

Table 1. Original 2005 sampling design by habitat type, regional sector, and protection level in the Florida Keys National Marine Sanctuary and Biscayne National Park. SPA = Sanctuary Preservation Area, RO = Special-Use Area/Research Only, ER = Ecological Reserve

Regional sector	Habitat type (depth range, m)	Protection status	No. sites planned	No. sites sampled
Biscayne National Park	Mid channel patch reef	Reference area	10	10
	Offshore patch reef	Reference area	3	4
	High relief spur & groove (<6 m)	Reference area	2	2
	Low relief hard bottom (<6 m)	Reference area	3	3
	Low relief hard bottom (6-15 m)	Reference area	3	4
	Low relief spur & groove (<6 m)	Reference area	2	2
	Low relief spur & groove (6-15 m)	Reference area	4	1
	Low relief spur & groove (15-21 m)	Reference area	2	2
	Low relief spur & groove (21-33 m)	Reference area	2	
	Patchy hard-bottom in sand	Reference area	2	2
			<hr/>	<hr/>
			33	30
Upper Florida Keys	Mid channel patch reef	Reference area	6	9
	Offshore patch reef	Reference area	10	11
	Offshore patch reef	Carysfort Reef SPA	2	2
	High relief spur & groove (<6 m)	Reference area	4	3
	High relief spur & groove (<6 m)	Carysfort Reef SPA	2	2
	High relief spur & groove (<6 m)	Molasses Reef SPA	2	2
	Low -relief hard-bottom (<6 m)	Reference area	3	4
	Low -relief hard-bottom (<6 m)	Molasses Reef SPA		1
	Low -relief hard-bottom (<6 m)	French Reef SPA		1
	Low -relief hard-bottom (<6 m)	Carysfort Reef SPA	2	1
	Low -relief hard-bottom (6-15 m)	Reference area	3	7
	Low -relief hard-bottom (6-15 m)	French Reef SPA	2	
	Low -relief hard-bottom (6-15 m)	Carysfort Reef SPA		2
	Low -relief spur & groove (6-15 m)	Reference area	3	2
	Low -relief spur & groove (6-15 m)	Carysfort Reef SPA	2	1
	Low -relief spur & groove (>15-21 m)	Reference area	4	4
	Low -relief spur & groove (>21-33 m)	Reference area	3	3
	Patchy hard-bottom in sand	Reference area	2	1
	Inner line reef tract	Reference area	2	3
Inner line reef tract	Dry Rocks SPA	2	2	
			<hr/>	<hr/>
			54	61
Middle Florida Keys	Mid channel patch reef	Reference area	13	9
	Mid channel patch reef	Cheeca Rocks SPA	2	2
	Offshore patch reef	Reference area	2	0
	High-relief spur & groove (<6 m)	Sombrero Key SPA	2	2
	Low -relief hard-bottom (<6 m)	Reference area	3	1
	Low -relief hard-bottom (<6 m)	Conch Reef SPA	2	2
	Low -relief hard-bottom (6-15 m)	Reference area	3	3
	Low -relief hard-bottom (6-15 m)	Tennessee Reef RO	2	2
	Low -relief spur and groove (< 6)	Reference area		1
	Low -relief spur & groove (6-15 m)	Reference area	3	3
	Low -relief spur & groove (6-15 m)	Davis Reef SPA	2	2
	Low -relief spur & groove (>15-21 m)	Reference area	4	4
	Low -relief spur & groove (>21-33 m)	Reference area	3	3
	Patchy hard-bottom in sand	Reference area	2	3
			<hr/>	<hr/>
			43	37
Lower Florida Keys	Mid channel patch reef	Reference area	21	19
	Mid channel patch reef	Western Sambo ER	2	2
	Offshore patch reef	Reference area	4	6
	Offshore patch reef	Looe Key RO	2	2
	Offshore patch reef	Western Sambo ER	2	2
	High-relief spur & groove (<6 m)	Reference area	4	4
	High-relief spur & groove (<6 m)	Looe Key SPA	2	2
	High-relief spur & groove (<6 m)	Western Sambo ER	2	2
	Low -relief hard-bottom (< 6 m)	Reference area		2
	Low -relief hard-bottom (6-15 m)	Reference area	6	5
	Low -relief hard-bottom (6-15 m)	Western Sambo ER	2	
	Low -relief hard-bottom (6-15 m)	Eastern Sambo RO	2	

