

2 - Bedrock - CC 1-20 - E 9 - Sediment - CC 21 - 30 - SE/E 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

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 Rock and Sediment Shore Types - rock and pockets of clastic

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 29 Mud Flat
30 Sand Beach, Narrow
31 Estuaries
Man-Made Materials
32 Man-made, permeable
33 Man-made, impermeable
Current Dominated
34 Channel

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

VP - Very Protected - Very low wave exposure, fethces < 1km, sheltered anchorages at heads of bays and inletes

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

| v ancouver Island bio-mapping. | | | | | | | | | |
|----------------------------------|-------------------------|---------------------------------------|---|---|---|---|------------------------|-----------------------|-----------------------------|
| 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 | Ŭ | 1 | tidal current |
| | | | | | · | | Salicornia virginica | | dominated; may be a |
| | Balanus glandula | Balanus glandula | Balanus glandula | Balanus glandula | Balanus glandula | Balanus glandula | Balanus glandula | | Protected wave |
| | Pelvetiopsis limitata | Fucus distichus | Fucus distichus | Fucus di stichus | 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 | ** | 1 | ** | 1 | 1 | 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 | | | | |
| | | | Zostera marina | Zostera marina | Zostera marina | Zostera marina | Zostera marina | | |

