

APPENDIX 4C SURVEY DATA OF SUBTIDAL AND BENTHIC ASSEMBLAGES

					Sample ID	MB1		MB2		MB3		MB4		MB5		MB6		MB7		MB8		MB9		MB10		MB11		MB12		MB13		MB14	
Animalia	Mollusca	Gastropoda	Neogastropoda	Olividae	<i>Olivella spreta</i>	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	1	0.0209	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Calyptraeidae	<i>Calyptraea</i> sp.	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	1	0.0054	0	0.0000	0	0.0000
Animalia	Mollusca	Scaphopoda	Dentalida	Gadilnidae	<i>Episiphon kiaochowwanense</i>	0	0.0000	0	0.0000	0	0.0000	1	0.3010	0	0.0000	2	0.1153	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Animalia	Nemertea	--	--	--	Unidentified ribbon worms	2	0.0022	1	0.0090	1	0.0011	1	0.0088	0	0.0000	2	0.0036	4	0.0083	1	0.0016	1	0.0003	5	0.0054	1	0.0043	7	0.0149	6	0.0057	5	0.0041
Animalia	Platyhelminthes	--	--	--	Unidentified flatworms	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	1	0.0053	0	0.0000	0	0.0000
Animalia	Sipuncula	Phascolosomatidea	Phascolosomatiformes	Phascolosomatidae	<i>Apionsoma trichocephalus</i>	0	0.0000	1	0.0026	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Sample ID					MB1	MB2	MB3	MB4	MB5	MB6	MB7	MB8	MB9	MB10	MB11	MB12	MB13	MB14
Animalia	Mollusca	Gastropoda	Neogastropoda	Naticidae	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000
				<i>Natica</i> sp.	0	0.0000	0	0.0000	0	0.0000	0	0.0000	1	0.1129	0	0.0000	0	0.0000
Animalia	Mollusca	Gastropoda	--	Ringiculidae	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000
				<i>Ringicula niinoi</i>	0	0.0000	0	0.0000	0	0.0000	1	0.0068	0	0.0000	0	0.0000	0	0.0000
Animalia	Mollusca	Scaphopoda	Dentaliida	Gadiliniidae	3	0.0675	0	0.0000	0	0.0000	0	0.0000	1	0.0075	0	0.0000	0	0.0000
				<i>Episiphon kiaochoowanense</i>	3	0.0675	0	0.0000	0	0.0000	0	0.0000	1	0.0075	0	0.0000	0	0.0000
Animalia	Nemertea	--	--	--	6	0.0148	1	0.0016	1	0.0026	3	0.0361	2	0.0013	1	0.0021	3	0.0017
				Unidentified ribbon worms	6	0.0148	1	0.0016	1	0.0026	3	0.0361	2	0.0013	1	0.0021	3	0.0017
Animalia	Platyhelminthes	--	--	--	0	0.0000	2	0.0032	2	0.0031	1	0.0051	0	0.0000	1	0.0011	1	0.0085
				Unidentified flatworms	0	0.0000	2	0.0032	2	0.0031	1	0.0051	0	0.0000	1	0.0011	1	0.0085
Animalia	Sipuncula	Phascolosomatidea	Phascolosomatiformes	Phascolosomatidae	2	0.0018	0	0.0000	0	0.0000	0	0.0000	2	0.0081	0	0.0000	0	0.0000
				<i>Apionsoma trichocephalus</i>	2	0.0018	0	0.0000	0	0.0000	0	0.0000	2	0.0081	0	0.0000	0	0.0000
Animalia	Sipuncula	Phascolosomatidea	Phascolosomatiformes	Phascolosomatidae	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	1	0.0009	0	0.0000
				<i>Phascolosoma scolops</i>	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	1	0.0009	0	0.0000

Table 4C.3 Seabed Attributes along the Survey Transects at Mirs Bay

	Transect									
	T1		T2		T3		T4		T5	
	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Deep
Transect depth (mCD)	-3 to -4	-5 to -7	-3 to -4	-5 to -7	-3 to -4	-5 to -6	-3 to -4	-5 to -6	-3 to -4	-5 to -6
Substratum attributes										
Bedrock	4	4	4	4	3	4	1	0	3	0
Continuous pavement	0	0	0	0	0	0	0	0	0	0
Rocks (<26 cm)	1	1	1	1	1	1	2	2	0	4
Large boulders (>50 cm)	4	3	4	3	5	3	0	0	5	0
Small boulders (<50 cm)	3	2	3	2	3	2	3	0	0	0
Rubble	0	1	0	1	0	0	2	0	0	0
Sand	1	1	1	2	2	1	3	5	3	5
Mud/ Silt	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
<i>Ecological attributes</i>										
Hard coral	2	2	2	1	1	1	2	2	1	1
Dead Coral	0	0	0	0	0	0	0	0	0	0
Octocoral (Soft corals and gorgonians)	0	1	0	0	0	0	0	0	0	0
Black coral	0	1	0	0	0	0	0	0	0	0
Dead standing coral	0	0	0	0	0	0	0	0	0	0
Macroalgae	0	0	0	0	2	0	1	2	1	1
Other Benthos (including sponges, zoanthids, ascidians and bryozoans)	2	2	3	1	0	1	1	1	1	1

Notes:

0 = 0%, 1 = <5%, 2= 5 -10%, 3 = 11 – 30%, 4 = 31- 50%, 5 = 51 – 75%, 6 = 76 – 100

Table C4 Benthic Communities Recorded Along the Survey Transects at Mirs Bay

	Transect									
	T1		T2		T3		T4		T5	
	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Deep
Transect depth (mCD)	-3 to -4	-5 to -7	-3 to -4	-5 to -7	-3 to -4	-5 to -6	-3 to -4	-5 to -6	-3 to -4	-5 to -6
Hard corals										
<i>Acanthastrea echinata</i>	1	0	1	0	0	0	0	0	0	0
<i>Acanthastrea subechinata</i>	0	0	1	0	0	0	0	0	0	0
<i>Acropora solitaryensis</i>	1	1	1	0	0	0	0	0	0	0
<i>Bernardpora stutchburyi</i>	0	2	0	1	0	0	1	1	1	0
<i>Coelastrea aspera</i>	0	1	1	0	1	0	1	0	0	0
<i>Cyphastrea chalcidicum</i>	0	2	1	1	0	0	2	1	1	1
<i>Cyphastrea japonica</i>	0	0	0	0	0	0	0	0	0	1
<i>Cyphastrea serailia</i>	0	1	0	0	0	0	0	0	0	0
<i>Dipsastraea favus</i>	0	1	0	1	0	0	1	1	1	0
<i>Dipsastraea rotumana</i>	0	0	0	0	1	0	1	0	0	0
<i>Dipsastraea speciosa</i>	0	0	1	0	0	0	1	0	0	1
<i>Duncanopsammia peltata</i>	0	0	0	0	0	0	0	0	1	1
<i>Favites abdita</i>	0	1	0	0	0	0	0	1	1	0
<i>Favites acuticollis</i>	1	0	0	0	0	0	0	0	0	0
<i>Favites chinensis</i>	0	0	0	0	0	0	2	1	0	0
<i>Favites complanata</i>	0	0	0	0	0	0	1	0	0	0
<i>Favites flexuosa</i>	0	0	1	0	0	0	0	0	1	1
<i>Favites paraflexuosus</i>	0	0	0	0	0	0	1	0	0	0
<i>Favites pentagona</i>	0	1	0	1	1	0	0	1	0	0

<i>Goniopora columna</i>	0	1	1	1	0	0	0	0	0	0
<i>Montipora mollis</i>	0	1	0	0	0	0	0	0	0	0
<i>Montipora peltiformis</i>	1	2	1	2	1	0	0	0	0	0
<i>Montipora venosa</i>	0	1	1	0	1	0	0	0	1	0
<i>Oulastrea crispata</i>	0	0	0	0	0	0	1	0	0	0
<i>Pavona decussata</i>	1	0	1	1	0	0	1	0	0	0
<i>Platygyra acuta</i>	0	0	1	0	0	0	0	0	0	0
<i>Platygyra carnosa</i>	0	0	1	0	1	0	1	1	0	0
<i>Plesiastrea</i> sp.	0	1	0	2	0	0	2	1	1	1
<i>Plesiastrea versipora</i>	1	2	1	2	1	0	1	1	0	0
<i>Portites</i> sp.	0	2	1	2	1	2	3	0	3	3
<i>Psammocora haimiana</i>	0	0	0	0	0	0	1	0	0	0
<i>Psammocora profundacella</i>	0	2	1	1	0	0	0	0	0	0
<i>Stylocoeniella guentheri</i>	0	1	0	0	0	0	0	0	0	0
Octocorals										
<i>Dendronephthya</i> sp.	0	1	0	0	0	0	0	0	0	0
Black corals										
<i>Antipathes curvata</i>	0	1	0	0	0	0	0	0	0	0
<i>Cirripathes</i> sp.	0	1	0	0	0	0	0	0	0	0
Other benthos										
<i>Dofleinia armata</i>	0	0	0	0	0	0	0	1	0	1
<i>Entacmaea quadricolor</i>	0	1	1	0	0	0	0	0	0	0
<i>Macroactyla doreensis</i>	0	0	0	0	0	0	0	0	0	1
<i>Spheractis cheungae</i>	1	0	0	0	1	0	0	0	0	0
Other Sea Anemone	0	1	0	0	0	0	0	0	0	1
Zoanthid	1	0	2	0	0	0	0	0	1	0

Encrusting Sponge	1	1	1	1	0	1	1	1	1	1
Encrusting Red Algae	0	0	0	0	0	0	0	0	1	0
<i>Sargassum</i> sp.	0	0	0	0	2	0	1	0	0	0
<i>Lobophora variegata</i>	0	0	0	0	1	0	1	1	0	1
Encrusting Bryozoan	0	0	0	0	1	0	0	0	0	0
Ascidian	0	0	1	0	1	0	0	0	0	0

Notes:

(1) 0=absent, 1=rare, 2=uncommon, 3=common, 4=abundant, 5=dominant

(2) The ranks shown in the Table above indicate the relative abundance of each coral in relation to other corals in the community. In other words, these broad categories rank taxa in terms of relative abundance of individuals, rather than the contribution to benthic cover along each transect. The ranks are subjective assessments of abundance, rather than quantitative counts of each taxon. For instance, if a coral is ranked as 'common', it means it was more frequent than other coral species along the transect. It should be borne in mind that coral cover along all of the transects where corals occurred was very low (<10% cover).