

Supplementary Table 1

Benthic percentage categories of surveyed coral reef sites in Jaffna Peninsula, Sri Lanka

	Knr		Kt1		Kt2		Dlt		Val		Inb		Ptm		Tho		Pu1		Pu2	
Substrate category	MP	SE	MP	SE	MP	SE	MP	SE	MP	SE	MP	SE	MP	SE	MP	SE	MP	SE	MP	SE
HC	22	8	29	4	18	5	16	5	42	5	44	3	52	7	46	6	42	3	29	2
SC	3	3	0	0	0	0	3	2	3	2	3	2	4	3	2	1	0	0	0	0
RKC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NIA	29	10	0	0	0	0	6	4	24	3	6	3	7	4	6	4	2	1	16	4
SP	8	2	1	1	2	1	3	1	0	0	4	2	3	1	0	0	1	1	2	1
RC	23	8	40	5	57	8	40	2	20	1	24	4	24	5	31	6	19	3	22	3
RB	3	3	11	6	9	2	0	0	0	0	6	3	8	4	7	3	34	5	29	2
SD	5	3	0	0	1	1	31	5	11	4	0	0	0	0	1	1	3	1	2	1
SI	9	7	19	5	14	10	0	0	0	0	13	4	1	1	8	5	0	0	0	0
OT	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0

MP- Mean percentage cover of benthic categories, SE- Standard error of mean percentage cover categories

Ptm- Point Pedro “Munai”, Inb- Inbarsitty, Tho- Thondaimanaru, Val- Valithoondal, Knr- Karainagar, Pu1&Pu2- Pungudutivu, Kt1&Kt2- Kayts, Pu1 &Pu2- Pungudutivu.

HC: hard coral, SC: soft coral, RKC: recently killed coral, NIA: nutrient indicator algae, SP: sponge, RC: rocks covered with turf or coralline algae, RB: broken coral rubble, SD: s&, SI: silt, & OT: others

Supplementary Table 2: Diversity and distribution of scleractinian corals on the reefs of Jaffna Peninsula and its' four islands

Sp no.	Family	Genus	Species	Ptm	Inb	Tho	Val	Knr	Pu1& Pu2	Kt1& Kt2	Dlt
1	Acroporidae Verrill, 1901	<i>Acropora</i> Oken, 1815	<i>A. aspera</i> Dana, 1846	X	X				X	X	
2			<i>A. cytherea</i> Dana, 1846						X		
3			<i>A. digitifera</i> Dana, 1846				X				X
4			<i>A. divaricata</i> Dana, 1846			X					
5			<i>A. formosa</i> Dana, 1846	X	X				X	X	
6			<i>A. gemmifera</i> Brook, 1892	X	X	X	X	X		X	X
7			<i>A. hemprichii</i> Ehrenberg, 1834					X			
8			<i>A. humilis</i> Dana, 1846						X	X	
9			<i>A. hyacinthus</i> Dana, 1846	X		X		X	X	X	
10			<i>A. lamarcki</i> Veron, 2000							X	
11			<i>A. latistella</i> Brook, 1891					X			
12			<i>A. millepora</i> Ehernberg, 1834	X	X	X	X	X		X	X
13			<i>A. pinguis</i> Wells, 1950			X					
14			<i>A. pulchra</i> Brook, 1891						X		
15			<i>A. samoensis</i> Brook, 1891						X		
16			<i>A. scherzeriana</i> Bruggemann, 1877			X					
17			<i>A. tenuis</i> Dana, 1846						X		
18		<i>Alveopora</i> Blainville, 1830	<i>A. allingi</i> Hoffmeister, 1925	X		X	X				X
19			<i>A. fenestrata</i> Lamarck, 1816							X	X
20		<i>Astreopora</i> Blainville, 1830	<i>A. myriophthalma</i> Lamarck, 1816	X	X	X				X	
21			<i>A. listeri</i> Bernard, 1896		X						
22			<i>A. ocellata</i> Bernard, 1896		X						
23		<i>Montipora</i> Blainville, 1830	<i>M. foliosa</i> Pallas, 1766	X		X				X	
24			<i>M. monasteriata</i> Forskal, 1775		X						
25			<i>M. aequituberculata</i> Bernard, 1897		X						

