

## 3 - Bedrock/Boulder - CC 1-23, 32, 33 - SE Current Dominated 10 - Bedrock or Sediment - CC 34 - VP/P/SP 4 - Bedrock/Gravel - CC 1-23, 33 - SP 5 - Bedrock/Gravel - CC 1-23,33 - P/VP 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 6 Ramp with Gravel Beach, Wide 7 Platform with Gravel Beach, Wide 28 Sand Flat 8 Cliff with Gravel Beach, Narrow 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 14 Ramp with Sand and Gravel Beach, Narrow 15 Platform with Sand and Gravel Beach, Narrow 29 Mud Flat 30 Sand Beach, Narrow 31 Estuaries Man-Made Materials 32 Man-made, permeable 33 Man-made, impermeable Current Dominated

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

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 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

SUBSTRATE STABILITY	IMMOBILE SUBSTRATES					MOBILE OR PARTIALLY MOBILE SUBSTRATES				DOMI NATE
MAJOR SUBSTRATE	BEDROCK	BEDROCK	BEDROCK/BOULDER	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL	ESTUARY or SAND/MUD	SEDIMENT	BEDRO SEDIM
COASTAL CLASSES	1-20	1-20	1-23, 32, 33	1-23, 33	1-23, 33	24, 25, 26, 32	24, 25, 26, 32	27, 28, 29, 30, 31	21-30	3
EXPOSURE (EXP BIO)	VE	E	SE	SP	VP, P	SP	VP, P	VP, P, SP	SE, E	VP,
(HAB_OBS)	1	2	3	4	5	6	7	8	9	1
upper	Verrucaria	Verrucaria	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	Verrucaria Enteromorpha	grasses & rushes Salicornia virginica		
	Balanus glandula	Balanus giandula	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus distichus	Balanus glandula Fucus di stichus		tidal cur dominal
middle	Pollicipes polymerus Mytilus californianus	Pollicipes polymerus Mytilus californianus	Mytilus californianus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	Mytilus trossulus	]	be a pro wave ex but show
	[Semibalanus carriosus]	Semibalanus carriosus	Semibalanus carriosus	Semibalanus carriosus Ulva/ Ulvaria spp.	Ulva/ Ulvaria spp.	Semibalanus carriosus Ulva/ Ulvaria spp.	Ulva/Ulvaria spp.	Ulva/ Ulvaria	no visible	assembl indicate
mid/low	[Alaria 'nana' morph]	Alaria 'nana' morph	Halosaccion glandiforme Hedophyllum sessile	Halosaccion glandiforme	Halosaccion glandiforme	Halosaccion glandiforme	Halosaccion glandiforme		intertidal macrobiota due to	from hig wave ex
	Tatana mana mouphy	лина нала посрп	Codium fragile Phyllospadix scouleri Egregia menziesti	Codium fragile		Codium fragile			sediment mobility	Assemb observe 'anomal
lower	Lessoniopsis littoralis [Laminaria setchelli] lush foliose coralline reds: Bossiella/ Calliarthron/ Corallina	Lessoniopsis littoralis Laminaria setchelli foliose coralline reds	Laminaria setchelli Laminaria groenlandica diverse mixed red algse Alaria 'marginata' morph	Laminaria groenlandica Laminaria saccharina Alaria 'marginata' morph	Laminaria saccharina	Laminaria groenlandica Laminaria saccharina Alaria 'marginata'morph	Laminaria saccharina			the way
	Lithothannion	Lithothamnion	Lithothammion	Lithothamnion		Lithothamnion				
subtidal	Nereocystis luetkeana	Nereocystis luetkeana	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus	Macrocystis integrifolia Agarum spp.	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus	Macrocystis integrifolia Agarum spp.			
	I			Zostera marina	Zostera marina	Zostera marina	Zostera marina	Zostera marina		

