



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	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	22) Gravel Beach	
2) Rock Platform, Wide	23) Gravel Flat or Fan	24) Sand and Gravel Flat or Fan, Wide	
3) Rock Cliff, Narrow	25) Sand and Gravel Beach	26) Sand and Gravel Beach, Narrow	
4) Rock Ramp, Narrow	27) Sand Beach, Wide	28) Sand Flat	
5) Rock Platform, Narrow	29) Mud Flat	30) Sand Beach, Narrow	
6) Sand and Gravel Beach	31) Shallows		
7) Platform with Gravel Beach, Wide	32) Man-made, permeable		
8) Platform with Gravel Beach, Narrow	33) Man-made, impermeable		
9) Cliff with Gravel Beach	34) Channel		
10) Platform with Sand and Gravel Beach, Wide	35) Tidal Lagoon		
11) Platform with Sand and Gravel Beach, Narrow			
12) Platform with Sand Beach, Wide			
13) Cliff with Sand Beach			
14) Platform with Sand Beach, Narrow			
15) Platform with Sand Beach, Wide			
16) Platform with Sand Beach, Narrow			
17) Platform with Sand Beach, Wide			
18) Platform with Sand Beach, Narrow			
19) Platform with Sand Beach, Wide			
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 cross-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-35 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	BEDECKED	BEDECKED/BOULDER	BEDECKED/GRAVEL	BEDECKED/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDECKED OR SEDIMENT	BEDECKED OR SEDIMENT
COASTAL CLASSES	1-20	1-23, 32, 33	1-23, 33	1-23, 33	24-30, 32	no SAL band	no SAL band	24-30, 31	has SAL band	24-30	34
EXPOSURE	E	SE	SP	VP, P	SP	VP, P	VP, P	VP, P, SP	SE, E	VP, P, SP	VP, P, SP
COMMUNITY CODE (HAB-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>Verrucaria</i> <i>Enteromorpha</i>	<i>grasses & rushes</i> <i>Salicornia</i> <i>virginica</i>			
	<i>Balanus glandula</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	<i>Balanus glandula</i> <i>Pucus distichus</i>	no visible macrofauna but dense sediment mobility	lidd current dominated, may be a Protean zone by wave exposure but below an assemblage of indicator species from higher wave exposures. Acanthamoeba observed is acanthonema from the wave energy of the site.	<i>Balanus glandula</i> <i>Fucus distichus</i>
middle	<i>Falkenbergia polymorpha</i> <i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Mytilus californianus</i> <i>Semibalanus cariosus</i>	<i>Mytilus rosulatus</i> * <i>Semibalanus cariosus</i> <i>Ubat Ubatia</i> spp.	<i>Mytilus rosulatus</i> *	<i>Semibalanus cariosus</i> <i>Ubat Ubatia</i> spp.	<i>Semibalanus cariosus</i> <i>Ubat Ubatia</i> spp.	<i>Semibalanus cariosus</i> <i>Ubat Ubatia</i> spp.	<i>Mytilus rosulatus</i> *			
mid/low		<i>Hydrophyllum scutell</i>									
lower	<i>Lespedeza littoralis</i>	<i>Lespedeza littoralis</i> <i>Alaria 'marginata'</i> <i>Lobelia littoralis</i>	<i>Laminaria gracilicoma</i> <i>Laminaria saccharina</i> <i>Alaria 'marginata'</i> morph	<i>Laminaria saccharina</i>	<i>Laminaria gracilicoma</i> <i>Laminaria saccharina</i> <i>Alaria 'marginata'</i> morph	<i>Laminaria gracilicoma</i> <i>Laminaria saccharina</i> <i>Alaria 'marginata'</i> morph	<i>Laminaria gracilicoma</i> <i>Laminaria saccharina</i> <i>Alaria 'marginata'</i> morph	<i>Laminaria saccharina</i>			
		<i>Nereocystis luetkeana</i>	<i>Nereocystis luetkeana</i> <i>Macrocystis integrifolia</i> <i>Agarum</i> spp.	<i>Macrocystis integrifolia</i> <i>Agarum</i> spp.	<i>Macrocystis integrifolia</i> <i>Agarum</i> spp.	<i>Macrocystis integrifolia</i> <i>Agarum</i> spp.	<i>Macrocystis integrifolia</i> <i>Agarum</i> spp.	<i>Macrocystis integrifolia</i> <i>Agarum</i> spp.			
		<i>Streptocarpus</i> <i>Pricklypear</i>	<i>Streptocarpus</i> <i>Pricklypear</i>	<i>Streptocarpus</i> <i>Pricklypear</i>	<i>Streptocarpus</i> <i>Pricklypear</i>	<i>Streptocarpus</i> <i>Pricklypear</i>	<i>Streptocarpus</i> <i>Pricklypear</i>	<i>Streptocarpus</i> <i>Pricklypear</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>	<i>Zostera marina</i>			