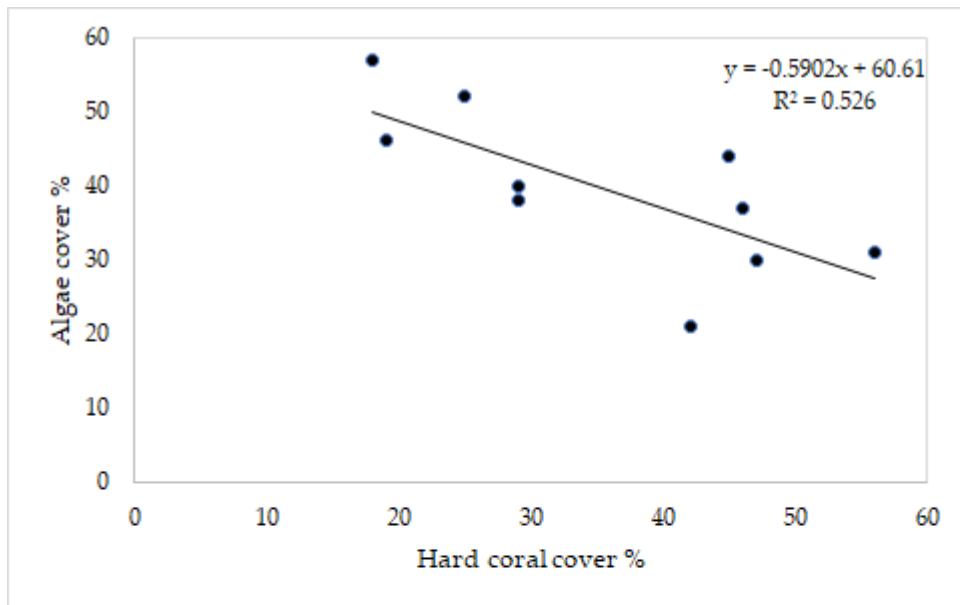
Sp no.	Family	Genus	Species	Ptm	Inb	Tho	Val	Knr	Pu1& Pu2	Kt1& Kt2	Dlt
26			<i>M. flabellata</i> Studer, 1901	X							
27			<i>M. informis</i> Bernard, 1897	X	X	X				X	X
28			<i>M. undata</i> Bernard, 1897	X							
29	Agariciidae Gray, 1847	<i>Pavona</i> Lamarck, 1801	<i>P. clavus</i> Dana, 1846							X	
30			<i>P. venosa</i> Ehrenberg, 1834						X		
31		<i>Coeloseris</i> Vaughan, 1918	<i>C. mayeri</i> Vaughan, 1918					X			
32	Dendrophylliidae Gray, 1847	<i>Turbinaria</i> Oken, 1815	<i>T. frondens</i> Dana, 1846			X					
33			<i>T. mesenterina</i> Lamarck, 1816	X							
34			<i>T. peltata</i> Esper, 1794	X				X			X
35			<i>T. reniformis</i> Bernard, 1896			X		X			X
36			<i>T. stelluta</i> Lamarck, 1816			X				X	
37	Diploastraeidae Chevalier & Beauvais, 1987	<i>Diploastrea</i> Matthai. 1914	<i>D. heliopora</i> Lamarck, 1816			X					
38	Euphylliidae Alloiteau, 1952	<i>Galaxea</i> Oken, 1815	<i>G. astreata</i> Lamarck, 1816					X			
39			<i>G. fascicularis</i> Linnaeus, 1767	X		X	X		X		
40	Fungiidae Dana, 1846	<i>Podabacia</i> Milne Edwards & Haime, 1849	<i>P. crustacea</i> Pallas, 1766							X	
41			<i>P. lankaensis</i> Veron, 2000							X	
42		<i>S&alolitha</i> Quelch, 1884	<i>S. robusta</i> Quelch, 1866			X					
43	Plesiastreidae Dai & Horng, 2009	<i>Plesiastrea</i> Milne Edwards & Haime, 1848	<i>P. versipora</i> Lamarck, 1816	X		X					X
44	Oulastreidae Vaughan, 1919	<i>Oulastrea</i> Milne Edwards & Haime, 1848	<i>O. crispata</i> Lamarck, 1816					X			

