for harvesting abalone. Heading down from the northwest tip of Graham Island, many named Lepas Bay as the first place they would find abalone.

Yeah, Kiusta, all along the bank here, right here... and then we used to go on the other side, in Lepas Bay; we used to be able to get some...right out here... and right out here. I don’t know what they call this but we used to...go across there and get mussels and abalone and that for Rediscovery when we first started. (Rolly Williams, Mar. 2007)

Reynold and June Russ also used to get chitons, butter clams, abalone and sea urchins at Lepas Bay. Port Louis was identified as another West Coast location that can be very productive for abalone.

... I was up here on a couple of other trips too, just on my little boat, and we stayed in this little bay where that lodge is now ... The Outpost or whatever it is—that ... sports lodge? ... I just had my little boat, so we mostly just explored around in Port Louis. But I remember ... and there’s a lot of abalone in there... (Ernie Gladstone, Nov. 2008)

During the Old Massett verification sessions, it was noted that the abalone have been harvested out of Port Louis now (Jun. 2010). Further south, Percy Williams mentioned getting some abalone by Hippa Island and several people told us about harvesting abalone at locations between Rennell Sound and Buck Point. Our oldest participant, Ernie Wilson, used to get abalone while fishing salmon in Seal Inlet on the west coast.

Rennell Sound, yeah. This is Seal Inlet... we used to have camp right in here. Yeah, our people used to camp there, to fish all along...right along here... them days, used to be lots of abalone here on the points. [We would get] ... just enough to eat, that’s all. Yeah, sometimes we’d just use a spear, pick them up and chew on it... (Percy Williams, Mar. 2007)

Frank Russ said his brother-in-law reported getting abalone and rock scallops in Shields Bay in the past, but that the abalone are very sparse in that area now, “No, we never got any out of there the last time we were there... we didn’t even see much—see some small ones but nothing worth taking,” (Frank Russ, Dec. 2008).

Several participants mentioned harvesting abalone for food in Van Inlet, Dawson Harbour, and at Downie Island in the West Narrows of Skidegate Channel in the past. Many people could not give recent observations of abalone in these areas, as they said they hadn’t harvested any since the 1990 closure, and so had for the most part stopped looking for them. However, there were memories of previous harvests in other areas of Rennell Sound, in Skidegate Channel, near Buck Channel and near Skidegate Point.
**Skidegate Inlet**

The HMTK study documented very little information on abalone within Skidegate Inlet. Several participants mentioned that there used to be abalone at the West Narrows, Alliford Bay, *Sgaay.yas*, Grassy Island and other islands in Skidegate Inlet. As previously mentioned, some transplanting was done in this area in the mid-1970s, but we were not able to confirm whether the transplanted abalone have established a population.

**Management Issues and Suggestions**

What was once a common food source around the waters of Haida Gwaii has now declined to the extent that some of the younger generations of Haida have never tasted abalone. It is important to communicate how significant this loss is in Haida culture.

**Cultural Value and Statements of Loss**

Many elders interviewed here said it used to be their favourite food. Our older participants were accustomed to being able to get abalone when they wanted it, and so the loss is perhaps most painful to them.

> [It] seems to have struck everybody terribly that they’re gone. It’s just horrible. In my twenty-eight years as a community health rep, when older people were getting ready to move on to the next journey, they always wished for abalone. And it never hit me harder than when my father just died in March and the last thing he asked for was abalone...and we can’t get it to them... Yeah, I would’ve liked to...say, ‘Oh, no problem. I’ll send somebody out and get one for you,’ but you can’t. (Diane Brown, May 2007)

That’s an interesting subject, is abalone. That was traditional food, not only for the Haida people, but for you know, up and down, the coastal people ... and because of the way it was managed by DFO, it was over-fished, and you know, that’s taken away from the aboriginal people—our traditional food ... I could remember when you know, we would take maybe twenty at the most, and mum would slice it and can it. And that was part of what they did when we all moved to Langara. And it being a traditional food, but today, we get even one abalone, we pay a heavy fine for it... so you know, that was taken away from the aboriginal people. (Reynold Russ, Jun. 2007)

The loss is both nutritional and socio-cultural, as in many First Nations communities, traditional knowledge is passed on to the younger generations through shared experience; opportunities to teach youth traditional methods of finding, harvesting and preparing abalone do not currently exist. To date, no valuation of the loss of abalone to First Nations has been attempted. Although it is insufficient to describe this loss solely in financial terms, both the socio-cultural and economic costs associated with the loss of abalone need to be considered in management efforts.

**Past Commercial Harvests**

While the decline of abalone is possibly affected by other factors, amongst the Haida communities it is most often attributed to large harvests in the commercial fishery.
Fisheries don’t seem to know when to shut down anything. When they open anything for commercial they don’t study it long enough, I guess. I don’t know. But they just let them go until it’s almost finished. Then they try save it and they won’t allow us to touch it after. They’re the ones that ruin everything and then we suffer for it. (Roy Jones Sr., Apr. 2007)

We used to get abalone along there … we’d stop and pick them up. Cruise along the shore and a lot of these rocky places you pick up abalone—just on low tides. It’s almost every little rock and little reef and rocky point of land and around an island … we used to find it everywhere. And then in the seventies when they did that big harvesting, wiped out lots of abalone places … it should be noted in everything. Like … just the places I described, like they’re all over the coast, and that’s what you find them around. And then they’re all gone; commercially harvested in the seventies. Wiped everything out … like around all the islands, all the rocky points, all the rocky locations, all the kelp areas and so on. Everywhere. … it’s almost all gone by the seventies, by commercial harvesting. Used to… stop anywhere and pick up abs … sit in the canoe and just go along the shoreline and throw in an ab or two and keep going. (Captain Gold, Mar. 2009)

…when they did that abalone run around here, we lost out on a lot of stuff that we generally got, and I heard the stories from my uncles too, who were out on the commercial roe on kelp…they’re the ones that notice it the most because they really food gather down there, you know, all our stuff that we don’t get in the inlet here—and they’re the ones that noticed it the most…when the abalone divers went around the island. They were the ones screaming the hardest too, but nobody listened. (Ed Russ, Jul. 2008)

During the HMTK interviews we heard this sentiment expressed repeatedly. There is a deep sadness over the loss of a traditional food source, as well as a frustration in regards to the management of the commercial fishery and the lack of Haida involvement in it.

…and we used to harvest enough…it was a delicacy for not only the Haida people but for the coastal people. And a lot of interior people, when they come out fishing, gillnetting, they had areas where they went over the mainland to harvest abalone. But they only took enough that would last them, you know, the winter months …and that’s what the coastal people did too…they never over-harvest abalone. But somebody found that there was a big market for it, so they got the Fisheries to open the commercial harvesting of abalone. But there was no limit on it. (Reynold Russ, Jul. 2007)

Poaching

Despite the closure of the commercial fishery, there seems to be no sign that the abalone are recovering. A continuing problem is perhaps poaching; “…it would be nice to get the abalone back, but it doesn’t seem to be able to rebound with the black market,” (Judson Brown, Dec. 2008).

Poaching too, after they got wiped out. You know it got wiped out by the licenses pretty good. I remember seeing bags and bags of abalones when we were down doing K’aaw. They still had legal licenses, but I don’t think any Haidas had… not one of them. And then what was left, the price got driven up and people just were greedy. (Tommy Greene, Oct. 2008)
... I went back there again the following spring and there was none... So I was thinking ... either they migrate ... or they’re being poached; I don’t know... it was different seasons when I was there, so maybe they move away from there during a certain part of the season. (Ernie Gladstone, Nov. 2008)

One HMTK participant participates in dive surveys for abalone and had the following experience;

...when I first got my [dive] certification, there was a guy asked me [in] Rupert there—I can’t remember his name—but he had two boats, a helicopter and a plane, and he asked me if I’d go get abs with him. I just said, ‘No.’ (chuckling) I should have turned him in, I guess but I didn’t think it was that bad way back then. (Tommy Greene, Oct. 2008)

Some suspect that commercial divers for other shellfish species are partly to blame.

People were supposed to be picking sea urchins under the sea urchin license, but they were high-grading and taking the abs and burying it under the sea urchin and then selling it off. That’s why we lost ... all the abs all along the coast. (Captain Gold, Mar. 2009)

... [the decline is caused by] commercial fishermen, going under the... pretenses that they’re sea urchin hunting. But in reality they were all taking abalone obviously, because there’s none left. Very, very sad. (Diane Brown, May 2007)

There’s lots of urchin fishermen around there too, around winter, so they’re taking out a lot. Abalone too, I think they get; they hi-jack the abalone. (Vern Williams, Jan. 2009)

During the Old Massett verification sessions, it was suggested that the only way to eliminate this illegal harvest by commercial divers would be to close the fishery (Jun. 2010).

**Pollution and Habitat Destruction**

While Haida Gwaii’s remote location and low level of development may minimize the role that habitat destruction plays in the survival of abalone, there were a few concerns voiced during our study that localized pollution near towns and lodges, logging activities, and dredging may be having an impact.

... you know, there used to be ... an abalone bed here [at Langara]. We used to gather for food and what happened was when these fishing lodges got in there ...DFO just went ahead and ...they just blanketed this right out and said that because of the pollution that these things were causing that you couldn’t gather any food in there anymore so... now you can’t gather anything in there. (John Bennett, May 2007)

Yeah, there used to be lots of abalones all along the shore them days. Yeah, guuding ngaay [red sea urchins]. Yeah, clams. No cockles though, down there. ... all different kinds down that way. Rock oysters, scallops... that sea cucumber was good eating, yeah... Just along the beach any place. Yeah, even out here there used to be lots, on the island, but that’s no more. All gone. I guess there’s too much chemical flowing in the inlet nowadays—that’s what I think. (Ernie Wilson, Aug. 2008)
There was one participant that said dredging around Louise Narrows has impacted abalone habitat so that it is now only found along the shorelines outside the dredge area (Captain Gold, Mar. 2009).

**Areas to Protect**

Several participants identified specific areas that they think would be important to protect for the benefit of future generations of Haida. Many of the areas are located down the east coast of Moresby Island, such as Burnaby Narrows, Cumshew, Skedans, Hutton Inlet, and Kagan Bay.

> Burnaby Narrows for sure—Burnaby Narrows and Hutton Inlet—there’s a lot of clams and abalone and blue mussels. And where else? Richardson Passage—it’s a tiny area but there’s a lot of shellfish there. There’s... rock scallops, blue mussels, abalone, sea urchins—everything there, just like Burnaby Narrows. It’s just a tiny area and there’s everything there... Cumshew Inlet, too. Cumshew Inlet including Skedans Island. That’s about it I guess, on the east coast. Skincuttle Inlet. (Percy Williams, Oct. 2008)

This topic would benefit from further research in the Haida communities. Some other future research and management opportunities are briefly outlined below.

**Recommendations for Further Research**

As indicated earlier in this document, gaps exist in the Haida traditional knowledge of abalone that was documented as part of the broader HMTK project. Because Northern abalone has been identified as a species at risk, we recommend that further traditional knowledge interviews specific to abalone could be conducted to address these gaps. Some topics that would benefit from further research are habitat and ecology, trends in abundance, and Haida stewardship methods. The study methodology, including the informed consent process and ways of protecting sensitive information, should follow guidelines outlined for the HMTK study (HMTK Participants et al., 2011).

Some of the Haida traditional knowledge about abalone that was documented by this study has been incorporated into action and recovery planning under the Species at Risk Act. This was a pilot project to explore including traditional knowledge in these types of documents and planning. Suggestions for specific research questions are outlined in those draft documents.

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2. Clams and Cockles

Shellfish have long made up an essential part of the traditional Haida diet. This fact is evidenced not just by prehistoric middens but also by a continued reliance on shellfish in contemporary times. There's also a cultural connection to the shellfish – the clam shell in particular has a significant place in one Haida origin story, as captured in the Raven and the First Men sculpture by Bill Reid depicted on the cover. According to legend, Raven found himself alone one day on Rose Spit, where he saw an extraordinary, partly open clamshell. Protruding from it were a number of small human beings. Raven coaxed them to leave the shell to join him in his world. They eventually emerged to become the first Haidas. Today, the descendents of those first Haidas keep in mind their connections to the sea and the harvest of seafoods continues to be guided by the principle of taking only what you need.

Blackman included shellfish observations in her overview of northern Haida resource use.\(^6\) She recorded that shellfish were usually consumed fresh, but cockles, purple-hinged rock scallops, butter clams and northern abalone were dried for winter use. At the end of winter, in the November to March period of relative resource scarcity, she suggested that shellfish were likely a critical food source. She also determined that proximity to shellfish resources was a key factor in the location of Haida winter village sites (see Blackman 1990). There are dozens of species of shellfish or marine invertebrates that are traditionally used by Haidas. We have limited the species described here to those listed in Table 1.

**Table 1: Clam and cockle species discussed in this document, including Haida names when possible.**\(^7\)

<table>
<thead>
<tr>
<th>Common Names</th>
<th>Massett Haida</th>
<th>Skidegate Haida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clam (unspecified species)</td>
<td>k’yuu</td>
<td></td>
</tr>
<tr>
<td>Butter Clam</td>
<td>k’yuu</td>
<td>kaaga/kyuu/k’yuu</td>
</tr>
<tr>
<td>Native Littleneck Clam</td>
<td>k’aak’a</td>
<td>k’aaga</td>
</tr>
<tr>
<td>Razor Clam</td>
<td>k’amahl</td>
<td>k’aamahl</td>
</tr>
<tr>
<td>Horse Clam/Shell</td>
<td>skaw</td>
<td>skaaw</td>
</tr>
<tr>
<td>Cockle</td>
<td>sgyaal</td>
<td>sgyaal</td>
</tr>
</tbody>
</table>

It should be noted that it is common for Haidas to call native littleneck clams butter clams. The term “clam” most often refers to butter clams, but could also include littlenecks. Because of this, it is difficult to distinguish between them in the study findings, and for the most part we have compiled the information for these two species.

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\(^7\) Spellings from Skidegate Haida Immersion Program; Rhonda Bella; and N.A. Sloan, P.M. Bartier, and W.C. Austin. 2001. Living Marine Legacy of Gwaii Haanas. II: Marine Invertebrate Baseline to 2000 and Invertebrate-related Management Issues. Parks Canada Technical Reports in Ecosystem Science No. 35.
Clams and cockles are distributed patchily around the islands of Haida Gwaii due to their habitat needs. For the most part, butter clams and littleneck clams occur in more sheltered bays and require a sandy habitat. Cockles may share this habitat but are not as common. Razor clams are only documented in abundance on North Beach and down East Beach south of Rose Spit; this species is restricted to exposed, high wave energy sand beaches. Horse clams and geoducks are found in the intertidal and subtidal zones, and were only occasionally harvested by Haida people. In addition, there are pink coloured clams that are called ‘sunset shells’ but the species remains unconfirmed. We have not included any information on other invertebrates or bivalves such as mussels or scallops here, although they also make up an important part of the Haida diet and are important to marine planning.

**Haida Harvest, Use and Stewardship of Clams and Cockles**

Clams and cockles are harvested with either a shovel or a digging stick called a *dla*gu (*M*)/*dll*gu (*S*). Shellfish like these may be gathered by either men or women; the harvest is not traditionally done by one gender more than the other. Haida people have harvested clams and cockles to eat them fresh and/or preserve them by smoking and drying for countless generations. Mary Swanson said clams would be smoked about the same amount of time as salmon, dried, and then stored in cedar bentwood boxes called *guda* (*M*)/*guuda* (*S*).

“... everybody used to dry clams, whatever they could, they used to put their clams into long narrow sticks, smoke them and then dry it for the winter... *k’yu*, butter clams... there was a sandy beach ... It was in front of *Kiusta* a little ways at Yaku.” (Mary Swanson, May 2007)

All species of clams and cockles may be smoked and dried, canned or frozen. These days, people say they mostly freeze clams or use them fresh in chowder and fritters. They are often harvested in large enough quantities that any surplus can be given away or traded, once the immediate family’s needs are met. June Russ described how people would share their harvests; “... we used to go digging butter clams in Naden. Bring them home by bag-fulls, gunny sack-fulls, and give it out to the elders here,” (Jun. 2007). Clams are also traded with mainland nations for eulachons and eulachon grease and given away at potlatches.

For many elders, dried seafood like clams and cockles were seen as a treat when they were younger; “...that’s all we were raised on for snacks, not junk food—was *ts’iljii* [dried fish strips], *k’aaw* [herring spawn-on-kelp], *sgyu* [seaweed], dried clams... so I try have it out on my counter whenever the kids are around because I don’t believe in sugar and junk like that,” (Robert Olson, Apr. 2007). Mary Swanson also told how people used to use cockles as soothers for babies.

Old people used to say when the ladies are busy, they used those cockles, *sgyaal*. They said they cooked them and they tie it up with cedar bark, really thin, and put it in the kid’s mouth like a soother ...fresh [cockles]. They said while they were busy on their fish-drying they used to do that. (Mary Swanson, May 2007)
Today, in addition to their important food use, fresh clams are often used as bait, as are cockles – Wally Pollard’s grandmother taught him how to cut cockles into little pieces to catch Skidegate sole when he was younger.

**Butter Clams, Littleneck Clams and Cockles**

Butter clams and littleneck clams are widely distributed throughout Haida Gwaii and therefore may be harvested in many different locations. The timing of their harvest however is generally restricted to non-summer months, roughly from September to April.

You can just go get butter clams for your own use in November, December, January, February. And you can’t go getting it for your home use when the dandelions start growing, because of what they eat. The insides are all black inside of the butter clams when it starts feeding. (Margaret Edgars, May 2007)

Old people used to say you quit eating [butter clams] when the ravens quit eating it. When they start eating it again, it’s time to go after it again... and another Haida belief is any month with no ‘r’ in it, you don’t eat shellfish anymore—except razor clams. (Claude Jones, May 2007)

In addition to following seasonal harvesting rules, most clam diggers also try to harvest only where there is a good supply of clean water; “...you’ve got to get them where the water runs through all the time...those clams, they get toxic if you get them where the water doesn’t run through all the time (Tom Hans, Feb. 2007).

Over the years, there have been small-scale or intermittent commercial fisheries for butter clams and native littleneck clams at various locations on Haida Gwaii. Burnaby Narrows was one site of a commercial clam harvest. Many Skidegate elders remember living there during some winter and spring months to take part in the clam-digging. While some of the clams were sold fresh to packers, others were dried for storage for food use.

...we used to dig clams down there and sell it. Packer used to come right to Burnaby Narrows, pack it over to the mainland. I forgot about that. Clams, we would sell. And my mum used to dry some, too...they’d dry it in squares, like that... you line them all up on a stick...they’re in rows, like that, and you put another stick to make it square, then you dry it that way. And then you store it for the winter...partly smoked. ...Yeah, we used to come here and live in February to dig clams. When Kinkles was just little, we used to bring a bathtub down the beach while we were digging clams, put blankets and a pillow in there and sit him on the beach while we were digging clams. You dig clams all along here, all around these islands, inside here, around here ... real lots in here; so many it seemed like two, three layers of clams there was so much there. ... [We used to] sell it by the pound, by the sack. The way we used to do it was we’d go down, dig the clams on a big tide, put them in sacks, and throw them in the water, and put a line on it. So when the packer comes all we do is pull up that sack and then bring it to the packer. (Roy Jones, Sr., Apr. 2007)

There were also commercial butter clam harvests at locations in the north, such as Kiusta and Naden Harbour.
**Razor Clams**

Contrasted to the widely-distributed but only seasonally-harvested clams and cockles discussed above, razor clams are very restricted in their distribution but can be harvested year-round for food. Razor clams are only found in quantity on the north coast of Graham Island. British Columbia’s only commercial intertidal digging fishery for razor clam occurs on North Beach; the razor clam population currently sustains commercial, food and recreational fisheries. This is an important industry for Massett Haidas. There are approximately 270 licensed diggers—of which virtually all are Haida. At a time when lifestyles were more finely tuned to the seasons, the commercial razor clam fishery acted as a driver in seasonal movements and resource harvesting patterns.

...as soon as the fishing season opens, they all go down to the North Island. Well, all our people living here, they all had fishing cabins down there. So the whole village used to move down there. Nobody left here in Massett. They’d move down there, the hand-trollers, and then the other bunch moved into Naden—crab fishermen and their wives working the cannery. And then some from here—whatever left moved out to Tow Hill—razor clam digging. They had a big cannery out there that time. So Massett was empty town when it’s summertime. (Stephen Brown, Jan. 2009)

Vern Williams Sr. said that his family moved to Tow Hill for the clam-digging each spring and would live out there until May. He remembers houses and stores—a small village almost—out at Tow Hill. Once again, people would dig clams both for commercial purposes and to meet their own food needs.

... like the razor clams. When we used to live out Tow Hill, when they had that cannery out there ... mum used to bring home the big ones. She used to clean it and dad used to run a mending line with a needle through the [clam]... and hang it up on a rack in the sun. Let it sun-dry really hard ... and then you put that away in a box, the same thing you do with the fish. (Willie Russ Jr., Mar. 2009)

The Tow Hill cannery was eventually relocated to Old Massett and the seasonal community on North Beach diminished. While commercial harvests for the canneries only take place in the spring, many Haidas still gather razor clams in that area today for food, year-round; “... almost all year for the food fishing, but for the cannery it was just March, April, May, June. I think it’s the first week in June that we probably quit for commercial use,” (Margaret Edgars, May 2007). Like butter clams, razor clams that aren’t sold to the cannery may be smoked and canned, frozen, or traded for grease and eulachons with mainland First Nations. People from Skidegate will often trade k’aaw to get razor clams from Massett harvesters. Razor clams are also used as halibut bait and to catch steelhead. We explore some of these topics in greater detail in the Dixon Entrance section of this chapter.

**Stewardship Practices**

Some traditional Haida harvesting practices may help to sustain clam populations, such as the seasonal harvesting abstention for the summer months.

| Reynold: …the belief that's been said many times, when there isn’t a letter ‘r’ in the month is when you didn’t eat it. When you check it out, it’s just about the time that the clams are spawning, eh? | June: May, June and July. |
| Reynold: Yeah, that’s the only time you don’t eat clams. But it doesn’t apply to razor clams. Razor clams you can eat it pretty well all year round ... But with butter clams andcockles and other shellfood, when they’re spawning, you don’t eat them. | (Reynold and June Russ, Jul. 2007) |
The harvest timing likely avoids both any red tide events as well as the clams’ spawning season; “When they’re spawning we don’t touch them. They’re too skinny... nothing to them,” (Captain Gold, Mar. 2009). Those that do harvest bivalves in the summer months tend to do so only when the weather is cold. They say the clams are healthy, even fat, as long as the weather is cold. Some people also say they traditionally quit digging when the clams “get small”; Dean Edgars mentioned this practice.

There is some evidence that First Nations have influenced clam productivity through the use of “clam gardens” – areas in which a natural clam bed is re-engineered with the use of boulders to increase the size of the productive area. A number of these types of sites have been identified in Gwaii Haanas. Today, Haidas are integrally involved in the cooperative management of the sustainable fishery for razor clams at North Beach, through the Haida Fisheries Program and the Council of the Haida Nation.

**Ecological Observations**

The HMTK study recorded relatively little new information about the habitat or ecological requirements or interactions of clams and/or cockles. We present here a very brief summary of some of the specific information that did come out of the interviews, but there were no prevailing concerns or consistent themes documented about changes to clams and their habitat, nor any conclusive observations in regards to population trends.

**Species and Habitat Associations**

No productive razor clam areas were identified in Haida Gwaii other than North Beach and the beach south of Rose Spit. There were observations of razor clams present at two locations other than the north coast of Graham Island: Lepas Bay is a site known for razor clams, where Haidas do harvest the shellfish; there were several reports of razor clams around Gray Bay, Dogfish Bay and Cumshewa Inlet.

In addition to having the most abundant razor clam population, North Beach reputedly has bigger cockles that any other area of Haida Gwaii. The cockles in the north are approximately 4-5 inches in size, and much smaller in more southerly areas. Cockles sometimes share the same habitat as butter clams and littleneck clams. Generally, in northern areas, these three species are found in sandy habitat and in rocky areas between boulders. They are often associated with octopus and abalone in these areas. These clams may also be found with black chitons and red and green sea urchins. Their habitat needs seem to be similar further south, where butter clams and littleneck clams are found on sandy beaches, as well as in tiny pockets along the shoreline in rocky areas. These clams are often associated with cockles, chitons, and octopus, as well as sea urchins and mussels at times.

All these delta creeks, whatnot, there’s always clams and whatnot out in front and all mussels—blue mussels I guess ... butter clams, littleneck, some of the green sea urchin. ... Rock oysters. Every creek seems like a lot of life seems to be near the freshwater discharge. (Captain Gold, Mar. 2009)

During the Skidegate verification sessions, one participant noted that cockles seem to be moving up the beach. Diane Brown said that she is now finding cockles higher up than she used to (Jun. 2010). Another

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interesting observation that was documented by more than one participant is a feeding behaviour that might be unique to McIntyre Bay halibut – that is, feeding on razor clams. Halibut caught in this area are at times caught with bellies full of razor clam siphons.

... when you’re fishing down towards Tow Hill along the beach there, from around May and June when we’d go down there fishing in the shallows. [The halibut would] be full of clam necks, about an inch long. Because in the warm weather, the razor clams, they’ll stick their necks out of the ground. They just go by and snip them off like scissors. (Henry Hageman, Mar. 2009)

It gave one participant the idea of using razor clams for halibut bait.

It’s really good for halibut bait. (chuckling) I didn’t know it was that good. The reason why I had the idea of doing that was when I was fishing on the... I think it was on the ‘Smith Sound’... a seine boat. We... came across from Rupert and we run our gear right along Rose Spit... real shallow. We left it overnight and next day we went to pull it up, we had 15,000 pounds on that one pull. And the halibut bellies were puffed up like that, full. I was... the gutter that time; that was my job was to gut and clean and ice, and... I threw one gut on the gutting table because I wanted to see what the heck they were eating—they had their bellies all full. Here it was...

I guess underneath the ocean, I guess the razor clams are so loaded under there, the end of them sticks up from the bottom? Yeah, them buggers are biting the ends off! That’s what their bellies were full of. So I was telling my nephew, Bobby, I was telling him, ‘I bet you that stuff’s good for halibut bait, the way their bellies are all full of it.’ One day I was going out to fish from here and I thought about that and I grabbed a little bit. I wasn’t sure—I had a lot of good devilfish bait so I wasn’t worrying too much about that. I took a little bit anyway. Holy cow! They bite it as fast as you put your line down! And I didn’t bring enough. When the razor clams was finished then the bite slowed right down. They like it way better than the... devilfish. (Stephen Brown, Feb. 2009)

**Abundance and Populations Trends**

Very good data exist for the North Beach commercial razor clam fishery. To date, the fishery appears to be stable and sustaining large harvests each year without any sign of decline. In fact, the 2007 harvest was reportedly unusually good; “That’s the most clams I ever seen, last year,” (Vern Williams, Sr., Jan. 2008). There were no indications in the interviews that razor clam size, health or abundance is changing. Similarly, there is no indication of any widespread change in butter clam, littleneck clam or cockle populations. The only trend that was consistently mentioned during the interviews was localized impacts on shellfish from over-harvesting or pollution. Areas close to Langara sports-fishing lodges and past sewage outfalls at Skidegate Inlet and near Old Massett were the three places most often noted.

There’s quite a few of them that’s disappeared. ... I’ve gone down the beach a lot of times, sometimes there’s a thick film of brownish stuff—don’t ask me where it comes from but I figure some of them would come from the rivers that wash down from the mountains. All that filth naturally would spoil things. Even cockles now. Pretty hard to come by now. (Ernie Wilson, Aug. 1998)
**Clam and Cockle Distribution and Harvesting Areas by Seascape Unit**

During the HMTK interviews spatial data for clams and/or cockles were documented in six seascape units. Over the following pages we present the information relevant to each seascape unit along with a map showing the distribution and harvesting areas that were mapped for that area during the interviews. In order to protect sensitive cockle harvesting areas, spatial information for cockles has been combined with that for clams. It should be noted that some spatial information for clams was recorded outside of Haida Gwaii during the study. This use was documented by a Haida participant who commercially harvested butter clams on Dundas Island within Tsimshian Territory, around the 1940s. Only spatial information for Haida Gwaii is included here. Due to the scale of the charts used in interviews, spatial information for intertidal resources such as clams and cockles may extend further offshore than would otherwise be expected.

**Dixon Entrance and Masset Inlet**

...you know, you look at The Bar right there now... and there’s a lot of butter clams there. That’s loaded there. You know, you go over there for one tide, you can dig up ten sacks easy... and you still won’t finish them. And soft—real soft, eh? And when you dig a hole, you could use your finger. (chuckling) But you know you run the fork from the top of the bar down toward the water and you get lots of butter clams. And then there’s also butter clam bed just on the other side of Yan. And the biggest butter clam bed is on the North Beach of Massett. That’s the biggest butter clam beach that I know of. You can get butter clams. You can get cockles. (Reynold Russ, Jul. 2007)

**Dixon Entrance East: North Beach Razor Clam Fishery**

North Beach has long been a productive clam harvesting area. In all likelihood, Massett Haidas have relied on this site to meet many of their shellfish needs for countless generations. In modern times, the area has sustained a relatively stable commercial razor clam fishery since the 1920s that shows no sign of depletion. In 1924 a clam cannery was constructed at North Beach and it was the razor clam harvest and/or work in the cannery that drew Massett Haidas to Tow Hill each spring.

