

Table S2. Results of SIMPER analyses run in Primer v. 7.0.13 with all groups contribution >10% to dissimilarity (similarity) listed for each comparison. Group 1 is the first group (bank or topographic feature) listed and group 2 is the second listed. Note that similarities are within banks/topographic features and are reported in parantheses. Hexa = Hexacorallia.

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Within-bank comparisons							
Aransas Bank	Sea Whips	0.95	na	(32.72)	(1.67)	62.01	62.01
	A. furcata	0.37	na	(8.19)	(0.78)	15.53	77.54
	Sea Fans	0.37	na	(6.18)	(0.57)	11.72	89.26
Baker Bank	Sea Whips	1.09	na	(38.55)	(2.79)	66.49	66.49
	Sea Fans	0.56	na	(13.29)	(0.91)	22.92	89.42
Blackfish Ridge	Sea Whips	0.93	na	(33.15)	(1.94)	59.13	59.13
	Antipathes	0.57	na	(11.91)	(0.91)	21.25	80.38
Dream Bank	Sea Whips	0.69	na	(28.57)	(0.83)	58.87	58.87
	Sea Fans	0.47	na	(13.18)	(0.72)	27.15	86.01
	Antipathes	0.28	na	(4.92)	(0.52)	10.13	96.14
Harte Bank	A. furcata	1.01	na	(26.81)	(2.63)	38.12	38.12
	Sea Whips	0.91	na	(19.82)	(1.84)	28.17	66.29
	Antipathes	0.8	na	(18.7)	(1.75)	26.59	92.88

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Among-bank comparisons							
Aransas vs. Baker	Sea Whips	0.95	1.09	9.30	0.53	19.57	19.57
	A. furcata	0.37	0.13	9.03	1.41	19.00	38.57
	Sea Fans	0.37	0.56	8.97	1.06	18.87	57.44
	Hexa	0	0.4	7.06	0.63	14.87	72.31
	Antipathes	0.33	0.15	7.05	0.80	14.84	87.16
Aransas vs. Blackfish	Antipathes	0.33	0.57	11.25	1.02	23.87	23.87
	Sea Whips	0.95	0.93	10.95	0.60	23.25	47.12
	Sea Fans	0.37	0.34	8.67	0.94	18.41	65.53
	A. furcata	0.37	0.27	7.69	1.05	16.32	81.85
	Hydroid	0.08	0.29	5.69	0.74	12.08	93.94
Aransas vs. Dream	Sea Whips	0.95	0.69	22.59	0.79	40.91	40.91
	Antipathes	0.33	0.28	10.17	0.79	18.43	59.34
	Sea Fans	0.37	0.47	9.23	0.74	16.72	76.06
	A. furcata	0.37	0.12	7.65	0.93	13.85	89.91
Aransas vs. Harte	A. furcata	0.37	1.01	12.10	1.37	26.45	26.45
	Antipathes	0.33	0.8	10.83	1.27	23.67	50.13
	Sea Whips	0.95	0.91	8.83	0.78	19.29	69.42
	Sea Fans	0.37	0.35	8.46	0.98	18.50	87.92
Baker vs. Blackfish	Antipathes	0.15	0.57	10.70	1.23	20.72	20.72
	Sea Fans	0.56	0.34	10.47	1.14	20.29	41.01
	Sea Whips	1.09	0.93	8.54	0.65	16.55	57.56
	Hexa	0.4	0	7.60	0.64	14.72	72.28
	Hydroid	0.12	0.29	7.48	0.92	14.48	86.76
	A. furcata	0.13	0.27	5.99	0.88	11.61	98.37
Baker vs. Dream	Sea Whips	1.09	0.69	19.23	0.82	34.58	34.58
	Sea Fans	0.56	0.47	10.32	0.97	18.55	53.14
	Antipathes	0.15	0.28	7.82	1.05	14.07	67.21
	Hexa	0.4	0	7.80	0.61	14.03	81.24