Table 1 continued

Regional sector	Habitat type (depth range, m)	Protection status	No. sites planned	No. sites sampled
	Low-relief hard-bottom (>15-21 m)	Reference area	2	
	Low-relief hard-bottom (>21-33 m)	Reference area	2	
	Low-relief spur & groove (6-15 m)	Reference area	4	3
	Low-relief spur & groove (6-15 m)	Sand Key SPA	2	2
	Low-relief spur & groove (6-15 m)	Western Sambo ER	2	2
	Low-relief spur & groove (>15-21 m)	Reference area	4	6
	Low-relief spur & groove (>21-33 m)	Reference area	3	3
	Patchy hard-bottom in sand	Reference area	2	5
			<hr/> 70	<hr/> 67
Total			<hr/> 200	<hr/> 195

Table 2. Chronological list of survey locations in the Florida Keys National Marine Sanctuary and Biscayne National Park during May-October 2005.

Date	Site #	Region	No-take zone	Waypoint habitat	Actual habitat
5/09/2005	1	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/09/2005	2	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
5/10/2005	3	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/10/2005	4	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
5/11/2005	5	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/11/2005	6	Upper Keys	Molasses Reef SPA	Low-relief hard-bottom	Low-relief hard-bottom
5/12/2005	7	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/12/2005	8	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/12/2005	9	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/14/2005	10	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/14/2005	11	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/16/2005	12	Middle Keys	Sombrero Key SPA	High relief spur & groove	High relief spur & groove
5/16/2005	13	Middle Keys	Sombrero Key SPA	High relief spur & groove	High relief spur & groove
5/16/2005	14	Middle Keys	Reference	Low-relief hard-bottom	Patchy hard-bottom
5/17/2005	15	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/17/2005	16	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/18/2005	17	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/18/2005	18	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/19/2005	19	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/19/2005	20	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/20/2005	21	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/20/2005	22	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/20/2005	23	Middle Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/23/2005	24	Upper Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
5/23/2005	25	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
5/23/2005	26	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
5/24/2005	27	Upper Keys	Molasses Reef SPA	High relief spur & groove	High relief spur & groove
5/24/2005	28	Upper Keys	Molasses Reef SPA	High relief spur & groove	High relief spur & groove