...the first move that was done by the Massett people was in the month of March. Quite a few of the people moved from Massett to Tow Hill. And the purpose of moving to Tow Hill, that was the beginning of when the Massett people would start making money working in canneries, digging clams. And then they did that for the month of March and April. (Reynold Russ, Jun. 2007)

Many of the elders interviewed here remember taking part in this fishery. Stephen Brown described what those times were like:

... that digging razor clams was pretty well same thing as fishing halibut out in the open—you have to know your spots. You can’t just get off and expect to get lots of it. All of us had marks on the shoreline. Every time we had a really good spot we put a marker on it and next day we get off same place. Not that easy though, there’s too many diggers out there; you can’t be choosy, you have to get off where there’s a space. So way back in those days, the ladies used to clean the clams up and they run a string through it and they hang it up in the sun, dry it up. You can keep it for the winter that way. Once it’s dry you can keep it real long time. ... We used to tell people in those days it was like eating candy to us, eating that dry razor clams. (chuckling) And I seen them do it to cockle too, but I don’t think I ever ate a
dried cockle. I ate lots of dry razor clams; it’s really good. Way, way back then they had no freezers, no fridge. There was all kinds of different ways of putting your food away for the wintertime. (Stephen Brown, Feb. 2009)

Once the cannery was closed and a new operation started in Massett fewer people moved out to Tow Hill to stay; “…this is when the movement of the people going to different areas sort of… stopped happening …just about that time, and just a few people started moving to Tow Hill, moving to different areas,” (Reynold Russ, Jun. 2007). Nonetheless, the commercial razor clam fishery has provided work and income for Massett residents for many years and continues to do so today. People also still harvest razor clams down East Beach. Figure 3 below shows the eastern portion of the Dixon Entrance seascape unit, with the clam and cockle areas that were documented.

Figure 3: Map of Dixon Entrance East, showing clam and cockle observations and harvesting areas.
Masset fish plants process all locally-harvested razor clams, providing important local employment and supplying both the food and bait markets. The clam fishery is co-managed by CHN and DFO, with the

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Haida Fisheries Program conducting stock assessments, monitoring the fishery, and testing for biotoxins. The food and recreational razor clam fisheries are generally open year-round and there are currently some concerns associated with potential impacts from access, over-harvesting, and pollution; these issues are explored further in the Management Issues and Suggestions section.

Wash-up

The Massett beaches that are home to the razor clams can be subject to severe winter storm events. Freezing cold temperatures and strong winds on occasion combine to produce what is locally known as “wash-up” – all sorts of shellfish and sometimes even fish, such as halibut or spring salmon – are washed up on the beach and, sometimes frozen, are easily gathered by hand.

That was a really, really protected secret that was held among the Haida people ...we used to know exactly when scallops would come up on the beach and abalone used to come up ...here, you know, when it’s really cold and northwest is blowing real hard. And when we wanted abalone we’d go and check that out and sometimes we’d get a truck load, other times we’d get a few scallops and other clams coming up on the beach. You know, cockles and everything used to come up; it comes up on the beach and that was kept a secret among the Haida people for quite a number of years. (Reynold Russ, Jun. 2007)

Reynold’s wife, June Russ, also remembers the harvests they could get on North Beach after a wash-up event. She remarked on how big the cockles were; “... big cockles like that... [I’d] clean one and cook it for him and I ... one cockle. He said, ‘How come you’re cooking just one?’ I said, ‘Just eat it.’ (laughing) He got full! They were huge, like that. Just cut it in half, or else I’d make stew with it,” (June Russ, Jul. 2007). Wash-up was noted for several beaches on the North Coast of Graham Island.

Mary: There’s all, every kind of fish you could catch. Tsanii Claude [Jones] was telling us ...when all the shellfish and stuff washes ashore at Taaw [Tow Hill], they call that sk’ahn dah.

**Colleen:** Sk’aangdaa?
Mary: Yeah, when you’re picking up all the returning seafood that drifted ashore. And then when you’re fishing for whatever fish you are going to catch, he said they call that sk’ah hlang...

**Colleen:** So what does sk’ah hlang mean?
Mary: Fishing for all kinds of fish, whatever you could catch. He said they call that sk’ah hlang. Almost same as the other, Sk’aangdaa.

**Colleen:** Sk’aangdaa, pick up shells.
Mary: Mm-hmm.

**Colleen:** Sk’ah hlang, fishing for anything, eh?
Mary: Mm-hmm. (Mary Swanson, interviewed by Colleen Williams, May 2007)

Masset Inlet

Figure 3 also shows butter clam, littleneck clam and cockle harvesting areas around the entrance to Masset Inlet. People used to dig clams in front of the village, across the inlet from the village in front of the Hancock River, and on the sand bar in front of Old Massett. The beach in front of the village was said to be very productive, with butter clams, black chitons and cockles all harvested there. People do not generally harvest here today because of concerns about sewage; “Right out in front here... probably
your grandmother and everybody used to dig just out in front before the sewer... We used to harvest our butter clams right along there... all in front of the village,” (Rolly Williams, Feb. 2009). Many said that they haven’t been able to dig in that area since the mid-1970s.

...years ago, before we had pollution, all our people used to come down here and dig butter clams. You know not everybody owned boats. So they used to go there and then they used to come out North Beach here, to do butter clams and get octopus out here (Robin Brown, Apr. 2007).

Robin Brown also mentioned getting butter clams on the bar in Sturgess Bay. Reynold Russ said that butter clams have been found at Masset Inlet middens at the Mamin River and at Kumdis.

Dixon Entrance West

Shellfish harvesting areas are generally in close proximity to traditional village sites. Some of these sites include Yan, Yaku, Kiusta and Kung; many are still visited for shellfish-gathering today.

... for shellfish there’s a place in Naden there, like ... from George Point here. It’s right across there, on Mary’s Point? There’s a sandbar there. It’s where you get those butter clams. ... They’re real big ones like this too; they’re real white. We stop off there with Uncle John there to get some devilfish. That’s when Philip decide to try that because they were squirting water. So we used our gutting knives and we start digging for them. They’re real shallow. (Willie Russ Jr., Mar. 2009)

Rolly Martin also digs butter clams by the entrance to Naden Harbour, just along the beach from Kung. Mary Swanson said that she used to get clams, along with many other types of shellfish, at Kiusta. Both Naden Harbour and Kiusta used to support commercial harvests of butter clams. Figure 4 on the following page shows the clam harvesting areas identified for Dixon Entrance West.

West Coast

Very few clam or cockle harvesting areas were identified on the west coast. One area that was noted repeatedly by participants was Lepas Bay – also shown in Figure 4. Several Massett participants said that they still get both butter clams and razor clams at Lepas Bay today.

Mary: And there’s crabs and halibut here and there’s salmon there, too, all kinds of stuff there—shell food, there’s taaw [big brown mussels], and gal [small mussels], nuu [octopus], and k’amahl [razor clams].

Jaalen: k’amahl right there in Lepas bay there?
Mary: Yeah, they have some there. Just get enough for soup because there isn’t too much there, but they’re big clams, ho!

(Mary Swanson, interviewed by Colleen Williams with Jaalen Edenshaw, May 2007).

Generally, people don’t harvest clams on the west coast as much as they do on the east coast; this is mostly due to the different habitats on the two coasts.

You can catch cod anytime out the west coast, long as the weather will let you, you know. But shellfish, little harder to get. I can’t think of any place we could get clams out the west
coast. Not any amount anyway. In Kano you get a few, maybe you get enough to make a little pot of that clam chowder. Not like Burnaby Narrows ... (Percy Williams, Oct. 2008)

Figure 4: Map of Dixon Entrance West, showing clam and cockle observations and harvesting areas.

Despite the fact that there may not be many places of abundance for harvesting clams on the west coast, there are small areas, pockets of suitable clam habitat, that people rely on mostly for fresh food while harvesting other species in the area. Elder Reynold Russ told this story from when he went winter trapping with his grandfather in Nesto Inlet:

... he told us to go and dig butter clams. So four of us went out. We must have dug about four sacks of butter clams and you know, in Nesto Bay, it’s fresh water running into the bay. So he made us go beyond that to get just salt water. So we had to row all the way—no kicker, nothing—all by rowing. And we put a lot of water in the keg and then rowed back, and we had some in buckets, and in cans. This was salt water. So when we got the barrel up by the house, he got us to dump the butter clams into the salt water. So you know, I asked him, ‘Why are we doing this?’ You know, he never answered me. He always used to say, ‘Just see what I’m doing.’ You know? That’s all he used to say to me. So... about the day after we put the clams in the wooden keg. I see him get up and we had ... a big bag of rolled
oats. He’d go by and get a cup. And he’d go outside. And up to this time I didn’t know what
the heck he was doing ... so this one morning he got up, he dressed and it was still dark in
the morning and he went by, got a big dipper of rolled oats. So I got out of bed and walked
out after him. And here he’s putting the rolled oats into the keg of butter clams. So I said,
‘Grandfather, what are you doing that for?’ And this time he told me, ‘Well, I’m feeding it.
You have to remember that this whole beach out to the mouth of the river here is going to
freeze over. You won’t be able to get butter clams.’ And that’s the reason he made us dig all
those butter clams. So we had fresh butter clams anytime we wanted it because of that.
(Reynold Russ, Jul. 2007).

The only other clam harvesting areas documented for the West Coast seascape unit include a very small
polygon at the head of Botany Inlet in Tasu Sound – visible on the Gwaii Haanas map in Figure 7 – and a
polygon on the north side of Chaatl Island shown in Figure 5. In addition, Kano Inlet was mentioned for
clam harvesting during the Skidegate verification session but the location was not mapped (Jun. 2010).

**Skidegate Inlet**

Skidegate Inlet has a great diversity and an historic abundance of shellfish. The village itself is situated
on a productive shellfish beach where many elders remember harvesting clams and cockles as children.

... from the Inlet here ...I can honestly say that I seldom missed a day tide. From my first
memories I ran down the beach to pick, to get cockles. I just have to run down and I would
fill a bucket in no time. Once my mother taught me how to look for the eyes and that? I
would ...have a bucket filled in no time; it was just so plentiful. ...I would fill it up and she
would make me share it; I would bring some to Kathleen Hans and Flora Collinson and... I
could get a bucket easily. So that was out here, right in front of the village. (Diane Brown,
Apr. 2007)

... we used to [get clams] right in front of Skidegate, too... low water, we’d go out and get
clams and farther up the Inlet, towards Kay we used to get cockles. Yeah, right from the
point over this way, right up to First Beach, we’d go clam-digging. And up here you’d get
cockles, I think. You get more cockles up this way [towards Kay]. (Lonnie Young, Apr. 2007)

Clams are found in numerous areas in the inlet, along the shores and on many of the islands, like Lina,
Maude, Grassy, and Transit Island. Some of the other areas mentioned as being good for clams and/or
cockles are First and Second Beaches, Balance Rock, Miller Creek, Shingle Bay, Kagan Bay and
Slatechuck.

Many people travel further up the inlet to harvest clams at Slatechuck, Trounce Inlet and even the West Narrows; “Yeah, you can
...take the boat and go out through here, you can get lots of clams out in Trounce... all along in here you go for clams, or crabs,” (Lonnie Young, Apr. 2007). Ernie Gladstone is another person that harvests
clams around Slatechuck, Tarundl Creek and Kagan Bay; “Just this side of Slatechuck, and that whole stretch along there has lots of clams ...
anywhere there’s a little bit of sand or mud there’s usually clams in there,” (Ernie Gladstone, Nov. 2008).
Back closer to home, Roy Jones Senior said that there used to be cockles at some locations on the south shore of Skidegate Inlet, but he was uncertain whether they can still be found there. Percy Williams also mentioned getting cockles out in the Narrows in the past.

Figure 5 shows the clam and cockle areas documented in Skidegate Inlet.

![Map of Skidegate Inlet showing clam and cockle observations and harvesting areas.](image)

Unfortunately, many types of shellfish have declined in Skidegate Inlet.

...back just at the village, when we were kids they used to be able to pick up those little brown [urchins]; they called it t’aa [black chiton]...and styuu [green sea urchin] was another one—and those were the best. They were the smallest and the sweetest; they were quite different from the big purpely-reddy ones...there’s no mussels there anymore, and there’s no styuu...I don’t collect [in front of Skidegate anymore]. And there’s not much cockles, whereas there used to be so much when we were young. (Roberta Olson, Apr. 2007)

During the Skidegate verification sessions, it was suggested that the declines in clams and cockles may be due to over-harvesting or pollution (Jun. 2010). There was also mention that the construction of the seawall changed the beach and likely had a negative effect on the clam populations nearby. Concerns
about pollution and shellfish declines are mostly restricted to harvesting areas close to the village site and the old sewage outfall, and are discussed more in the Management Issues and Suggestions section.

**Hecate North**

Butter clams, littleneck clams, cockles and razor clams can all be harvested in the Hecate North seascape unit. The razor clam commercial fishery is mainly on the Massett beaches west of Rose Spit, but razor clams are also found on East Beach and sometimes harvested in the area immediately south of Rose Spit (shown previously in Figure 3). While their presence is noted in three areas further south – Gray Bay, Dogfish Bay and Cumshewa Inlet – they do not occur in abundance and are generally not harvested in quantity in these other areas. Figure 6 shows the areas documented for butter clams, littleneck clams and cockles in Hecate North during the HMTK Study.

![Map of Hecate North showing clam and cockle observations and harvesting areas.](image)

**Figure 6:** Map of Hecate North showing clam and cockle observations and harvesting areas.
Copper Bay, Cumsheawa Inlet and Skedans were mentioned most often for the harvest of butter clams and littleneck clams, and possibly a third unconfirmed species.

...there’s two different kinds of clams in Copper Bay, you know. There’s those butter clams and then those pink ones ... we get [clams] any time of the year, as long as the tide is low. There are beautiful clams—there’s butter clams and the pink ones. The pink ones are sweet... (Tom Hans, Feb. 2007)

Many people said they get clams in-between tides while fishing sockeye at Copper Bay; “… [sockeye fishing] would be real good in mid-May, on the tides. And in-between, you know, you get a bit, go out for clams... but there used to be lots out here... (Lonnie Young, Apr. 2007). People also harvest cockles in front of Copper Bay. It was noted that the Copper Bay cockles used to be really big, but they are no longer there. Sheldens Bay and Gray Bay are noted as other good places to get clams. The primary use of shellfish here is for food; there are no commercial operations in these areas.

Cumsheawa Inlet can also be an important clam-harvesting area. Diane Brown said that she used to drive to Cumsheawa with her family, launch a boat there and get clams in front of the village. They would also harvest clams, abalone and urchins around Skedans when they stayed there. Tom Hans and Ernie Wilson are other elders who have harvested in this area; both mentioned the clam beach in front of Cumsheawa Village in particular, but Tom also said that clam beaches likely used to be in front of every Haida village, perhaps serving as one of the criteria for a village’s location. One participant mentioned that there are a lot of geoducks in Thurston Harbour, however this polygon did not get mapped. Only a few Haidas documented harvesting geoducks.

Gwaii Haanas

Within the Gwaii Haanas seascape unit, it was Juan Perez Sound that was noted most often for harvesting clams. Many people harvest clams in this area while working on spawn-on-kelp.

Juan Perez, here we come, you see. Right here—Section Cove—it’s not in there, but that’s where the biggest herring fishery, roe on kelp goes, is right here. And this little island here that you come through—you can’t see it—that’s the best butter clam bed going. You can load a skiff up there with butter clams (Robin Brown, Apr. 2007).

Overall, it was Burnaby Narrow's, or K’iid, that arose time and time again as a very important area for both commercial and food clam harvests.

... Burnaby Narrow's—you put the fork in and the clams just pour out of the ground... unbelievable. We commercially dug clams there for two winters and you dig there for two months out of the winter. Come back the next winter and they’re just as abundant again. I don’t know where they come from in a year. They grow a little slower than that I think. But there’s lots, holy! (Percy Williams, Oct. 2008)

...Burnaby is just loaded with clams. They used to have a cannery, clam cannery, right in here. Shells were just thick along the shoreline! (Ernie Wilson, Mar. 2007)
Many elders remember going to Burnaby Narrows to dig butter clams when they were younger; this observation is probably from the late 1940s;

... there used to be a small village there. Everybody had their own cabins there and we used to go there to get k’aaw, halibut... they used to dry the halibut, dry the k’aaw, or salt it. And spend the whole month of April and May down there. Or even earlier than that, it spawns quite a bit earlier than it does around here... We used to go down on [my father’s troller] and while we were camping there on these low tides, we used to go digging clams for a living. You know, BC Packers had a big packer there and they were buying clams off us... a hundred pound bag used to be $2.50. And, you know, that was money. The packer was coming in once a week and generally take our grub order and we ate good while we were down there. Yeah, we’d get our fresh fruit and vegetables ... out of our hard-earned money digging the clams. But I thought it was fun. (Harvey Williams, Apr. 2007)

Harvey specified that most of their commercial clam-digging was done at Island Bay. The clams dug during this period were packed to the mainland on boats, but previous to this, a clam cannery had operated in nearby Bag Harbour. For food use, the clams are for the most part smoked or canned.

...guys would go out fishing for halibut, we’d go along the shore, get abalone, clams, smoke the clams...we had a little smokehouse; we had little cabins there. Same as we did in K’aasda [Copper Bay]...we used to just go down the beach and get clams...and then we just smoked them...we’d string the clams up on some string and we’d smoke them for...not that long—not even a day, I don’t think...because they get too tough if you smoke them too long...They’re real good...like smoked oysters and that. (Lonnie Young, Apr. 2007)

...we ate a lot of clams, we jarred a lot of clams and...you had to jar it there, because there wasn’t no deep freezes or anything—and like I said, that was...a place that we went, it was seasonal, to gather food down there... the Haidas knew there was great clam beds down there so when the...companies offered to pay for it, that’s where they went down to dig the clams...it would be late fall, I guess, just before the winter. (Paul Pearson, Apr. 2007)

Some other areas noted as having lots of clams are at the head of Beljaj, Atli and Powrivco Inlets on Lyell Island, Ramsay Anchorage, Murchison Island, Faraday Island, the Bischofs – “Beautiful clams there, big clams,” (David Martynuik, Nov. 2008) – and Hutton Inlet.

Hutton Inlet, a great big clam bed up here—real dandy clam bed, lots of clams... my uncle and I did commercial clams in 1947-48. We dug 38 bags one night. Holy smokes. They were just falling out of the ground there were so many there... Hutton Inlet. [That was] wintertime, just before Christmas, November and December. (Percy Williams, Jul. 2009)

Many people say they get clams when staying at Hotspring Island; “... that was one of the best spots I ever seen for butter clams – there and the place up by Hotspring... by Faraday, there’s another one that was like that. And that’s because of the flow of the water between the islands, I think. Lots of food for them and it’s pretty sheltered,” (Martin Williams, Feb. 2009). Jedway, in Skincuttle Inlet, was another location noted for its clam beds; though little was mapped here during the interviews, there are
purportedly “lots of clams” in the area and “you can find clams on any good beach” (Percy Williams, Skidegate verification sessions, Jun. 2010). Percy said that Sgang Gwaay also has very large clams.

That’s where I saw the biggest clams I ever saw in my life. They looked like horse clams. We were tied together, eh? Tied-up off a rock, little island, and when the tide went low we were looking out the pilot house and could see them squirting on a little sandy beach. We went ashore and clams were like that, like horse clams. We thought they were horse clams and they were big, big clams. We ...made clam chowder out of them; we thought they would not be very good [because] they were so huge, but it was excellent. (Percy Williams, Jul. 2008)

One additional area that was mentioned for clams was Tanu. While no harvesting areas got mapped here, Skidegate verification session participants said that like most ancient village sites, Tanu would have had clam beds associated with it. Figure 7 shows the areas documented for clams and cockles in a portion of Gwaii Haanas.

Figure 7: Map of Gwaii Haanas showing clam and cockle observations and harvesting areas.
Management Issues and Suggestions

During the interviews, numerous sites were mentioned as having very abundant populations of clams and/or cockles in the past but not today. Over-harvesting, pollution and habitat degradation were all mentioned as possibly having localized impacts on shellfish. Competitive fisheries were only noted as a problem in one area of Haida Gwaii – North Beach.

Competitive and/or Recreational Fisheries

Some people voiced concerns that the razor clam harvesting on North Beach may not be sustainable. It is the recreational fishery in particular that is drawing criticism.

...if you dig a big clam out, look at your sand really hard and you could see the tiny little...razor clam trying to get into the sand again. Because there’s tons of it; it’s just brown like this on the beach when people are digging. All the babies go up; they can’t get into the sand again. It makes me real angry at people when they’re doing that...what are they going to eat when it’s all taken away? (June Russ, Jul. 2007)

We were told in our young days, never dig clams in the months with no ‘r’ in them...because you go out there in July and August, you dig a hole, you’ll see little baby ones float up. Now, when that does happen, that clam is dead. It’ll never survive. Now that’s why we’re trying to stop the recreational clam-digging going on and stop it all together. In this area, because if we don’t, we’re going to have nothing left there...we have to deal with the access in a fashion that we give some people some orientation on how to go on the beach. And you just take enough what you want, and leave the rest alone. (Robin Brown, Apr. 2007)

Pollution and Habitat Destruction

Most habitat concerns are centered on localized pollution of shellfish harvesting areas from sewage outfalls. The beaches in front of Old Massett were repeatedly mentioned as an area of concern.

... you used to be able to get clams right outside of Massett, back in the day. Because I remember going out digging clams with my dad, when I was a kid. But because of all the sewer nowadays, it’s not a good idea anymore. (laughs) You don’t want to do that... because of the outfall and stuff, that’s why you don’t go after it anymore. (Vince Collison, Mar. 2007)

Both Rolly and Martin Williams are concerned that what happened to the beaches in front of the village of Old Massett is now happening at Dadens Pass; they fear that raw sewage from the sports fishing lodges is ruining traditional shellfish gathering areas.

... that’s a concern with me for out like Langara way, is that... with all those lodges out there and the way they dispose of their sewage—the floating ones ... they just have to hold it for 48 hours and then they can dump it, eh? So when you’ve got that many of them out there doing the same thing... it’s not good for the shellfish. I don’t know if any shellfish have even been tested out there for you know, what’s out there. (Martin Williams, Feb. 2009)
Numerous participants in the Old Massett verification sessions raised the issue of lodge septic fields overflowing and draining into Henslung Cove and contributing to pollution in the Langara area (Jun. 2010). Skidegate Inlet is another site that has suffered shellfish declines, possibly due to pollution.

Oh, yeah, there used to be lots of fresh food, even right out here. Now it’s all gone... cockles, and... giinuu [sea cucumbers]... that’s good eating. Used to be lots of it, too... we used to pick up styuu [green sea urchins] even at the point, right out here... lots of t’aa and sejiida—red chitons. And black ones, too. Yeah, all of that used to be out here [in front of Skidegate]... every big tide you’d go out and get whatever you can get. People used to be lined up all along here, years ago, yeah. Now you don’t see anybody... I myself think there’s too much chemicals from the sewers that’s got rid of everything... (Ernie Wilson, Mar. 2007)

You know, not that many people had cars when I was little ... so you had to be within walking distance, when I was a kid, for berries, seyyuu [seaweed], cockles. And then the sea urchins just disappeared; so did the cockles. It’s just like one year we went down and there were no more. They just went. And never been back. You could find the odd cockle, you know, but not like when I was a kid. I don’t know how it coincided with the sewer pipe, but when they first put a sewer pipe down, they had it above the drop-off. There’s a drop-off on zero tide... you know that legend where the monster dragged boards through the inlet, that’s why there’s that deep hole? Well it just drops off out here and consequently, soon after they put the sewer out—I was in public health them days—I had noticed like Tampax and toilet paper and formed amma [feces] even, washing up on the beach. So... they... added onto the outlet, to go beyond the drop-off or something and so it quit happening after that, but we were told that what came out of that pipe would be almost drinkable. (chuckling) It wasn’t true. I don’t know what went wrong, but they did fix it. But I have a feeling that might have had something to do with the cockles... or we picked it too much. You know, one or the other. (Diane Brown, Apr. 2007)

During the Skidegate Inlet verification sessions, Diane mentioned that she is starting to see little baby cockles in the inlet again – a possible sign that they are recovering; this was noted for some northern areas in the Massett sessions as well (Jun. 2010). North Beach clams are now also said to be recovering.

... the whole of the North Beach was just full of butter clams... before the DND moved here and put their sewer line out... they poisoned the butter clams. It’s loaded out there right now. But after they put in that new system, the people who put it in told me that within a year the whole thing would be all back to the way used to be... hopefully that will happen. (Reynold Russ, Jul. 2007).

Naden Harbour was the only placed mentioned as suffering physical habitat damage to clam beds.

We used to get lots of butter clams in Naden, but they wrecked it. The big... logging boats wrecked it. There used to be a sandbar right across from the island and they pushed it away. No more butter clams now. Yeah, it’s right [by the mouth]... not too far from the graveyard anyway. (Edgar Sills, May 2007)

Virago Sound is another location that used to be very productive for clams, but is said to be washed out now (Skidegate verification sessions, Jun. 2010). Several areas were identified as being severely damaged from commercial geoduck harvesting operations. This observation came from Rennell Sound:
... we did geoduck surveys pretty well like, you know, where they thought there would be a lot of them, to have their openings? And we also went and checked where ... like five years after they had the geoduck opening, it looked like World War I battle grounds. Still after five years ... nothing grew, absolutely nothing. Not even a sea fan, not a clam, nothing. I don’t know why. (Tommy Greene, Oct. 2008)

One final management concern discussed in the interviews was in regards to the fact that Burnaby Narrows – a traditional Haida food-gathering site – is now within the Gwaii Haanas National Park Reserve and Haida Heritage Site. There was some concern about continued access to this site.

**Areas to Protect**

Some of the areas noted for protection in regards to shellfish populations were: Burnaby Narrows, Cumshewa, Copper Bay, Skedans, Hutton Inlet and Trounce Inlet. Kagan Bay was also suggested as needing protection because it has good shellfish and is close to Skidegate village; “... you can go up there, you know, drive up there and get enough clams for... a few feeds and ... do a little bit of canning too, if you want. And it’s relatively easy to get to,” (Ernie Gladstone, Nov. 2008). Because this was not commonly asked in the interviews, this topic would benefit from further research.
3. Herring

Pacific herring are integrally important in west coast ecosystems. Their arrival each spring drives seasonal movement patterns – not just those of humans, but also the many species that share their environment. Whales, porpoises, sea lions, cormorants, eagles, halibut, salmon and more can be seen feasting on the returning herring and their spawn. Herring mature at the age of 3 and live an average of 10 years. During their lifetime, they may return time and time again to spawn in the nearshore waters of Haida Gwaii. This activity signals the time for spring fishing and gathering to begin.

The Haida relationship with herring is long and complex. Long ago, before coastal fisheries were industrialized, the Haida harvest of herring could be separated into two distinct types: gathering the spawn-on-kelp (SOK) or k’aaw; and fishing the adults. K’aaw has long been an important Haida staple and trade commodity and continues to be very important today. Adult herring are also still highly valued as bait fish, especially in spring salmon and halibut fisheries.

Industrial fishing for herring began around the beginning of the twentieth century, and can be divided into three main time periods by product: the dry salt, the reduction, and the roe industries. Most of the dry-salted herring supplied Asian markets in the early 1900s. The reduction fishery began during the 1930s, supplying plants where the herring were transformed into oil and meal for animal feed and fertilizer. The first major reduction landings in Haida Gwaii went to a plant at Pacofi on the east coast of Moresby Island, that operated from 1938-1943. A steady demand for fish oil in BC drove this industry from 1935-1967. Herring were caught by purse seine in both summer and winter, but the bulk of the catch was taken January to March each year, by just 2-3 seine boats. Several Haidas were employed in the processing plants, but few were actively involved in the fishery itself.

The reduction fishery flourished during the 1940s. DFO began recording spawning and catches around this time, and in the 1950s exploitation rates are reported to have climbed to 50-90%.[11] Industrial herring catches went unregulated, limited only by market demand. Some of the largest recorded catches in Haida Gwaii came from Skidegate Inlet, Selwyn Inlet and Burnaby Straits – each important traditional Haida fishing and gathering areas. By 1957-8 fishermen reported catching only small fish in Skidegate Inlet, as well as a marked decline in catch size; no spawning was reported for 3 years in a row. By the late 1960s, overfishing and government regulations began to impact the industry, and the reduction fishery was closed coastwide in the late 1960s.

