

SUBSTRATE STABILITY	IMMOBILE SUB								
MAJOR SUBSTRATE	BEDROCK	BEDROCK	BEDROCK/BOULDER						
COASTAL CLASSES	1-20	1-20	1-23, 32, 33						
EXPOSURE (EXP BIO)	VE	E	SE						
COMMUNITY CODE (HAB_OBS)	1	2	3						
upper	Verrucaria	Vernucaria	Vernicaria Enteromorpha						
	Balanus glandula	Balamıs glandula	Balanus glandula Fucus distichus						
middle	Pollicipes polymerus Mytilus californianus	Pollicipes polymerus Mytilus californianus	Mytilus californianus						
	[Semibalanus carriosus]	Semibalanus carriosus	Semibalanus carriosus						
mid/low	[Alaria 'nana' morph]	Alaria 'nana' morph	Halosaccion glandiforme Hedophyllum sessile						
	[mark mark monphy	And the second second	Codium fragile Phyllospadix scouleri Egregia menziesii						
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 algae Alaria 'marginata'morph						
	Lithothannion	Lithothamnion	Lithothammion						
subtidal	Nereocystis luetkeana	Nereocystis luetkeana	Nereocystis luetkeana Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus						

MOBILE OR PARTIALLY MOBILE SUBSTRATES CERRENT. DOMI- NATED   BEDROCK/GRAVEL BEDROCK/GRAVEL SAND & GRAVEL SAND & GRAVEL ESTUARY or SANDMUD SEDIMENT   1-23, 33 1-23, 33 1-23, 33 24, 25, 26, 32 24, 25, 26, 32 31 21.30 34   SP VP, P SP VP, P VP, P SED VP, P, SP SEE VP, P, SP   4 5 6 7 8 9 10   Verracaria Enteromorpha Enteromorpha Verracaria Enteromorpha Veracaria Veracaria <th colspan="10">aanas Assemblages for the Queen Charlotte shoreline</th>	aanas Assemblages for the Queen Charlotte shoreline									
BEDROCK/GRAVEL     BEDROCK/GRAVEL     SAND & GRAVEL     SAND & GRAVEL     SAND MUD     SEDIMENT     SEDIMENT       1-23,33     1-23,33     1-23,33     1-23,23     24,25,26,32     24,25,26,32     31     21.30     34       SP     VP,P     SP     VP,P     VP,P     VP,P,SP     SE,E     VP,P,SP       4     5     6     7     8     9     10       Verncaria     Verncaria     Verncaria     Verncaria     grasses & rushes     satisfiera       Balanus glandula     B			MOBILE OR PARTIALLY MOBILE				DOMI-			
1-23, 331-23, 3324, 25, 26, 3224, 25, 26, 323121.3034SPVP, PSPVP, PVP, PVP, P, SPSE, EVP, P, SP45678910Verrucaria EnteromorphaVerrucaria Enteromorphagrasses & rushes Staticornia virghica Balanus glandula Fucus distichusVerrucaria Enteromorphagrasses & rushes Staticornia virghica Balanus glandula Fucus distichusVerrucaria Enteromorphagrasses & rushes Staticornia virghica Balanus glandula Fucus distichusVerrucaria Enteromorphagrasses & rushes StronglocentrotusMytilus trossulus Semibalamus carriosus Ubra' Ulvaria spp.Mytilus trossulus Ubra' Ulvaria spp.Iaminaria groenlandica Laminaria saccharina Maria 'morginata' morginata' morginata' Macrocystis luekeana Macrocystis luekeana<	BEDROCK/GRAVEL	BEDROCK/GRAVEL	SAND & GRAVEL	SAND & GRAVEL		SEDIMENT				
45678910Verrucaria EnteromorphaBalanus glandula Balanus glandula Balanus glandulaVerrucaria Enteromorphagrusses & rushes Saficernia significa Balanus glandula Balanus glandula Balanus glandula Beus distichusVerrucaria Enteromorphagrusses & rushes Saficernia significa Balanus glandula Balanus glandula Semibalanus carriosusMytilus trossulus Mytilus trossulus Mytilus trossulus Semibalanus carriosusMytilus trossulus Mytilus trossulus Mytilus trossulus Semibalanus carriosusMytilus trossulus Mytilus trossulus Mytilus trossulus Semibalanus carriosusMytilus trossulus