Sp no.	Family	Genus	Species	Ptm	Inb	Tho	Val	Knr	Pu1& Pu2	Kt1& Kt2	Dlt
45	Leptastreidae Rowlett, 2020	<i>Leptastrea</i> Milne Edwards & Haime, 1849	<i>L. purpurea</i> Dana, 1846				X	X		X	
46			<i>L. transversa</i> Klunzinger, 1879	X	X			X		X	
47	Scleractinia incertae sedis	<i>Pachyseris</i> Milne Edwards & Haime, 1849	<i>P. gemmae</i> Nemenzo, 1955			X					
48	Merulinidae Verrill, 1865	<i>Astrea</i> Lamarck, 1801	<i>A. curta</i> Dana, 1846	X	X	X		X	X	X	X
49		<i>Coelastrea</i> Verrill, 1866	<i>C. aspera</i> Verrill, 1865	X						X	X
50			<i>C. palauensis</i> Yabe & Sugiyama, 1936					X			X
51		<i>Cyphastrea</i> Milne Edwards & Haime, 1848	<i>C. chalcidicum</i> Forskal, 1775				X				X
52			<i>C. japonica</i> Yabe & Sugiyama, 1936								X
53			<i>C. microphthalma</i> Lamarck, 1816						X	X	X
54			<i>C. serailia</i> Forskal, 1775							X	
55		<i>Dipsastraea</i> Blainville, 1830	<i>D. amicorum</i> Milne Edwards & Haime, 1850								X
56			<i>D. favus</i> Forskal, 1775	X	X	X	X	X	X	X	X
57			<i>D. lizardensis</i> Veron & Pichon, 1977	X			X	X	X	X	X
58			<i>D. matthai</i> Vaughan, 1918								X
59			<i>D. maxima</i> Veron & Pichon, 1977						X		X
60			<i>D. pallida</i> Dana, 1846			X					X
61			<i>D. rotumana</i> Gardiner, 1899						X		X
62			<i>D. rotundata</i> Veron & Pichon, 1977	X				X			
63			<i>D. speciosa</i> Dana, 1846	X	X						
64			<i>D. veroni</i> Moll & Borel Best, 1984			X		X			X

