

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
Rock and Sediment Shore Types - rock and pockets of clastic sediments
6 Ramp with Gravel Reach, Wide 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 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
8 Cliff with Gravel Beach
9 Ramp 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 6 Ramp with Gravel Beach, Wide 29 Mud Flat
30 Sand Beach, Narrow
31 Estuaries
Man-Made Materials
32 Man-made, permeable
33 Man-made, impermeable
Current Dominated
34 Channel

5 - Bedrock/Gravel - CC 1-23,33 - P/VP Tidal Lagoon

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 swellsm 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 expsoure, sheltered inlets, usually fetches less than 10km
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

MAJOR SUBSTRATE	BEDROCK/BOULDER	BEDROCK/BOULDER	BEDROCK/BOULDER	BEDROCK/BOULDER	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT
COASTAL CLASSES	1-20	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)	Е	SE	SP	P, VP	SP	P, VP	SP, P, VP	SE, E	VP, P, SP
HABITAT OBSERVED (HAB_OBS)	2	3 *	4	5	6	7	8	9	10
upper	Verrucaria	Verrucaria	Verrucaria	Verrucaria	Verrucaria	Verrucaria	marsh grasses & rushes		
		Enteromorpha	Enteromorpha	Enteromorpha	Enteromorpha	Enteromorpha		1	tidal current
					·		Salicornia virginica		dominated; may be a
	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	1	Protected wave
	Pelvetiopsis limitata	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus		exposure but shows
middle									an assemblage of
	Semibalanus carriosus	Semibalanus carriosus	Semibalanus carriosus		Semibalanus carriosus				indicator species from higher wave
									exposures.
	Politcipes polymerus		Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	no visible macrobiota	exposures.
			Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	due to sediment	
mid/low	Mytilus californianus	Mytilus californianus						mobility	
		Microcladia/Iridea type mixed reds	Gigartina/Odonthalia type mixed reds	Gigartina/Odonthalia type mixed reds	Gigartina/Odonthalia type mixed reds	Gigartina/Odonthalia type mixed reds			
	Postelsia palmaeformis								
		Hedophyllum sessile							
		Codium fragile	Codium fragile		Codium fragile				
lower	Lessoniopsis littoralis		Laminaria saccharina	Laminaria saccharina	Laminaria saccharina	Laminaria saccharina			
		Egregia menziesii							
	Laminaria setchellii	Laminaria setchellii							
		Laminaria groenlandica	Laminaria groenlandica		Laminaria groenlandica				
	Alaria nana.	Alaria marginata.	Alaria marginata.		Alaria marginata.				
		Eisenia arborea							
	Lithothamnion	Lithothamnion	Lithothamnion		Lithothamnion				
			Sargassum muticum		Sargassum muticum				
		Agarum sp	Agarum sp	Agarum sp	Agarum sp	Agarum sp			
		Phyllospadix scouleri							
subtidal		Macrocystis integrifolia	Macrocystis integrifolia	Macrocystis integrifolia	Macrocystis integrifolia	Macrocystis integrifolia			
	Nereocystis luetkeana	Nereocystis luetkeana	Nereocystis luetkeana		Nereocystis luetkeana				
		Strongylocentrotus	Strongylocentrotus		Strongylocentrotus				
		franciscanus	franciscanus		franciscanus			1	
		I	Zostera marina	Zostera marina	Zostera marina	Zostera marina	Zostera marina	I	1