5/24/2005	29	Upper Keys	Reference	High relief spur & groove	Low-relief hard-bottom
5/25/2005	30	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
5/25/2005	31	Upper Keys	Reference	Patchy hard bottom	Low-relief hard-bottom
5/25/2005	32	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
5/26/2005	33	Upper Keys	Reference	High relief spur & groove	Low-relief hard-bottom
5/26/2005	34	Upper Keys	Reference	High relief spur & groove	High relief spur & groove
5/26/2005	35	Upper Keys	Reference	High relief spur & groove	High relief spur & groove
5/27/2005	36	Upper Keys	Reference	Low-relief spur & groove	Low-relief hard-bottom
5/27/2005	37	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
5/27/2005	38	Upper Keys	Carysfort Reef SPA	Low-relief hard-bottom	Low-relief hard-bottom
5/28/2005	39	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
5/28/2005	40	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
5/28/2005	41	Upper Keys	Reference	Inner line reef tract	Inner line reef tract
6/06/2005	42	Upper Keys	Carysfort Reef SPA	Low-relief spur & groove	Low-relief spur & groove
6/06/2005	43	Upper Keys	Carysfort Reef SPA	Low-relief hard-bottom	Offshore patch reef
6/06/2005	44	Upper Keys	Carysfort Reef SPA	High relief spur & groove	High relief spur & groove
6/07/2005	45	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/07/2005	46	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
6/08/2005	47	Upper Keys	Carysfort Reef SPA	Offshore patch reef	Low-relief hard-bottom
6/08/2005	48	Upper Keys	Carysfort Reef SPA	High relief spur & groove	High relief spur & groove
6/08/2005	49	Upper Keys	Carysfort Reef SPA	Offshore patch reef	Offshore patch reef
6/09/2005	50	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
6/09/2005	51	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
6/13/2005	52	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/13/2005	53	Upper Keys	Reference	High relief spur & groove	High relief spur & groove
6/13/2005	54	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
6/13/2005	55	Upper Keys	Reference	Patchy hard bottom	Patchy hard bottom
6/14/2005	56	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/14/2005	57	Middle Keys	Conch Reef SPA	Low-relief hard-bottom	Low-relief hard-bottom
6/14/2005	58	Middle Keys	Conch Reef SPA	Low-relief hard-bottom	Low-relief hard-bottom
6/15/2005	59	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/15/2005	60	Upper Keys	Dry Rocks SPA	Inner line reef tract	Inner line reef tract
6/15/2005	61	Upper Keys	Dry Rocks SPA	Inner line reef tract	Inner line reef tract
6/16/2005	62	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/16/2005	63	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/16/2005	64	Upper Keys	French Reef SPA	Offshore patch reef	Low-relief hard-bottom
6/17/2005	65	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef

Table 2 continued

Date	Site #	Region	No-take zone	Waypoint habitat	Actual habitat
6/17/2005	66	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
6/20/2005	67	Middle Keys	Davis Reef SPA	Low-relief spur & groove	Low-relief spur & groove
6/20/2005	68	Middle Keys	Davis Reef SPA	Low-relief spur & groove	Low-relief spur & groove
6/21/2005	69	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/21/2005	70	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/21/2005	71	Middle Keys	Reference	Patchy hard bottom	Patchy hard bottom
6/22/2005	72	Middle Keys	Cheeca Rocks SPA	Mid-channel patch reef	Mid-channel patch reef
6/22/2005	73	Middle Keys	Cheeca Rocks SPA	Mid-channel patch reef	Mid-channel patch reef
6/23/2005	74	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/23/2005	75	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/23/2005	76	Middle Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
6/23/2005	77	Middle Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/24/2005	78	Middle Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
6/25/2005	79	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/25/2005	80	Upper Keys	Reference	Inner line reef tract	Inner line reef tract
6/25/2005	81	Upper Keys	Reference	Inner line reef tract	Inner line reef tract
6/26/2005	82	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/26/2005	83	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
6/28/2005	84	Upper Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
6/28/2005	85	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
6/28/2005	86	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
6/29/2005	87	Upper Keys	Reference	Offshore patch reef	Offshore patch reef
HURRICANE DENNIS					
7/12/2005	88	Middle Keys	Reference	Patchy hard bottom	Patchy hard bottom
7/12/2005	89	Lower Keys	Reference	Patchy hard bottom	Patchy hard bottom
7/12/2005	90	Lower Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
7/13/2005	91	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
7/13/2005	92	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
7/13/2005	93	Lower Keys	Looe Key RO	Offshore patch reef	Offshore patch reef
7/14/2005	94	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
7/14/2005	95	Lower Keys	Looe Key SPA	Low-relief spur & groove	High-relief spur & groove
7/14/2005	96	Lower Keys	Looe Key RO	Offshore patch reef	Offshore patch reef
7/15/2005	97	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
7/15/2005	98	Lower Keys	Reference	Offshore patch reef	Offshore patch reef
7/16/2005	99	Lower Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
7/16/2005	100	Lower Keys	Reference	Offshore patch reef	Offshore patch reef
7/16/2005	101	Lower Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
7/18/2005	102	Lower Keys	Reference	Low-relief hard-bottom	Rocky outcrops
7/18/2005	103	Lower Keys	Western Sambo ER	Offshore patch reef	Offshore patch reef
7/18/2005	104	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
7/19/2005	105	Lower Keys	Reference	Rocky outcrops	Rocky outcrops
7/19/2005	106	Lower Keys	Western Sambo ER	Mid-channel patch reef	Mid-channel patch reef
7/19/2005	107	Lower Keys	Western Sambo ER	Offshore patch reef	Offshore patch reef
7/20/2005	108	Lower Keys	Western Sambo ER	High relief spur & groove	High relief spur & groove
7/20/2005	109	Lower Keys	Western Sambo ER	High relief spur & groove	High relief spur & groove
7/21/2005	110	Lower Keys	Reference	Low-relief spur & groove	Deep fore reef slope
7/21/2005	111	Lower Keys	Western Sambo ER	Mid-channel patch reef	Mid-channel patch reef
7/21/2005	112	Lower Keys	Western Sambo ER	Low-relief spur & groove	Low-relief spur & groove
7/22/2005	113	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
7/22/2005	114	Lower Keys	Reference	Offshore patch reef	Offshore patch reef
7/22/2005	115	Lower Keys	Western Sambo	Low-relief spur & groove	Low-relief spur & groove
7/23/2005	116	Lower Keys	Reference	Low-relief hard-bottom	Low-relief spur & groove
7/23/2005	117	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
7/23/2005	118	Lower Keys	Reference	Low-relief spur & groove	Low-relief spur & groove
8/01/2005	119	Lower Keys	Sand Key SPA	Low-relief spur & groove	Low-relief spur & groove
8/01/2005	120	Lower Keys	Reference	Mid-channel patch reef	Offshore patch reef
8/01/2005	121	Lower Keys	Reference	Mid-channel patch reef	Offshore patch reef
8/02/2005	122	Lower Keys	Sand Key SPA	Low-relief spur & groove	Low-relief spur & groove
8/02/2005	123	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/02/2005	124	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/03/2005	125	Lower Keys	Reference	Low-relief hard-bottom	Low-relief hard-bottom
8/03/2005	126	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/03/2005	127	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/04/2005	128	Lower Keys	Reference	Patchy hard bottom	Patchy hard bottom
8/04/2005	129	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/04/2005	130	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/05/2005	131	Lower Keys	Reference	Low-relief hard-bottom	Patchy hard-bottom