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Baker vs. Harte	A. furcata	0.13	1.01	16.41	2.11	28.05	28.05
	Antipathes	0.15	0.8	12.34	1.72	21.09	49.14
	Sea Fans	0.56	0.35	9.10	1.07	15.55	64.69
	Sea Whips	1.09	0.91	9.08	0.81	15.52	80.21
	Hexa	0.4	0	7.00	0.64	11.96	92.17
Blackfish vs. Dream	Sea Whips	0.93	0.69	16.86	0.79	31.42	31.42
	Antipathes	0.57	0.28	12.08	1.00	22.52	53.94
	Sea Fans	0.34	0.47	11.13	0.94	20.75	74.70
	Hydroid	0.29	0.1	5.99	0.72	11.16	85.85
	A. furcata	0.27	0.12	5.93	0.76	11.06	96.91
Blackfish vs. Harte	A. furcata	0.27	1.01	14.33	1.61	30.59	30.59
	Antipathes	0.57	0.8	8.79	0.99	18.76	49.35
	Sea Whips	0.93	0.91	8.00	0.73	17.08	66.43
	Sea Fans	0.34	0.35	7.99	1.04	17.05	83.48
	Hydroid	0.29	0.06	5.64	0.79	12.05	95.53
Dream vs. Harte	A. furcata	0.12	1.01	18.06	1.79	30.96	30.96
	Sea Whips	0.69	0.91	11.83	1.01	20.28	51.25
	Antipathes	0.28	0.8	11.61	1.10	19.90	71.15
	Sea Fans	0.47	0.35	11.17	0.96	19.14	90.29

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Topographic feature comparisons for all banks							
All Terraces	Sea Whips	0.97	na	(28.49)	(1.86)	46.89	46.89
	Sea Fans	0.59	na	(12.52)	(0.82)	20.61	67.50
	Antipathes	0.48	na	(8.69)	(0.77)	14.30	81.81
	A. furcata	0.45	na	(8.26)	(0.69)	13.60	95.41
All Slopes	Sea Whips	0.78	na	(36.24)	(1.05)	84.59	84.59
Terraces vs. slopes	Sea Fans	0.59	0.14	16.87	1.06	28.49	28.49
	Sea Whips	0.97	0.78	15.44	0.86	26.08	54.57
	Antipathes	0.48	0.27	10.76	1.09	18.17	72.74
	A. furcata	0.45	0.18	8.08	0.90	13.64	86.38
Within banks, topographic feature comparisons							
Aransas Terrace vs. Slope	Sea Whips	1.08	0.82	13.38	0.86	24.52	24.52
	Sea Fans	0.6	0.13	13.11	1.23	24.02	48.54
	A. furcata	0.56	0.18	11.84	1.31	21.70	70.24
	Antipathes	0.35	0.31	9.24	1.06	16.93	87.17
Baker Terrace vs. Slope	Sea Whips	1.16	0.55	29.81	1.38	39.33	39.33
	Sea Fans	0.64	0	20.31	1.31	26.80	66.14
	Hexa	0.45	0	13.37	0.68	17.64	83.77
Blackfish Terrace vs. Slope	Antipathes	0.64	0.43	11.99	1.18	23.63	23.63
	Sea Whips	0.99	0.83	10.16	0.78	20.02	43.65
	Sea Fans	0.44	0.15	9.6	0.93	18.92	62.57
	Hydroid	0.42	0.03	9.17	0.91	18.07	80.65
	A. furcata	0.32	0.15	7.83	0.93	15.43	96.08
Dream Terrace vs. Slope	Sea Fans	0.85	0.09	26.58	1.39	36.50	36.50
	Sea Whips	0.67	0.7	20.04	0.95	27.51	64.01
	Antipathes	0.5	0.05	13.35	1.25	18.33	82.34
Harte Terrace vs. Slope	Sea Whips	0.92	0.9	8.46	0.96	25.55	25.55
	Antipathes	0.84	0.71	7.74	0.96	23.39	48.95
	Sea Fans	0.36	0.33	6.30	0.95	19.02	67.97
	A. furcata	1.07	0.86	6.12	0.78	18.49	86.46

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Within-bank terrace comparisons							
Aransas Terrace	Sea Whips	1.08	na	(35.4)	(5.21)	52.52	52.52
	A. furcata	0.56	na	(14.39)	(1.4)	21.35	73.87
	Sea Fans	0.6	na	(11.4)	(0.93)	16.92	90.79
Baker Terrace	Sea Whips	1.16	na	(38.85)	(2.91)	66.41	66.41
	Sea Fans	0.64	na	(13.44)	(0.92)	22.98	89.39
Blackfish Terrace	Sea Whips	0.99	na	(31.85)	(2.16)	55.06	55.06
	Antipathes	0.64	na	(12.37)	(0.99)	21.39	76.45
Dream Terrace	Sea Fans	0.85	na	(25.28)	(1.37)	48.48	48.48
	Sea Whips	0.67	na	(13.6)	(1.09)	26.08	74.56
	Antipathes	0.5	na	(9.59)	(0.84)	18.38	92.94
Harte Terrace	A. furcata	1.07	na	(27.36)	(2.81)	38.18	38.18
	Sea Whips	0.92	na	(19.77)	(2.07)	27.6	65.78
	Antipathes	0.84	na	(19.61)	(2.02)	27.38	93.16

		Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Species							
Among-bank terrace comparisons							
Aransas vs. Baker Terrace	Sea Fans	0.6	0.64	9.36	1.21	21.15	21.15
	A. furcata	0.56	0.15	9.31	1.61	21.05	42.2
	Hexa	0	0.45	7.91	0.69	17.89	60.09
	Antipathes	0.35	0.17	6.19	1.06	14	74.1
	Sea Whips	1.08	1.16	4.99	1.01	11.28	85.38
Aransas vs. Blackfish Terrace	Sea Fans	0.6	0.44	9.98	1.23	23.63	23.63
	Antipathes	0.35	0.64	9.05	1.31	21.44	45.07
	A. furcata	0.56	0.32	8.06	1.26	19.1	64.16
	Hydroid	0.1	0.42	7.48	0.95	17.72	81.88
	Sea Whips	1.08	0.99	4.84	0.97	11.47	93.35
Aransas vs. Dream Terrace	Sea Whips	1.08	0.67	12.01	1.01	24.8	24.8
	Sea Fans	0.6	0.85	10.38	1.13	21.44	46.24
	A. furcata	0.56	0.25	9.55	1.31	19.73	65.97
	Antipathes	0.35	0.5	8.05	1.16	16.63	82.6
	Hydroid	0.1	0.21	4.88	0.67	10.08	92.67
Aransas vs. Harte Terrace	A. furcata	0.56	1.07	9.77	1.55	24.58	24.58
	Antipathes	0.35	0.84	9.65	1.43	24.26	48.84
	Sea Fans	0.6	0.36	7.94	1.14	19.97	68.81
	Sea Whips	1.08	0.92	6.63	0.75	16.68	85.49
Baker vs. Blackfish Terrace	Sea Fans	0.64	0.44	10.93	1.22	21.77	21.77
	Antipathes	0.17	0.64	10.1	1.38	20.12	41.89
	Hexa	0.45	0	8.11	0.68	16.15	58.04
	Hydroid	0.13	0.42	7.86	0.98	15.66	73.7
	Sea Whips	1.16	0.99	6.4	0.95	12.75	86.45
Baker vs. Dream Terrace	A. furcata	0.15	0.32	6.09	0.92	12.13	98.58
	Sea Whips	1.16	0.67	14.35	1.02	26.58	26.58
	Sea Fans	0.64	0.85	10.77	1.17	19.94	46.52
	Hexa	0.45	0	8.74	0.66	16.18	62.7
	Antipathes	0.17	0.5	8.46	1.22	15.66	78.36

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Baker vs. Harte Terrace	A. furcata	0.15	1.07	15.91	2.2	27.84	27.84
	Antipathes	0.17	0.84	11.99	1.84	20.98	48.82
	Sea Fans	0.64	0.36	8.92	1.12	15.61	64.43
	Sea Whips	1.16	0.92	8.36	0.8	14.63	79.06
	Hexa	0.45	0	7.38	0.67	12.92	91.98
Blackfish vs. Dream Terrace	Sea Fans	0.44	0.85	13.54	1.26	26.13	26.13
	Sea Whips	0.99	0.67	12.11	0.89	23.38	49.5
	Antipathes	0.64	0.5	9.66	1.08	18.65	68.16
	Hydroid	0.42	0.21	8.34	0.96	16.1	84.25
	A. furcata	0.32	0.25	6.91	0.94	13.34	97.59
Blackfish vs. Harte Terrace	A. furcata	0.32	1.07	13.57	1.59	30.36	30.36
	Antipathes	0.64	0.84	7.98	0.95	17.86	48.22
	Sea Fans	0.44	0.36	7.63	1.12	17.08	65.3
	Sea Whips	0.99	0.92	7.21	0.68	16.14	81.44
	Hydroid	0.42	0.08	6.72	0.91	15.03	96.46
Dream vs. Harte Terrace	A. furcata	0.25	1.07	15.93	1.67	30.06	30.06
	Sea Fans	0.85	0.36	11.25	1	21.22	51.28
	Sea Whips	0.67	0.92	10.16	1.05	19.17	70.45
	Antipathes	0.5	0.84	9.39	1.04	17.72	88.17