Within 3 years government managers considered the stocks recovered and in 1972 a new fishery – the roe herring fishery – started up to supply markets in Japan. In the roe fishery, adult herring are gillnetted

“You just look at a map; everywhere you used to get herring spawn.” (Roy Jones Sr., Apr. 2007)


in order to remove the egg sacs from the females. This is then processed and sold overseas. The bodies of both the male and female fish are then reduced to fish meal and oil.

It was also around this time that a few Haida fishermen began to experiment with “ponding” herring, based on their experience with operating herring bait ponds that supplied other commercial fisheries. It was demonstrated that artificially suspending kelp in a bait pond could increase production and minimize mortalities while meeting the demands of the roe on kelp industry. For this fishery, the herring are seined and transferred to manmade ocean pens where they are held until they spawn. Once the fish have spawned, they are released. Most of the herring survive to return and spawn again in following years. The first experimental licence for this fishery was issued in 1971. Full commercial production began in 1975 with Haidas holding 8 out of the original 12 licences by 1978. Haida individuals or organizations currently hold 6 out of 10 licenses on-island.

Commercial roe herring catches in Haida Gwaii waters were the dominant catch from about 1972 to the mid-1990s. Since then herring populations in Haida Gwaii have been depressed. Due to low herring stocks the commercial spawn-on-kelp fisheries have been curtailed in some years since 1995 and have been closed in the Gwaii Haanas area for the past several years. Haida traditional fisheries have priority over commercial roe herring and spawn-on-kelp fisheries and have continued. However Haida catches have been less than usual. Bait fisheries serving the halibut fishery have been uneconomic for pond operators since about 1990 when the management system switched from a competitive fishery to individual quotas and the halibut fishing season went from 1-2 months to 9-10 months of the year.

Industrial fisheries have affected the herring populations that spawn in the waters of Haida Gwaii. Today there are only small populations of herring remaining in Skidegate Inlet. The major stock area from Louscoone Inlet to Cumshewa including Burnaby Narrows has been closed to commercial herring spawn-on-kelp and roe herring fisheries for the past several years. There is concern in the Haida communities that current herring policies do not allow the herring to recover by allowing commercial roe harvests as soon as the herring biomass exceeds a certain amount (the cutoff level). There is also frustration that Haida voices remain unheard and unheeded in current federal fisheries management. In the following sections we present some Haida knowledge and perspectives on herring, including past and contemporary use, ecological observations, cultural importance, and management suggestions.

**Haida Harvest, Use and Stewardship of Herring**

The importance of herring in the marine environment of Haida Gwaii and in the lives and livelihoods of Haida people cannot be overstated. Herring provides key sustenance for most species. Its timing is also critical – arriving in the waters of Haida Gwaii early spring, it is a much-welcomed and often much-needed plentiful source of fresh food before the salmon season begins. It attracts myriad other species, renewing and recharging the waters of Haida Gwaii after the winter months.

*K’aaw, or spawn-on-kelp, is a favourite food for many Haidas.*

... I just had a fresh feed of k’aaw yesterday. Oh! It’s so good. It just came up from down south... so I baked a potato, and I smothered it with tons of taw [eulachon grease], put it on the k’aaw, and then drizzled the sgyuu [seaweed] on top. And my granddaughter came in while I was eating and so she had it and she couldn’t quit. She was like, ‘Nanaay, I haven’t had this since I was a kid.’ It’s like, well, it’s always here. Mm. My stomach’s going to start growling again! (laughing) (Roberta Olson, Apr. 2007)
With the arrival of spring, many Haida families traditionally head out for the herring and k’aaw harvests. People in Massett often go out to Naden Harbour or up into Masset Inlet to await the spawn. Skidegate Haida used to have plentiful spawns and herring populations within Skidegate Inlet, so many harvested there in the past. Other harvesting takes place further south at Burnaby Narrows or K’iid, near historic spring fishing and gathering camps. While people don’t spend weeks or months at the camps any longer, many still go down for short trips, still relying on the same areas.

In addition to the spawn on kelp, Haidas traditionally harvest adult herring to be used as bait for catching other fish; to be eaten fresh or smoked for eating later; and in the past, rendered for oil. There are several different ways of harvesting k’aaw and the adult herring, many ways of using the final products, and many different locations the fisheries occur. In the following sections we have separated the Haida use of herring into the spawn-on-kelp or k’aaw harvest, and other herring fisheries. More detailed maps and information, including fishing methods and locations, are provided for each seascape unit in the **Herring Distribution and Harvesting Areas** section of this chapter.

**K’aaw or Spawn-on-Kelp Fisheries**

*K’aowdang* refers to gathering or harvesting the herring roe once the fish have spawned—also known as spawn-on-kelp, roe-on-kelp or k’aaw. It is an important activity in the seasonal round that many Haidas still continue today. Traditionally, this was usually done by Haida women.

> ... when I was a kid growing up, all the elder... mostly women got it; it was just women. They used to row out to the different places and load up their little skiffs and row back home and spread it all on the beach at low tide and have it dry on the rock, and then bundle it up and put it away for the winter. (Roberta Olson, Apr. 2007)

The k’aaw harvest could start as early as February, when Skidegate families would move down to Burnaby Narrows to their seasonal homes there.

> ...there used to be a small village [at Burnaby Narrows]. Everybody had their own cabins there and we used to go there to get k’aaw, halibut, you know. They used to dry the halibut, dry the k’aaw, or salt it. And spend the whole month of April and May down there. Or even earlier than that, it spawns quite a bit earlier than it does around here. (Harvey Williams, Apr. 2007)

> ... we used to go [to Burnaby Narrows] in March, first part of March. Sometimes last part of February—I don’t know when but we lived there. All we live on is seafood—what we gather all over there—and all my mum and them used to take was flour and sugar, so we get the rest of the food from [the] land and from the waters ... my dad had the boat called ‘Mabel P’; used to go down on that and stay there, wait ’til the herring spawns. Then... after that we’d leave, come back home. Then we move out of here and put all our salted spawn away and then we moved to west coast. (Roy Jones Sr., Apr. 2007)

There were also many Skidegate Haidas that would simply row out into the inlet for their k’aaw. One participant told us about the places he liked to harvest k’aaw for food in Skidegate Inlet.

> ... around Sgaay.yas, around Gud K’aawwas, around Alliford Bay, around Maude Island ...around...Skidegate Point ... there used to be a spawn on the point there, and then one just
off Kinkles’ place, and one just on this side of where the oil station is. And…we used to harvest it also off BC Tel Point …and that’s as far up the Inlet as we used to go, to Maude Island. We didn’t need to go any further. (Gary Russ, Mar. 2007)

According to Massett Haidas, herring often spawn at several locations on the north coast of Graham Island, in Naden Harbour and up Masset Inlet.

Herring eggs are mostly gathered after they have been laid on kelp. A few of the interview participants said they had tried to harvest it when the wild spawn was on eel grass, but were not successful. One participant told us that he sometimes collected k’aaw on conifer branches, a practice that is common amongst other coastal First Nations, but not usually Haidas.

I used to have a bait pond here. And once in awhile, when I want a fresh feed of k’aaw I just go up and… the kelp spoils, see? They get white spots… in the summertime when we operate here. So I’d chop off a few branches, hang it in the pond. Then get all I want. I’d do it for my own use because they wouldn’t allow us to sell it. (Roy Jones Sr., Aug. 1998)

During his 1998 interview, Jack Pollard said he used to see Haidas sink young hemlocks for the herring to spawn upon, but we recorded no more recent observations.

*Early Trade and Sale of K’aaw*

Once harvested, the k’aaw may be eaten fresh, dried or salted for storage, traded, sold or used as bait. It is difficult to separate the food harvest of k’aaw from the commercial—both may be conducted at the same time and in the same locations. Gary Russ spoke of this for harvests in Skidegate Inlet; “… it was just always the wild product that we harvested, all areas of the inlet… and when I was on the commercial operation, I’d do four or five buckets to take home,” (Mar. 2007). Haidas have long participated in spawn on kelp fisheries for economic purposes, such as in well-established trade to neighbouring nations, and selling salted k’aaw to markets in Japan as early as the turn of the century. One of our oldest participants, Ernie Wilson, remembered selling the k’aaw to a buyer at McKay’s Camp inside of Jedway in the 1930s. Ernie said that generally, herring spawn that was laid too thick on the kelp wouldn’t dry or store well and so was salted and sold; thinner k’aaw was dried and kept for home use or traded locally. Gary Russ also has early memories of harvesting k’aaw for trade or sale with his mother when he was young.

“It was quite common for Haida women to participate in the k’aaw fishery, even many generations ago. Some of the women interviewed for the HMTK study remember gathering k’aaw to sell 40-50 years ago.
... I would just go and pick k’aaw with the other women. There was... no men that picked when I first started in say ’66... I did it for commercial purpose; we got say a dollar a pound for it, one time, and a dollar-twenty-five it went up to. It was hard work. You pulled by hand, rowed out, and then you had to dry it on the beach—spread it out on the beach and wait for the sun then it would rain and you’d have to pick it up and... when the sun came out you’d have to lay it again. And then in later years people started stringing them up in sheds, which made it a lot easier. (Diane Brown, May 2007)

The sale of k’aaw could be quite profitable.

... we used to get a lot of razor clams and stuff from people in Massett. Yeah, we used to trade with k’aaw. You know, a lot of them couldn’t get k’aaw ... [Now] we just do it for ourselves... one time they used to allow us to get lots of it and sell to the Japanese ... long time ago. Used to make barrels of money off k’aaw ... they used to pay up to $24 a pound for the dried ones. Yeah, the Japanese used to come right into the village here to buy it off you... (Harvey Williams, Apr. 2007)

K’aaw remains an important trade item today, both within the Haida Nation and with mainland Nations, such as the Haisla, Tsimshian and Nisga’a. It is such a valuable trade commodity that it is often bartered for eulachon grease—a product widely recognized as commanding one of the highest values in transactions up and down the coast. One participant told us that even years ago his salted k’aaw could fetch up to $300 a bucket.

... they like k’aaw up there too, there; right up to Hazelton, they love k’aaw. So yeah we do a lot of trading with that ... a lot of k’aaw and a lot of grease, like, you know. But that’s hard to get now too, the grease ... the eulachon runs along the coast now are very poor. I heard they had a fairly good one in the Nass this year and so hopefully there will be grease coming out of there and I’ll trade them with k’aaw for that (Paul Pearson, Apr. 2007).

**Ponding and SOK Operations**

By 1970, some Haidas experienced with herring bait ponds found ways of increasing the efficiency of the k’aaw harvest and the quality of the product by suspending kelp from strings within ocean ponds. Herring naturally spawn on giant kelp in the wild; the ponding operations take advantage of this fact by supplying the captive herring with spawning substrate — healthy kelp that has been harvested from wild patches. Both Dempsey Collinson and Roy Jones Sr. were involved in the early stages of developing this SOK harvesting method.

... it happened ... by accident, that we started the roe on kelp in our bait pond. See I was fishing herring and we fished ... near the kelp because the herring comes into the kelp? And I caught a bunch of kelp; it got stuck in the net. While I was dumping the herring into the pond the kelp floated in. It was floating free in the pond? The herring start spawning on it. So I told the boys, ‘Here’s a good chance to get our own food. Look at all the herring spawning on that kelp.’ So Ernie Wilson ... tied a big bunch of kelp, throw [it] in the corner of our pond. He got all what he wanted. So we start stringing them. So we strung a couple of strings in our pond; we had all we wanted to eat. (Roy Jones Sr., Aug. 1998)
Experienced herring fishermen like Roy and Dempsey began to experiment with ways of producing spawn on kelp for sale, as well as ways of reducing the number of mortalities associated with the fishery.

Chief Skidegate, Dempsey Collinson

“...we had to experiment quite a bit ... I know so much ... about the herring now. I try to set as late as I possibly can and then when I put them in the pond they’ll spawn right away ... and then we don’t hurt the herring, eh? They’re in perfect health when we let them loose after they spawn. They’ve got a six, seven year lifespan those herring, so that’s what we do.” (Dempsey Collinson, Aug. 1998)

The ponding operations rely on a wide range of skills and knowledge, such as: knowing where and how to find herring that are ready to spawn; where to situate the ponds; where appropriate kelp patches are; how to harvest the kelp without damaging the patches for future years; and how to time all these activities for a successful spawn, harvest and release.

The SOK fishery relies not only on healthy herring stocks but also good supplies of kelp. Most Haida fishermen involved in the ponding operations harvest kelp from the east coast of Moresby Island – which is reputed to have some of the best kelp on the islands. Some east coast locations mentioned as good for harvesting kelp are Flagstaff, Laskeek Bay and Skincuttle Inlet; on the west coast, Louscoone and Flamingo inlets also consistently have good kelp patches. The kelp is harvested mostly in the months of February and March. Today, even mainland harvesters come to Haida Gwaii to harvest their kelp for SOK.

Figure 8 on the following page shows some areas that were documented during the HMTK interviews for both gathering k’aaw in the wild, as well as ponding herring for SOK production. It is important to mention that in addition to the sessions conducted for the HMTK study, interviews regarding Haida knowledge of herring were conducted in 1998 with seven individuals from the community of Skidegate.¹² No spatial information was recorded during the 1998 interviews, but the sessions were audio-recorded, and have now been transcribed in order that the information can be included along with the results from the current HMTK study. Because the 1998 herring interviews were conducted only in the community of Skidegate, the number of participants and amount of information we documented in regards to herring are slightly biased towards southern regions of Haida Gwaii.

In addition to the areas shown in Figure 8, participants in the Old Massett verification sessions reported that Massett Haidas used to do spawn on branches in Port Louis, as well as spawn on grass (Jun. 2010). In Skidegate, one participant said that he had never seen herring spawn west of Lina Island.

Figure 8: Wild *k’aaw* and SOK harvesting locations documented during the HMTK interviews.
**Traditional Herring Fisheries**

In addition to the valuable roe on kelp product, the herring itself is also used by Haidas. Traditionally, herring are most widely used for bait, but there are records of people also using the herring for food and for oil.

**Bait Fisheries**

Reynold Russ described how they used to rake herring for bait around Langara in earlier times.

... the way they got the herring was on what they call a rake. It was ... cedar, it was light and it was cut in a way that it was oval-shaped. And the thickest part would be ... about that wide—maybe an inch and a half—but they put nails on it, real sharp nails about that long... like a comb... with a bunch of nails on it. And when you are going after herring, you’re going after herring on a rowboat and somebody is rowing, and going from one school to another—this is over at Cohoe Point. And ... the person with the rake would be on the bow, and they’d be dipping the rake... and the rake would fill right up with herring and they’d just dump it on the stern ... that’s the way they got the herring. And it used to be lots of fun. Like I used to row and grandfather would rake in the herring. And he’d do that every night or right after ... if the tide was right and the herring come up, they’d quit hand-trolling and go after the herring. And that’s the way you got the herring. (Reynold Russ, Jul. 2007)

Reynold told us that the herring they caught would be used for bait the next day, unless they were large fish, in which case they’d be smoked, sundried, or pickled and put away for eating later.

... if the herring was too big, grandfather, all the guys would put it aside and they would ... fillet it, take the bone out and put it in the smokehouse to smoke it. ... I can't remember who it was but they were pickling a lot of the herring even after they took the ... backbone out. (Reynold Russ, Jul. 2007)

Herring is a favourite bait for catching other species such as halibut, salmon, cod and dogfish, but there is a trick to it. Stephen Brown described how his older brother taught him to bait his hook when hand-trolling springs from a rowboat.

... back in those days nobody used store gear. We had to learn how to bait herrings. Everybody was using only herrings... my brother, he become the best one ... he caught more springs than any old people down there. So I learned how to do it from him. We used to go... beach-combing and look for those bamboo trees—chunks of it here and there. We used to pick out a good one and cut it in the length he wants. Then he’d slice it in little sticks. So ... when he baits the herring up, he pushed the heads up like that, and pushed that stick through it. It stays like that. That ... makes it look like a live fish. You couldn’t beat him on herring. He was the best fisherman on the hand-trolling. After he died I got a good lesson from him, how to bait those things and I remembered how he did it. I tried it one day—and I throw it over and was pulling it to myself—it wouldn’t act like the way his used to act (chuckling). Then I remembered he put a stick in there. So I got sticks for it and once I got the sticks through there then they swim just the way his used to go. I caught a lot of spring salmon ... (Stephen Brown, Jan. 2009)
Food and Oil

Herring may also be harvested for fresh eating, smoking, freezing or salting and in the past, were also rendered into oil. One of the elders interviewed remembered seeing this in his lifetime; he specified that the larger herring from Skidegate Inlet were used for this purpose.

Industrial Herring Fisheries

Since the early 1900s a variety of industrial herring fisheries have taken place on Haida Gwaii, including the dry salt, herring reduction, roe herring, and bait ponds. The dry salt industry was led by Japanese companies many decades ago and is only remembered by a few elders today. The reduction fishery processed a meal and oil product that was added to industrial products. Few Haidas were involved in this fishery. In the commercial bait fishery herring are caught by seine and towed to ponds where they are held alive. The bait mostly supplies the halibut fishery. In recent times, the herring fisheries have been dominated by the bait pond fishery and the roe herring fishery.

Bait Ponds

Dempsey Collinson was one of the people involved in the bait ponds in the early days of the industry.

Well I started herring ponds out here when I first got my boat. Because we started that ... herring operation. And then Roy started doing it after us. [So that was mainly for ... halibut bait] ... fresh herring. So we used to catch a lot of halibut because the herring was, you know, fresh. Usually they buy frozen stuff that’s been frozen for I don’t know how long! It doesn’t catch like fresh herring. ... The whole coast used to come in here to get herring from us. (Dempsey Collinson, Jun. 2007)

The bait pond fishery described by Dempsey took place during the halibut fishery, often in the winter and spring months before salmon fishing started. Two locations noted for bait pond operations were Burnaby Narrows and Skidegate Inlet. Dempsey said he remembered operating his bait ponds during the 1960s. He quit as the halibut fishing season became shorter and the demand for bait decreased.

Roe Herring

The roe herring fishery starts at its earliest in February, in the southern regions of Haida Gwaii. To harvest fresh herring roe the fish are caught by seine or gillnet, the roe removed and the fish then processed for meal and oil. This fishery began on the islands in the early 1970s. A number of Haidas were involved in experimenting with the market for herring roe early on in the development of the fishery. Roy Jones Sr. had this memory from the early days of the roe fishery.

Actually Clifford [Jones] was the first one to start selling that roe fishery. He used to come around and get some herring off us, cut the roe out and he’d process it and ship it to Hiawatha in Vancouver... like a halibut boat would come in for a ton of herring? And you can’t judge it perfect. Sometimes you have half one barrel left over. So I’d cut the roe out, process it and I’d salt it—it’s all ready to ship to Japan. I shipped it to Hiawatha in Vancouver... and he used to pay me 85 cents a pound ... already processed. All he had to do was change the address and ship it to Japan. (Roy Jones Sr., Aug. 1998)

The Haida Gwaii commercial roe herring fishery was shut down from 1999 to 2001, and from 2003 to present due to low stocks. During those periods small herring catches were still taken in other fisheries. Figure 9 shows the areas documented for herring fishing during the 2007-2009 HMTK interviews.
Figure 9: Herring fishing locations documented during the HMTK interviews.
The map in Figure 9 is a summary of fishing areas only and includes spatial information from only 12 study participants. As a result, it likely under-represents the number and extent of areas actually fished. Participants in the Old Massett verification sessions said that they used to fish herring all the way around Langara, and that people would fish them outside and tow them into Henslunig Cove. No spatial data were recorded for herring fisheries in that area. More detailed maps included later in the seascape unit sections of this chapter indicate herring observations in these areas however.

Reduction
Few Haidas worked on the seine boats or were directly involved in the reduction fishery; some found employment in the processing plants. Several elders still remember seeing the reduction fishery at work in Skidegate Inlet and Juan Perez Sound.

We used to run out when they were fishing around Huxley Island. See boat after boat after boat getting loaded off one set—1200 ton sets… 1500 ton sets. It was common to catch …90,000 tons in a day or in a week. You know, it was quite common. Even in here, in Skidegate Inlet; they took thousands and thousands of tons out of here. (Percy Williams, Aug. 1998)

Although the herring reduction fishery was closed in 1968, many Haidas believe that its effects continue to impact some Haida Gwaii herring stocks today.

Stewardship Practices
In Haida tradition, fishing and gathering activities are generally guided by the principles of respect and moderation. Herring is no exception. Elder Jack Pollard talked about the relationship the Haida had with the herring and how careful people would be to not disturb the fish when they were about to spawn. He was taught to let the herring spawn for a few days before beginning to harvest.

... people used to go to Burnaby Narrows too. There used to be lots of k’aaw there. And when they start to spawn they don’t allow anyone to row out that they excite the herring. They quit then. So they just leave it alone for a couple of days. (Jack Pollard, Aug. 1998)

A younger participant, Ed Russ, said that he was taught to never take a whole school; “We always knew that we never, ever wanted to do that because you want to leave some to spawn wild ... you don’t want to deplete the stocks by consuming them all,” (Jul. 2008). This practice may help to ensure that there will always be some herring left for future harvests. Most Haidas understand herring in different areas to be different stocks. In keeping with this understanding, never taking the whole school should also help sustain even the smallest stocks.

The massive harvests typical of the herring reduction fishery do not necessarily follow similar practices. Many of the Haidas interviewed here object to the very large catch quotas allowed by DFO, as well as the assumption that herring can be managed in large geographic units. There were also some participants who felt that the reduction fishery was also distasteful, in that the herring meal could end up in agricultural fertilizer or animal feed – the

“Reduction ... that’s what I was against. You know, we stopped that. Why kill all that herring ... just for reduction? They could let them spawn... and keep them. Keep an abundance of herring.” (Dempsey Collinson, Jul. 2007)
implication being that it was a disrespectful use or a waste of the fish. Because of this history and experience with the reduction fishery, and due to both cultural differences and conflicting understandings of herring ecology, there are many Haidas that mistrust federal management strategies for herring today.

Much more in keeping with Haida stewardship principles are the methods used in the contemporary k’aaw fishery. As described earlier, ponding operations for the production of k’aaw were developed by Haida fishermen, and are based on their understandings of herring ecology, and grounded in Haida systems of belief and stewardship. It is a culturally appropriate and sustainable commercial fishery that is likely to help ensure the continued survival of the herring stocks.

...like they say, the [roe] herring fishery is 150% mortality because they not only kill ...the swimming herring ... they also kill the future stocks... and that’s why they always say that the roe on kelp is ...the most sustainable fishery that there is. Because they use the fish, take the eggs, but they let the fish go again to reproduce again. (Ed Russ, Jul. 2008)

The fishermen that take part in this fishery point out that not all the herring spawn in the pond – some spawn after they are released. In general, with careful handling there are very low mortalities associated with the ponding operations; most of the herring are believed to survive and return to Haida Gwaii waters to spawn again in following years.

**Ecological Observations**

This section contains Haida ecological knowledge about herring that is not specific to any one seascape unit or particular area of Haida Gwaii. Any observations pertaining specifically to certain areas are included later in the relevant seascape unit sections.

**Spawning Populations, Patterns and Timing**

The HMTK and herring interviews documented evidence that before herring numbers began to decline around Haida Gwaii different stocks or populations were known to have unique physical characteristics, fidelity to specific spawning locations, and different timings in each of those locations. Some herring stocks are known to be characterized by very large fish. Areas mentioned most often for large herring were Louscoone, Selwyn and Skidegate Inlet, whereas the herring that spawned in Naden Harbour and Masset Inlet are reported to be much smaller. While herring spawning can take place any time from February to July around Haida Gwaii, specific areas have distinctive, reliable and predictable spawning times. Despite the significant declines in abundance in many areas, neither the spawn locations nor timing seem to change much from year to year. Herring movements are also usually predictable; they tend to “hold” in certain areas, and then move in to suitable areas when they are ready to spawn.

There were also people that have experience with herring not behaving predictably in regards to spawning locations; “Sometimes they’re different, eh? Sometimes they won’t show up; they might show up over there. Herring are funny; they go wherever they want,” (Robin Brown, Apr. 2007). A few participants mentioned that herring behaviour can also be changed by fishery activities, including test fisheries. This observation was in regards to the effects of herring seining: “... it breaks them up into smaller schools and I don’t know what ... they must get screwed up ... but
For the most part, people agree on the broader herring spawning patterns. In the north end, Willie Russ Jr. and Vern Williams Sr. were amongst those that said the herring start spawning at Naden Harbour. This may start as early as February. They are next seen spawning down the west coast, spawning as far as Frederick Island around March and early April. Herring spawn in Masset Inlet around June and July. The two main herring spawns in the north end are in Masset Inlet and Naden Harbour. In the south of Haida Gwaii the predominant spawning pattern observed is the west coast first, then the east coast of Moresby Island, and lastly Skidegate Inlet.

One of the Skidegate participants said that herring start to spawn way up north first—places like Otard Bay were mentioned—then the pattern is south down the west coast. This participant felt that they are not going to a certain spot, but spawn anywhere they happen to be. Most others felt that herring spawning populations are distinct and that they seek out the same locations to spawn each year. In either case, all those interviewed agreed that the herring consistently move up the east coast towards Jedway, through Skincuttle, Juan Perez and Cumshewa, then in to Skidegate Inlet.

While it was not a prevalent theme in the interviews, there is some suggestion that herring spawning patterns may be starting to change, especially timings; “... with this global warming and everything, I don’t know, those patterns kind of get screwed up. In the last five or six years there’ve been spawns in Selwyn in February, so...” (Gary Russ, Mar. 2007). Conrad Collinson also said that he thinks spawning is occurring earlier in the year that it used to. He said that he has found herring in spawning areas in southern Haida Gwaii as early as February in the last few years, whereas in the past, they would be in those areas around mid-March (Oct. 2008).

Abundance and Population Trends
All interview participants have observed declines in herring abundance. They report that those declines have been widespread, seen throughout many areas of Haida Gwaii.

...there’s not that much herring around now, not like there was years ago ... like this time of year you should be seeing herring all around the island here, but we were down there a couple weeks ago and we didn’t see that much herring. You know, like when we used to start halibut fishing in the beginning of May, and Fred Kelly did a lot of bait fishing down there, had herring ponds down there. And Henry Geddes had bait ponds down there, and some guys from the mainland had it. And there just isn’t the herring no more like there used to be. [It’s drastically down] in the whole islands... (Henry Hageman, May 2007)
I know they had herring fishing in Naden before... Rennell Sound had a [commercial herring fishery], and Port Chanal had it, Port Athlow and that, Port Louis and that area had herring. And I think Rennell Sound... working our way down here... we had a... healthy herring fishery in Louscoone. And Houston Stewart had herring... I think Carpenter Bay had herring, Skincuttle for sure—all that—Burnaby. Gee, there’s a lot of healthy herring stocks around here. Boy... it’s sad when I think about how we used to fish herring here all the time, eh? And then the ponds, you know... probably pretty much...the whole darn east side here was all herring, and good healthy stocks. (Monte Stewart-Burton, May 2007)

Most elders feel that herring abundances declined dramatically following the peak of the reduction fisheries in the 1950s. While some of the herring populations recovered, others never did. For example, Skidegate Inlet stocks never seemed to recover, but populations around Burnaby Strait did seem to get better after the closure. During the Skidegate verification sessions, participants said that populations continued to recover until DFO increased the seine (roe herring) quota, and it was this last fishery that devastated the herring populations (Jun. 2010). The roe herring fishery was closed in 1994. Vince Pearson described catches on the west coast the year before the fishery was closed.

... one year before the closure ... they fished every fish out of Rennell Sound and Inskip... to get their 1000 tons. And they didn’t even get their 1000 tons. They quit at 800 tons because they couldn’t find any more fish. ... The fishermen finally shut it down themselves; the Fisheries didn’t. They just finally knew that ... if they catch every fish... they’re not going to come back. (Vince Pearson, Aug. 1998)

One of our younger participants felt that the herring populations were strong up until the 1990s.

... I noticed, especially in the inlet here... in front of Skidegate and ... like all through town, that you used to see herring spawn, oh, up into the early nineties even. The herring run... in Skidegate Inlet ... was pretty good and you hardly notice spawn on the beach now... as the nineties wore on – the mid, late nineties and up to the present – you don’t see nearly as much spawn in the inlet. (Willie Davies, Mar. 2009)

This is evidence that Haidas have witnessed large declines in herring during the reduction and roe fishery periods.

Species and Habitat Associations
As mentioned earlier, many species of fish, birds and marine mammals rely on herring as a major source of food throughout the year. Haida fishers know where schools of herring can be found in the summer and fall. In the spring, herring move into the nearshore areas to spawn, and their presence is announced by multitudes of accompanying predators. Because the movements are for the most part predictable, fishermen know both when and where they will be able to catch the fish that follow the herring, such as spring salmon and halibut.

“The sea lions always follow the herring, no matter where... wherever there’s herring you’re going to see a few sea lions.” (Percy Williams, Aug. 1998)
... whenever the herring are in here the spring salmon start to gather out here. And you can come out here and food fish for... spring salmon. [That’s out by Cape Edenshaw], yeah. [So when the herring start to move in], the spring salmon are out here. They’re probably over here too, but this is where they catch them. (Robin Brown, Apr. 2007)

The herring provide fresh bait to use for not only spring salmon and halibut, but also different types of cod and other bottom fish. Conrad Collinson described what it is like food-fishing during herring season near Huxley Island.

