

**Online Resource 2** Modified Braun-Blanquet abundance scores, their description, and their assigned percent coverage

BB Score	Description	Assigned percent coverage
0	Species absent from quadrat	0
0.1	Species represented by a solitary short shoot, <5% cover	0.1
0.5	Species represented by a few (<5) shoots, <5% cover	0.5
1	Species represented by many (>5) shoots, <5% cover	2.5
2	5% - 25% cover	15
3	25% - 50% cover	37.5
4	50% - 75% cover	62.5
5	75% - 100% cover	87.5

**Online Resource 3** Sediment categories and their assigned ranking of increasing coarseness

Sediment Category	Numerical Value	Description
Mud	1	individual grains indistinguishable, easily compress in hand, sediment remains clumped after compression
Sandy Mud	2	majority of grains indistinguishable but textured upon touch, easily compress in hand, sediment remains clumped after compression
Muddy Sand	3	sandy texture upon touch but compresses in hand, sediment dissociates upon release with most grain falling in water column
Sand	4	clearly distinguishable grains, difficult to compress in hand, grains fall quickly in water
Coarse Shell	5	shell and shell remains dominate sediments (approx. 5-10 mm in size)
Halimeda-Hash	6	Remains of carbonate segments from Halimeda detritus (approx. 5-10 mm in size)
Rubble	7	medium size rock (approx. 10-25 mm in size)
Live Coral	8	continuous living coral
Rock	9	bedrock or solid biogenic carbonate formations