



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

Tidal Lagoon

- 11 - Bedrock or Sediment - CC 35 - VP/P/SP

CC Type

Rock Shore Types - characterized by a lack of classic sediments such as gravel or sand.

- 1 Rock Ramp, Wide
- 2 Rock Platform, Wide
- 3 Rock Cliff, Narrow
- 4 Rock Ramp, Narrow
- 5 Rock Platform, Narrow

Rock and Sediment Shore Types - rock and pockets of classic sediments

- 6 Heavy with Gravel Beach, Wide
- 7 Platform with Gravel Beach, Wide
- 8 Cliff with Gravel Beach
- 9 Heavy with Gravel Beach, Narrow
- 10 Platform with Gravel Beach, Narrow
- 11 Platform with Sand and Gravel Beach, Wide
- 12 Cliff with Sand and Gravel Beach
- 13 Heavy with Sand and Gravel Beach, Narrow
- 14 Platform with Sand and Gravel Beach, Narrow
- 15 Platform with Sand Beach, Wide
- 16 Cliff with Sand Beach
- 17 Heavy with Sand Beach, Narrow
- 18 Platform with Sand Beach, Narrow

Marine Materials

- 19 Man-made, permeable
- 20 Man-made, impermeable
- 21 Current dominated
- 22 Tidal Lagoon

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 units 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.

	IMMOBILE SUBSTRATES				MOBILE OR PARTIALLY MOBILE SUBSTRATES				CURRENT-DOMINATED	TIDAL LAGOON
SUBSTRATE STABILITY MAJOR SUBSTRATE COASTAL CLASSES EXPOSURE (OBS, OBS)	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT	BEDROCK OR SEDIMENT
	1-20	1-23, 32, 33	1-23, 33	1-23, 33	24-30, 32 no SAL band	24-30, 32 no SAL band	24-30, 31 has SAL band	24-30	34	35
	E	SE	SP	VP, P	SP	VP, P	VP, P, SP	SE, 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>Pilayella littoralis</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Pilayella littoralis</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Pilayella littoralis</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Pilayella littoralis</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Pilayella littoralis</i>	<i>Verrucaria</i> <i>Enteromorpha</i> <i>Balanus glandula</i> <i>Pilayella littoralis</i>	<i>grasses & rushes</i> <i>Salicornia virginica</i> <i>Balanus glandula</i> <i>Pilayella littoralis</i>	no visible macroalgae but shows an assemblage of indicator species from higher wave exposures. Asemblage observed in "anomalous" for the wave energy of the site.	tidal current dominated, may be a Protected wave exposure but shows an assemblage of indicator species from higher wave exposures. Asemblage observed in "anomalous" for the wave energy of the site.	<i>Balanus glandula</i> <i>Fucus distichus</i>
middle	<i>Pilayella littoralis</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Mytilus californianus</i> <i>Mytilus rosalia*</i> <i>Semibalanus cariosus</i>	<i>Mytilus rosalia*</i> <i>Semibalanus cariosus</i>	<i>Mytilus rosalia*</i> <i>Ulex Ulex</i> spp.	<i>Semibalanus cariosus</i> <i>Ulex Ulex</i> spp.	<i>Semibalanus cariosus</i> <i>Ulex Ulex</i> spp.	<i>Mytilus rosalia*</i> <i>Ulex Ulex</i> spp.			
mid/low	<i>Alaria 'vasei' morph</i>	<i>Hydrophyllum scutell</i> <i>Phyllospora scutell</i>								
lower	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>	<i>Laminaria littoralis</i> <i>Alaria 'vasei' morph</i> <i>Lobeliosiphonia</i>			
subtidal	<i>Nereocystis lachnana</i>	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agarum</i> spp. <i>Strongylocentrotus purpuratus</i>	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agarum</i> spp. <i>Strongylocentrotus purpuratus</i>	<i>Macrocystis integrifolia</i> <i>Agarum</i> spp.	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agarum</i> spp. <i>Strongylocentrotus purpuratus</i>	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agarum</i> spp. <i>Strongylocentrotus purpuratus</i>	<i>Nereocystis lachnana</i> <i>Macrocystis integrifolia</i> <i>Agarum</i> spp. <i>Strongylocentrotus purpuratus</i>			
		<i>Zostera marina</i>	<i>Zostera marina</i>	<i>Zostera marina</i>	<i>Zostera marina</i>	<i>Zostera marina</i>	<i>Zostera marina</i>			