... [you get] lings, snappers, everything. You see everybody that did the roe on kelp down here, and guys that came down would all food-gather around here for their bottom fish ... [it] usually ... starts getting thick around the herring time, too. Halibut too, they move in... I think the spawns and everything drag them in. They get that smell... little halibut move in there. I imagine when the herring are spawning on the bottom ... they do a lot of spawning in the deep too... and I think that’s when the halibut get them ... when they’re letting go in the deep. The halibut just sit there and wait... feast on them. (Conrad Collinson, Oct. 2008)

Because of the strong association between herring and halibut, the two are often fished at the same time and in the same locations; “When the herring comes in, the halibut are there,” (Roy Jones Sr., Apr. 2007). This is also a time when you are likely to see vast numbers of whales, sea lions, and other marine mammals – all feeding on the herring.

So one time I was asking my mum why they named Second Beach Kay. You know them rocks on this side? Along the highway? They used to be just covered with sea lions all the time— that’s before the highway was put in—especially at this time of year when the herring start to come in, the sea lions used to come in and they used to just stay on the rocks there, where it’s nice and handy to go in after the herring. (Harvey Williams, Apr. 2007)

Lots of dolphins. Lots of dolphins. ... You start seeing splashes out on the horizon there and they’re coming fast, too. Next thing you know they’re right next to the boat. They pick up the vibrations, eh, off of the boat, and then they just jump off your bow and everything. But they’re feeding on the herring too... (Conrad Collinson, Oct. 2008)

...especially in the roe on kelp...we started running into whales, I’d say in ’98. And sometimes when we’re through and we’re heading south with our product, out in Hecate Strait ...you could see whales as far as the eye could see. But not in the inlets; they were ...out in the Hecate Strait. And I don’t know if they eventually ended up in the inlets, but ... that would be in the end of March, the early part of April ... I would imagine [they were] feeding. I imagine ... if the herring were in that volume in the inlets, they were probably out in the ocean also... (Gary Russ, Mar. 2007)

Diane Brown said she often used to see up to 30 killer whales around while they were picking k’aaw. Grey whales and humpbacks are also usually nearby.
Well, you know, the grey whales, they’re due to come in. You never used to see them come in here years ago. It’s just recently they start making their rounds through here, just about when the k’aaw season starts—that’s what they feed on. (Harvey Williams, Apr. 2007)

Some people said that they are now seeing more whales, in particular humpbacks along the whole east coast of Moresby Island, especially when herring are present.

Lots [of whales] on the east coast...in ... March, April and May ... there’s just tons of them down there and... when the herring’s down there? I don’t know if ... it sucks them in there, but anywhere out around Ramsay and right down to Scudder Point – just whales all over on the outside. You don’t see many of them way in. You run offshore a little bit and you run into the big pods of them and they’re pretty busy too, thick. (Conrad Collinson, Oct. 2008)

Some think this increased number of whales may be impacting herring by eating both the spawn and the adult fish. Robin Brown said he sees humpbacks around Graham Island and Langara also, and that they seem to be hanging around to feed on the herring before continuing north on their migration.

Seabirds are another indicator of herring presence and activity. Fishermen know to look for seagulls, cormorants and many other species when fishing herring.

I remember seeing...you know, so many birds. Uncle Rufus, he’d see all the birds and say, ‘You can’t fool the birds.’ When it came to the herring, eh? Then you’d see the whole shoreline would be white with the males’ milt ... miles of shoreline would appear white, like someone dumped cans of cream in there, and lots of it... (Monte Stewart-Burton, May 2007)

Percy Williams observed that seagull nesting at Alliford Bay coincides with the timing of herring coming in to Skidegate Inlet. However, with obvious and widespread declines in such an important prey species, it is natural that many of their predators would also decrease in abundance. A number of participants mentioned there are fewer marine birds and sea lions in some areas these days. Ernie Wilson said that he has seen changes like this in Skidegate Inlet.

There used to be a lot of sea lions, even the... k’yaalu, cormorants. Yeah. There used to be lots on both islands. In the evening you would hear them—oohwoowoo, oowoowoow— you could hear them plain as that. You don’t see them now. No feed for them. (Ernie Wilson, Aug. 1998)

Ernie also said that he has seen a change in the spring salmon in Skidegate Inlet since the herring numbers have declined.

... the spring salmon just come in—not very many—just come in to feed. Mostly they hang out out here; occasionally it seems some come in and just feed when there used to be herrings in the inlet. Yeah, now that there’s no herrings you don’t find no salmon in the inlet. (Ernie Wilson, Aug. 2008)

Elder Percy Williams has seen similar changes further south around Burnaby Narrows during his lifetime.

It was common to us, you know just to see... all that herring. No, it wasn’t uncommon. Everyday thing for us... when we used to travel the coast and see them—thousands and thousands of tons of herring. [They were] big spawns. As far as you can see. ... I know there
was millions of tons of fish because when they start moving to Burnaby Narrows it just sounded like a big rainfall or something. At night time, going through the narrows. And then the sea lions and the killer whales...right with them too. You hear those ... sea lions roaring all night...going through the narrows after the herring. ... [We don't see that as much now]... When we go ... looking for k’aaw in the spring it’s not nearly as much spawn, and a few sea lions... maybe 20 or 30 sea lions passing through. (Percy Williams, Aug. 1998)

*Kelp Ecosystems*

Kelp forests are a dominant feature in the marine landscape of Haida Gwaii. They provide critical habitat for numerous species of fish and shellfish, providing an essential function of food and/or shelter at many different life stages for many different species. It is common knowledge amongst fishermen that you find herring where there is kelp; some people fish near kelp patches to take advantage of this fact. For Haidas, kelp can also function in the landscape as a navigational aid, a way of marking and remembering fishing grounds, and a tie-off for boats. Bull kelp (*Nereocystis*) has been used as a vessel for liquids, a material for fishing line, and an offshore boat anchor, among many other uses. Kelp is also featured in many Haida stories, as it provides a way of travelling down to the undersea world.

Perhaps the most important practical function of giant kelp (*Macrocystis integrifolia*) in recent generations is its use in the commercial SOK and traditional k’aaw fisheries – good SOK or k’aaw is dependent on good kelp. As a result, many fishermen have observations regarding kelp that are relevant to the present herring discussion; we include some of the ecological information that was documented about kelp during the HMTK and 1998 herring studies here. More details on kelp, including other traditional Haida uses and other species, are included in a separate summary written on seaweeds.

Some of the species most often associated with kelp during the interviews were: sea urchins, abalone, and chitons. Red turban snails, sea cucumbers and shrimp were also mentioned as regular inhabitants of kelp patches. In fact, there are many types of shellfish that people harvest by searching out the kelp. For finfish, the kelp can provide a safe rearing place for juveniles, and for adults, sources of food and a place to hide from predators. Reynold Russ said that you can actually see cod move into the kelp when there is a predator like a shark or a whale nearby. Other fish species commonly found in kelp are: young salmon, rockfish, halibut, cutthroat trout, and of course the herring.

Because of the important ecological roles that kelp forests play, there can be sensitivity around kelp harvesting. For example, there

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*Photo: Haida Fisheries Program/Sharon Jeffrey*

**Figure 10:** Photo of a giant kelp forest on Haida Gwaii.
was a commercial kelp harvesting operation in Haida Gwaii for a very brief period and many Haidas complained against the harvest because of the importance of the kelp for salmon fry, amongst other reasons.

In regards to the giant kelp harvested for the SOK and k’aaw fisheries, for the most part, Haida fishermen usually harvest their kelp from the same patches each year, and follow unwritten rules about respectful harvest in order to ensure future harvests at these locations. Some traditional methods of harvesting seaweed may be applied to the kelp harvest, such as minimizing the use of metal tools and harvesting the fronds so that enough is left behind for the kelp to regenerate. When interviewed in 1998, Vince Pearson felt that some of the kelp beds with which he was familiar might be improving; “Kelp’s been getting better; it’s been easier to get. And there’s lots of it. Nicer kelp. I don’t know—it must be just like gardening; you’re just like pruning them or something... because some of the kelp beds are getting really good,” (Aug. 1998). However, Vince has also witnessed years when the kelp wasn’t as good and he could not harvest in his usual places; “... But there’s some years that, I don’t know, it’s not warm enough or something. Louscoone we have problems. We have ... to run to the east side... just to get the kelp,” (Vince Pearson, Aug. 1998).

The only other significant change Vince noticed in regards to kelp was at Skaat Harbour; once again it is an observation that kelp beds were improving at the end of the nineties.

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<th>Tommy Greene</th>
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There’s just ... one change since I’ve been fishing, Skaat Harbour—right across Section Cove. There never used to be good kelp beds there but now ... there’s really good quality kelp out there ... like I say, the kelp beds are getting better ... but... we’re learning more, too. We don’t pick as much as we used to ... now ... we just select... the best kelp and... we’ve got the timing down and we know ... the actions of the fish, how the fish act before they’re going to spawn. So when they start... like I say, they start... out in Scudder Point and then they move in. It takes them about probably two days to move in, right into Section. So we start picking kelp then, and then the fish start flipping in Section and we start fishing. And ... it’s the same in all places. You can tell... actions of the fish when they’re ready to spawn. You have a couple days... to pick your kelp. (Vince Pearson, Aug. 1998)

During the interviews that were conducted roughly ten years later, there were several observations that trends in kelp beds may have reversed in recent years. Tommy Greene had this observation;

“... I think three years ago we went out for k’aaw ... we went looking for kelp everywhere in our traditional kelp grounds on the east coast? And there was none. Nothing. ... it was unreal. Flagstaff there wasn’t even a leaf... maybe... some k’aaw-pickers did it; I don’t know. But I can’t see that they’d pick everything... they just pick the good leaves.” (Tommy Greene, Oct. 2008)

Many of those involved in the SOK/k’aaw fisheries say that they too harvest kelp around Flagstaff (Gray Point area), but we did not record any other observations of the kelp disappearing at this site. We did however document other observations that some kelp beds are not where they used to be reliably, but are now popping up in different areas and
are less predictable than in earlier times. Ernie Gladstone – both a fisherman and a diver – said that he has seen extensive “sea urchin barrens” when diving around Haida Gwaii in recent years; “… they’re wiping out the kelp and… all the vegetation that grows underwater, and then that… starts having an effect on other things too. The young fish that hide amongst the kelp and whatnot, there’s no place for them to hide anymore…” (Nov. 2008). Tim Edgars and Ernest Davis also mentioned that there used to be a lot of good kelp in West Arm (Juskatla Inlet), but it’s not there anymore.

Elder Ernie Wilson, who spent most of his 96 years living on the shores of Skidegate Inlet, said that as long as there used to be kelp patches, the herring would spawn throughout the whole inlet. During those times when the kelp was no good for spawning, he saw the herring spawn along the beach.

Eelgrass Meadows and Other Ecosystems
Another ecosystem type favoured by herring as suitable spawning substrate is the eelgrass meadow. Many study participants documented areas where they have seen herring deposit eggs on eelgrass; a lot of these areas were located in the north of Haida Gwaii – places such as Naden Harbour, Buckley Bay and Stanley Creek were mentioned numerous times. Percy Williams had some observations of this occurring around Skidegate Inlet. He said that he has seen herring spawn on eelgrass along the beach from Tlell all the way up Skidegate Inlet to Queen Charlotte City, and from Grassy Island all the way up towards Alliford Bay. There is also an ancient village site on the east coast at Tanu – which is the Skidegate Haida word for eelgrass (t’aanuu).

Willie Russ Jr. said that he has seen herring spawn in goose grass at Awun River, however, we were not able to confirm the species, and there is a chance this is also an eelgrass ecosystem. Willie, like some of our other participants, has tried once or twice to harvest or eat the eggs that are laid on intertidal grasses.

... you couldn’t dry it, eh? Because you know the goose grass is just like grass ... they lay their eggs on each string. So, when you’re going to eat it ... you just put it in between your fingers, something like that, and run it. It takes the eggs off, but [it] never used to taste right, eh? It taste real like kelp. It didn’t have the herring roe taste in it. (Willie Russ Jr., Mar. 2009)

Stephen Brown has also seen the herring spawn near Awun and described the plant they used there was a seaweed or kelp, though not like the wide fronds of kelp that he is used to; “Up there there’s no kelp like that...there was [a] little balloon type along the beach,” (Feb. 2009). His description sounds like what scientists would call sea wrack or rockweed.

Herring Distribution and Harvesting Areas by Seascape Unit
As outlined in the introduction, there is a wide range of ways in which the herring eggs and the adult herring itself may be harvested. Many of the Haidas interviewed for the HMTK study and the 1998 herring study have accumulated a lifetime of knowledge regarding herring presence, behaviour, spawning and movement patterns; this knowledge is for the most part inseparable from their experience with fishing and harvesting areas. As a result, we have generally not distinguished between Haida use areas and other spatial ecological information in regards to herring in the maps presented in this section. We would also like to remind the reader that no maps were used during the 1998 herring sessions, meaning that relatively little spatial information was documented for herring.
The maps in this section are a compilation of the results from all the HMTK interviews and show all distribution and/or harvesting information that was spatially documented. The polygons include observations of herring presence, natural spawn observations, SOK and/or k’aaw harvesting and ponding areas, as well as records of herring seining, gillnetting and raking. Herring spatial information was documented in six seascape units relevant to the PNCIMA planning area.

**Dixon Entrance**

As shown below in Figure 11 the HMTK study documented herring presence and harvesting areas along the north coast of Graham Island, all the way around Langara or North Island, and into Naden Harbour. Some of the elders said that before the 1960s there also used to be big populations of herring at Shag Rock, Cape Edenshaw, outside Naden Harbour, and outside Jalun River. Reynold Russ said there used to be more herring around Langara than anywhere else in the north end. Henry Hageman, another fisherman with a lot of experience in this area, told us that the herring are not at Langara like they used to be; they used to be the fattest and the best herring to use for bait. A younger fisherman, Willie Davies, says he still sees lots of herring and needlefish around Klashwun and that they are in this area June through September.

**Figure 11**: Herring and k’aaw observations and harvesting areas in Dixon Entrance.
Robin Brown has seen herring spawn on eelgrass in Naden Harbour between the months of February and May. Henry Hageman also identified the shoreline around Stanley Creek for spawning.

...they spawn up in Naden here, the Stanley Creek area. Up in this area. When we were seal hunting, in the ‘60s, we shot seals in there and we got them and I guess they would go through the spawning areas because all their face would be covered with k’aaw. Their whiskers were all full of it. And their nose. (Henry Hageman, May 2007)

Francis Ingram said that he remembers when there were lots of herring in Naden Harbour and that they would regularly spawn on the beaches at Kung. According to a number of elders, even in the times when the fish were abundant, the Naden herring tend to be smaller than in other locations. Naden Harbour supported a commercial roe herring fishery for one or two years several decades ago. Percy Williams said that the Naden Harbour bait fishery was formerly productive, but that overfishing impacted the population and there is hardly any spawn activity there now.

**Masset Inlet**

The areas documented for herring and k’aaw in Masset Inlet include shorelines near the Ain and Awun Rivers, Juskatla Inlet, Dinan Bay, Cub Island, and Buckley Bay. The map in Figure 12 shows all the areas that were documented for herring in the Masset Inlet seascape unit during the HMTK interviews.

![Herring and Spawn Observations & Haida Marine Harvesting Areas - Masset Inlet](image)

Figure 12: Herring and k’aaw observations and harvesting areas in Masset Inlet.
Herring spawn in Masset Inlet later than in many other areas; most herring activities take place here in June and July.

[Herring] spawn up the inlet ... they’re a small fish; they’ll be getting them down here probably the end of next month. And they spawn up in Buckley Bay. That would be over around in here. They spawn on that eel grass, eh? There’s a little herring in the inlet now; we seen some this morning but they’re only about this big... the birds and seals were chasing them up and feeding on them. (Henry Hageman, May 2007)

Robin Brown is very familiar with herring movements around the north end. He said that although herring usually spawn anytime between February and May, they generally seem to hang around outside Masset Inlet for a time before entering the inlet to spawn much later, often after July 20th. Juskatla Inlet can also have big herring spawns and they have always been an important source of food for Massett Haidas.

But in these areas, these are all fish areas, where ...our people fished. And herring, another one in here [Juskatla]; that’s a vital one. There’s a big spawn area goes on here, in June. (Robin Brown, Apr. 2007)

Many people have seen herring spawn around Buckley Bay in June and July. The spawning at the Ain and Awun rivers occurs at a similar time. In the 1970s Willie Russ Jr. saw spawns in both areas in June and July when he was there during the sockeye run.

... Sunday morning, dad used to take a walk from Ain River right along the beach ... when he came back he said ... ‘Come down and see what I seen.’ So ... we all went down to see it. Here the whole beach where the geese feed, eh? They dig a big hole like this where they feed... and all that was filled with herring eggs. The whole beach was just white with it. That was the first time that ever happened dad said. ... Right on the shoreline. At low water, right alongside the river. (Willie Russ Jr., 2009)

In 1998 Percy Williams reported that these herring stocks were still strong in Masset Inlet.

Masset Inlet—thank goodness that’s still strong. A lot of people didn’t even know it spawned in there. I mentioned it to Fisheries one time and they didn’t know it spawned in there... Juskatla Inlet and Shannon Bay and all through the inlet. I heard the seals follow them in there late June and early July. I used to seal hunt up there... the seals would surface and their face was just covered with roe, you know, k’aaw. And there was lots for them to eat up there—a lot of herring up there. The water’s murky red; you can’t see but you see the eagles sitting along the rock just picking the herring out of the water. ...They just sit there, and reach out and grab a herring. [A] lot of herring go up there. (Percy Williams, Aug. 1998)

We did not document many more recent observations of herring trends and abundances for this area, however Robert Bennett and Oliver Bell talked about how it was a good place to fish halibut, since they follow the herring in during summer.
... summer you get a little more halibut... You get more along the shores here in the inlet because the herring come in in June—June, July—right up to the head of Masset Inlet, around by Awun Bay... where the herring is. So that’s when you start catching more halibut along the shores in the inlet... They follow it in; they eat them. (Oliver Bell, Dec. 2008)

**Skidegate Inlet**

Traditionally, Skidegate Inlet has been a very important area for gathering *k’aaw* because it is so easily accessible from the village. In addition, Skidegate Inlet has historically had very abundant herring populations. Roy Jones Senior said every week from April to July the herring would spawn in different places in the inlet. Some spawn was on kelp – like around *Sgaay.yas* and *Gud K’aagwas* – and some was on eel grass along the shorelines.

Bait ponds have been kept at Skidegate Landing, as well as *Sgaay.yas*, and spawn-on-kelp operations took place in many different locations within the inlet. The last seine fishery in Skidegate Inlet took place during the reduction fisheries, roughly 50 years ago.

The abundance of herring attracts other species, such as the halibut that follow herring into the inlet between February to May; these months are known to be a good time to fish halibut. Unfortunately, herring abundance in the inlet has declined dramatically within the lifetimes of those interviewed here; “Long ago, there weren’t that many people that picked it. Just ... a few boats would be out, and then it got kind of commercialized, where everybody wanted to sell *k’aaw* and I think again we fished it out,” (Diane Brown, April 2007). However, most feel that the reduction fishery is to blame. All the elders were able to describe how abundant the herring were in Skidegate Inlet before the reduction fisheries.

... there was such an abundance of [*k’aaw*] at the time, right out here, at the islands. But the past few years there hasn’t been much ... since that reduction wiped us out here, there was hardly any herring after that. But that’s what we used to do out here—get enough roe on kelp for the winter, right out here ... Everybody went out and loaded up. (Dempsey Collinson, Aug. 1998)

We had plenty herring in here then. And... they had that big fishery one year and the herring got kind of scarce. They used it for fertilizer. Just imagine all them good herring they used

“... the whole inlet used to spawn, as long as those kelp patches... even through the outside of Charlotte, even... in amongst little islands. [It] used to spawn all over.” (Ernie Wilson, Aug. 1998)
for fertilizer. And there was millions of boats out here taking loads of herring out of here. That’s what really killed the stock. They didn’t even stop them. (Roy Jones Sr., Aug. 1998)

... we used to get some [k’aaw] right in here, too ... they had no quota in the inlet; they fished it out a couple of times and then it (claps)—no more fish in the inlet... just been lacking off and on ever since. After they really cleaned it out. All at night time, winter time, you see it like a big city out there—all these big seine boats with their lights. Just tons and tons taking ...herrings out of there ...even now there’s still nothing. ... It ...never really came back... after they cleaned it out. (Ernie Wilson, Aug. 1998)

Roy Jones Senior said that most of the reduction fleet would fish in Skidegate Inlet because it had such big herring. It is likely that it suffered even greater losses than some of the islands’ other herring populations. One participant, Vince Pearson, observed that Skidegate herring occur in smaller schools than other areas; it is not known if this is a response to the heavy industrial fishing pressure. The map in Figure 13 shows the herring spatial information relevant to Skidegate Inlet that was documented.

Figure 13: Herring and k’aaw observations and harvesting areas in Skidegate Inlet.
It is apparent that herring can be present and may be fished throughout the entirety of the inlet, when stocks are abundant. However, one participant in the Skidegate verification sessions said that he has never seen herring spawn west of Lina Island.

**Hecate North**

During the interviews, no herring fisheries were documented north of Skidegate Inlet. Traditionally, many Skidegate Haidas move south in the spring to harvest halibut, shellfish, seaweed and k’aaw in both Cumshewa and Selwyn Inlets. Figure 14 shows the herring and k’aaw areas that were identified.

![Herring and Spawn Observations & Haida Marine Harvesting Areas](image)

**Figure 14:** Herring and k’aaw observations and harvesting areas in Hecate North.
While few areas were mapped in Cumshewa Inlet, many elders said this area used to support good commercial herring fisheries. It was identified as having been one of the biggest herring fisheries on the east coast; “Conglomerate [Point] all the ways out to McCoy Cove used to be almost all blue. This was blue all the time for spawn,” (Captain Gold, Mar. 2009). Captain Gold said that logging has negatively impacted herring in Cumshewa Inlet. Vince Pearson also said that herring used to spawn quite a bit in Beattie Anchorage until the log booms went in.

Selwyn Inlet was mentioned time and time again as being very productive for herring; the herring in Selwyn are also reported to be some of the biggest on the islands. Herring and/or herring spawn has been documented throughout most of Selwyn inlet, into Pacofi, Sewell and Lagoon Inlets, in Thurston Harbour, and through Carmichael Passage. Both Sewell and Lagoon Inlets used to support winter herring reduction fisheries. Jack Pollard said his family used to smoke and put away whole herring while living at Lagoon. The herring were also used as bait in the dogfish fishery. Some canneries also pickled herring. Roe on kelp operations have been situated at Little Goose Creek, in Sewell Inlet and at Traynor Creek. Herring reportedly spawn throughout the area from Traynor Creek to the narrows. Naturally, there are many traditional կաաս harvesting sites throughout this area. Good places to harvest kelp for spawn-on-kelp operations are also found in the Hecate North Seascape Unit. Several of those interviewed said they harvest their kelp around Flagstaff, but Gray Point and McCoy Cove were also mentioned as having good kelp.

Industrial herring fishery operations have been active in this area over many decades. Percy Williams was amongst the elders who remembered there being a reduction plant located at Pacofi. The plant operated between 1938 and 1943. Dempsey Collinson said that he used to see 40-50 ton catches of herring being delivered there.

Only one observation of herring spawning in Hecate Strait north of Cumshewa was documented during the interviews. Percy Williams told us about seeing spawns off Tlell.

“But the herring are smart; they just spawn a little bit along right from Tlell—we used to hunt seals up there... when they’re chasing the herring, and it used to spawn a bit all along the beach, right from Tlell all the way up the inlet, right to Charlotte. And they still do that; they just spawn a bit on the eelgrass. That’s Mother’s Nature’s way of making them survive, I guess. So the Indians don’t get it. ... Yeah, that was in the sixties when we used to hunt seals up there.” (Percy Williams, 1998)

During the Skidegate verification sessions, Roy Jones Sr. agreed with this observation, saying that he has witnessed light herring spawns along this whole section of the coast, up as far as Lawn Point.

**Gwaii Haanas**

The historic abundances down the east coast of this region have been some of the highest on the islands. All types of fisheries are supported in this area. Many Skidegate Haidas traditionally traveled south to Burnaby Narrows each year to harvest their կաաս. Commercial roe on kelp ponding operations
are widespread throughout both the east and lower west coast of Moresby Island. The three main places for the roe herring fishery are Louscoone, Skincuttle and Burnaby Strait. Figure 15 shows the spawn and herring observations and fisheries recorded for Gwaii Haanas.

Figure 15: Herring and *k’aaw* observations and harvesting areas in Gwaii Haanas.
Many interview participants report that herring spawn in a south to north pattern up the east coast of Moresby Island. For ease of discussion we have separated the information for the Gwaii Haanas Seascape Unit into 4 sub-regions: Flamingo Inlet to Carpenter Bay, Skincuttle Inlet, Burnaby Narrows, and Juan Perez Sound to Laskeek Bay, following this south-to-north pattern.

**Flamingo Inlet to Carpenter Bay**

Herring spawning begins in this region at Flamingo Inlet on the west coast of Moresby Island. Vince Pearson said that herring seem to hang around Sgang Gwaay before moving up into Louscoone Inlet to spawn; Judson Brown has observed humpbacks feeding on balls of herring around this area. Herring spawn in Louscoone around the end of February or beginning of March. They are documented to spawn about 1-1 ½ miles along the east shore of Louscoone and at the head of the inlet. Many participants said that Louscoone used to have really big herring, comparable to those of Selwyn Inlet in size. There was a strong herring fishery here in the past, with excellent locations for roe on kelp operations. However, a decline in the Louscoone herring populations forced a closure to the seine fishery there by the 1980s.

I think ’79 they had the last big seine herring opening in there, and they wiped it out for the herring. ... [Now] they do roe on kelp, but no seine. Yeah, in ’79 it went nuts; it went like $5,500 a ton for gillnetting. (Tommy Greene, Oct. 2008)

Herring are also found in Houston Stewart Channel. This is a rich and productive area for many species, and an important travel route for fishermen. While we documented few direct experiences of herring spawn or herring fisheries further south, there were many people who said they see an abundance of forage fish off Cape St. James while fishing there for other species; “... just feed. Just tons of them, that’s why we get such an abundance of birds and all the other animals that prey on them,” (Captain Gold, Mar. 2008). Herring may also spawn in Carpenter Bay and Collison Bay. After Carpenter Bay the herring spawn in Skincuttle.

**Skincuttle Inlet**

The herring in Skincuttle are smaller than in other places, but spawn throughout the inlet. Roe on kelp operations have been conducted in many places, such as Poole Inlet, Slim Inlet, Huston Inlet, Harriet Harbour and Jedway Bay. The Copper Islands were also noted to have very abundant herring populations. Skincuttle has healthy kelp patches and a number of good sites to harvest kelp for the roe on kelp fishery.

For spawn timing, the earliest spawns were seen in George Bay and in Huston Inlet. Unfortunately, this area has suffered declines in recent years.

George Bay, that’s where they used to seem to start spawning first ... of course, this whole area is spawn. Not much anymore because they wiped it out. Over-fished. Huston, that’s where I had my ponds, too, and (?) fish up in this area, in Huston. ... All around this whole area is our food. (Dempsey Collinson, Jun. 2007)

In 1998 Vince Pearson observed that herring failed to spawn in Huston Inlet after a roe fishery; usually a reliable fishery takes place there.
Huston, [herring] usually spawn right up in the head of Huston, but I didn’t see the spawn there this year. The herring seines are right up on the beach there... there wasn’t a spawn there. And ... this is the first time in, I don’t know, since probably about twenty years...
(Vince Pearson, Aug. 1998)

Burnaby Narrows

Herring used to spawn consistently throughout Burnaby Narrows and the surrounding area.

’79 I seen the whole of [Burnaby] island like, was white with herring spawn. ... Yeah, the whole island; we went around the whole island. There was spawn everywhere in there. ... Now you’re lucky to get a spot spawn. ... Ah, there’s probably halibut grounds out there too, because ... when the herring were there, you could throw a hook in anywhere and you’d jig a halibut. It was unreal.
(Tommy Greene, Oct. 2008)

They spawn all over—this whole island, all along here, all over here, all through Skincuttle Inlet, and they spawn up here, all along this area [just south of Lyell Island]. There’s so much herring, they spawn anywhere. At Scudder Point they spawn, right out here, they spawn all along this shore here—right around the island. There’s so much herring around; they’re all fished out now. (Roy Jones Sr., Apr. 2007)

Herring have always had a high abundance around Burnaby Island; Scudder Point in particular was mentioned repeatedly, “That Scudder Point, [herring] were so thick, they even spawned on rocks. It’d get real thick on rocks. [You could] ... just peel it off the rocks,” (Roy Jones Sr., Apr. 2007). More than one person said that those high abundances and big spawns are now a thing of the past; “...on Scudder Point here, I seen one of the biggest spawns of my life, when I was 18 or 19. Started spawning from out here all the way into the point here,” (Ed Russ, Jul. 2008). Ed said he doesn’t see that happen anymore. However, one of our youngest participants Willie Davies says he still sees a lot of herring in this area every year; “That’s probably the highest abundance of herring I ... encounter ... of the whole east coast... that’s the area where you see the most herring it seems,” (Willie Davies, Mar. 2009).