Table 2 continued

Date	Site #	Region	No-take zone	Waypoint habitat	Actual habitat
8/05/2005	132	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/05/2005	133	Lower Keys	Reference	Offshore patch reef	Offshore patch reef
8/06/2005	134	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/06/2005	135	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/08/2005	136	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/08/2005	137	Lower Keys	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/08/2005	138	Lower Keys	Reference	Patchy hard bottom	Patchy hard bottom
8/09/2005	139	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/09/2005	140	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/09/2005	141	Lower Keys	Reference	Patchy hard bottom	Patchy hard bottom
8/10/2005	142	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/10/2005	143	Lower Keys	Reference	Low -relief spur & groove	Rocky outcrops
8/10/2005	144	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/11/2005	145	Lower Keys	Reference	High relief spur & groove	High relief spur & groove
8/11/2005	146	Lower Keys	Reference	High relief spur & groove	High relief spur & groove
8/11/2005	147	Lower Keys	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/11/2005	148	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/12/2005	149	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/13/2005	150	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/13/2005	151	Lower Keys	Reference	High relief spur & groove	High relief spur & groove
8/13/2005	152	Lower Keys	Reference	High relief spur & groove	High relief spur & groove
8/15/2005	153	Upper Keys	Carysfort Reef SPA	Low -relief hard-bottom	Low -relief hard-bottom
8/15/2005	154	Upper Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
8/16/2005	155	Upper Keys	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/16/2005	156	Upper Keys	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/16/2005	157	Biscayne	Reference	Offshore patch reef	Offshore patch reef
8/17/2005	158	Biscayne	Reference	Low -relief spur & groove	Low -relief hard-bottom
8/19/2005	159	Biscayne	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/17/2005	160	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
8/18/2005	161	Biscayne	Reference	Low -relief spur & groove	Low -relief spur & groove
8/18/2005	162	Biscayne	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/18/2005	163	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
8/19/2005	164	Biscayne	Reference	Low -relief spur & groove	Low -relief spur & groove
8/19/2005	165	Biscayne	Reference	Offshore patch reef	Offshore patch reef
8/19/2005	166	Biscayne	Reference	Offshore patch reef	Offshore patch reef
8/21/2005	167	Biscayne	Reference	Low -relief spur & groove	Low -relief spur & groove
8/21/2005	168	Biscayne	Reference	High-relief spur & groove	High-relief spur & groove
8/21/2005	169	Biscayne	Reference	Low -relief spur & groove	Low -relief spur & groove
8/22/2005	170	Biscayne	Reference	Offshore patch reef	Offshore patch reef
8/22/2005	171	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
8/22/2005	172	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
8/23/2005	173	Biscayne	Reference	Patchy hard-bottom	Patchy hard-bottom
8/23/2005	174	Biscayne	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/23/2005	175	Biscayne	Reference	Low -relief spur & groove	Low -relief spur & groove
8/23/2005	176	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
8/24/2005	177	Biscayne	Reference	Low -relief hard-bottom	Low -relief hard-bottom
8/24/2005	178	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
HURRICANE KATRINA					
9/09/2005	179	Biscayne	Reference	Patchy hard bottom	Patchy hard bottom
9/09/2005	180	Biscayne	Reference	High relief spur & groove	High relief spur & groove
9/09/2005	181	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
9/09/2005	182	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
9/10/2005	183	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
9/10/2005	184	Biscayne	Reference	Mid-channel patch reef	Mid-channel patch reef
9/17/2005	185	Lower Keys	Looe Key SPA	High relief spur & groove	High relief spur & groove
9/17/2005	186	Lower Keys	Reference	Low -relief spur & groove	Low -relief hard-bottom
9/18/2005	187	Lower Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
HURRICANE RITA					
9/30/2005	188	Middle Keys	Reference	Low -relief spur & groove	Low -relief spur & groove
9/30/2005	189	Middle Keys	Tennessee Reef RO	Low -relief hard-bottom	Low -relief hard-bottom
9/30/2005	190	Middle Keys	Tennessee Reef RO	Low -relief hard-bottom	Low -relief hard-bottom
10/1/2005	191	Middle Keys	Reference	Low -relief spur & groove	Low -relief spur & groove
10/1/2005	192	Middle Keys	Reference	Mid-channel patch reef	Mid-channel patch reef
10/1/2005	193	Middle Keys	Reference	Low -relief spur & groove	Low -relief spur & groove
10/2/2005	194	Middle Keys	Reference	Low -relief hard-bottom	Low -relief hard-bottom
10/2/2005	195	Middle Keys	Reference	Low -relief spur & groove	Low -relief spur & groove

Table 3. Survey locations in the Florida Keys National Marine Sanctuary during May-October 2005. Sites are arranged from southwest to northeast within each habitat type. Sites within Sanctuary no-take zones are asterisked. Depth range indicates the minimum and maximum depths of transects.

