



Data Source:  
Shoreline Type  
GeoBC Coastal Resource Shorezone Database, 2008  
Base Information  
1:20,000 GeoBC Terrain Resource Information  
Management (TRIM) Database  
1:20,000  
0 0.25 0.5 1  
Kilometers  
N  
W  
E  
S

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 - PNP
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
	11 - Bedrock or Sediment - CC 35 - VP/P/SP
Tidal Lagoon	
	Tidal Lagoon
CC Type	
Rock Shore Types - characterized by a lack of clastic 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 Beach with Gravel Beach, Wide	27 Sand Beach, Wide
8 Cliff with Gravel Beach	28 Sand Flat
9 Beach with Gravel Beach, Narrow	29 Mud Flat
10 Platform with Gravel Beach, Narrow	30 Sand Beach, Narrow
11 Beach with Sand and Gravel Beach, Wide	31 Upland
12 Platform with Sand and Gravel Beach, Wide	32 Main Marsh
13 Cliff with Sand and Gravel Beach	33 Main Marsh, impermeable
14 Beach with Sand and Gravel Beach, Narrow	34 Main Marsh, permeable
15 Platform with Sand and Gravel Beach, Narrow	35 Main Marsh, impermeable
16 Beach with Sand Beach, Wide	36 Tidal Lagoon
17 Platform with Sand Beach, Wide	
18 Cliff with Sand Beach	
19 Beach with Sand Beach, Narrow	
20 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 swells 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 MIDCOAST and NORTH COAST project area which includes BCO AREAS CC, JS and NC. The Species/wave exposure/substrate table for Habitat Classification (HAB, OBS), for the Mid-coast BC study area, from Johnstone Strait/Central Coast Mapping Regions 5, 6 and 7.

SUBSTRATE STABILITY MAJOR SUBSTRATE COASTAL CLASSES EXPOSURE (OBS OBS)	IMMOBILE SUBSTRATES					MOBILE OR PARTIALLY MOBILE SUBSTRATES					CURRENT-DOMINATED	TIDAL LAGOON
	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/CRAYEL	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT	BEDROCK OR SEDIMENT		
	1-20	1-23, 32, 33	1-23, 33	VP, P	24-30, 32	no SAL band	24-30, 32	has SAL band	24-30	34	35	
	E	SE	SE	VP, P	SP	SP	VP, P	VP, P, SP	SP, E	VP, P, SP	VP, P, SP	
COMMUNITY CODE (OBS OBS)	2	3	4	5	6	7	8	9	10	11		
upper	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	<i>grasses &amp; rushes</i> <i>Salicornia virginica</i> <i>Balanus glandula</i> <i>Fucus distichus</i>	no visible macrobenthos due to sediment mobility	tidal current dominated; may be a Protected wave exposure but shows an assemblage of indicator species from higher wave exposures. Asemblage observed is "anomalous" for the wave energy of the site.	<i>Balanus glandula</i> <i>Fucus distichus</i>		
middle	<i>Phylloporus polymerus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Mytilus trilineatus</i> * <i>Semibalanus cariosus</i> <i>Ulex/Ulexia spp.</i>	<i>Mytilus trilineatus</i> * <i>Semibalanus cariosus</i> <i>Ulex/Ulexia spp.</i>	<i>Semibalanus cariosus</i> <i>Ulex/Ulexia spp.</i>	<i>Ulex/Ulexia spp.</i>	<i>Ulex/Ulexia spp.</i>				
mid/low	<i>Alaria 'vase' morph</i>	<i>Hydrophilum scutellum</i>	<i>Hydrophilum scutellum</i>									
lower	<i>Laminaria setacea</i>	<i>Phylloporus scutellum</i>										
	<i>Alaria 'vase' morph</i> <i>Lithothamnion</i>	<i>Alaria 'vase' morph</i> <i>Lithothamnion</i>	<i>Laminaria grossadendula</i> <i>Laminaria saccharina</i> <i>Alaria 'vase' morph</i>	<i>Laminaria saccharina</i>	<i>Laminaria grossadendula</i> <i>Laminaria saccharina</i> <i>Alaria 'vase' morph</i>	<i>Laminaria saccharina</i>	<i>Laminaria saccharina</i>					
subtidal	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp. <i>Strongylocentrotus purpuratus</i> <i>Fructiceanus</i> <i>Zostera marina</i>				