The heavy and consistent spawns in this area have meant that commercial and traditional k’aaw fisheries have played an important role in Haida movement patterns for generations. Traditionally, many Haidas would come to Burnaby Narrows and stay at seasonal camps to gather k’aaw and many other spring time foods, as well as fish herring for halibut bait.

...there used to be a small village [at Burnaby Narrows]. Everybody had their own cabins there and we used to go there to get k’aaw, halibut, you know. They used to dry the halibut, dry the k’aaw, or salt it. And spend the whole month of April and May down there. Or even earlier than that, it spawns quite a bit earlier than it does around here. (Harvey Williams, Apr. 2007)

‘Course, them days, the [herring] spawn used to be right from Burnaby all the ways up to Bigsby, all the ways up to Ikeda Point... Even further south, but that’s as far as we used to go—Ikeda Point. It was so darn thick you don’t have to go after... and a [Japanese man] was buying it [by Jedway]; he had a cannery...saltery in here. Yeah, he used to buy it dried from...
us... twenty-two cents a pound! Lots of work! ... Rowing, that is, imagine! All the ways up... we’d have trolling gear aboard; if we see a fish jump, we’d throw the gear overboard. Yeah, wonderful life. It was. That’s why I think I’m lasting so long. Yeah... like I said before, never even get a headache. (Ernie Wilson, Mar. 2007)

Burnaby Straits was said to have one of the biggest roe fisheries on-island. Like Skidegate Inlet, there was a heavy commercial seine and gillnet fishery in the area around Skincuttle and Burnaby Narrows. Percy Williams told us about fishing in Bag Harbour in the late 1970s when there were so many boats there was no room to set a net; “Just a tiny little bay; the herring were just packed in there,” (Jul. 2008). Some of the other areas mentioned as having big spawns were Island Bay, Kat Island and Skaat Harbour — although some of these populations have declined precipitously in recent years.

Juan Perez to Laskeek Bay

Juan Perez Sound is another area renowned for its abundance of herring. The participants interviewed about this area reported generally catching smaller herring than other places. Roe on kelp operations are run in many locations here, including Haswell Bay, Hutton Inlet, De la Beche, Werner Bay, and Section Cove – of these Section Cove was mentioned most often. Juan Perez has supported herring seine fisheries as well as many traditional Haida fisheries over the years. Many people used to spend the month of March in Juan Perez, looking for kelp, gathering and putting up other food—such as clams, halibut, etc.—while waiting for the herring to spawn. Because of low abundances, people have not been doing this as much in recent years.

Many people had observations of herring spawning all the way from Alder Island to Scudder Point, but by the late 1990s Vince Pearson said that this area was now only getting “little spot spawns”. Apart from the declines in abundance, it seems that the herring are mostly still following usual movement and spawning patterns. More than one fisherman said that the Section Cove herring predictably hang out around All Alone Stone until ready to spawn. It seems as if the herring “hold” or stay in the area around Juan Perez Sound and Burnaby Straits until they move into their specific spawning locations, but they may also spend other months of the year there. These observations come from the SOK fishery in the area.

... when they’re ready to spawn ... it seems like they head out to Scudder Point. They hold in Juan Perez and ... then they hold in Section Cove... that’s when we fished them ... that’s when they’re mature enough ... to fish. We fished them there. Then they move out to Scudder Point... and then they start spawning and moved away into Section Cove. (Vince Pearson, Aug. 1998)

... in Juan Perez they hang out in huge schools ... Mid-March to the end of March. Huge schools—I don’t know where they all go. ... More than what you see spawning. For sure ... unless they all hold there. Some go up to Sewell, and some go ... down to Skincuttle ... when you go out there... there is a lot of fish. [You see similar concentrations] in Skincuttle... out around the mine there. There’s always lots of fish there. Early. But they disappear[ed] too. (Vince Pearson, Aug. 1998)

Willie Davies said that herring are around Arichika Island and in Werner Bay in the months of May through September. Herring are also found in this area during the summer. Moving further north still,
there have been reports of lots of herring in Atli Inlet, Darwin Sound, Crescent Inlet and Lockeport in the past.

**West Coast**

Observations of spawning patterns on the north end of Haida Gwaii indicate that herring move from north to south down the west coast of Graham Island. Many participants in the herring interviews and the HMTK study said that the herring seem to spawn first at Naden Harbour and Langara, and then move down towards Frederick Island. Since SOK fisheries in Gwaii Haanas have been closed, there has been some SOK effort on the west coast at locations such as Kano Inlet, Rennell Sound, Seal Inlet, Port Canal, Port Athlow, and Port Louis, Inskip also supported both SOK operations and a commercial herring fishery, but was reportedly fished out decades ago. There is an abundance of forage fish such as herring in many spots along the west coast; Willie Davies has fished springs and coho from Tian Head to Cartwright Sound and says he saw herring in all these areas. Ernie Gladstone had a similar observation from fishing off Tian:

... we were actually fishing offshore—we were about 5 miles out I think—and we were fishing at 50 fathoms. And yeah, we were doing really good ... probably catching about 50 springs a day, I guess ... we spent most of our time—spent a whole trip out there—so two weeks and we were following around this big ball of herring that was down at 50 fathoms. It was about ... two miles long and about a mile wide, and then you know, it was so deep ... so thick it was just showing up as rock on the sounder. (Ernie Gladstone, Nov. 2008)

Rennell Sound was also an area that many people said had abundant herring populations.

There used to be a lot of herring there. See k’aaw drift up on the beaches; it used to be just piled up on the beach, like that. A foot or two high, piled up on the beach and way up the head... the eggs, yeah, the k’aaw. Even Dawson Harbour used to have a fairly good spawn. And that doesn’t happen very much anymore. And Skidegate Narrows—on this side of Skidegate Narrows—there used to be spawn there. We used to get k’aaw there but not anymore... that was in March—late March or early April. (Percy Williams, Aug. 1998)

Another elder, Ernie Wilson, concurred that herring used to spawn all the way from Skidegate Narrows to Dawson Harbour, but that this is not seen any more either.

Many salmon fishermen fish near Marble Island and have observations of both needlefish and herring near that island and around Chaatl Island also. Judson Brown said that he saw the “biggest bait ball I’ve ever seen in my life” at Marble Island while trolling spring and coho salmon; his observation was of herring and took place in the late 1980s (Dec. 2008). One participant said that he is seeing more herring around Skidegate or Tcenakun Point from 2000 to 2008, otherwise he has seen less feed on the west coast overall in recent years, “… there seems to be less feed in recent years, maybe the last three years... in the Rennell Sound area anyway, say from Kunakun Point to down to Hunter ... It seems like there’s less ... herring. ... The fishing hasn’t been... very good there for Chinook in the last three years,” (Willie Davies, Mar. 2009). Other fishermen had similar observations, saying that there used to be tons of herring at Cone Head, Marble Island and Hunter Point, and even small herring spawns in some west coast locations, like Port Athlow, until the commercial fisheries impacted them. Figure 16 shows herring areas documented for the West Coast.
Figure 16: Herring and k’aaw observations and harvesting areas on the West Coast.
Management Issues and Suggestions

There is consensus among Haidas that today’s herring stocks are a fraction of their former levels. Many people expressed dismay over the declines they have seen in their lifetimes. Because herring and k’aaw are critically important to Haida culture and livelihood, there is a keen interest in influencing the management of the herring populations in a way that will sustain them for future generations. These topics are explored a little further here.

Cultural Value and Statements of Loss

The Haida way of life is enriched by shared fishing and gathering activities. During the HMTK interviews people often expressed their excitement and joy at moving to spring fishing camps to harvest things like k’aaw and herring. Dempsey Collison described how k’aaw dang was often a cooperative effort.

... everybody would just go out ... everybody worked together, helped each others. That’s the way it was. Old people were ... that way. [We would] salt it for the winter or dry it. Sundried mostly, hey? When the weather’s nice. Then we put it away for the winter. (Dempsey Collinson, Aug. 1998)

It is not just the food or income but also the experience that people look forward to. Herring fishing is an integral part of life for many Haidas, and a way of life that is thought of fondly.

... I like herring fishing. That’s the best thing I like in my life, fishing herring. Without sonar. With just the sounder—that’s what I like. That’s because it’s a challenge; you don’t know whether you’re going to get it because you’ve got no sonar to tell you where the fish is. You just got to chance it. That’s real fishing. Now you got sonar and ... you can tell exactly how much fish is in that school. If you want to take the whole works, you can take the whole works with a net, or else if you just want part of that school, you just take part of the school which you can see on the sonar. ... Yeah, too easy. I like it when it’s a struggle. It’s a big challenge to get herring. (Roy Jones Sr., Apr. 2007)

These seasonal activities help maintain intimate relationships with the landscape as well as cultural continuity. Declines in Haida Gwaii herring populations have impacted many traditional activities, including harvesting, feasting and sharing food, trade, and passing fishing and gathering traditions and knowledge on to the next generations. Norman Price said that he used to look forward to gathering his k’aaw at Burnaby Narrows every year, but not any longer.

Well, there’s nothing to go there for. You [used to] get roe on kelp here, but now you don’t get it anymore. You used to get roe on kelp out here, plenty of it. Now the whales scared all the herring away and Fisheries from Ottawa or some place is controlling this place and they don’t know nothing about it. And they’re cleaning up everything. So that’s what buggered up the... roe on kelp. So there’s no more... roe on kelp anymore. (Norman Price, May 2007)

Many Haidas expressed sadness about the present situation.

... it makes me sad to see that there’s just little spots spawning now. When we used to be hunting seals, rowing along the beach, we’d row all day—half a day in one direction and half a day coming back—and there was spawn all the way. Whichever direction we went—down south or back this way—there’s spawn all the way. Lots of it. (Percy Williams, Jul. 2008)
There continues to be deep frustration about how the herring fisheries have been managed by Fisheries and Oceans Canada. Most believe that large commercial harvests do not allow the stocks to recover.

**Past Commercial Harvests**

Federal fisheries biologists and Haida herring fishermen have disagreed about the status of Haida Gwaii herring stocks in recent years. Most Haida fishermen feel that many stocks remain depressed today, and that large commercial harvests are responsible for depleting the fish; in particular, the reduction fishery pushed some populations to a low from which they have not recovered.

...when I was a kid, there was an extensive reduction herring fishery... from the village you could see the boats all anchored up—it looked like a city across the bay—all the boats that were anchored up there. And they fished that out. (Gary Russ, Mar. 2007)

Compounding the initial impact of the reduction fisheries are the continued high harvests taken under other commercial licences today.

Commercial fishing is just cleaning it out steadily; they’re giving it no time to recover. You’ve got to have a recovery population and then if you go below that then it’s just tough, tough, tough to get back. (Captain Gold, Mar. 2009)

... DFO have fished it out again and again and again, and I think it was 1994 they fished out the west coast and it’s been closed, essentially, for commercial fishing until the last few years, when they have again fished out the east coast ... (Gary Russ, Mar. 2007)

Because many Haidas assert that the herring populations in different areas are distinct stocks, they disagree with the federal approach to managing in large geographic units.

... herring comes back to certain areas to spawn... so what the Fisheries ... were telling the fishermen is that they would preserve this stock over here and let the fisheries go into one area. And the fishermen would clean up... that whole bay, and the herring went back to that particular bay to spawn, and the Fisheries would open that area, and the fishermen would clean out that herring ... and no herring would go back there ... then they would move on to another area and do the same thing. Put a whole bunch of boats into a small area and they would clean up... the herring that’s supposed to return to spawn. (Reynold Russ, Jul. 2007)

Haida fishermen have repeatedly warned DFO that the herring takes were too large, that they were in essence removing entire sub-populations of fish by allowing such large quotas in restricted areas. There is a lot of frustration that federal managers failed to listen to the warnings of the local resource users.

... the big problem that I’ve found is that ... the Department of Fisheries never listened to the people that fished the herring or fished the salmon. Never want to listen to the fishermen of over-harvesting or... whatever DFO is doing, and you know, they were doing wrong. ... If DFO had listened to the fishermen, the skippers, and all those that were in the fishing industry, I don’t think we’d be in the problem we’re into now. (Reynold Russ, Jul. 2007)
Nonetheless, there is hope that with time and careful management the stocks can and will recover; “…since they quit allowing …the roe on kelp boats to fish [Skidegate Inlet], the k’aaw’s starting to come back again,” (Harvey Williams, Apr. 2007).

They used to fish herring for a reduction. And they fished them all out and when there wasn’t a viable fishery anymore, they left them alone for a bunch of years and they came [back], so nature’s a real strong force... hopefully the herring will come back in big numbers again. (Monte Stewart-Burton, May 2007)

I think it’s something that, you know, as long as we stay away from it for a couple more years the stocks would rebuild. The management of the stocks need to be brought home. You know, our own people should be looking after it because obviously DFO is not doing a very good job… (Ed Russ, Jul. 2008)

There is a lot of interest in having knowledgeable Haida fishermen play a greater role in decisions made about local herring stocks. Haida understandings of herring stocks and spawning populations could lead to significantly different management approaches than those undertaken by Fisheries and Oceans. For example, Haidas are more likely to manage for the health of individual spawning stocks rather than a broad geographic area. The fishermen interviewed here also suggested management approaches such as protecting key areas, letting certain stocks recover from past harvests, changing quotas, and placing limits on ponding operations.

... I see the herring coming back and ... it’s still [got] to be left alone though, I think. Like... [as far as the] commercial [fishery] goes, yeah, that’s 100% mortality there. With ... the roe on kelp there, they’re released after. Like it’s not 100% mortality and not everyone spawns when you pond them up too. Like you only get ... probably about 30 or 40% of them that’ll spawn and then when you go to release them they take off and go let go somewhere else, so... our ponds are designed for like 40, 50, up to 70 tons. But with those other guys that are doing it there, their ponds there, they plug about 100 and something tons in there, eh? ... I don’t really like doing that because you get a lot of dead loss on the bottom and scales, stuff like that get into the product. (Conrad Collinson, Oct. 2008)

Conflicts over the management of the herring fisheries have in the past fueled protests on Haida Gwaii. In 1998 and 2002 Haidas blockaded the reopening of roe herring fisheries, causing delays in those fisheries.¹³

Areas to Protect

Areas that were suggested for needing some level of protection for herring stocks were Sewell Inlet, Selwyn Inlet, some areas on the West Coast, and the area from Burnaby Narrows to Skincuttle Inlet – historically all very productive sites for herring. Protection could range from complete fisheries closures to specific fishery restrictions (i.e. only Haida k’aaw use permitted), depending on the status of the stocks in certain areas. Further research into other forage fish species like herring and needlefish would likely also benefit ecosystem management.

4. Rockfish and Lingcod

The term “rockfish” can include over thirty different species that live in the waters of Haida Gwaii. In this study, yelloweye or red snapper was the species mentioned most often; it is often caught along with halibut and lingcod in both traditional and commercial fisheries. Many other species – from Pacific cod to greenlings – may be included in the local use of the term rockfish or rock cod. We have limited the discussion here to the species listed below in Table 1. Some Haida names for rockfish species are provided in this table, however, because this was not a study priority in the HMTK work, the list is not comprehensive.

Table 1: Rockfish and cod species included in this document, including Haida names when possible.14

<table>
<thead>
<tr>
<th>Common Names</th>
<th>Alternate Names</th>
<th>Massett Haida</th>
<th>Skidegate Haida</th>
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<tbody>
<tr>
<td>Rockfish (unspecified)</td>
<td>Rock cod</td>
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<td>k’alts’ida; st’aaydaay</td>
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<td>Black bass</td>
<td>qaja†</td>
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<tr>
<td>Redbanded rockfish</td>
<td>Bandit; Convict; Barber pole</td>
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* means “taste of an aged red cod fish”

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14 Haida translations from the Skidegate Haida Immersion Program and Rhonda Bell, unless otherwise noted.
Because lingcod is caught in many of the same areas as rockfish, it is also included in this discussion. In Massett Haida lingcod is called *skii nang*, and in Skidegate Haida it is *skaynang* or *sqaagaay*.

**Haida Harvest, Use and Stewardship of Rockfish and Lingcod**

Rockfish and lingcod may be caught year-round in the waters of Haida Gwaii. Either jigged or caught on longline, rockfish are most valued for fresh eating. In recent times, rockfish are seldom preserved or used in trade by Haidas. Although a number of people mentioned that lingcod are very good dried, there are fewer people doing this today. Our older participants said that they use rockfish for food and bait mostly, with small numbers of commercial sales. Rockfish are often caught at the same time as halibut and lingcod. They may be sold or taken home for food when they are caught as by-catch in these commercial fisheries.

Within the study findings from the HMTK interviews, it appears that Skidegate and Massett Haidas may differ in their use of rockfish. During the Massett interviews, most people said that Haidas never really targeted rockfish for their own use.

Numerous participants said that nobody from Massett goes out specifically food-fishing any rockfish species; “...you just catch the odd one, by-catch for halibut while they’re jigging,” (Francis Ingram and Tubby Davis, Nov. 2008). They said that people used to go out for the odd red snapper, but that’s it; “That’s about all – halibut and lingcod and yelloweye,” (Francis Ingram and Tubby Davis, Nov. 2008). Francis said that for the most part, people just get species like lingcod, longjaw, Bocaccio and shortspine thornyhead as by-catch when they are fishing “out in the deep” and “… maybe the odd person would take it [to eat],” (Francis Ingram, Nov. 2008).

This opinion was supported by other Massett fishermen. Henry Hageman has fished halibut much of his life and says that they don’t tend to get the bottom fish, as they usually fish more in the shallows. Henry said he might get one or two rockfish a day and would take them home as food but not sell them (Mar. 2009). Other participants concurred, saying that Haidas don’t target rockfish, that it’s just incidental catch other than the yelloweye, but “… it was a treat to have because it was so good,” (Robert Bennett and Oliver Bell, Dec. 2008). The message was often that rockfish are too deep or far out and there are lots of other fish around that aren’t as much work.

Reynold Russ was one of the few Massett study participants that talked about targeting rockfish or cod for food-fishing. Reynold described casting for rock cod from the beach at low tide around Yakan Point:
Yeah, and we got quite a few [rock cod] then, too... you know, if you went out there at zero tide... I think you had to have a... casting rod, but... if you went out there maybe even a one-foot tide, two-foot tide you can jig right off the edge of the rock. Yeah, and lots... lots. There used to be lots of rock cod. (Reynold Russ, Jul. 2007)

Compared to Massett, more information was documented about harvesting rockfish and lingcod for food in the Skidegate interview sessions. It seems as if more people specifically target these species in Skidegate, as well as harvest them for fresh eating while harvesting other species. Our eldest study participant, Ernie Wilson, said that when he was young people didn’t used to fish in the deep too often, but they would get rockfish once in awhile. He specifically mentioned lingcod, grey cod and red cod, or sgan. Younger fishermen in Skidegate say they are still fishing some of these species for food today. Judson Brown said that he targets yelloweye in food-fishing, but also gets other species such as quillback. Wally Pollard explained how you need to find the underwater peaks, rocky spots and pinnacles to ensure success in rockfish fishing, and that they occur in very specific spots; he described one pinnacle where he fishes in Cartwright Sound, “…this one should be showing roughly 17 fathoms, and when you run over it on the sounder it’s like a needle—comes right up—and you get nice huge lingcods on it,” (Wally Pollard, Jul. 2008).

Because of the apparent discrepancy between the rockfish and lingcod fisheries in Massett and Skidegate, the results presented here may have a slight bias towards the southern regions of Haida Gwaii; we documented more information there than in the north.

**Food Fisheries**

As mentioned, because rockfish and lingcod are available year-round, they are often fished as a source of fresh food while out harvesting or gathering other things. Percy Williams talked about fishing rockfish in Gwaii Haanas, but pointed out, “[We] didn’t make special trips down for the rockfish; it was always a source of food for immediate use,” (Percy Williams, Jul. 2008). And while fish like lingcod and snapper are for the most part eaten fresh, Wally Pollard said they are also very good salted and smoked; “Lingcod are excellent with a heavy-duty salt brine—no more than 20 minutes or it’s too salty—and then smoke it for a day and a half. Excellent. So are the red snappers…” (Wally Pollard, Jul. 2008). Tom Hans used to fish lingcod to eat fresh while trolling, but didn’t generally bring them home.

For the most part, rockfish and lingcod are caught for food by jigging in shallower areas. Percy Williams food fishes for halibut, lingcod and snapper on the West Coast quite a bit, and says he jigs in the shallows to about 25 fathoms. In describing one of his fishing locations near Marble Island, he stressed how specific the rockfish spots can be:

“I wouldn’t mind going out to see how this one is. That was a real producer. Once you get on the shallow you load up real quick. But you drift off it quite fast, too... I anchored there once and that didn’t do much good. We depleted that little bit we were sitting on, I guess, so I had to move a little bit. But it’s a real hotspot... (Percy Williams, Sept. 2008).”

“... we eat a lot of cod—red cod, black cod—I just had red cod fish and chips last night. Mm-hmm. I love the cod fishes...yeah. My son gets all that now... because we’re getting too old.” (Diane Brown, May 2007)
Percy has a lot of experience fishing both the West Coast and Gwaii Haanas for rockfish and lingcod. He related a story about having lingcod eggs for breakfast once while they were fishing around Sgang Gwaay. He also mentioned that before they had jigs, people used to use herring and octopus for rock cod bait.

While many participants talked about catching rockfish to eat, just a few participants told us about harvesting rock cod eggs. Each of the observations came from the north coast of Graham Island.

...we used to watch the Blowhole and we used to go fishing rock cod there, too, get the eggs out...from in between...deep holes, and Hannah used to cook it and show us how to eat it. ... We found the eggs and...they used to go fishing for the rock cod, too, my dad and a whole bunch of other men...just fish right off the rocks [off Yakan Point]...jigging. ... That was our treat. We never used to get very many treats, but it was worth it when we got it. (June Russ, Jun. 2007)

The rock cod eggs used to be a special treat.

June: “You’ve got to know how to cook it and eat it. You cook it ‘til it turns white, and then you use a sharp knife and cut it into slices and just...suck the innards out.”
Reynold: “But that was a delicacy, yeah, gee, people used to go around spitting out eggshells... all over Tow Hill.” (Reynold and June Russ, Jul. 2007)

Diane Brown remembered that her father used to talk about getting rock cod eggs in rock crevasses. He said it was called dlaada in the Skidegate dialect (Skidegate verification sessions, Jun. 2010). Oliver Bell and Vern Williams Sr. have also harvested rock cod eggs off Yakan Point. They say that the eggs are there in crevasses in May and June. Vern suggested that the fish are greenlings.

**Commercial Fisheries**

Over 30 species of rockfish may be taken in the commercial rockfish hook and line fishery. Only 15 species are targeted however, and the remainder either discarded or retained as by-catch for sale or food. The rockfish fishery is open year-round for people with commercial licenses. The best prices are for live fish.

Commercial fishermen of other species generally try to avoid catching rockfish; when they do get them, they tend to get a variety of species depending on the depth and location they are fishing. Many fishermen bring their commercial by-catch home for food, especially red cod and black cod caught halibut fishing. These fish may be salted, frozen or sold; “Whenever trolling gets boring we’ll go jigging. Sell the red cod for two bits a pound. Now they’re paying two bucks or three bucks for it... people are just finding out it’s good eating,” (Percy Williams, Sep. 2008).

Few of those interviewed for the HMTK study commercially fish rockfish or lingcod. Willie Davies commercially fishes halibut, and so gets rockfish and lingcod as by-catch. He said he fishes May through October, and does both commercial and food fishing in the same areas.

**Ecological Observations**

As mentioned, fishermen fishing commercially for species other than rockfish try to avoid catching rockfish. When they do get them however, they tend to get a mix of species and can generally indicate
where they find the different species, which species are found together, as well as relative abundances in different locations.

**Species Associations**

BJ Dudoward described how he fishes halibut and lingcod by carefully following charted contours on the ocean floor; “…you don’t want to go over the edge too much… otherwise you get into rockfish,” (Mar. 2009). He said that he tends to get canary rockfish, idiotfish, Bocaccios and silvergrays or dusky rockfish when fishing black cod in deeper water. Another way he avoids catching rockfish instead of his target species is by bait size—rockfish do not generally go for the larger pieces of bait.

Francis Ingram said that for the most part, people get species like lingcod, longjaw, Bocaccio and shortspine thornyhead as by-catch just when they are fishing “out in the deep” (Nov. 2008). He said you can catch them commercial longlining anytime from March to November. Bocaccio, Pacific cod, and black cod tend to be found together in deeper water. Gray cod are also usually found in deep holes.

Lingcod, halibut and red snapper are known to share habitat and are found in rocky, shallower spots; “They don’t move very far it seems like, if they move at all … we hand-line for rockfish in a known rockfish spot and you just drift away a little ways and you don’t catch any more; you’ve got to move back to the same spot, the shallow spot,” (Percy Williams, Oct. 2008). Underwater pinnacles are especially productive for rockfish; “…if you set up over … some of these pinnacles… you’ll get more rockfish,” (Willie Davies, Mar. 2009). These species are also associated with kelp patches. Vern Williams Sr. said that he finds rockfish and lingcod around Klashwun Point, Striae Island and Seven Mile in the big kelp patches there. Bert Wilson said that he always sees black rockfish at kelp beds. It is very likely that the fish are using the kelp to avoid predation. Reynold Russ has observed that when a predator comes around, the cod move towards the kelp.

Willie Davies said he tends to get quillback, yelloweye, China and canary rockfish in the same locations. Bert Wilson and Captain Gold most commonly see yelloweye, canary, tiger, China, quillback and Bocaccio rockfish when they are out fishing. They also catch some redbanded, black, dusky, and yellowtail rockfish. The only species they don’t see much of is the copper rockfish and the widow rockfish. Pacific cod is also said to be a rare catch.

**Spawning Observations**

Just one participant may have seen rock cod spawning on one occasion;

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... we thought there was a [herring] spawn going on, and we went and checked it out. We dropped the jigs down in there and every time we dropped the jigs it was little rock cuds, so... they were spawning, eh? And it's a different colour too. ... [It was] right around Selwyn Reef. And we thought the herring were spawning and it had to have been those cod. Because right after that, there was these cod boats that get live cod, and they came in there. And they were doing good... I cruised over in a skiff and yapped to them for awhile. I asked them what they were up to and they were getting those rock cuds and putting them live right in their tanks. And that's what they said it was too. They said they were probably
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spawning, because I told them about that and we thought it was herring. That’s the only time I’ve ever seen something like that. (Conrad Collinson, Oct. 2008)

There was also one person who reported finding a lingcod spawning area while urchin diving;

They spawn ... just below sub-tidal, like 15-20 feet of water. In the kelp. Yeah, you could tell when you’re going near a nest, because they guard their nest. You just get your urchins as you’re going along and then they’re a little like sharks; they swim around you and then they hunch up and their mouths get wider and wider... and it’s time to move away! (Tommy Greene, Oct. 2008)

**Trends**

Over the course of the HMTK interviews there was a range of opinions recorded in regards to the status of rockfish and lingcod around Haida Gwaii. One participant mentioned that he fished rockfish on the West Coast up until about 10 years ago and that the populations appeared to be stable there. A Massett participant reported that rockfish and lingcod seem to be increasing in some areas on the north coast of Graham Island; “We used to hardly get any [lingcod] before but now there’s people getting lots. Sometimes they come home with two or three, and we used to be able to get one, sometimes two in a day,” (Vern Williams Sr., Jan. 2008).