	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Within-bank slope comparisons							
Aransas Slope	Sea Whips	0.82	na	(29.94)	(1.12)	79.64	79.64
	Antipathes	0.31	na	(5)	(0.41)	13.3	92.94
Baker Slope	Sea Whips	0.55	na	(12.25)	(0.45)	100	100
Blackfish Slope	Sea Whips	0.83	na	(38.18)	(1.63)	77.61	77.61
	Antipathes	0.43	na	(10.16)	(0.67)	20.65	98.26
Dream Slope	Sea Whips	0.7	na	(44.08)	(1.05)	98.4	98.4
Harte Slope	A. furcata	0.86	na	(23.44)	(1.92)	37.63	37.63
	Sea Whips	0.9	na	(20.09)	(1.23)	32.24	69.87
	Antipathes	0.71	na	(13.12)	(0.91)	21.07	90.94



	Species	Average abundance (Group 1)	Average abundance (Group 2)	Average dissimilarity (similarity)	Dissimilarity (similarity)/SD	Percentage contribution	Cumulative percentage contribution
Among-bank slope comparisons							
Aransas vs. Baker Slope	Sea Whips	0.82	0.55	45.18	1.29	60.32	60.32
	Antipathes	0.31	0	14.22	0.72	18.98	79.3
Aransas vs. Blackfish Slope	Sea Whips	0.82	0.83	22.93	0.86	40.44	40.44
	Antipathes	0.31	0.43	15.55	1.01	27.43	67.87
	A. furcata	0.18	0.15	6.96	0.79	12.28	80.14
	Sea Fans	0.13	0.15	6.12	0.57	10.79	90.93
	Sea Whips	0.82	0.7	33.61	0.94	53.96	53.96
Aransas vs. Dream Slope	Antipathes	0.31	0.05	12.38	0.75	19.88	73.84
	Sea Fans	0.13	0.09	8.04	0.53	12.9	86.74
	A. furcata	0.18	0.86	17.7	1.59	29.44	29.44
Aransas vs. Harte Slope	Sea Whips	0.82	0.9	14.09	0.97	23.44	52.88
	Antipathes	0.31	0.71	13.67	1.22	22.74	75.61
	Sea Fans	0.13	0.33	9.72	0.84	16.16	91.77
	Sea Whips	0.55	0.83	40.66	1.28	55.84	55.84
Baker vs. Blackfish Slope	Antipathes	0	0.43	19.58	1.07	26.9	82.74
	Sea Whips	0.55	0.7	59.88	1.49	86.8	86.8
Baker vs. Dream Slope	Sea Whips	0.55	0.7	59.88	1.49	86.8	86.8
Baker vs. Harte Slope	A. furcata	0	0.86	25.54	2.29	30.65	30.65
	Sea Whips	0.55	0.9	22.14	1.37	26.56	57.21
	Antipathes	0	0.71	18.65	1.41	22.37	79.59
	Sea Fans	0	0.33	12.36	0.81	14.83	94.42
	Sea Whips	0.83	0.7	26.15	0.9	45.69	45.69
Blackfish vs. Dream Slope	Antipathes	0.43	0.05	16.82	1.08	29.39	75.07
	Sea Fans	0.15	0.09	6.43	0.51	11.23	86.3
	A. furcata	0.15	0.86	17.86	1.86	31.42	31.42
Blackfish vs. Harte Slope	Antipathes	0.43	0.71	12.52	1.25	22.04	53.46
	Sea Whips	0.83	0.9	11.67	1.03	20.53	73.99
	Sea Fans	0.15	0.33	9.63	0.9	16.95	90.94
	A. furcata	0	0.86	23.16	2.44	32.58	32.58
Dream vs. Harte Slope	Antipathes	0.05	0.71	16.92	1.42	23.81	56.39
	Sea Whips	0.7	0.9	15.83	1.06	22.27	78.65
	Sea Fans	0.09	0.33	10.98	0.86	15.44	94.09
	Sea Whips	0.7	0.9	15.83	1.06	22.27	78.65