Mytilus trossulus Mytilus trossulus Mytilus trossulus Codium fragileMytilus trossulus Mytilus trossulus Mytilus trossulus Mytilus trossulus Codium fragileMytilus trossulus Mytilus trossulus Codium fragileMytilus trossulus Mytilus trossulus Codium fragileMytilus trossulus Halosaccion glandiforme Halosaccion glandiformeNerocystis integrifolia Alaria 'marginata' morphIaminaria saccharina Alaria 'marginata' morphLaminaria saccharina Alaria 'marginata' morphLaminaria saccharina Alaria 'marginata' morphLaminaria saccharina Alaria 'marginata' morphMacrocystis integrifolia Agarum app. Strongylocentrotus J'anciceanusMacrocystis integrifolia Agarum app.Macrocystis integrifolia Agarum app.Macrocystis integrifolia Agarum app.Macrocystis integrifolia Agarum app.Mac	1-23, 33	1-23, 33	24, 25, 26, 32	24, 25, 26, 32	, , , ,	21-30	34			
Verrucaria   Verrucaria   Verrucaria   grasses & rushes     Enteromorpha   Enteromorpha   Enteromorpha   Balanus glandula   Mytilus trossulus   Mytilus trossulus   Mytilus trossulus   Mytilus trossulus   Semibalanus carriosus   Ulva/Ulvaria   In orvisible   Indicatrus exposare   But shows an assemblage of indicator s	SP	VP, P	SP	VP, P	VP, P, SP	SE, E	VP, P, SP			
Enteromorpha   Enteromorpha   Enteromorpha   Salicernia virgitica     Balanus glandula   Mytilus trossulus   Ino visible   Ino visible   Ino visible	4	5	6	7	8	9	10			
Laminaria groenlandica   Laminaria saccharina   Laminaria groenlandica   of the site.     Laminaria saccharina   Laminaria saccharina   Laminaria saccharina   Laminaria saccharina     Alaria 'marginata'morph   Lithothamnion   Itithothamnion   Itithothamnion     Nereocystis luetkeana   Nereocystis luetkeana   Macrocystis integrifolia   Macrocystis integrifolia     Agarum spp.   Agarum spp.   Agarum spp.   Agarum spp.   Agarum spp.     Strongylocentrotus   Franciscanus   Franciscanus   Itinotecentrotus	Enteromorpha Balanus glandula Fucus distichus Mytilus trossulus Semibalanus carriosus Ulva/Ulvaria spp. Halosaccion glandiforme	Enteromorpha Balanus glandula Fucus distichus Mytilus trossulus Ulva/ Ulvaria spp.	Enteromorpha Balanus glandula Fucus distichus Mytilus trossulus Semibalanus carriosus Ulva/Ulvaria spp. Halosaccion glandiforme	Enteromorpha Balanus glandula Fucus distichus Mytilus trossulus Ulva/Ulvaria spp.	Salicornia virginica Balanus glandula Fucus distichus Mytilus trossulus	intertidal macrobiota due to sediment	dominated; may be a protected wave exposure but shows an assemblage of indicator species from higher wave exposures. Assemblage observed is 'anomalous' for			
Macrocystis integrifolia Macrocystis integrifolia Macrocystis integrifolia   Agarum spp. Agarum spp. Agarum spp.   Strongylocentrotus Strongylocentrotus   franciscanus franciscanus	Laminaria saccharina Alaria 'marginata'morph Lithothammion	Laminaria saccharina	Laminaria saccharina Alaria 'marginata'morph Lithothamnion	Laminaria saccharina						
Zostera marina Zostera marina Zostera marina Zostera marina Zostera marina	Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus	Agarum spp.	Macrocystis integrifolia Agarum spp. Strongylocentrotus franciscanus	Agarum spp.						
re brackets [] enclose species at VE AB OBS 1 which may be present but are in reduced abundance and size. Note that the absence of	Zostera marina	Zostera marina	Zostera marina	Zostera marina	Zostera marina					