Other participants mentioned concerns that rockfish populations are declining and that commercial and recreational fisheries may be the cause. The following observations span the west coast, the east coast and the southern regions of Haida Gwaii:

Well, you could still get...the species that you’re used to, thirty, forty years back, but there’s not that much. It takes so long too...like, when I was at Windy Bay on the Watchmen Program...in that area, you used to be able to go out there...and jig rock bass or red snapper or lingcod... just like that, and the last time I was in Windy Bay, I went out there and I was all day out there, and I caught two little, wee little red snapper...and that was it. Before I used to be able to just go out there and get a dinner for fifteen people in about an hour, you know? But not any more... it’s like that along the whole coast here and there’s a lot of people picking at it, you know—there’s tour operators and the people that come in to see the beauty of Haida Gwaii—they eat a lot of the seafood. Everybody, from the tour operators, right down to the kayakers, they all pick at it. It doesn’t seem like much, but at the end of the day you tally it up and it’s horrendous. (Paul Pearson, Apr. 2007)

... the rockfish generally is going down [in abundance]. You know that one spot I mentioned out by Marble Island where it used to be a sure thing to go and get a couple of red snappers; as soon as you put your hook down you’d have something—most times even before it got down. But now, you know, like I said, I haven’t even bothered going out there in the last few years because it doesn’t seem like there’s hardly anything left, and that’s... probably a combination of things, but it seems like there’s a lot of pressure from the sports boats out there. And I don’t know how much commercial fishing’s taking place out there, for rockfish, but yeah, the numbers are down. (Ernie Gladstone, Nov. 2008)
... the old guys, they say there’s a lot less now. Like, talking about Gwaii Haanas, just where I work... I go tell them that, you know, I caught one in two hours, and they’re like, ‘Oh, my god! Back in the day we would catch one ...every time you drop the hook.’ Both for halibut and for all rockfish. [I think it’s] just over-fishing. Like, there’s no people down there anymore and the only people that you see are the big commercial guys, longliners. And I think the trawlers even come within sight of land. (Judson Brown, Dec. 2008)

Quite a few people raised concerns during the interviews that the fish are not only declining in abundance, but also in size. This was noted for both rockfish and lingcod. Ed Russ said that this has been taking place over the last 20 or so years—lingcod have gotten smaller and scarcer:

... the size has changed somewhat; we used to get bigger fish back then [1979]. Way bigger fish. More lingcod. Because lingcod was the target back in 1979, but you got all the other ones too, and took them, because once they come to the top you can’t really throw them back without them being scooped up by an eagle. (Ed Russ, Jul. 2008)

Those boats were coming up from Vancouver and then they would just fish on the one spot until it was pretty much cleaned out, then head back, bring it all to Vancouver again, eh? But that went on for quite awhile, they were doing that live catch right on top of the pinnacles. Like that place outside of Ramsay and stuff like that’s been all fished right off... just due to commercial fishing. (Wally Pelton, Oct. 2008)

Ernie Wilson said they used to get gray cod, Tommy cod and greenlings in Skidegate Inlet on a reef outside of Sgaay.yas, but the fish are not there anymore. Some of these topics are discussed further in the section on Management Issues and Suggestions.

**Rockfish and Lingcod Distribution and Harvesting Areas by Seascape Unit**

Rockfish and lingcod are widely distributed throughout Haida Gwaii and therefore may be caught in many different locations. As elder Ernie Wilson said, you find rockfish, “Wherever there’s a reef. You’ve just got to go to a reef, jig for it. That’s all,” (Aug. 2008).

The HMTK study documented rockfish and lingcod harvesting areas and observations in five seascape units relevant to marine use planning: Dixon Entrance, Hecate North and South, the West Coast and Gwaii Haanas. While no rockfish harvests were documented for Skidegate inlet in the interviews, during the Skidegate verification sessions Percy Williams said that he had caught rockfish in a shrimp trawl at Maude Island (Jun. 2010). This area did not get mapped.

**Dixon Entrance**

Some of the areas known to have good abundances of rockfish and lingcod within this seascape unit are around Langara Island, Klashwun Point, Seven Mile and Striae Island. As mentioned, there was an observation that rockfish and lingcod appear to be stable or increasing within some areas of Dixon Entrance, but are also suffering declines close to the sports fishing lodges. While red snapper and lingcod may be caught most often, some of the other species found include black bass, China, quillback...
and redbanded rockfish, greenlings, sablefish, Pacific cod, halibut, cabezon and flounders. The rockfish species relevant to this document that were mapped in Dixon Entrance are shown in Figure 17 on the following page. A few areas were noted as being especially good for red snappers, such as around Sea Lion Rock and the lighthouse, as well as other parts of the Langara shoreline.

Gee! Every damn hook has red snapper on. There’s lots of red snappers in that area... That’s one of the best areas I’ve ever seen [past McPherson Point]. (Claude Jones, May 2007)

...on the east side of Langara, you get rockfish ... you get the odd rockfish off Shag Rock, in that area...like you get red snappers out here. You’d be fishing and you get lots of red snappers off of West Point. ... Yeah, lots of red snappers there. (Reynold Russ, Jul. 2007)

Generally, lingcod and halibut are found in the shallows around Langara. Yelloweye tend to be found offshore a little further.

As previously noted, rockfish are often mentioned in conjunction with fishing for other fish and seafood. Fishing and gathering trips for many different types of seafood are common along the north coast of Graham Island; rockfish and lingcod are often amongst the fish that are caught.

...Wesley [Bell] would fish all along the shore and catch everything...he knew all the little spots for halibut and different areas for rockfish, and different areas for lingcod [near Shag Rock]. (Oliver Bell, May 2007)

...from Entry Point to Chown Point, about halfway out, you could get a lot of seafood. Anything you want, yeah. And...at Chown Point you could get chitons, octopus...and... rockfish, or you can get it at Yakan Point, and that’s another place—that’s further out... you can get...rock cod...and you can get chitons. If the tide’s big enough you can get sea urchins. (Reynold Russ, Jul. 2007)

You fish everything around there... and then the fresh fish are off of these areas, like there’s halibut all over in there ...abalone ...we got all the sea urchins... we got all the yelloweye... Cohoe Point is... where they fish everything. (Rolly Williams, Mar. 2007)

Robert Davis and Francis Ingram say they catch almost all the rockfish species in Dixon Entrance and around Langara while longlining in the spring and summer. The species they mentioned include halibut, yelloweye, canary, quillback, lingcod, Pacific cod, skates and ratfish. They also catch quite a lot of Bocaccio rockfish in some areas, and get Chinas and other species outside of Wiah Point.

**Hecate North and South**

Many people catch rockfish while targeting halibut off the east coast of Moresby Island. In addition to lingcod and yelloweye, the species mentioned for the Hecate North seascape unit include China, canary, tiger and quillback rockfish, as well as gray cod. Some favourite areas for fishing lingcod and snapper include Cumsheawa and Skedans.
Figure 17: Rockfish and lingcod observations and harvesting areas in Dixon Entrance.
Within Cumshewa Inlet, Mathers or Church Creek is known to be a good spot for fishing rockfish and lingcod. Captain Gold and Bert Wilson said that they catch all kinds of cod in this area; “Almost all the cods really – lingcod, red cod – any cod... rockfish,” (Mar. 2009). They said that they fish there any time of the year for food and the fish are “always there.” Nearby, the kelp at Fairbairn Shoals also provides habitat for lingcod, halibut and red snapper, but this is a harder place to fish. South of Cumshewa, you can find rockfish throughout Skedans Islands and down to Reef Island; “Anywhere around Reef [Island] is good for halibut and cod,” (Conrad Collinson, Oct. 2008). As in other areas, the cod and snapper tend to be found in the shallows or around pinnacles and peaks. Roberta Olson used to travel by troller with her family to fish around Pacofi and she remembers getting many types of rockfish there; “Well, dad was always out... mainly fishing, you know, getting whatever he could. A lot of rock cod, cod, red cod, red snapper...” (April 2007). Willie Davies fishes halibut year-round in Selwyn Inlet and thinks they are there because they feed on the rockfish that are there; “...there’s rockfish along the beach everywhere...” (Mar. 2009). He mentioned that he catches mostly quillback in Selwyn Inlet. There are also locations within Hecate South where people regularly fish red snapper and halibut. The “Carpenter Bay Spot” was one traditional groundfish fishing areas mentioned during the interviews. The rockfish and lingcod areas documented for Hecate North and South are shown in Figure 18.

![Figure 18: Rockfish and lingcod observations and harvesting areas in Hecate North and South.](image-url)
West Coast

Masset fishermen report a greater variety of rockfish species down the West Coast than in most other areas of Haida Gwaii. The spatial information documented during the HMTK interviews supports these observations – there were more species recorded for the West Coast than any other seascape unit. Amongst halibut, lingcod and yelloweye, there were an additional 11 rockfish species mapped here, including: Bocaccio, Pacific Ocean perch, short-spine thornyhead, redbanded rockfish, canary, silvergray, dusky, tiger, quillback, China and copper rockfish. Many observations came from commercial halibut fishermen that frequent the West Coast, but there is also information recorded by Skidegate Haidas who come out to the West Coast for food-fishing. The commercial fishermen tend to fish more offshore – often out as far as Whaleback – to get halibut and black cod, while those fishing for food tend to stay in the more inshore areas, like Rennell Sound and Cartwright Sound. Nonetheless, like other areas of Haida Gwaii, weather-permitting, rockfish and lingcod can be fished year-round. For map clarity purposes we have separated the discussion of rockfish and lingcod on the West Coast into two sections: South (Louis Point to Kitgoro Point) and North (Cape Knox to Louis Point).

South: Louis Point to Kitgoro Point

Both Rennell Sound and Cartwright Sound were mentioned repeatedly as being important areas for rockfish and lingcod. Haidas fish in these areas for food; sport fishing boats also frequent the same areas. Percy Williams is someone who regularly food-fishes lingcod and snapper on the West Coast. He stressed that Marble Island is a place where you can get all kinds of rock cod, and also listed copper rockfish, canary, tiger, China, quillback and longjaw (Bocaccio) as being plentiful there. Many fishermen rely on the area from Marble Island to Skidegate Point for halibut and all species of cod or rockfish; “I think pretty well everybody from [Skidegate] uses that area, for food,” (Conrad Collinson, Oct. 2008). Because of this, there is some concern about protecting the area for Haida use; “The cod are thick there [off Skidegate Pt] ... And all the rest is all cod and halibut ... that’s our area, see? Coming home, from our village ... come through the Narrows and that’s why I’d like to keep it like that for the future of our people,” (Dempsey Collinson, Jun. 2007).

Within this area of the West Coast, some specific points were identified as having especially plentiful or large lingcod. Roberta Olson said her family used to get a lot of halibut and big lingcod around Marble Island, and Wally Pollard said that Cartwright Sound has huge lingcod and red snapper all summer. Hunter Point in particular is renowned for its lingcod; “Well the sizes always vary, except for this lingcod off the point. They’re always consistent—huge—because that one particular pinnacle, it’s all by itself. The one that’s out here. And it seems to just attract the big lingcod,” (Wally Pollard, Jul. 2008). Judson Brown catches many different types of rockfish, including quillbacks, around Skidegate (Tcenakun) Point, but emphasized that this location is especially good for large yelloweye and halibut.

Further north, Kindakun Point is another location known to be good for rockfish. Percy Williams fishes lingcod and red snappers mostly in the surrounding shallows, but also gets many other types of rockfish. Willie Davies said that he catches halibut, quillback, yelloweye, canary, redbanded, lingcod, China, greenlings, silvergray, Bocaccio, tiger rockfish and skates all just south of Kindakun Point in the summer.

“You can catch cod anytime out the west coast, long as the weather will let you...” (Percy Williams, Oct. 2008)
time. The snappers and lots of the cod are often found around the 20 or 30 fathom mark. The rockfish and lingcod areas documented for this part of the West Coast seascape unit are shown in Figure 19.

Figure 19: Rockfish and lingcod observations and harvesting areas, West Coast South.
Many rockfish and lingcod polygons were mapped for Rennell Sound. Some of these areas are fished for food while commercially trolling salmon, others are fished for both commercial and food. Frank Russ is a troller that fishes lingcod, snapper and halibut around Tartu Point during the summer months. Judson Brown said he gets yelloweye, quillbacks, China rockfish and lingcod around Cone Head; “All those ones that hang out along the bottom or you know, the cliff faces,” (Judson Brown, Dec. 2008). He also fishes these locations during the summer months. While no areas were mapped further south than Kitgoro, participants in the Skidegate verification sessions said that rockfish can be found on many of the points and reefs in this area; “You get different types of cod and halibut and lots of snapper all the way down to Tasu,” (Percy Williams, Jun. 2010).

**North: Cape Knox to Louis Point**

Figure 20 shows the rockfish and lingcod information documented for this section of the West Coast.

![Figure 20: Rockfish and lingcod observations and harvesting areas, West Coast North.](image_url)
Frederick Island was mentioned in regards to rockfish and lingcod fishing numerous times during the interviews. Francis Ingram said that he finds a lot of longjaws and Bocaccios as well as lingcod, off Frederick Island. BJ Dudoward is another fisherman that knows this area well; he catches rockfish while fishing halibut and lingcod just off Frederick. In the deeper water, around 100 fathoms, he said he gets lots of idiotfish and Pacific ocean perch, but that there are also a lot of yelloweye in the area. Wesley Bell and Oliver Bell talked about fishing halibut in an area called Duu Gwaa, described as an area where boats troll, “This is the La Perouse Reef, so that’s probably what Duu Gwaa is, around here, by the reef. Because you get everything here—halibut, rockfish, lingcod, salmon,” (May 2007).

**Gwaii Haanas**

Five species of rockfish – canary, China, yelloweye, black, and quillback – as well as numerous unspecified rockfish were documented within the Gwaii Haanas seascape unit during the HMTK interviews. Lingcod was also found in many areas – it and yelloweye are the most commonly harvested species here. Figure 21 shows the rockfish and lingcod harvesting areas that were documented in one part of the Gwaii Haanas seascape unit.

![Figure 21: Rockfish and lingcod observations and harvesting areas in northeast Gwaii Haanas.](image-url)
Once again, this is an area with which Percy Williams is very familiar; he fished here most winters and springs from the 1930s to the 1980s. Percy was often trapping in these areas and the rockfish served as an important source of fresh food; “[W]e didn’t make special trips down for the rockfish, it was always a source of food for immediate use,” (Jul. 2008). Percy reports snapper and “huge lingcod” by Scudder Point, as well as six-foot long lingcod at Ramsay Island. Conrad Collinson also talked about Ramsay Island, saying it’s a good place for halibut, snapper and other species of cod. He jigs all the shallow spots around that area. Especially large lingcod were also noted for locations outside Lyell Island and at Monument Rock; “Beautiful big lings on that one,” (Wally Pelton, Oct. 2008). However, Monument Rock is fished for a range of bottom fish; it’s an area popular with herring and spawn-on-kelp fishermen.

Monument Rock for cod. Cod only here... lings, snappers, everything. (pause) You see everybody that did the roe on kelp down here, and guys that came down would all food-gather around here for their bottom fish... it usually starts getting thick around the herring time, too.” (Conrad Collinson, Oct 2008)

Willie Davies is a younger fisherman who also has a lot of experience in this part of Haida Gwaii. He says that overall, there are very few rockfish in Juan Perez Sound compared to some other areas; he mostly catches halibut here, but does also get some quillback, canary, and yelloweye rockfish. During the Skidegate verification sessions, it was noted that the spatial data recorded for rockfish fisheries in the southern portions of Haida Gwaii do not represent the full extent of the fisheries. Even though the area does get less use than areas closer to village sites and with more available shelter, many people do fish the southern reaches of the islands, including the west coast. Diane Brown said that she has traveled from Gowgaia to Pocket Inlet before, landing in every bay and jigging rockfish in all areas (Jun. 2010).

People jig yelloweye and lingcod in Skincuttle Inlet, and Carpenter Bay was noted for these species as well as China and canary rockfish. Captain Gold and Bert Wilson said that they fish halibut, cod and red snapper throughout the South Moresby area. Reynold Russ also used to frequent this area, catching a lot of rockfish and cod while fishing halibut around Howe Bay; “Yeah, lots of cod, all kinds of cod. Of course, you get mostly halibut. When the halibut have moved in there...you get nothing but halibut...but you move offshore a little bit, you get lots of red snappers,” (Reynold Russ, Jul. 2007).

Many fishermen mentioned Sgang Gwaay (S) as a good spot for lingcod and red snapper; “Cod all over out here. All around the islands... pretty well wherever there’s a reef... Red cod, mostly,” (Percy Williams, Jul. 2008). Other areas known to be good for red snapper and lingcod are New England Rock, the mouth of Flamingo Inlet, Ikeda Point, High Island, Haydon Rocks and Gull Banks; “We just drop the hooks all over that,” (Judson Brown, Dec. 2008). Cape St. James was also mentioned for redbanded rockfish, but this area did not get mapped.

Management Issues and Suggestions

One issue that arose repeatedly during the interviews is the negative impact that commercial sports fishing lodges are having on bottom fish. The following two observations are from Massett participants, who witness the heavy traffic from Langara Island lodges. Not only are they witnessing a decline in the rockfish species, but they also feel excluded from their traditional fishing areas.
I think that’s coming back to haunt these guys at the lodges now. Like last year was a really poor year down there. They targeted halibut so bad last year that they finally closed the halibut to sports fishing … they took more than their quota of what they’re supposed to. They finally closed it. … Yeah, well when they don’t get one type of fish, like there are no salmon … then they target something else, eh? You don’t have the lingcod, little black bass and stuff like that around Langara like there used to be. They take all those kind of fish. They are only allowed to fish salmon for you know, so long and then they gotta go and fish other types of fish. Each … group that comes in … they can fish a bit of halibut and rock cod and salmon through … the time they’re there … and any of the cod are really slow growing fish. Compared to salmon and that. But then they live a lot longer too when they’re not touched; you know, they’ll get up to 25, 30 years old, eh? (Henry Hageman, Mar. 2009)

So all those areas that are historic to all the Haida commercial fishermen, or any commercial fishermen I guess…no longer exists. Right from…Langara right to Tow Hill … for the last three or four years now I’ve just done sports fishing for the odd charter in the summer months, but I still do food-gathering for myself and family. We go to Awun River and Naden River for sockeye and then I just do springs and halibut, rockfish and lingcod in my usual spots out front. And now the commercial sport at Langara makes you feel guilty for going down into those traditional areas. They figure they own the area. (Oliver Bell, May 2007)

Similar concerns were raised from Skidegate participants, for areas like Skidegate Channel and Cartwright Sound.

I don’t know how Skidegate Channel is now though with the heavy sports fishing. Every day there’s hundreds and hundreds of fish taken out of there. I don’t know how it affected the rockfish. They’re catching a lot of halibut too… I don’t think it’s right. It’s a traditional food. Maybe more important than salmon. People used to eat a lot of rockfish. (Percy Williams, Oct. 2008).

Some other areas of concerns in regards to rockfish on the west coast are Marble Island, and around Kaisun and Chaatl.

Now this is that reef [off Marble Island]… where they’ve been pulling all the lingcod out of, and I think they’re taking too much out of here—those sporty boats—and … they’re taking the big spawners out of here. You see some 40, 50 pound lingcod; that’s the spawners for that reef. And they don’t give a shit what they take—that’s those commercial boats from Sandspit. We’re going to find ourselves one day, there’ll be no more bloody lingcod left on that reef… they all go out there; they all target that area. (David Martynuik, Nov. 2008)

Another area that I see that’s beginning to affect us is the overfishing. [My father’s] traditional territories is around Kaysuun, Ts’aahl and we could go there anytime and jig for halibut, cod. That’s not so plentiful anymore, from all the fishing lodges that are around there. … The halibut are getting smaller and smaller out there. (Diane Brown, speaking at Gaaysiigang – An Ocean Forum for Haida Gwaii, Jan. 2009)
Currently, the area from Buck Point to Hunter Point is closed to commercial fishing. It was suggested during the Skidegate verification sessions that this closure is extended to apply to the commercial sports sector also (Gary Russ, Jun. 2010). Compounding the effects of the recreational fisheries, commercial harvesting may also be impacting bottom fish. Because rockfish and lingcod are known to exist in specific habitats – i.e. underwater pinnacles and reefs – commercial boats that target these areas may be removing most or all of these slow-growing and patchily-distributed fish. One participant said that he no longer finds rockfish in some of his usual places; the only places they are left are where commercial boats don’t go, such as Gwaii Haanas.

The thing that worries me is that you see a lot of these rockfish fishermen... working all the points... they lift there for a long time and I don’t know how the return is on that, but we’ve seen them just working points ‘til they’re gone. ... Like, we do archaeology; we go to our usual spots where we go and some of them are gone... and some places I think that they never found, where there’s still fish. But that’s like down in the park. ... Pretty well any point you go jigging, you get rockfish. But we seen a lot of those boats working there, working all the points; I don’t know what’s there anymore. Like I said they don’t migrate. I don’t know how long it takes for them to spawn but they live 80 years... (Tommy Greene, Oct. 2008)

One participant mentioned that draggers fishing turbot off Jalun River might be negatively impacting the fish in the area and that restricting that fishing method would protect both the halibut and the rockfish.

... the last couple of years there, they’re going right into the shallows and doing some drags for the turbots, and that’s off Jalun River ...so the halibut come in, I think, and feed on the turbot, but now that the draggers—they’ve got to be dragging up a lot of halibut and they shouldn’t be having any business being in there whatsoever. They’ve got to...kick them out as quick as they can...because halibut fishing just declined quite a bit in that area since that. And...turbot was good for a hook fishery, because you could get it and use it for shack bait, and it’s not a very commercial viable fish so much, so, with the turbot they just put in pounds and it just leaves the islands... But that’s definitely something that should be addressed—tomorrow or today—is kick them draggers right clean out of that area...it’s not doing anybody any good. I don’t think the crew makes that much money on them or the drag boat ... they get a lot of poundage and it’s just raping the shoreline where it’s easy for people to just fish. Even the sports fishermen wouldn’t want them in there because they can catch their own halibut there. And Haidas, you know, they don’t want to go a hundred miles offshore to go catch halibut. They’ll have to if these guys keep dragging that area. [Draggers impact] mostly the turbot and halibut and probably some rockfish ... anywhere in this area, you know, around between Langara and Rose Spit they should have a big circumference that they couldn’t drag within... (Monte Stewart-Burton, May 2007).

It was suggested during the Massett verification sessions that the existing drag fishery boundary does not go far enough to protect these areas, and should be extended from Rose Spit to Langara Light (Robin Brown, Jun. 2010). There was a further suggestion in Skidegate that a restriction be placed on harvesting groundfish while they are spawning, as is applied to many other marine species (Gary Russ, Jun. 2010).

**Areas to Protect**
When asked whether any places are more important than others, more deserving of protection, one young fisherman captured the essence of what we heard from many participants – that all areas have value, but some need to be set aside for Haida or local use only.
They’re all special! (chuckling) They all deserve some kind of protection, like yeah, it would be nice if the commercial guys wouldn’t go anywhere because then there would be food available all the time. It just seems like wherever they go there’s nothing left after. That seems to be my experience … even in remote places like Gwaii Haanas… you know, you’re three hours away on a boat from anywhere, any community, and you still can’t go catch prawns or you can’t go get a red snapper, you know, on a peak where they should be because commercial guys just came rolling through there. So… yeah. Just limit the commercial guys and keep it up for our personal use. Like, I don’t even mind if locals, non-Haida locals, have access. I think it’s just important that the local communities get their share before commercial guys come up from Vancouver, take it down there. (Judson Brown, Dec. 2008)

Other participants pointed out that it’s a certain habitat type that might need to be protected in order to preserve the fish; “…I know the inshore spots are pretty sensitive because they’re so old and it takes so long for them to grow,” (Oliver Bell, Dec. 2008). Specific areas that were mentioned for some level of protection are around Skedans, Skidegate Channel, and parts of Cartwright Sound.

Around the Skedans area; that seems that rockfish aren’t as abundant as elsewhere and it’s so close to home. That shouldn’t be targeted by sports fishermen. There isn’t that many sports fishermen down there but at the rate of growth they’re going to overflow into all the good fishing spots on the islands. … I imagine Skidegate Channel will be getting pretty sensitive, because of the sports fishing. There’s so many sports fishermen out there. If they can’t catch any salmon they go and catch rockfish. (Percy Williams, Oct. 2008)

I have a lot of concerns about that area, off of Skidegate Point—between Marble Island and Skidegate Point—that reef… because I see it’s going to be a failure here. If we don’t do something about it to react on it now we’re going to end up with nothing. And that’s a very productive place and I see those sports boats taking 40, 50 pound lingcods out of there—those are the spawners of the reef. I don’t mind them taking 15, 20 pounders, but to take the 40-50 pounders out of there just to get those bloody Americans so they can hang them up and take their picture with it at the dock in Charlotte here, that really, really annoys me… we’re not going to have nothing left, so what we have to do, we have to put control on it. It’s not something that’s going to last very long. That’s my biggest concern. … I think this… area from Hunter Point to Buck Point… there should be no commercial [recreational] fishing inside it at all… no commercial boats whatsoever inside that line. I seen a boat one time—it was off Marble Island—a halibut boat, there was rockfish, red snapper, just floating in the water. All the by-catch was thrown overboard. And that’s just bloody waste. I ended up picking up quite a few and I just let them know how I felt about it and I’m sure I’m not the first one; I’ve heard it from other people too, but … they used to throw everything overboard. If it wasn’t a halibut it was overboard. (David Martynuik, Nov. 2008)
A Haida story about respect

Reynold: Two boys were playing on the beach, and there were ducks moving around, close to the shore. And then they start throwing stones at it and they broke the wing of one of the ducks. So they went and got a dugout, and then went out after the duck that they broke the wing on. And then the duck keeps swimming, swimming out away from them. And they kept chasing it, chasing it and then it got foggy on them... they kept chasing it. And then it was so foggy they couldn’t see land anymore.

And so they come up to a kelp patch and one of the brothers said, ‘Let’s tie ourselves to one of the kelps until the fog clears up.’ But the fog never cleared up; it just stayed and stayed. A bullhead came up on the kelp that they tied their boat up with – they call bullhead kal in Haida language – and so that kal said to the boys, ‘Come with me ...I want to take you to the village of the bird people.’ And so the bullhead went down and they both went down headfirst... they reached the ground and they started walking. ...They went along a long, long ways and they finally come to this huge village with all birds in that one village... the bird with the broken wing was there, and the birds in the village wanted to turn them into their way of life. So the younger brother was the first to be put in front of the boss or the chief of the bird town. Another fellow threw a feather at the back of the young brother. And the feather went into his back and stayed there. Then he put one on the other side. And that stayed there. Now he’s turned into a bird. And then it was his older brother’s turn but his older brother had a sharpening stone hanging from his neck. And every time they threw the feather ... he would take that sharpening stone and put it where it was going to hit his back. And it would shear off. So they couldn’t make a bird out of him, so they had to release him...

When the brother came back to the village, the people there and his family asked about his younger brother. And he said, ‘Well, they made a bird out of [him].’ And people didn’t believe him. But ... one day early in the morning he got everybody all excited saying that his brother’s over on the other side of the point. ‘We have to go and see him.’ So everybody went and there was a whale on the beach and the whale was dead. And he said, ‘That’s my brother.’...Things like this keep happening.

So it was the spring of the year when the salmon started returning, and people were catching salmon... they were taking the salmon back to the village. The family whose son [became] the bird, when she put the knife to the gill of the salmon she hit the copper. And she hollered, she said, ‘This is my son! He’s come back to us.’ ...So they didn’t cut the head off the boy, and the reason why this legend was passed through generations is that you have to have respect for any food, any food fish. So by breaking the wing by throwing stones at the duck, and the kal, the bullhead taking the two brothers to the bird town, and to show the bird people showing the young brothers that you can’t do these things to food or do these things to people ...See there was the bird people and there was the human, where the legend comes from. So that people got the message because the young brother came back as a salmon ...The story goes is that protect all that you have and you don’t do things like what the young boys had done to the duck, to break the wing.

June: We were taught to respect everything—all the animals, the seafood—we weren’t supposed to make fun of it. If we made fun of it they said we’d have bad luck. And even if we were digging clams or getting octopus—things like that—we had to have respect for them and thank them for their lives. This we didn’t believe for a long time until my auntie told me that story he was just telling you. [She] told us not to make fun of even little fish that’s on the beach that lives under the rocks. We used to go down there and play with them and after that we quit going down to torture the little crabs and everything because she said they’ll take us away one night while we’re sleeping and we’ll find ourselves under the sea, wondering where they took us. So we had to have respect for all the seafood and the trees—everything. That’s what we were taught when we were small... that we had to have respect for everybody.

(Reynold and June Russ, Jul. 2007)
5. Seabirds

There are approximately 125 species of marine birds that inhabit the waters and shores of Haida Gwaii. Of these, Haidas traditionally use the eggs and/or adults of several species of seabirds, shorebirds and marine waterfowl for food and sometimes for other purposes. The species discussed in this chapter are listed along with some Haida names in Table 1. Once again, Haida names were recorded incidentally.

