

Immobile Substrates 1 - Bedrock - CC 1-20 - VE

2 - Bedrock - CC 1-20 - E

3 - Bedrock/Boulder - CC 1-23, 32, 33 - SE Current Dominated 4 - Bedrock/Gravel - CC 1-23, 33 - SP

10 - Bedrock or Sediment - CC 34 - VP/P/SP 5 - Bedrock/Gravel - CC 1-23,33 - P/VP

8 - Estuary or Sand/Mud - CC 27-31 - VP/P/SP

9 - Sediment - CC 21 - 30 - SE/E

	1,166	100	1'7PC			
Rock Shore Types - characterized by a lack of clastic sediments such as gravel or sand.		Sediment S	Shore Types - have substrates that have little or no bedcrock 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			
Rock and Sediment Shore Types - rock and pockets of clastic sediments		26	Sand and Gravel Flat or Fan, Narrow			
	6 Ramp with Gravel Beach, Wide	27	Sand Beach, Wide			
	7 Platform with Gravel Beach, Wide	28	Sand Flat			
	8 Cliff with Gravel Beach	29	Mud Flat			
	9 Ramp with Gravel Beach, Narrow	30	Sand Beach, Narrow			
	10 Platform with Gravel Beach, Narrow	31	Estuaries			
	11 Ramp with Sand and Gravel Beach, Wide	Man-Made Materials				
	12 Platform with Sand and Gravel Beach, Wide	32	Man-made, permeable			
	13 Cliff with Sand and Gravel Beach	33	Man-made, impermeable			
	14 Ramp with Sand and Gravel Beach, Narrow	Current Do	ominated			
	15 Platform with Sand and Gravel Beach, Narrow	34	Channel			
	16 Ramp with Sand Beach, Wide	35	Tidal Lagoon			
	17 Platform with Sand Beach, Wide					
	18 Cliff with Sand Beach					
	19 Ramp with Sand Beach, Narrow					
	20 Platform with Sand Beach, Narrow					

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 biologial and geomorphological 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 indictor 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

E - Exposed - Very high wave exposure, open ocean swellsm 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 expsoure, sheltered inlets, usually fetches less than 10km SP - Semi Protected - Moderate wave expsoure, partly sheltered, usually fetches 10-50km VP - Very Protected - Very low wave exposure, fethces < 1km, sheltered anchorages at heads of bays and inletes

	Habitat Classifi	cation Based on V	isible Macro-Biota	Assemblages for t	he Queen Charlot	te shoreline				
SUBSTRATE STABILITY	IMMOBILE SUBSTRATES					MOBILE OR PARTIALLY MOBILE SUBSTRATES				CURRENT- DOMI- NATED
MAJOR SUBSTRATE	BEDROCK	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	ESTUARY or SAND/MUD	SEDIMENT	BEDROCK O SEDIMENT
COASTAL CLASSES	1-20	1-20	1-23, 32, 33	1-23, 33	1-23, 33	24, 25, 26, 32	24, 25, 26, 32	27, 28, 29, 30, 31	21-30	34
EXPOSURE (EXP BIO)	VE	Е	SE	SP	VP, P	SP	VP, P	VP, P, SP	SE, E	VP, P, SP
OMMUNITY CODE (HAB_OBS)	1	2	3	4	5	6	7	8	9	10
upper	Verrucaria	Verrucaria	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	grasses & rushes Salicornia virginica		
	Balanus glandula	Balanus giandula	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus di stichus		tidal current dominated; may
middle	Pollicipes polymerus Mytilus californianus	Pollicipes polymerus Mytilus californianus	Mytilus californianus	Mattheway to conduct	Matthewarender	Matiliantenandus	Matilian transmission	Matiliantenandos		be a protected wave exposure but shows an
	[Semibalanus carriosus]	Semibalanus carriosus	Semibalanus carriosus	Mytilus trossulus Semibalanus carriosus Ulva/ Ulvaria spp.	Mytilus trossulus Ulva/ Ulvaria spp.	Mytilus trossulus Semibalanus carriosus Ulva/ Ulvaria spp.	Mytilus trossulus Utva/Utvaria spp.	Mytilus trossulus Ulva/ Ulvaria	no visible	assemblage of indicator specie
mid/low			Halosaccion glandiforme Hedophyllum sessile	Halosaccion glandiforme	Halosaccion glandiforme	Halosaccion glandiforme	Halosaccion glandiforme		intertidal macrobiota due to	from higher wave exposures
	[Alaria 'nana' morph]	Alaria 'nana' morph	Codium fragile Phyllospadix scouleri Egregia menziesii	Codium fragile		Codium fragile			sediment mobility	Assemblage observed is 'anomalous' for
lower	Lessoniopsis littoralis [Laminaria setchelli] lush foliose coralline reds: Bosslella/ Calliarthron/ Corallina	Lessoniopsis littoralis Laminaria setchelli foliose coralline reds	Laminaria setchelli Laminaria groenlandica diverse mixed red algae Alaria 'marginata' morph	Laminaria groenlandica Laminaria saccharina Alaria 'marginata' morph	Laminaria saccharina	Laminaria groenlandica Laminaria saccharina Alaria 'marginata' morph	Laminaria saccharina			the wave energy of the site.
	Lithothannion	Lithothamnion	Lithothammion	Lithothamnion		Lithothannion				
subtidal	Nereocystis luetkeana	Nereocystis luetkeana	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrolus franciscanus	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus	Macrocystis integrifolia Agarum spp.	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrolus franciscanus	Macrocystis integrifolia Agarum spp.			
* Bolding	<u> </u>			Zostera marina	Zostera marina	Zostera marina	Zostera marina	Zostera marina		

