

3 - Bedrock/Boulder - CC 1-23, 32, 33 - SE Current Dominated

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	2		CC	Туре		
Rock Shore Type	es - characterized by a lack of clastic sediments such as gravel or sand.		Sediment 9	Shore Types - have substrates that have little or no bedcrock cropping out		
1 Rock	Ramp, Wide		21	Gravel Flat, Wide		
2 Rock	c 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	R Platform Narrow		25	Sand and Gravel Beach		
tock and Sedim	ent Shore Types - rock and pockets of clastic sediments		26	Sand and Gravel Flat or Fan, Narrow		
6 Ramı	p with Gravel Beach, Wide		27	Sand Beach, Wide		
7 Platfe	orm with Gravel Beach, Wide		28	Sand Flat		
8 Cliff v	with Gravel Beach		29	Mud Flat		
9 Ramı	p with Gravel Beach, Narrow		30	Sand Beach, Narrow		
10 Platfo	orm with Gravel Beach, Narrow		31	Estuaries		
11 Ramı	p with Sand and Gravel Beach, Wide		Man-Made	e Materials		
12 Platfo	orm with Sand and Gravel Beach, Wide		32	Man-made, permeable		
13 Cliff v	with Sand and Gravel Beach		33	Man-made, impermeable		
14 Ramp with Sand and Gravel Beach, Narrow			Current Dominated			
15 Platfo	orm with Sand and Gravel Beach, Narrow		34	Channel		
16 Ramı	p with Sand Beach, Wide		35	Tidal Lagoon		
17 Platfo	orm with Sand Beach, Wide					
18 Cliff v	with Sand Beach					
19 Ramı	p with Sand Beach, Narrow					
20 Platfo	orm with Sand Beach, Narrow	П				

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 indictor 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

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 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, fethces < 1km, sheltered anchorages at heads of bays and inletes

SUBSTRATE STABILITY	IMMOBILE SUBSTRATES				MOBILE	CURRENT- DOMI- NATED	TIDAL IAGOON			
MAJOR SUBSTRATE	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	SAND/MUD	SEDIMENT	BEDROCK OR SEDIMENT	BEDROCK OF SEDIMENT
COASTAL	BEDROCK	BEDROCK BOOLDER	BEDROCKOKAVEL	BEDROCK/GRAVEE	24 – 30, 32	24 – 30, 32	24 - 30, 31	SEDIMENT	SEDIMENT	SEDIMENT
CLASSES	1-20	1-23, 32, 33	1-23, 33	1-23, 33	no SAL band	no SAL band	has SAL band	24-30	34	35
EXPOSURE (EXP BIO)	Е	SE	SP	VP, P	SP	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	Verrucaria	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	grasses & rushes Salicornia virginica			
	Balanus glandula	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	no visible	tidal current	Balanus glandı Fucus distichus
middle	Pollicipes polymerus Mytilus californianus	Mytilus californianus	Mytilus trossulus*	Mytilus trossulus *			Mytilus trossulus*	macrobiota due to sediment	dominated; may be a Protected wave exposure	
	Semibalanus carriosus	Semibalanus carriosus	Semibalanus carriosus Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Semibalanus carriosus Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Ulva/ Ulvaria	mobility	but shows an assemblage of	ponded water is lagoon creates
mid/low	Alaria 'nana' morph	Hedophyllum sessile							indicator species from higher wave exposures.	narrow intertida and a reduced biota in brackis
		Phyllospadix scouleri							Assemblage	water, may hav
lower	Lessoniopsis littoralis Lithothamnion	Alaria 'marginata' morph Lithothamnion	Laminaria groenlandica Laminaria saccharina Alaria 'marginata' morph Lithothamnion	Laminaria saccharina	Laminaria groenlandica Laminaria saccharina Alaria 'marginata' morph Lithothamnion	Laminaria saccharina			observed is 'anomalous' for the wave energy of the site.	associated current dominated at outflow
subtidal	Nereocystis luetkeana	Nereocystis luetkeana Macrocystis inteorifolia	Nereocystis luetkeana	Macrocystis integrifalia	Nereocystis luetkeana Macrocystis integrifolia	**		1		

Agarum spp.

Strongylocentrotus franciscanus

Agarum spp.

Strongylocentrotus franciscanus

Agarum spp.

Strongylocentrotus franciscanus

