



Legend	
	Unit Break Points
	Undefined
Immobile Substrates	
	1 - Bedrock - CC 1-20 - VE
	2 - Bedrock - CC 1-20 - E
	3 - Bedrock/Boulder - CC 1-23, 32, 33 - SE
	4 - Bedrock/Gravel - CC 1-23, 33 - SP
	5 - Bedrock/Gravel - CC 1-23,33 - P/P/P
Mobile/Partially Mobile Substrates	
	6 - Sand & Gravel - CC 24-26, 32 - SP
	7 - Sand & Gravel - CC 24-26,32 - VP/P
	8 - Estuary or Sand/Mud - CC 27-31 - VP/P/SP
	9 - Sediment - CC 21 - 30 - SE/E
Current Dominated	
	10 - Bedrock or Sediment - CC 34 - VP/P/SP
CC Type	
Rock Shore Types - characterized by a lack of classic sediments such as gravel or sand.	Sediment Shore Types - have substrates that have little or no bedrock cropping out.
1 Rock Ramp, Wide	21 Gravel Flat, Wide
2 Rock Platform, Wide	22 Gravel Beach
3 Rock Cliff, Narrow	23 Gravel Flat or Fan
4 Rock Ramp, Narrow	24 Sand and Gravel Flat or Fan, Wide
5 Rock Platform, Narrow	25 Sand and Gravel Beach
6 Sand and Gravel Beach, Wide	26 Sand and Gravel Flat or Fan, Narrow
7 Sand and Gravel Beach, Wide	27 Sand Beach, Wide
8 Platform with Gravel Beach, Wide	28 Sand Flat
9 Cliff with Gravel Beach	29 Mud Flat
10 Beach with Gravel Beach, Narrow	30 Sand Beach, Narrow
11 Platform with Gravel Beach, Narrow	31 Cliffs
12 Beach with Sand and Gravel Beach, Wide	32 Main Materials
13 Platform with Sand and Gravel Beach, Wide	33 Man-made, permeable
14 Cliff with Sand and Gravel Beach	34 Man-made, impermeable
15 Beach with Sand and Gravel Beach, Narrow	35 Current Dominated
16 Platform with Sand and Gravel Beach, Narrow	36 Gravel
17 Beach with Sand Beach, Wide	37 Tidal Lagoons
18 Platform with Sand Beach, Wide	
19 Cliff with Sand Beach	
20 Beach with Sand Beach, Narrow	
21 Platform with Sand Beach, Narrow	

## Shoreline Habitat

The Habitat Type provides a simplified picture of the "look" of the unit overall, based on the detailed biophysical attributes that have been mapped. The Habitat Type category is a summary of the observations of both the unit's biological and geomorphological features. Each Habitat Type has a definition that includes the typical substrate, wave exposure and biobands. For example, for the Semi-exposed, Immobile substrate Habitat Type, part of the definition of that class is a certain combination of the most likely biobands and indicator species present at a bedrock shoreline with no mobile sediment present.

How is Habitat Type determined?  
Each Habitat Type has typical biological features (including both an indicator species list and typical associated biobands). To determine the Habitat Type, the biomapper looks at the along-shore Units as designated and described by the physical mapper, and 1. records the observations of the biobands in the unit and looks for indicator species, 2. assigns a bio(wave) exposure category, 3. reviews the physical mapped information, and 4. assigns the Habitat Type that best describes the unit.

The Habitat Type is based on the whole unit and is similar to the physical mappers use of the 'Coastal Class' category, in that the detailed across-shore data are summarized into one attribute. The simplified category describes the features of the whole unit.

Habitat Type is a summary of the biophysical classification of the whole shore unit, based on:

- the biobands observed,
- the wave exposure as indicated by the bands, and
- the substrate types in the unit.

Legend Definitions  
CC - Coastal Classification number

Wave Exposure  
E - Exposed - Very high wave exposure, open ocean swellism usually fetches >500km  
VE - Very Exposed - Extreme high wave exposure  
SE - Semi Exposed - High wave exposure, open shorelines, areas between fully exposed and more sheltered, usually fetches 50 to 500km  
P - Protected - Low wave exposure, sheltered inlets, usually fetches less than 10km  
SP - Semi Protected - Moderate wave exposure, partly sheltered, usually fetches 10-50km  
VP - Very Protected - Very low wave exposure, fetches < 1km, sheltered anchorages at heads of bays and inlets

Table OCCHL Original spp/hab table from Gwaii Haanas Habitat Classification Based on Visible Macro-Biota Assemblages for the Queen Charlotte shoreline									
SUBSTRATE STABILITY MAJOR SUBSTRATE COASTAL CLASSES EXPOSURE COMMUNITY CODE (CC)	IMMOBILE SUBSTRATES					MOBILE OR PARTIALLY MOBILE SUBSTRATES			
	BEDROCK	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	ESTUARY or SAND/MUD	SEDIMENT
1-20	1-20	1-23, 32, 33	1-23, 33	1-23, 33	1-23, 33	24, 25, 26, 32	24, 25, 26, 32	27, 28, 29, 30, 31	21-30
VE	E	SE	SP	VP, P	VP, P	SP	VP, P	VP, P, SP	SE, E
1	2	3	4	5	6	7	8	9	10
upper	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>
	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>	<i>Balanus glandula</i>
	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>	<i>Forficaria</i>
middle	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>	<i>Palicourea palmarum</i>
	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>	<i>Mytilus californianus</i>
	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>	<i>Semibalanus cariosus</i>
midlow	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>
	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>
	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>	<i>Alaria 'nana' morph</i>
lower	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>
	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>
	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>
subtidal	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>
	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>
	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>	<i>Ulva lactuca</i>

