

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 Protected wave exposure but shows
	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula	Balanus glandula		
	Pelvetiopsis limitata	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus	Fucus distichus		
middle									an assemblage of indicator species
	Semibalanus carriosus	Semibalanus carriosus	Semibalanus carriosus		Semibalanus carriosus			no visible macrobiota due to sediment mobility	from higher wave exposures.
	Pollicipes polymerus		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.		
mid/low	Mytilus californianus	Mytilus californianus							
		Microcladia/Iridea type	Gigartina/Odonthalia	Gigartina/Odonthalia	Gigartina/Odonthalia	Gigartina/Odonthalia			
		mixed reds	type mixed reds	type mixed reds	type mixed reds	type mixed reds		4	
	Postelsia palmaeformis							4	
		Hedophyllum sessile						-	
		Codium fragile	Codium fragile		Codium fragile			-	
lower	Lessoniopsis littoralis		Laminaria saccharina	Laminaria saccharina	Laminaria saccharina	Laminaria saccharina		-	
	Tamaia and a call the	Egregia menziesii Laminaria setchellii						4	
	Laminaria setchellii	Laminaria seicheilii Laminaria groenlandica	Laminaria groenlandica		Laminaria groenlandica			-	
	Alaria nana.	Alaria marginata.	0		Alaria marginata.			4	
	Alaria nana.	Eisenia arborea	Alaria marginata.		Alaria marginala.			4	
	Lithothamnion	Lithothamnion	Lithothamnion		Lithothamnion				
	Linomannion	Linomannion	Sargassum muticum		Sargassum muticum				
		Agarum sp	Agarum sp	Agarum sp	Agarum sp	Agarum sp			
		Phyllospadix scouleri		Bea and sh	gou min ap	Boa with of			
subtidal		Macrocystis integrifolia	Macrocystis integrifolia	Macrocystis integrifolia	Macrocystis integrifolia	Macrocystis integrifolia	1	1	
	Nereocystis luetkeana	Nereocystis luetkeana	Nereocystis luetkeana	same vegana anegr goun	Nereocystis luetkeana			1	
		Strongylocentrotus	Strongylocentrotus		Strongylocentrotus		1	1	
		franciscanus	franciscanus		franciscanus				
		1"	Zostera marina	Zostera marina	Zostera marina	Zostera marina	Zostera marina	1	