Table 1: Seabird species discussed in this document, including Haida names when possible.15

<table>
<thead>
<tr>
<th>Common Names</th>
<th>Alternate Names</th>
<th>Massett Haida</th>
<th>Skidegate Haida</th>
</tr>
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<tbody>
<tr>
<td>Bird (unspecified ‘flyer’)</td>
<td></td>
<td>xidiid</td>
<td>xidiid</td>
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<tr>
<td>SEABIRDS</td>
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<tr>
<td>Ancient murrelet</td>
<td>Night bird; sea pigeon; night pigeon</td>
<td>scidaana</td>
<td>sk’in xaana/scin xaana</td>
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<tr>
<td>Marbled Murrelet</td>
<td>tilum†</td>
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<td>ts’ilang nga</td>
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<tr>
<td>Common Murre</td>
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<td>gwaan/gwah</td>
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<tr>
<td>Seagull* (large gull)</td>
<td>sk’in</td>
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<td>ts’aiinaay/sk’in gaat’ldang</td>
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<td>Seagull* (small gull)</td>
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<tr>
<td>Cormorant</td>
<td>k’yaaluu</td>
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<td>k’yaaluu</td>
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<td>Puffin</td>
<td>kwaanaaa</td>
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<td>kuuxan/kuuxaana</td>
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<td>Rhinoceros Auklet</td>
<td>hajaa</td>
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<td>hlaagwaats’ii</td>
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<td>Black-footed Albatross</td>
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<td>sk’aay</td>
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<td>sgaadawawa/jadixaws/sgaaxadawa</td>
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<td>Northern Fulmar</td>
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<td>saunk†</td>
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<td>saa nga</td>
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<td>Black Oystercatcher</td>
<td>sgadang</td>
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<td>Semipalmated Sandpiper</td>
<td>culuskatina†</td>
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<td>ts’ii k’alt’axung</td>
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<td>MARINE WATERFOWL</td>
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<tr>
<td>Duck (mallard)</td>
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<td>xaaax</td>
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<td>Harlequin Duck</td>
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<td>k’ayda/k’uxawuu</td>
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<td>Common Merganser</td>
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<td>Green-winged Teal</td>
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<tr>
<td>Canada Goose</td>
<td>hlgiduun/hlgidwun</td>
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<tr>
<td>Brant Goose</td>
<td>Shaesis cowaa†</td>
<td></td>
<td>st’aa k’aats’idga/tljin xaayadagaay</td>
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</tbody>
</table>

*Note: additional names exist for different species, young birds, eggs, first egg, egg with chick, etc.

15 Spellings from Skidegate Haida Immersion Program and Rhonda Bell, unless otherwise noted.
Although important in both Haida culture and the ecology of Haida Gwaii, we have excluded ravens and all marine raptors from this summary, as they are generally not harvested by Haidas. In addition, in keeping with our focus on marine planning, only spatial information for ducks and geese is included when it occurs on shorelines and in marine areas. While Haida hunting activities for these species do extend inland, those records are not included here.

**Haida Harvest, Use and Stewardship of Seabirds**

Birds are a highly visible and integral part of the Haida Gwaii marine environment. They play important roles in the ecosystem, and their behaviour can indicate things such as changing seasons or weather, the arrival of forage fish like herring, or even give navigational clues to careful observers.

There was a boat coming from Skidegate one day and a young guy was on the wheel and then this old guy was in the galley and he saw a flock of birds flying. So he went to the door and he watched; sure enough they come to another bunch of little birds floating along. So he went up and told that guy. He said, ‘You’re going the wrong way.’ He said, ‘Rupert’s over that way.’ That young guy asked him, he said, ‘How did you know?’ He said, ‘Those birds you went by, they don’t go in deep water. Only in shallow water, that’s where you see them.’ He said, ‘See, you’re running along the shoreline. You’ve gotta go that way for Rupert.’ It was really foggy; they couldn’t see anything. So they had all kind of things like that, they go by. They knew all the weather signs too, old people, just by different ways the skies go. (Stephen Brown, Jan. 2009)

Elders tell stories that some types of birds traditionally share not just a history, but also a culture and language with Haida people. Stephen Brown says that Haidas used to be able to understand the different calls of birds like Raven, and can tell by their behaviour where they are, when the weather is going to change, and even when someone is going to die. Many Haida fishermen rely on the presence of birds to tell where the fish are – especially forage species like herring, herring spawn, and needlefish.

... one of the ways you can tell is keep an eye on the birds, see where they are. You see ... those little needlefish, no matter how far down they are the birds know where they’re at and they’ll float around on top. So when the water becomes slack water, all that needlefish floats up to the top. I think I learned that from... Willie Matthews. He said just hang around wherever the birds are, that’s where the feed is and that’s where the fish are going to be too. Sure enough I get a big bite every time. (Stephen Brown, Jan. 2009)

David Martynuik’s *chinaay* [grandfather] instructed him how to use certain birds to find the fish, too.

There was these birds there, I had to watch for birds all the time. And that was those ... puffins. He called them [oo-hoos] (chuckling). He always told us, ‘Watch out for the [oo-hoos]. Once you see those, put the gear down.’ And you know they never had no proper GPS or none of that old stuff. All they had was an old flasher or a sounder. And that’s all they had. But you found the birds and that’s when they find the fish. (David Martynuik, Nov. 2008)
The activity of many types of gulls can also indicate the presence of forage fish; they often alert fishermen to good places to set their gear.

There were no commercial uses of seabirds documented during the HMTK interviews. The marine bird resources used most often by Haidas tend to be the Ancient murrelet and its eggs, seagull eggs, and both the eggs and adults of several species of ducks and geese.

**Seabirds and Shorebirds**

Ancient murrelets were the species mentioned most often when participants were asked about seabird harvesting. Other seabirds and shorebirds traditionally used for food – the adult, the eggs or both – are the oystercatcher, sandpiper, pigeon guillemot and puffin, but very little information was documented for these species during the HMTK interviews.

*Ancient murrelet - sk’in xaana(S)/sgin xaana(S)/sgidaana (M)*

With Ancient murrelets, both the eggs and the adults may be harvested for food. Ancient murrelets lay their eggs in burrows dug into the ground, in rocky areas, or under tree roots. Eggs can be gathered from the burrows during the spring nesting period (April-June). Adults are often harvested at the same time.

... towards the end of April we used to go out, look for the eggs in tunnels...they got underground, yeah. We used to stick our hand in, into the holes. If you feel the end... near the end—if your arm’s too short we used to dig down. We used to catch even the birds there ... small as those birds were, they had the eggs the size of seagull eggs. (Ernie Wilson, Aug. 2008)

The adults are also harvested at night. They are returning from ocean feeding grounds at this time and are attracted to bright lights once it is dark. A traditional harvesting method takes advantage of this fact – fires lit on the beach will attract the birds and they can then be clubbed out of the sky or caught as they dive at the fire; “... Limestone, they used to go ashore there and build a fire and they call them sk’in xaana ...they used to build fires and the little guys would power-dive right into the fire and that’s how they got them and they were very good eating,” (Paul Pearson, Apr. 2007).

Ernie Wilson described catching murrelets with the light from a Coleman lantern;

*Sk’in xaana.* Sea birds... that’s what we used to go after. This side of Burnaby, around Huxley there used to be some, but we used to go ... down two hour’s run from Burnaby... We used to get lots. Yeah, they’re fat... fat on their breast ... we used to get the ... Coleman lanterns, bright, hang it up. They get blinded and come down. You just stand underneath it, grab them and twist their neck. Put them in your belt. (chuckles) Yeah, sometimes ... you don’t see them; they go right into the fire, too. Yeah, we used to get lots. Mum used to even salt it for the winter, yeah. Just pluck it and singe the bodies, clean it out and split it in half—salt it that way. (Ernie Wilson Aug. 2008)
Edgar Sills said that some would even can *sejidaana*. The adults are also often cooked up and enjoyed in a communal pot of stew.

I always remember them being cooked in a big pot, like it was a communal meal ... everybody came for it when you had them on... only once a year we went down for them.  
(Herb Jones, Mar. 2007)

Many people from Massett may either travel up Masset Inlet or to North Island (Langara) each spring to harvest *sejidaana* and their eggs while fishing for salmon. Mary Swanson told this story about ladies gathering the birds and eggs on the cliffs near Dadens:

...on the corner where there’s kind of a cliff, like a hill that’s going up, all little holes, the birds used to lay their eggs and people used to pick their eggs and if there’s *saduna* in there, they used to take it home to eat, make it for a soup. ... Just ladies used to go out. They used to take a rowboat and anchor up and then they’d go up the hill. And ...all the ladies that would go out, they would put their hands into the hole—just big enough for the birds to go in—and when it’s nesting time, that’s when they used to really go after it, because they used to make cakes from the eggs? They used to call it sweet bread in Haida, *sablii xaawlaa*. And when they put their hands into the nests where the birds are laying eggs, if there’s a bird in there they’d catch it, and the ladies would twist its neck. Well, they’d kill the poor thing and they used to tie it together. This lady, her name was *Gigadaahl* ... That was Daisy Parnell’s mum’s mother. She took mum out one day and mum was scared to put her hand into the hole. She finally put her hand in there and *Gigadaahl* was showing her how to twist the head. I guess she didn’t twist them enough. She put them in a pile what she got, and her friend *Gigadaahl* looked at her. She said, ‘Jaaj gadee k’waa s'gadanee angaa king.’ They could barely walk! (laughing) She didn’t kill them! Everybody used to laugh about it—staggering around. ... *S'gadanee 'laa xangaa k'aats'ulaang* is dizzy ... (Mary Swanson, May 2007)

People from Skidegate tend to go south to harvest *sk'inxanana*; some traditional areas are around Cumshewa, Skedans, Limestone and around Burnaby Island, but some Skidegate Haidas also go north, to harvest at Langara each spring. No matter where the eggs are from, they are said to be “really good eating,” (Edgar Sills, May 2007).

**Seagull Eggs**

During the spring, many Haidas traditionally gather seagull eggs for food. They are usually eaten boiled or used in baking.

Seagull eggs we used to start here in the inlet ...right at the end of May. We’d only do it for about ten days, and then left them alone... any island in [Skidegate] Inlet, there was seagulls nesting... All the little islands going down South Moresby way. All the islands—like in the mouth of Cumshewa there, that rock there, that had a lot of nesting birds ... And any of the islands from there down... we’d go and pick up seagull eggs all the way. ... Yeah, and then once you took them out of the nest there, if you had a cool place to store them, they were fine. They lasted a long time. They never went bad on us, anyway... my grandmother used to use them for making cakes. The yolk was just a bright orange, that’s all... couldn’t tell the difference between that and the chicken egg. (Herb Jones, Mar. 2007)

“Oh, seagull eggs was what we used to eat instead of ordinary eggs, it was always seagull eggs.”  
(Roberta Olson, Apr. 2007)
Herb Jones starts gathering eggs in the inlet right at the end of May; “We’d only do it for about ten days, and then left them alone...” (Herb Jones, Mar. 2007). The timing of the harvest was similar in the north end of Haida Gwaii; people said they usually gathered eggs from May to June in places like Naden Harbour, Masset Inlet and Seven Mile. Percy Williams still gathers seagull eggs each year; he says he usually gets them on his way home from a fishing trip.

Yeah, we would stop and get them. Just before we come home we always get a whole bunch. One time we were out the west coast sealing with a little speedboat and we got over 200. Seagull eggs! (chuckling) I don’t know how we managed to pack them over without breaking too many; there was a few broken ones. I still go out every year. (Percy Williams, Oct. 2008)

It used to be a common practice to harvest enough seagull eggs to bring some home and share with people in the village.

When everybody’s getting the seagull eggs, they used to share it with others—older people that can’t go out. You know, they used to share everything. When people go out for the seagull eggs and saduna eggs they’d get lots and share it with people that’s not able to go out. It used to be so nice when they’d share. (Mary Swanson, May 2007)

**Marine Waterfowl**

During the HMTK study, the main species of waterfowl documented for egg-harvesting or hunting the adult birds were mallards, Canada geese, and Brant geese; “…the three of those were very good eating, but I imagine there’s others, other than that that they ate, too... but that’s what I remember eating when I was a young fellow,” (Paul Pearson, Apr. 2007). During the Skidegate verification sessions, participants also mentioned hunting mergansers and green-winged teals for food (Jun. 2010).

It is important to note that questions about waterfowl were seldom asked during the interviews because the primary focus was on finfish and shellfish topics. As a result, it is likely that Haida knowledge of marine waterfowl is not well-represented in the study results.

**Geese and Ducks**

Many Haida men hunt ducks and geese each fall as the birds migrate through Haida Gwaii, usually between the months of October and December; “They’d be nice and fat and coming down from the north there,” (Paul Pearson, Apr. 2007). Some of the most popular hunting areas are up Masset Inlet and Skidegate Inlet. Robert Olson said that when she was younger, her family ate goose and ducks instead of turkey and chicken. Diane Brown also remembered her family eating a lot of ducks, usually in a soup or stew.

In addition to fall hunting, several participants in the study also talked about gathering goose and duck eggs for food. Ed Russ said that he gathers duck eggs. Kelly Jones said that he harvests goose eggs in Masset Inlet; “…right in Juskatla on the beach there’s lots of islands where they lay their eggs, that we used to find it,” (May 2007). Paul Pearson said that he used to row his skiff out to Sgaay.yas and Gud K’aagwas to collect duck eggs and seagull eggs from the beaches there.

...we used to get in our skiffs here and...row out to the island here and collect duck eggs and seagull eggs, and we used to troll for spring salmon and here, just rowing the skiffs around.
before anybody had outboard motors. ... We’d get ...duck eggs on these islands, some seagull eggs ...over here we’d get the seagull eggs. But that’s before there was great big garbage dumps in Charlotte and Skidegate and what not; people don’t get the eggs there now because there’s too much pollution. (Paul Pearson, Apr. 2007)

**Ecological Observations**

As mentioned, discussions regarding marine birds made up relatively little of the information that was documented during the HMTK study, nonetheless there are some observations of species occurrence that are of note, as well as information on some trends in species that are commonly used that we include here.

Albatross are often seen while fishing offshore. Fishermen said they are abundant in certain areas, especially down the West Coast. Henry Hageman had the following observation:

Another time we were fishing off Langara there... we were about six miles offshore, off of the pass there, just letting our gear soak, and... we were laying down, having a snooze after we had breakfast and I could hear birds, out on the water there, so I got up and there was probably a hundred albatross around the boat, eh? I never seen that many before; I don’t know where they all come from or why they all come around the boat... [It was] just about 6 miles west of ... Langara Pass. But there were at least 100 around the boat... the black-footed albatross. ... It’s too deep out there to anchor or anything, so we just drift, and like I say, there was probably a hundred around the boat. And they were right close to the boat. (Henry Hageman, Mar. 2009)

Others mentioned that albatross can be a nuisance to fishermen, following boats to steal bait off hooks before they sink. Some other birds that participants commented on were black-legged kittiwakes, shearwaters and fulmars. They are sometimes seen in Dixon Entrance.

... the black-legged kittiwakes, there seems to be more of them hanging around, you know, like close in here? And they seem to hang around for the whole year. A few years back I don’t know whether they were just migrating—they would go through. But now there’s been a few hang around pretty near all summer long you’ll see them out here. One year, when I trolled early ... before I went halibut fishing, just on the north end, and we come out of Seven Mile and we were going to troll down to Langara here, and we ran out because there were so many ... I think they were shearwater and fulmars ... you know, I didn’t really pay that much attention ...that’s basically the type of birds they were, but they were right from Seven Mile to Langara, just thousands of them, eh? And you know... you would never count them. You’d just see birds ... you know, when you were fishing along the way there. I would think they would be just migrating. But they were, you know, probably just hanging around, maybe resting for a day or two and would leave. You know, normally I wouldn’t be out fishing in April, but... I forgot why I decided to go out in April that year and try it! (Henry Hageman, Mar. 2009)

Harlequin ducks are another species that may be seen in high densities; this observation is from near Skidegate.
And I noticed lots of Harlequins... off Skidegate there—more than you ever see anywhere else. You ever see those ones when you start down the village and they seem to hang around the outfall, a couple of beautiful harlequins? And you know, you only see two or four or something? And down Skidegate...off Pearl Pearson’s house, on them rocks ...sometimes there’s probably thousands of them. (Monte Stewart-Burton, May 2007)

This last observation came from a participant that frequents the west coast a lot. While he was not able to say which species this is, it is likely to be a rhinocerous auklet (Skidegate verification sessions, Jun. 2010).

... we get the occasional Ancient murrelet land on the boat. But like when we’re fishing around in this area... see we’ll just drift around and leave our lights on and the birds fly into our lights.... and then we wake up in the morning and there’s like 100, 150 birds on deck. So I don’t know what kind. Those are those little black birds; I don’t know what they’re called though. Yeah, they’re different sized birds, like and ... they just go crazy for the lights. (BJ Dudoward, Mar. 2009)

Species Associations

Breeding needs are similar amongst different species – for the most part they need rocky coasts sheltered from the harshest weather and offering some protection from predators. Because of this many of the seabird nesting colonies around Haida Gwaii are not restricted to a single species. In south Gwaii Haanas in particular, we documented observations of nesting colonies that contained the following types of birds in the same areas: tufted and horned puffins, seagulls, pigeon guillemots, black oystercatchers, rhinocerous auklets, and sometimes also murres and cormorants. Seagulls are commonly observed and their nesting locations quite well-known. They are often found to sharing habitat with pigeon guillemots and black oystercatchers; “Wherever you find seagulls you’ll find pigeon guillemot and you’ll find oystercatchers also nesting—mainly oystercatchers,” (Captain Gold, Mar. 2009). Some of these observations are displayed spatially in the maps included in the Seabird Distribution and Harvesting Areas section of this chapter.

Trends

Overall, there seems to be a downward trend in the abundance of seabirds and shorebirds around Haida Gwaii. Ancient murrelets have suffered some of the greatest declines. One of their most important breeding sites is located on Langara Island. This was also a very important harvesting area for Haidas, but people report not harvesting saduna there since the 1950s (Robin Brown, Massett verification sessions, Jun. 2010). The introduction of rats and raccoons there had a very negative affect on the breeding population. And in recent years, fishing lodge expansion has also impacted the populations. However, there are numerous observations that their numbers may now be starting to rebound, after recent rat-kills; “I see a few around here this year, but not that many. But early on in April and March you could see millions of those Ancient murrelets moving this way... as far as you could see, you could see them things in the water,” (Francis Ingram, Nov. 2008).
Most participants said that they felt marine birds are declining, perhaps due to lack of feed; “I must say, I noticed that there’s not as much marine birds around ...maybe just because I’m not ...out on the water as much as I used to be, but there doesn’t seem to be as much marine birds around as there used to be, when I first started fishing...” (Ed Russ, Jul. 2008). Ed said he felt it was a decrease in the abundance of available food that is causing the decline in marine birds; “…that’s the only thing I could think because they’re surface feeders, eh? Not enough food... (Ed Russ Jul. 2008). Captain Gold had a similar observation:

...[seabirds] used to be real busy in the fifties and the sixties and I think ... even the seventies, but I think in the eighties is when they really started to go down, a lot of them. I think something else I mentioned up here was going down in the eighties also. But I think that’s the same story here, because of all the food chain disappearing and that’s reflected in the population also. (Captain Gold, Mar. 2009)

One of our eldest participants, Ernie Wilson, said that there used to be more cormorants and more sea life in Skidegate Inlet before the herring populations declined.

There used to be a lot of sea lions, even the...k’yaalu, cormorants... there used to be lots on both islands. In the evening you would hear them—oohwoowo, ohwoowo—you could hear them plain as that. You don’t see them now. No feed for them. No herrings. (Ernie Wilson, Aug. 1998)

Participants in the Massett verification sessions said cormorants seem to have disappeared from the north end as well.

One participant commented that it is hard to see trends in small seabirds, as many look similar and they are hard to count.

[They’re] hard to count because there’s so many of those little things and there’s a lot of them that look alike. There’s the Ancient murrelet, marbled murrelet...and rhinoceros auklet almost look all the same, but the only thing is they’re a little smaller. But there’s still quite a bit of them out there even though they’re saying the numbers are down. I never counted them. (Lonnie Young Apr. 2007)

**Seabird Distribution and Harvesting Areas by Seascape Unit**

The HMTK study documented relatively little spatial information for seabirds; this is at least in part due to the fact that more emphasis tended to be placed on finfish and shellfish in the interview sessions. Nonetheless, seabird distribution and/or harvesting areas were recorded in six seascape units relevant to PNCIMA marine planning: Dixon Entrance, Masset Inlet, Skidegate Inlet, Hecate North, West Coast, and Gwaii Haanas. Over the following several pages we present the information relevant to each seascape unit along with a map showing the distribution and harvesting areas that were mapped during the interviews. It should be noted that when the seabird maps were presented at the verification sessions, there were comments that because seabirds are in most areas, the spatial data represent some nesting and harvesting locations, but do not show the full extent of seabird distribution on Haida Gwaii. It was also noted that many species nest in the same location – meaning an area documented for seagull egg harvesting is likely to also have numerous other nesting seabird species present (Skidegate, Jun. 2010).
**Dixon Entrance**

In Dixon Entrance, the seabird resources harvested most often are Ancient murrelets (both adults and eggs) and seagull eggs. Langara or North Island and some sites along the north coast of Graham Island are the areas used most often. Figure 22 shows the seabird areas that were documented during the study, including any ecological observations for this area.

![Map of Dixon Entrance showing seabird observations and harvesting areas.](image)

**Figure 22**: Map of Dixon Entrance showing seabird observations and harvesting areas.

North Island is a traditional *sgidaana* harvesting site for people from Massett and from Skidegate. Many of the participants in the study remember going there each year, getting the birds and their eggs while staying at their spring fishing camps.

…and the other reason people used to be excited about having to move down [to North Island] is those little...we call them in Haida *sgidaana*, and ... the party that moved down there, if they had the pots, they would make a big pot of stew with those little birds. Just put potatoes and onions in there and put the little birds in after you’ve plucked it. Tasty! Really, really tasty little birds. (Reynold Russ, Jun. 2007)

I used to get the night birds at North Island ...that was a fishing camp. There was a lot of night birds there. We used to bring that home and my mum used to cook it. In the night we’d build a fire and they would head for the fire. All the birds would head for the light. Or else you’d put a bright light out, they head for the light. They come out of the bush at night.
And in the day time, you go up in the bush and just look for holes under the trees? You pull them out of there, and the eggs, too. Yeah. My mum used to boil it, that’s all... take the guts out and boil them. ... Yeah, they were good, real tasty. ... It had a really good flavour, kind of wild flavour, hey? Really good, yeah. (Norman Price, May 2007)

While travelling between Langara and Massett, people also get seagull eggs along the way. Some of the places mentioned most often for gathering eggs are around Seven Mile, Cape Naden, Shag Rock and Seagull Rock. Ernest Davis and Timmy Edgars get seagull eggs in some of these areas each year; they like to eat them boiled, but also bring some home to give to others in the village.

Dixon Entrance provides several key nesting areas for marine birds. This is evidenced by some of the locations documented with names like “Bird Rock”, “Seagull Rock”, “Bird One” and “Bird Two”. Wesley Bell spoke of a seagull nesting area near Shag Rock called “Xull hlaas”, as well as another location on Langara Island near Cohoe Point where people traditionally used to go to get Ancient murrelets and their eggs (Mar. 2007). He also described another important nesting area, which may be Cape Muzon.

...from North Island, they used to say that across those long... looks like a rock? A round island there, you see it from North Island—K’iiiga née. K’iiiga née, that they used to say, that’s where the birds come. K’iiiga née. You see it from North Island, across Alaska side. The one round... that’s K’iiiga née. That’s where they said all birds. (Wesley Bell, May 2007)

Wesley said that the locations they got saduna were Jaahl, Yakoun, Dadens, and [Kwaay’ K’atjuwuwas or Pillar Rock?]; “...all over the place we used to get the birds. Oh, lots of fun night times,” (Wesley Bell, May 2007). Vern Williams Sr. also identified Lucy Island as once having a very abundant population of Ancient murrelets; “Lucy Island – “There’s nothing on the island; there’s just those little Ancient murrelets... there’s lots. Loaded,” (Vern Williams Sr., Jan. 2008). Edgar Sills said they would go as far as Cohoe Point, getting murrelets out of their burrows. The timing for most of this harvesting is April and early May. Wesley pointed out that by May, the saduna have all gone out to the ocean.

In addition to Ancient murrelets, one participant said that he used to harvest sandpipers for food; “… we ate lots of saduna. Murrelets, they were a delicacy. And these little sandpipers? They’re edible too; they’re really good. Yeah, they’re really good,” (Robin Brown, Apr. 2007). Kelly Jones also talked about hunting geese at the slough by North Beach in the fall.

**Masset Inlet**

The seabird resources harvested most often in Masset Inlet are seagull eggs and marine waterfowl and their eggs. Many of the islands in Masset Inlet are seagull nesting colonies; “Every last one of these little islands” has seagull eggs according to Ernest Davis (Mar. 2009). The eggs tend to be gathered while people are up the inlet fishing sockeye, towards the end of May and into June.

People that got there early …those little islands around up in Masset Inlet, they all got seagull eggs on it. That’s another place you get seagull eggs, if
you’re up there early in the year. Some guys used to go up there just for seagull eggs. ... There’s little islands all over up in Massett Inlet. The ones out in the middle, that’s where the seagulls lay eggs. (Stephen Brown, May 2007)

Robin Brown said he used to harvest seagull eggs at Ship Island on his way to fish the Yakoun River. All the seabird distribution and harvesting areas recorded for this seascape unit are shown in Figure 23.

![Figure 23: Map of Masset Inlet showing seabird observations and harvesting areas.](image)

Figure 23: Map of Masset Inlet showing seabird observations and harvesting areas.

Goose eggs are harvested along the beach; “…right in Juskatla on the beach there’s lots of islands where they lay their eggs, that we used to find it… it’s right around [outside the entrance to Juskatla] somewhere,” (Kelly Jones, May 2007). Fall hunting trips target migrating ducks and geese anytime from October to December. People hunt most often at Juskatla, Yakoun River, Cub Island, Masset Island, the
Mamin Islands, and Kumdis Slough. Judson Brown hunts mallard ducks and Canada geese in some of these areas each winter, usually three or four times a season. He also mentioned hunting at the mouth of Mamin and at Cowhoe.

**Skidegate Inlet**

Some of the seabirds harvested regularly in Skidegate Inlet are seagulls (eggs), oystercatchers (eggs), Ancient murrelets (adults and eggs), mallard ducks and Canada geese. During the Skidegate verification sessions, elder Roy Jones Sr. said that they also harvest mergansers and green-winged teals in the inlet. Some elders say they used to be able to get every species of seabird in Skidegate Inlet because of the variety of habitats there, such as islands, estuaries, ocean, and fields. The spatial information documented for this seascape unit is shown in Figure 24.

![Figure 24: Map of Skidegate Inlet showing seabird observations and harvesting areas.](image)

Many participants talked about harvesting seagull eggs in Skidegate Inlet. Some of the most common locations for this are Grassy Island, Welcome Point, and the islands outside of Alliford Bay, but it is also said that, “all the ways up the inlet... they all had eggs on them,” (Ernie Wilson, Aug 2007).
Out by Alliford Bay there’s a seagull rookery there… there used to be some on the islands outside of Charlotte. You know those two islands? People picked them too much. I guess they don’t go there anymore. Maybe they’ll quit going by Alliford Bay too, but… their getting young ones coincides with the herring coming in the inlet—lots of food for them while they’re raising their young. Amazing how Mother Nature works… (Percy Williams, Oct. 2008)

Additional seagull nesting areas were identified during the verification sessions, including Burnt Island and Gust Island (Skidegate, Jun. 2010). Percy Williams said that you can also get oystercatchers and pigeon guillemots at Grassy Island. Dempsey Collinson said that he and Percy used to go out to an island, either Sgaay yas or Gud K’aaswas, and pick oystercatcher eggs there. Ancient murrelets were also harvested in this area. Lonnie Young said he used to see people go out to Wanderer Point and build a fire on the beach to harvest sk’in xaana when he was younger; “… the birds would fly right into the fire… they’d get them by the sack-full” (Apr. 2007).

**Hecate North**

The seabird species harvested in this seascape unit include both shorebirds and waterfowl. The areas mapped by study participants are shown in Figure 25.

![Seabird Observations & Haida Marine Harvesting Areas - Hecate North](image)

**Figure 25:** Map of Hecate North showing seabird observations and harvesting areas.
Skidegate Haidas travel south down the east coast of Moresby Island to harvest seagull eggs and Ancient murrelets and their eggs. The study documented many instances of sk’ìn xaan̓a harvests at Limetone, Cumshewa and Skedans Islands especially. Some other seabird uses in this seascape unit include duck and goose hunting at Tlêll, Copper Bay, and Sheldens Bay, as well as Dana Narrows and Lagoon Inlet (the Tlêll polygon is included in Figure 23; all other areas are shown in Figure 25 on the preceding page).

Many elder participants remembered going to Limestone Island to get Ancient murrelets. Ernie Wilson said they would anchor their boats nearby and use a rowboat to go out to the island. There, they would set a big fire and catch “… more than enough” birds (Aug. 2008). Another place Ancient murrelets nest is Reef Island.

Seagull and oystercatcher eggs are often gathered at Cumshewa, Skedans Islands, Navigation Rock; Captain Gold said that you also find pigeon guillemots nesting in a lot of the same areas. He also stressed that Kingsway Rock has a lot of nesting seagulls; “That whole island there, that rock, is seagull eggs,” (Captain Gold, Mar. 2009). Both Ernie Wilson and Tom Hans have collected many seagull eggs from the islands in front of Skedans; Ernie described an island with a steep face, saying, “it’s just thick with their nests,” (Mar. 2007). He would gather enough seagull eggs there to take back to Skidegate and share with others in the village. Tom also remembers collecting eggs at Copper Bay in May while his mother was doing sockeye.

