



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 - P/VP

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

CC Type	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 Flat or Fan, narrow	26 Sand Beach, Wide
7 Sand Beach, Wide	27 Sand Flat
8 Cliff with Gravel Beach	28 Mud Flat
9 Sand and Gravel Beach, Narrow	29 Sand Beach, Narrow
10 Platform with Gravel Beach, Narrow	30 Shallows
11 Platform with Sand and Gravel Beach, Wide	31 Man-made, permeable
12 Platform with Sand and Gravel Beach	32 Man-made, impermeable
13 Heavy with Sand and Gravel Beach, Narrow	33 Current Dominated
14 Platform with Sand and Gravel Beach, Narrow	34 Channel
15 Platform with Sand Beach, Wide	35 Tidal Lagoon
16 Cliff with Sand Beach	
17 Heavy with Sand Beach, Narrow	
18 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 BIO-AREAS CC, JS and NC. The Species/wave exposure/substrate table for Habitat Classification (HAIR\_OBS), for the Mid-coast BC study area, from Johnstone Strait/Central Coast Mapping Regions 5, 6 and 7.

SUBSTRATE STABILITY MAJOR SUBSTRATE	IMMOBILE SUBSTRATES				MOBILE OR PARTIALLY MOBILE SUBSTRATES				CURRENT-DOMINATED	TIDAL LAGOON
	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT		
COASTAL CLASSES	1-20	1-23, 32, 33	1-23, 33	1-23, 33	24 - 30, 32	24 - 30, 32	24 - 30, 31	24-30	34	35
EXPOSURE	E	SE	SP	VP, P	SP	VP, P	VP, P, SP	SE, E	VP, P, SP	VP, P, SP
COMMUNITY CODE (HAIR_OBS)	2	3	4	5	6	7	8	9	10	11
upper	<i>Verrucaria</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>Verrucaria</i> <i>Enteromorpha</i>	<i>grasses &amp; rushes</i> <i>Salicornia</i> <i>virginica</i>	no visible macrofauna 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>Balanus glandula</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Balanus glandula</i> <i>Fucus distichus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Balanus glandula</i> <i>Fucus distichus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Balanus glandula</i> <i>Fucus distichus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Balanus glandula</i> <i>Fucus distichus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Balanus glandula</i> <i>Fucus distichus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Balanus glandula</i> <i>Fucus distichus</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>			<i>Balanus glandula</i> <i>Fucus distichus</i>
mid/low	<i>Alaria 'vaua' morph</i>	<i>Hydrophyllum scutell</i>	<i>Hydrophyllum scutell</i>	<i>Hydrophyllum scutell</i>	<i>Hydrophyllum scutell</i>	<i>Hydrophyllum scutell</i>	<i>Hydrophyllum scutell</i>			<i>Balanus glandula</i> <i>Fucus distichus</i>
lower	<i>Laminaria digitata</i>	<i>Laminaria digitata</i>	<i>Laminaria digitata</i>	<i>Laminaria digitata</i>	<i>Laminaria digitata</i>	<i>Laminaria digitata</i>	<i>Laminaria digitata</i>	no visible macrofauna 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>
subtidal	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i>			<i>Balanus glandula</i> <i>Fucus distichus</i>
	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.	<i>Macrocystis integrifolia</i> <i>Agardh</i> spp.			<i>Balanus glandula</i> <i>Fucus distichus</i>