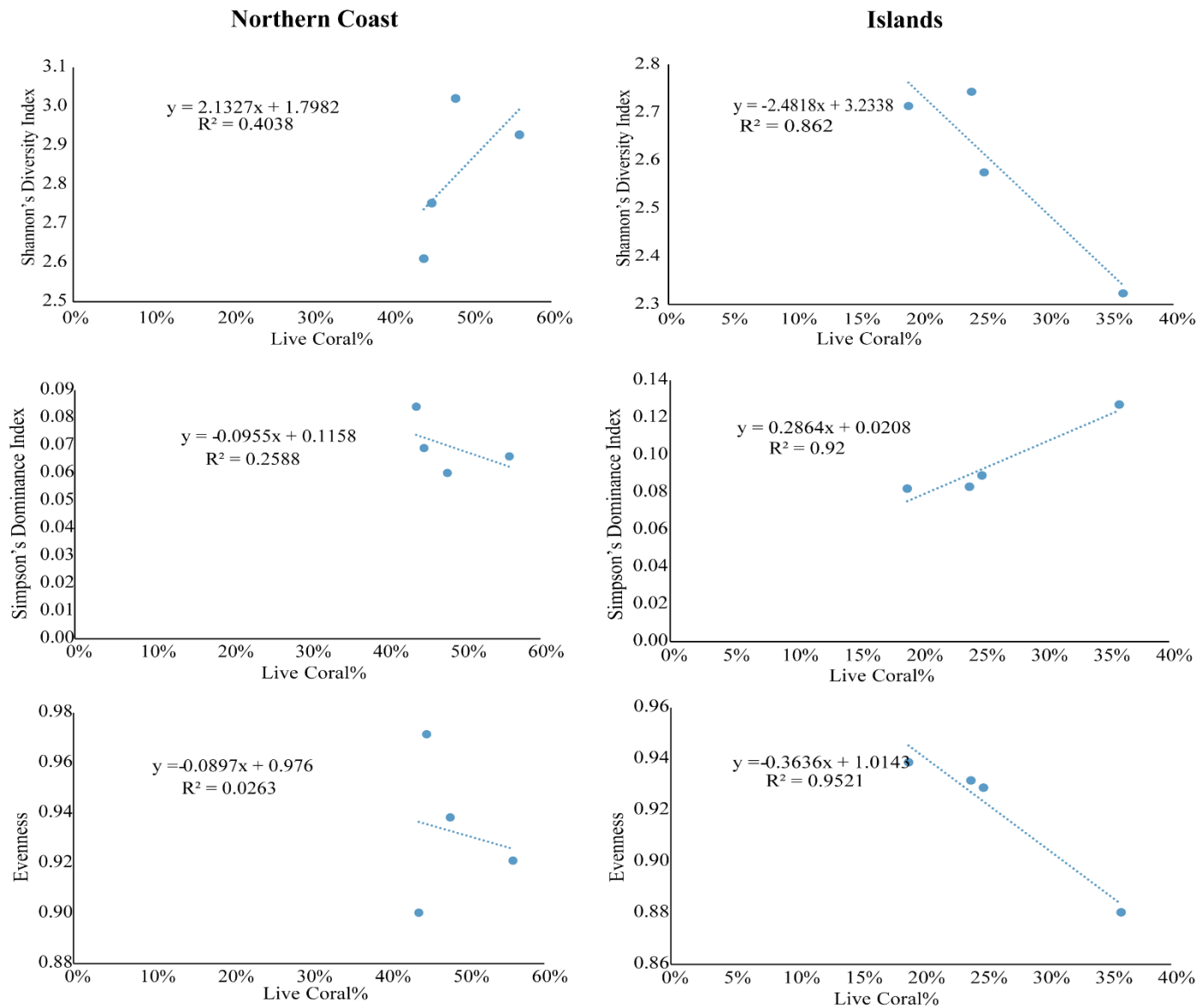
Sp no.	Family	Genus	Species	Ptm	Inb	Tho	Val	Knr	Pu1& Pu2	Kt1& Kt2	Dlt
65		<i>Echinopora</i> Lamarck, 1816	<i>E. gemmacea</i> Lamarck, 1816	X		X					
66			<i>E. hirsutissima</i> Milne Edwards & Haime, 1849	X							
67			<i>E. lamellosa</i> Esper, 1795	X					X	X	
68		<i>Favites</i> Link, 1807	<i>F. abdita</i> Ellis & Solander, 1786	X	X	X	X	X	X		
69			<i>F. complanata</i> Ehrenberg, 1834	X		X	X	X	X		
70			<i>F. halicora</i> Ehrenberg, 1834					X	X	X	
71			<i>F. pentagona</i> Esper, 1794	X	X						
72			<i>F. spinosa</i> Klunzinger, 1879	X	X			X			
73			<i>F. valenciennesi</i> Milne Edwards & Haime, 1848	X	X	X		X	X	X	X
74		<i>Goniastrea</i> Milne Edwards & Haime, 1848	<i>G. edwardsi</i> Chevalier, 1971			X	X	X	X		
75			<i>G. minuta</i> Veron, 2000					X	X		
76			<i>G. pectinata</i> Ehrenberg, 1834	X						X	X
77			<i>G. retiformis</i> Lamarck, 1816	X		X	X	X	X	X	
78		<i>Hydnophora</i> Fischer von Waldheim, 1807	<i>H. microconos</i> Lamarck, 1816	X		X	X				X
79		<i>Merulina</i> Ehrenberg, 1834	<i>M. ampilata</i> Ellis & Solander, 1786	X						X	
80		<i>Leptoria</i> Milne Edwards & Haime, 1848	<i>L. phrygia</i> Ellis & Solander, 1786	X	X	X	X	X			
81		<i>Oulophyllia</i> Milne Edwards & Haime, 1848	<i>O. crispa</i> Lamarck, 1816		X	X	X	X	X	X	
82		<i>Platygyra</i> Ehrenberg, 1834	<i>P. acuta</i> Veron, 2000		X	X					
83			<i>P. daedalea</i> Ellis & Solander, 1786	X		X					
84			<i>P. lamellina</i> Ehrenberg, 1834			X					
85			<i>P. pini</i> Chevalier, 1975								X