During the Skidegate verification sessions, Roy Jones Sr. said that brants are found at the mouth of Cumshewa Inlet around February each year, and that this is a good place to hunt them because they are fat and good to eat. Once they move into Skidegate Inlet a little later in the year, they are skinnier and not so good for eating (Jun. 2010).

West Coast

The areas mentioned for gathering seagull eggs on the West Coast were Skelu Bay, Frederick Island, outside Port Louis, and the small islands in front of Tian. Dempsey Collinson had fond memories of gathering seagull eggs up the West Coast on his way to Langara.

When we were travelling we used to pick seagull eggs. Eat so many of that when we were travelling up to Langara. So that’s in May, eh? Middle of May is when the seagulls lay their eggs. It used to be so exciting for us, young, running around trying to find the eggs, too. That was food. (Dempsey Collinson, Jun. 2007)

Tian—that’s where we used to pick seagull eggs... I liked the watery ones with the little bird in it. That’s the ones I liked. Take the bird out, drink the juice. (chuckling) It’s really good... sk’ìn kaw, that’s all they called it. Seagull eggs. ... We used to eat them... when I was a little boy. My mum and them used to get eggs all the time. ... It was always the men that got it. The women just would go a little ways then go right back. (Norman Price, May 2007)

While Norman’s observation is from some time ago, more recent visits suggest that this area still has abundant gull breeding populations.
...these rocks here outside of the village in Tian there ... I was thinking we were up there in June but ... we went and explored around on those rocks and it would’ve been good to be in there in the spring, earlier in the spring, because there was real lots of young seagulls in there. (Ernie Gladstone, Nov. 2008)

Figure 26 shows the spatial information recorded for a portion of the West Coast seascape unit.

Figure 26: Map of seabird observations and harvesting areas on the northwest coast of Graham Island.

Ernie Wilson stressed that there are also places with abundant breeding populations of Ancient murrelets on the West Coast; “North Island’s got lots too. All those along the west coast ... that’s where
they hang out too—Hippa Island—all of them,” (Ernie Wilson, Aug. 2008). The only other type of seabird resource use documented on the West Coast was for waterfowl. Judson Brown hunts mallard ducks and Canada geese in Rennell Sound in the fall.

**Gwaii Haanas**

Ernie Wilson was one of the few participants who talked about regularly gathering *sk’in xaana* and their eggs in Gwaii Haanas. He said his family would stay at their seasonal home at Burnaby Narrows and travel from there to the Rankine Islands to harvest the birds. He said that whole families would go, anchor their boats and go ashore, then stay overnight. Ernie said people also travelled to Alder Island to get *sk’in xaana*, “There’s lots right here but to get real lots...” they’d go to Rankine and dig the eggs out of tunnels there (Aug. 2008). Ernie also said that he would see lots of puffins down south, which have slightly bigger burrows than the Ancient murrelets; he heard that people used to get them for food but his family didn’t. Figure 27 and Figure 28 show the seabird information documented for Gwaii Haanas.

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Figure 27: Map of north Gwaii Haanas showing seabird observations and harvesting areas.
While people may not often make a trip to the southern regions of Haida Gwaii just for the purpose of harvesting seabirds or their eggs, Captain Gold said that people may collect eggs on any of the islands, depending on ocean and weather conditions. Lonnie Young also mentioned that people used to go duck hunting in Island Bay and Bag Harbour.

![Figure 28: Map of southern Gwaii Haanas showing seabird observations and harvesting areas.](image)

There are many seagull nesting colonies throughout the Gwaii Haanas area. Some areas noted for egg gathering are Ramsay Rocks and Sgang Gwaay. The seagull nests are often located alongside a number of other seabird species and their nests. Captain Gold said he finds seagulls nesting with puffins, Ancient murrelets, black oystercatchers and pigeon guillemots mostly; “There’s a whole pile of them that actually live down there,”... “Wherever you find seagulls you’ll find pigeon guillemot and you’ll find oystercatchers also nesting—mainly oystercatchers,” (Mar. 2009). He said he also sees rhinoceros auklets, murrels and cormorants nesting in some of these areas and that it is the abundance of feed in the southern area that attracts so many different species. He mentions perch, young salmon, needlefish,
herring and smelts; “Just tons of them; that’s why we get such an abundance of birds and all the other animals that prey on them,” (Captain Gold, Mar. 2009).

Management Issues and Suggestions

Apart from overall indications that bird populations have declined, few specific management issues arose in regards to seabirds during the HMTK interviews. Two main points of concern are: the depletion of Ancient murrelets at North Island due to rat and raccoon predation, and the possible impact of pollution on seabird eggs for human consumption. At North Island, participants say that the Ancient murrelet population seems to be recovering since the rat-kill, however there is still the problem that a fishing resort has been constructed over a major nesting area.

At the top of this hill here it looks like a city. That’s where all the West Coast Fishing Club is. It’s cleared off so much now … when you’re around the outside here you can apparently … start to see the houses there now. And that used to be a lot of saduna, used to nest on there. This whole area on the top, all over; there’s nothing there now. (Henry Hageman, May 2007)

During the Old Massett verification sessions, two further concerns were raised in regards to seabirds. Participants said that the noise from helicopter traffic in and out of the Langara sports fishing lodges may be impacting the nesting seabirds in the area. They suggested that flight routes need to be specified to the lodge owners and pilots to minimize the disturbance. There was also one participant who said that the proposed windfarm for the Dogfish Banks/Hecate Strait area is located directly on the Ancient murrelet migration route, and will possibly interfere with the birds’ seasonal movements (Jun. 2010).

For many species, there are some observations that localized pollution, loss of feed, and over-harvesting in certain areas may also be impacting seabird populations and the opportunity to harvest seabird resources. Paul Pearson said he no longer gathers duck eggs and seagull eggs from Sgaay.yas and Gud K’aagwas because of the possibility of pollution:

... that’s before there was great big garbage dumps in Charlotte and Skidegate and what not; people don’t get the eggs there now because there’s too much pollution …hardly anybody gets seagull eggs anymore, and if they do, it’s probably …further down south, end of the island, where there’s not all that pollution... (Paul Pearson, Apr. 2007)

Percy Williams also mentioned that there used to be seagull eggs on two islands in Skidegate Inlet that maybe got over-harvested at one point and there are no longer eggs there; “There used to be some on the islands outside of Charlotte. You know those two islands? People picked them too much. I guess they don’t go there anymore,” (Percy Williams Oct. 2008). No specific areas were suggested for protection. While there was relatively little information recorded in regards to seabird management issues in this study, there are other sources of information that indicate seabirds are of concern to marine use planning in Haida Gwaii.  

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6. Seaweed

There are close to 400 seaweed and seagrass species in the waters of Haida Gwaii, and many more plants that inhabit the intertidal and/or estuarine zones. Of these, we documented information on four main types of marine plants during the HMTK interviews: kelps, edible seaweed or laver, eelgrass, and wild sea asparagus or glasswort. Table 1 shows some of the species of marine plants that are commonly used by Haidas, along with their Haida names.

Table 1: Some seaweeds and marine plants used by Haidas, including Haida names when possible.¹⁷

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Alternate Names</th>
<th>Massett Haida</th>
<th>Skidegate Haida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kelp (unspecified)</td>
<td>kelp</td>
<td>híkaam</td>
<td></td>
</tr>
<tr>
<td>Giant Kelp</td>
<td>kelp</td>
<td>ngaal†</td>
<td>ngaal</td>
</tr>
<tr>
<td>Bull Kelp</td>
<td>kelp</td>
<td>híkaam</td>
<td>híkyaama</td>
</tr>
<tr>
<td>Edible Seaweed</td>
<td>black seaweed, laver</td>
<td>sgiw</td>
<td>sgyuu</td>
</tr>
<tr>
<td>Early seaweed</td>
<td>first or winter seaweed</td>
<td>sank sgiwee</td>
<td></td>
</tr>
<tr>
<td>Wild Sea Asparagus</td>
<td>glasswort, goose grass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eelgrass</td>
<td></td>
<td>t’anuu</td>
<td>t’aanuu</td>
</tr>
</tbody>
</table>

This document focuses strictly on edible *Porphyra* species. For information pertaining to kelp, the reader is referred to the document *Haida Traditional Knowledge of Herring*; some of the information that was documented about kelp is included there, due to the critical importance of kelp in the commercial spawn-on-kelp and traditional k’aaw fisheries. Two other types of marine or maritime plants were occasionally mentioned during the HMTK interviews: goose-tongue (*Plantago* sp.) and goose grass (*Galium* sp.). However, there were few instances of each and it was not possible to confirm the species identification in most cases. As a result the information documented on these plants has not been included here.

**Haida Harvest, Use and Stewardship of Seaweed**

*Sgyuu* (S) or *sgiw* (M) is an important staple in the Haida diet. It may be eaten as a snack, used as an ingredient in soups and stews, or ground and sprinkled on foods like fish, rice, potatoes and salmon eggs. June Russ said that once the seaweed has been dried, she likes to toast it over a fire and eat it with eulachon grease. It is a highly nutritious food and a valuable trade commodity. Most people try to get some through harvest or trade every year.

The main seaweed eaten in Haida Gwaii is *Porphyra abbottae*, commonly just referred to as seaweed. Based on her research in the area, Nancy Turner said this could be referred to as “summer seaweed”, and another *Porphyra* species that is ready to by picked earlier in the year is known as “winter

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¹⁷ Haida spellings are from the Skidegate Haida Immersion Program and Rhonda Bell, unless otherwise noted.

seaweed”.\textsuperscript{18} While few that took part in the HMTK study mentioned winter seaweed in particular, many participants talked about how good the “early” seaweed is; this could be the same species.

Now if you want good ones, you’ve got to get it around the twentieth of April… [the] first ones that grow, that’s the best ones. Our people call that sank sgiwee... it’s slow-picking when they’re short like, but it’s sure dandy though—sank sgiwee k’usgt ‘laa guusdlang [early seaweed tastes the best]. Yeah, early seaweed tastes the best. (Stephen Brown, May 2007)

Judy Williams agrees that the earliest seaweed is the best; “The best ones to pick is the one [that] first comes out – the short ones… when it’s short and curly, thin – that’s the best seaweed you can get,” (Judy Williams, Mar. 2009)

The timing of the seaweed harvest is roughly April to June in both the northern and more southerly areas of Haida Gwaii, but there is a predictable pattern to the “ripening” and knowledgeable harvesters know exactly when patches in different locations will be ready. Several people interviewed still seem to very much favour the earliest seaweeds, saying they have the best taste. Overall, participants said that seaweed from different places has different flavours.

According to participants, the harvest of edible seaweed was traditionally done by Haida women, who would take their canoes out in groups to harvest as a cooperative activity. Today, more men are involved in the harvest and motor boats are used more often than canoes. Nonetheless, the harvest is still done by hand, without the use of tools or other metal implements, as it is a common belief that using tools can harm the seaweed.

... today, the young people don’t understand, but once you put any kind of steel through the roots of the seaweed it kills it, kills the [root] all-together. And I don’t think that people should be using knives or scissors or whatever people are using, and I think they should just use old, traditional ways... use your fingers to pull it off. (Reynold Russ, Jun. 2007)

Seaweed is usually harvested in the spring during a low tide and is often harvested along with sea urchins and chitons. Once harvested, the seaweed is traditionally dried on the beach on rocks. This means that the harvesting and processing of seaweed can be reliant on good weather.

... [you] rip it off the rocks, and it’s got to be on a day when the sun is out like today, and it’s icy cold ...the tide has to be out all day, in order for it to dry, because you can’t really pick it when it’s wet... just dry it out in the sun. You have to dry it right, ‘til it’s right dry or it will get mouldy. (Roberta Olson, Apr. 2007)

People now tend to use ovens and dehydrators to prepare their seaweed for storage. Once dry, it is compressed into cakes or squares or stored loose and put away, either for eating later, sharing, or for trade.

Well, after [the seaweed is] dried off, you grind it up, you know, and you have it ... with halibut, you know, soup, jam [fish soup]. Mix it up in there, with a bit of eulachon grease ... just about all the Indian... that way, Haidas, put up seafood, you could have the seaweed with it. I remember one time I went to visit Uncle Don and he said he was making himself a quick lunch. He just opened a can of sockeye and dumped it in a pot and it start to steam up, he threw a couple of handfuls of seaweed in there and that was his lunch. So that's the way we used to eat years ago, I guess. (Harvey Williams, Apr. 2007)

Judy Williams has been picking seaweed every year for the last twenty-six years. Each year she gets enough for her family, then gives the rest away.

**Trade**

Elder Reynold Russ said that some of the dried seaweed has always been used in trade; he remembers it being a delicacy to some mainland nations such as those living on the Skeena River, who didn’t have it growing within their territory; “... they would get whatever they could. Even if you had tons of it, they’d take the whole thing,” (Reynold Russ, Jun. 2007). Stephen Brown also had memories of long ago seaweed trade; when he was a child in the 1920s he would see Haidas taking cakes of seaweed over to the mainland to trade for eulachon grease. This is still quite a common practice today. Several of those interviewed said they may trade seaweed with Nisga’a and Tsimshian people in several mainland communities for eulachons and their grease. There is also frequent on-island trade and a lot of sharing of seaweed within the Haida communities.

**Seaweed Distribution and Harvesting Areas by Seascape Unit**

During the HMTK interviews relatively little spatial information was recorded for seaweed. This may be in part due to the low number of women that took part in the study (out of 56 participants only 7 were women), but also because more emphasis tended to be placed on finfish and shellfish than seaweeds and plants. The sensitivity around seaweed harvesting areas may have also limited what participants were willing to document.

Overall, much more information was mapped for seaweed in the north end of Haida Gwaii than the south. This reflects the experience of many of those interviewed.

There’s no seaweed way down... we used to get seaweed as far as Cumshewa. There used to be a special expedition down to Cumshewa to pick seaweed in March or April, and it’s just in one little spot, about half a mile of beach. That’s the only place there’s some that I know of down there. The most ... seaweed I ever saw was at North Island. We were seining, I got off on a rock and there was great big fronds hanging just like kelp hanging down the sides. You’ve seen it like that, eh? Holy. Pull it out. Got a garbage can full right now. Gee, there’s lots there. (Percy Williams, Oct. 2008)

Seaweed harvesting areas were recorded in five seascape units relevant to PNCIMA planning: Dixon Entrance, Skidegate Inlet, West Coast, Hecate North and Gwaii Haanas. Over the next several pages we present some of the information that was documented. Due to the sensitivity around seaweed harvesting areas and habitat, spatial results are only presented for Dixon Entrance. Other specific locations identified for seaweed, as well as specific harvest timings, have been masked or omitted from this document.
**Dixon Entrance**

Within the Dixon Entrance seascape unit, seaweed distribution and harvesting areas were recorded along the north coast of Graham Island from the village site of *Yaan* almost as far west as Cape Knox, and all the way around Langara or North Island.

All where you get seaweed is right at the old village ... and *Gwaay t’uuwans*. It’s up to Seven Mile, *T’lakadiiaa* or so, *Mii.aa uu Kun*. That’s how far they go. Then [in] June, North Island, and north, where I keep on telling you that bay... round rocks with just white. That’s where we get to pick seaweed out there, [in] June, really good seaweed—thin, long—leave them on the rocks, dried. Really easy. Put in a box. Really easy [to] pick seaweed there. Then Harry used to do it ...at *Gwaays Kun*, lighthouse. He said he’d just stop by beside the rock, pick. Pick on the boat. That’s the only place—just as far as down to Seven Mile, that’s seaweeds, North Island, *Yaats Kun*. (Wesley Bell, May 2007)

Some of the spatial information that was documented for the western portion of this seascape unit is shown in Figure 29. Harvesting areas identified for other locations in Haida Gwaii have not been included here.

![Figure 29: Map of Dixon Entrance showing seaweed harvesting areas west of Old Massett.](image-url)
According to all of our Massett participants, seaweed harvesting usually starts at the easternmost locations in early spring, then moves west and north as the season progresses, finishing lastly at Langara Island in early summer. Stephen Brown said that seaweed at locations further east tends to be ready for harvesting earlier in the season, but it’s often too sandy. Several people said that they like to harvest early in the season, as this is the time when the seaweed is at its sweetest.

West of Massett, a lot of seaweed grows and is harvested in several locations not far from the old village site of Yaan. Mary Swanson and Edgar Sills both told about sites in this area where they like to pick seaweed. Rolly and Martin Williams begin their seaweed harvesting in April, once they have finished working on roe on kelp. Their harvesting pattern follows the seaweed from east to west as it ripens along the North Coast of Graham Island. Many people pick at [location] at this time; “The earlier ones around [location] they’re real sweet, eh? And they’re real thin, like the ones you buy in the store—those Japanese ones;” (Francis Ingram, Nov. 2008). Several specific areas were mentioned repeatedly as good seaweed harvesting locations. People mostly pick in Dixon Entrance in April and May; “…first week in May they used to quit. Don’t ask me why, but that’s when they used to quit,” (Claude Jones, May 2007).

Langara Island is one of the last locations that people pick seaweed each spring. The seaweed harvest at Langara moves in a counter-clockwise pattern starting in the south, then going all the way around Langara, and lastly down towards Frederick Island. The seaweed at [location] is supposedly “…one of the best seaweed beds going. Really tasty seaweed there … you go there June 20th … you’ll get good seaweed,” (Robin Brown, Apr. 2007). Numerous Langara locations were mentioned as excellent seaweed harvesting areas. According to Edgar Sills everybody from Massett used to get their seaweed at [location]; “The whole town would go over for seaweed. Nobody left in North Island, everybody picking seaweed,” (Edgar Sills, May 2007). June Russ talked about how women would row out to the same location to pick the seaweed and dry it on the rocks there. She said they would bring it home in bag-fulls and give it out to the elders in Massett. Many say it’s the best seaweed; “You get real good ones, good seaweed, down Langara (Willie Russ Jr., Mar. 2009).

Picking the seaweed is an integral part of spring-time activities. Ernest Davis said that it was sometimes the children who used to go out for seaweed, while their parents were jigging halibut and/or trolling salmon at their Langara camps. Timmy Edgars remembers walking along the beach from their traditional summer camping area to gather seaweed; he said he got it at the same time as chitons and abalone, as well as octopus and mussels at times.

**West Coast**

Few participants talked about harvesting seaweed on the west coast.

There’s just a few certain places out the West Coast you could get big patches of them. [I] remember we were outside of [location], Marlon went ashore to pick some mussels, and when he was walking over the rocks, there was a big black patch there. You know, the sun was shining and the seaweed was getting dry. He pulled on a chunk and just a great big slab
ripped off. He was swinging it and I said, ‘Geez, you better pick all you can.’ So he tried to. Threw a garbage bag ashore to him. He got quite a bit there, and the mussels ... just on this point here. Sgyuu. ... And another place we got lots of seaweed was right here, on this rock here [location]. Yeah. We were hunting seals when we found all this Sgyuu. (Harvey Williams, Apr. 2007)

Any spatial results recorded for the West Coast and Skidegate Inlet have not been included here to protect their locations.

**Skidegate Inlet**

The timing of the seaweed harvest in Skidegate Inlet is similar to that in other parts of Haida Gwaii. Most people say they start picking towards the end of April. Roberta Olson starts her seaweed gathering at that time.

...of course, in the spring—which is early spring, like April ...that’s when I start gathering seaweed. We call that Sgyuu. And that starts at [location]...towards the end of April. And from there we go down towards... [location]; there’s some rocks there that also have Sgyuu on it. And in ...April...probably in the next two weeks it’s at [location] ... right on the corner, there’s some flat rocks there I’ll be going to in two weeks, to gather there. (Roberta Olson, Apr. 2007)

Only a few seaweed areas were identified in Skidegate Inlet, but many people reported using those areas. As in the north areas, it was noted that sgiw from different areas tastes different. Diane Brown said that seaweed from some areas has a little more flavour than from other areas. One participant said that he used to get seaweed in Skidegate Inlet, but that he doesn’t anymore as he thinks it has been affected by pollution; “You could still pick them now, but they’re very scanty supply now compared to before,” (Captain Gold, Mar. 2009).

**Hecate North**

Many Skidegate Haidas travel south of Skidegate Inlet and down the east coast of Moresby Island to gather their seaweed each spring. Cumshewa Inlet is perhaps the most popular place to go for seaweed in this region. Percy Williams remembers people travelling there from Skidegate in March or April to get their seaweed. Tom Hans also remembers doing this with his father; he said they would get sackfulls of seaweed in Cumshewa. Tom said they would often get halibut at the same time. His mother used to prepare the halibut gills a certain way and serve them cooked, along with the seaweed.

Several people mentioned gathering Sgyuu at one particular location in Hecate North.

[Location] is a good spot ...just this way from the village, old village site... all along the rocks there. That’s a real good spot there. I used to walk with my old grandfather Jimmy Jones along there... that was a heavy, heavy growth of seaweed right there. There was always lots there growing. (Harvey Williams, Apr. 2007)

Throughout the east coast of Moresby Island the seaweed harvesting pattern is from south to north, as the seaweed is ready further south first and then up the east coast.
Gwaii Haanas
Several elders spoke about gathering seaweed in Gwaii Haanas. Gladys Vandal said that people used to go to harvest seaweed near K’iid and she remembers seeing it on rocks in the surrounding area. Margaret Edgars said that she once gathered seaweed near Hotspring Island, while she was there with the Watchmen program. Percy Williams spent a lot of time trapping and fishing on the east coast and around South Moresby. He said that he would trap as far south as Huston Inlet, then stay an extra couple of weeks or so in the spring to gather things such as k’aaw and seaweed.

Ecological Observations
Most of the ecological information recorded about seaweed was in regards to harvest timing. Due to sensitivity many of these details have been excluded from this report. Here we present observations about species associations and trends that are relevant throughout Haida Gwaii.

Species Associations
It is very common for people to harvest black chitons and seaweed at the same time; many people said that you find the black chitons wherever the seaweed is. Just a few participants mentioned getting the gumboot chiton at the same time and place as seaweed; this observation is from Langara Island, “And you get a lot of chitons there; you get those big red ones, too,” (Willie Russ Jr., Mar. 2009). Other species that share the habitat of the Porphyra species and therefore may be harvested at the same time include: sea urchins, abalone, octopus, and mussels.

Trends
Two formerly productive seaweed areas were noted as possibly suffering the effects of pollution: one in the north end and one in Skidegate Inlet. In each case, sewage was thought to be to blame.

There is some uncertainty as to whether there have been any changes in the timing of seaweed. Not all participants were asked this question, but those who were gave a range of answers. Some said that the timing hasn’t changed; some said the harvest time is getting shorter each spring; and some said that the timing is definitely getting earlier, especially over the last five years.

... I get to be an old man and I’ve seen a lot of things through my lifetime. I never seen anything changing so much in the last five years than it did through my whole life. Years ago... we’d have to stay home and wait ‘til May to get seaweed. Now if you want good ones, you’ve got to go out there in the middle of April and by that time the weather’s so bad... everything is so different. (Stephen Brown, Jan. 2009)

During the Skidegate verification sessions, it was suggested that the seaweed harvest is likely getting earlier because temperatures are warmer now (Lonnie Young, Jun. 2010). There were also comments about brown algae – one participant said that he is seeing more brown algae on rocks in Gwaii Haanas in recent years (Gary Russ, Jun. 2010).

Management Issues and Suggestions
During the Old Massett verification sessions, there was some discussion around seaweed harvests that are being conducted by non-Haidas. There is concern that people are picking the seaweed improperly and might be causing damage. In addition, it was said that some do not have the necessary skills to work the seaweed once it has been picked and the seaweed therefore may end up going to waste (Margaret Edgars, Jun. 2010).
The only other management issue arising in regards to seaweed productivity and harvesting is the localized pollution problems mentioned above. The Skidegate areas could be impacted by the sewage treatment plant located nearby; the northern sites are thought to be affected by sewage coming from sports-fishing lodges in the area.

Seaweed is a topic that would benefit greatly from further TK research. As mentioned, the interview emphasis tended to be placed on finfish and shellfish, and as a result we feel that the areas that got mapped are likely just a fraction of those known to be both good seaweed habitat and harvesting areas. Sensitivity around protecting harvesting locations would have likely also limited the amount of spatial information that was documented. Future interviews or workshops that focus on seaweeds and marine plants, and incorporate a higher proportion of women could provide substantially more information and be useful for marine planning.
Conclusions and Recommendations for Further Work

The interviews conducted as part of the Haida Marine Traditional Knowledge Study documented information on close to 200 marine and maritime species. The results span ecological as well as cultural topics, historical time series and current trends, food-fishing and commercial activities, as well as management issues, concerns, and suggestions for stewardship. This information is housed in written transcripts, a database, and digitized mapped results – all of which can now be used to inform marine planning activities on Haida Gwaii.

The information presented here is evidence that we are witnessing dramatic changes in some marine species and possibly also in the marine environment of Haida Gwaii. Over the last 20 years Northern Abalone have disappeared from much of their former range, and Haida children are growing up not knowing the taste of abalone. While some clam harvests appear to be sustainable – such as the razor clam fishery of North Beach – people have concerns that pollution, recreational fisheries, and industrial activities are impacting formerly abundant shellfish populations in several different areas. Elders have seen drastic declines in herring abundance during their lifetimes. They are worried about the impacts this may be having on the food chain, and for the future of traditional, cherished foods like k'aaw and the commercial SOK fisheries. Commercial recreational fishing operations continue to expand into many areas of Haida Gwaii. As discussed in the Rockfish and Lingcod chapter of this document, Haidas are beginning to see a real impact on groundfish populations in proximity to sports-fishing lodges and are working to try and protect these populations, as well as their traditional fishing areas and fisheries. Cumulative impacts are seen to be affecting seabirds – predators, a lack of feed, land-based developments, and pollution were all named as factors in the decline of seabirds, from Ancient murrelets to cormorants. There are also potential threats to future seaweed harvesting from pollution and resource competition. What was formerly a Haida food and trade staple is being increasingly exploited by non-Haidas who have discovered its market value.

To support marine stewardship and planning activities on Haida Gwaii, the Haida Marine Traditional Knowledge Study has summarized some results in three companion documents:

- **Volume 1: Methods and Results Summary**
- **Volume 2: Seascape Unit Summary**
- **Volume 3: Focal Species Summary**

This document (Vol. 3) summarizes information for just six focal species or groups of species. Each of the topics presented here was reviewed in whole or in part by representative study participants in the communities of Old Massett and Skidegate in order to verify the results and obtain approval for publication. Any suggestions or changes that arose during the verification sessions were incorporated into this document. Information on approximately 130 other species remains in the study results and has not yet been summarized or reviewed by the Haida communities. Further topics of interest – whether species or areas – can be written-up and reviewed as information needs arise. Other unsummarized information could be presented to the communities for review and verification, such as the spatial data for individual species or groups of species. Because the interviews covered a wide range of species and topics, it is unlikely that any one topic is “saturated” or would not benefit from further research. It is therefore hoped that the HMTK research done to date will be seen not as complete, but as groundwork that lays a foundation for further traditional knowledge research and documentation to build upon.
Haida Ethics and Values

**Yahguudang or Yakguudang.** Respect
Respect for all living things and the environment is the foundation of the Haida way of life. The well-being of all species and places is accounted for in planning and decision-making, and wasteful practices are avoided. Respect requires the recognition of Haida title and rights to Haida Gwaii, including the right to continue Haida traditional practices, activities and marine and ocean uses.

**Giid tl’juus.** Balance. *The world is as sharp as the edge of a knife*
Balance in planning and management of marine areas and species is necessary to sustain healthy communities within healthy ecosystems. Protected areas are needed to maintain and restore natural conditions and provide a refuge from areas of more intensive human use.

**Gina ‘waadluxan gud ad kwaagiida.** Interconnectedness. *Everything depends on everything else*
The principle of interconnectedness is fundamental to integrated management. Comprehensive planning and management considers the relationships between species and habitats, and accounts for short-term, long-term and cumulative impacts of human activities on the environment. Interrelationships are accounted for across spatial and temporal scales, and across agencies and jurisdictions.

**Isda ad diigii isda.** Giving and Receiving
Giving and receiving is an essential practice in Haida culture. It reflects the Haida belief in the inherent value of all things and the importance of treating everything in a proper way. This practice acknowledges human connections, both physical and spiritual, to the natural world. Reciprocity encourages a fair and equitable distribution of benefits from resource use within and between human communities.

**Gina k’aadang nga gii uu tl’ k’anguudang.** Seeking Wise Counsel
The best available information – including traditional, local and scientific knowledge – is used to inform planning and decision-making. Sharing of culture and tradition is encouraged to teach the value of local places. Listening and learning from experience, and the ability to change management directions based on results of past actions, are important elements of an adaptive management approach. Effective monitoring is necessary to evaluate management actions and guide future direction.

**‘Laa guu ga kanhllns.** Responsibility
We are responsible to future generations for the decisions that are made today. The well-being of the land, sea and all living things requires a precautionary approach to planning and management. Decisions err on the side of caution to reduce risks to the health of species and the environment. People and governments provide leadership, communicate openly and cooperate with each other to achieve common objectives and ensure proper accountability.