

## 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 Tidal Lagoon 11 - Bedrock or Sediment - CC 35 - VP/P/SP 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 bedcrock cropping out 1 Rock Ramp, Wide 2 Rock Platform Wide 3 Rock Cliff Narrow 4 Rock Ramp, Narrow 5 Rock Platform Narrow 21 Gravel Flat, Wide 22 Gravel Beach 23 Gravel Flat or Fan 24 Sand and Gravel Flat or Fan, Wide 25 Sand and Gravel Beach 26 Sand and Gravel Flat or Fan, Narrow 4 Rock Ramp, Narrow 5 Rock Platform Narrow Rock and Sediment Shore Types - rock and pockets of clastic sediments 26 Sand and Gravel Flat or Fan, Narrow 27 Sand Beach, Wide 28 Sand Flat 6 Ramp with Gravel Beach, Wide 7 Platform with Gravel Beach, Wide 7 Platform with Gravel Beach, Wide 8 Cliff with Gravel Beach, Narrow 10 Platform with Gravel Beach, Narrow 11 Ramp with Sand and Gravel Beach, Wide 12 Platform with Sand and Gravel Beach, Wide 13 Cliff with Sand and Gravel Beach, Wide 14 Ramp with Sand and Gravel Beach, Narrow 15 Platform with Sand and Gravel Beach, Narrow 16 Ramp with Sand Beach, Wide 17 Platform with Sand Beach, Wide 18 Cliff with Sand Beach 19 Ramp with Sand Beach, Narrow 20 Platform with Sand Beach, Narrow 29 Mud Flat 30 Sand Beach, Narrow 31 Estuaries Man-Made Materials 32 Man-made, permeable 33 Man-made, impermeable Current Dominated Current Dominated

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

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

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

\* The SE (Semi-exposed) shoreline 'Habitat Observed' in the Strait of Georgia was observed to have the same species assemblage as typical species assemblages found in high SP (semi-protected).

\*\* Sargassum does not occur in Very-protected (VP)

Species assemblages revised according to analysis of field observations. See summary in Table 5 and Table 6.								
MAJOR SUBSTRATE	BEDROCK/BOULDER	BEDROCK/BOULDER	BEDROCK/BOULDER	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT
COASTAL CLASSES	1-20	1-23, 32, 33	1-23, 33	24, 25, 26, 32	24, 25, 26, 32	27, 28, 29, 30, 31	24 - 30	
EXPOSURE (EXP_BIO)	SE	SP	P, VP	SP	P, VP	SP, P, VP	SE, E	VP, P, SP
HABITAT OBSERVED (HAB_OBS)	3 *	4	5	6	7	8	9	10
upper	Verrucaria	Verrucaria	Verrucaria			marsh grasses & rushes		
						Salicornia virginica		tidal current dominated; may be a Protected wave exposure but shows an
	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula		
	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus		
middle								assemblage of indicator species from higher wave
mid/low	Semibalanus carriosus	Semibalanus carriosus		Semibalanus carriosus			no visible macrobiota due to sediment mobility	species from nigher wave exposures.
		Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus		
		Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.		
	Anthopleura elegantissima	Anthopleura elegantissima						
	Gelidium/Gastroclonium/ Leathesia/ Prionitis/ other bleached reds	Gelidium/Gastroclonium/ Leathesia/ Prionitis/ other bleached reds		Gelidium/Gastroclonium/ Leathesia/ Prionitis/ other bleached reds				
		Crassostrea gigas	Crassostrea gigas	Crassostrea gigas	Crassostrea gigas		]	
		Pisaster ochraceous		Pisaster ochraceous			]	
lower	bleached coralline reds	bleached coralline reds					]	
		Agarum sp.		Agarum sp.				
		Laminaria saccharina	Laminaria saccharina	Laminaria saccharina	Laminaria saccharina			
	Alaria spp.						_	
	Sargassum muticum	Sargassum muticum	Sargassum muticum ***	Sargassum muticum	Sargassum muticum **		_	
		Microcladia/ Irideae type mixed filamentous and foliose reds		Microcladia/ Irideae type mixed filamentous and foliose reds				
	Lithothamnion							
subtidal	Nereocystis luetkeana	Nereocystis luetkeana		Nereocystis luetkeana				
	Strongylocentrotus	Strongylocentrotus		Strongylocentrotus				