Sp no.	Family	Genus	Species	Ptm	Inb	Tho	Val	Knr	Pu1& Pu2	Kt1& Kt2	Dlt
86			<i>P. sinensis</i> Milne Edwards & Haime, 1849	X		X	X	X			X
87	Lobophylliidae Dai & Horng, 2009	<i>Acanthastrea</i> Milne Edwards & Haime, 1848	<i>A. echinata</i> Dana, 1846		X		X				
88			<i>A. ishigakiensis</i> Veron, 1990			X					
89		<i>Echinophyllia</i> Klunzinger, 1879	<i>E. aspera</i> Ellis & Solander, 1786	X		X					
90		<i>Lobophyllia</i> de Blainville, 1830	<i>L. hemprichii</i> Ehrenberg, 1834		X			X			
91		<i>Micromussa</i> Veron, 2000	<i>M. amakusensi</i> Veron, 1990				X				
92		<i>Symphyllia</i> Milne Edwards & Haime, 1848	<i>S. agaricia</i> Milne Edwards & Haime, 1849	X	X	X					
93			<i>S. radians</i> Milne Edwards & Haime, 1849	X	X	X	X				X
94			<i>S. recta</i> Dana, 1846	X	X		X				X
95	Pocilloporidae Gray, 1842	<i>Pocillopora</i> Lamarck, 1816	<i>P. damicornis</i> Linnaeus, 1758		X	X					
96			<i>P. verucosa</i> Ellis & Solander, 1786	X							
97		<i>Stylophora</i> Schweigger, 1820	<i>S. pistillata</i> Esper, 1797								X
98	Poritidae Gray, 1842	<i>Porites</i> Link, 1807	<i>P. annae</i> Crossl&, 1952	X							
99			<i>P. evermanni</i> Vaughan, 1907	X							
100			<i>P. lobata</i> Dana, 1846	X	X	X		X	X	X	X
101			<i>P. lutea</i> Milne Edwards & Haime, 1851	X							
102			<i>P. murrayensis</i> Vaughan, 1918	X	X	X	X	X	X	X	X
103			<i>P. pukoensis</i> Vaughan, 1907						X		
104			<i>P. solida</i> Forskal, 1775	X		X	X	X	X	X	X
105		<i>Goniopora</i> de Blainville, 1830	<i>G. lobata</i> Milne Edwards, 1860			X	X	X			

Sp no.	Family	Genus	Species	Ptm	Inb	Tho	Val	Knr	Pu1& Pu2	Kt1& Kt2	Dlt
106			<i>G. minor</i> Crossl &, 1952	X	X			X			X
107			<i>G. somaliensis</i> Vaughan, 1907								X
108			<i>G. stokesi</i> Milne Edwards & Haime, 1851		X		X				
109			<i>G. tenuidens</i> Quelch, 1886						X		
110			<i>G. paliformis</i> Veron, 2000						X		
111	Psammocoridae Chevalier & Beauvais, 1987	<i>Psammocora</i> Dana, 1846	<i>P. contigua</i> Esper, 1797	X							
112	Siderastreidae Vaughan & Wells, 1943	<i>Pseudosiderastrea</i> Yabe & Sugiyama, 1935	<i>P. tayami</i> Yabe & Sgiyama, 1935								X
113		<i>Siderastrea</i> Blainville, 1830	<i>S. savignyana</i> Milne Edwards & Haime, 1850				X		X		
<i>softcorals</i>											
1	Alcyoniidae	<i>Sinularia</i>			X	X	X				X
2		<i>Capnella</i>		X							
3		<i>Cladiella</i>				X	X	X			
4		<i>Clavalaria</i>									X
5		<i>Lobophytun</i>			X	X	X	X			
6		<i>Sarcoophyton</i>		X	X	X	X	X			
7		<i>Subergorgia</i>						X			



Supplementary Figure 1. Regression analysis of mean percentage live coral cover with mean percentage algal cover (turf algae, macroalgae, and crustose coralline algae) among the study sites.



Supplementary Figure 2. Regression plots of mean percentage live coral cover against Shannon's diversity index, Simpson's dominance index, and Evenness index, shown separately for each of the two parts I study area, i.e. the northern coast area (left panel figures) and the Palk Bay islands (right panel figures).