Habitat type/site location	Regional sector	Latitude N	Longitude W	Min. depth (m)	Max. depth (m)
<i>Mid-channel patch reefs</i>					
North of Vestal Shoal	Lower Keys	24° 28.964'	81° 57.379'	4.8	5.4
North of Vestal Shoal	Lower Keys	24° 28.570'	81° 57.134'	4.5	4.8
North of Sand Key Channel	Lower Keys	24° 27.596'	81° 54.855'	7.8	8.7
North of Sand Key Channel	Lower Keys	24° 28.457'	81° 53.933'	5.1	8.1
North of Sand Key Channel	Lower Keys	24° 28.927'	81° 53.723'	3.9	4.2
SE of Middle Grounds	Lower Keys	24° 28.780'	81° 52.622'	7.8	9.9
North of Rock Key	Lower Keys	24° 29.103'	81° 51.348'	6.3	7.2
Western Sambo ER**	Lower Keys	24° 30.007'	81° 43.544'	6.0	7.2
Western Sambo ER**	Lower Keys	24° 30.350'	81° 42.379'	5.7	7.5
North of Middle Sambo	Lower Keys	24° 310.70'	81° 40.899'	5.7	6.0
North of E. Sambo RO	Lower Keys	24° 31.287'	81° 39.744'	3.9	5.7
North of E. Sambo RO	Lower Keys	24° 31.372'	81° 39.514'	4.5	5.1
North of E. Sambo RO	Lower Keys	24° 31.679'	81° 38.672'	4.2	5.1
North of Pelican Shoal	Lower Keys	24° 32.333'	81° 37.588'	5.4	6.6
North of Pelican Shoal	Lower Keys	24° 31.513'	81° 37.488'	6.0	7.2
North of Pelican Shoal	Lower Keys	24° 32.222'	81° 36.870'	4.8	5.1
North of Pelican Shoal	Lower Keys	24° 32.481'	81° 35.674'	4.2	6.3
West Washerwoman	Lower Keys	24° 33.364'	81° 34.990'	5.4	6.0
Inshore of American Shoal	Lower Keys	24° 32.899'	81° 31.967'	4.8	5.4
Inshore of American Shoal	Lower Keys	24° 33.863'	81° 28.279'	6.9	7.5
Inshore of Looe Key RO	Lower Keys	24° 35.064'	81° 23.656'	8.7	9.6
Due east of Marker 45	Middle Keys	24° 39.852'	81° 04.590'	4.2	4.8
West end of Marathon	Middle Keys	24° 41.132'	81° 02.709'	3.6	5.4
West end of Marathon	Middle Keys	24° 41.181'	81° 02.581'	3.6	5.4
South of Marathon	Middle Keys	24° 41.307'	81° 02.197'	3.9	4.8
South of Marathon	Middle Keys	24° 41.628'	81° 01.001'	4.8	6.0
West Turtle Shoal	Middle Keys	24° 42.090'	80° 57.873'	4.2	4.5
Marker 45	Middle Keys	24° 43.080'	80° 56.050'	5.1	7.5
Southeast of Marker 45	Middle Keys	24° 43.432'	80° 55.924'	4.8	6.0
East Washerwoman	Middle Keys	24° 43.655'	80° 55.638'	4.8	6.0
Cheeca Rocks SPA**	Middle Keys	24° 54.262'	80° 36.895'	1.8	3.0
Cheeca Rocks SPA**	Middle Keys	24° 54.249'	80° 36.780'	3.3	4.5
Tavernier Rocks	Upper Keys	25° 56.336'	80° 33.792'	3.0	3.6
Tavernier Rocks	Upper Keys	24° 56.841'	80° 33.213'	2.7	4.5
Tavernier Rocks	Upper Keys	24° 57.083'	80° 33.063'	2.7	3.3
Basin Hill Shoals	Upper Keys	25° 12.499'	80° 16.565'	2.4	3.3
Basin Hill Shoals	Upper Keys	25° 12.577'	80° 16.440'	2.1	3.9
Basin Hill Shoals	Upper Keys	25° 12.820'	80° 15.533'	1.8	3.0
Basin Hill Shoals	Upper Keys	25° 13.280'	80° 15.458'	0.9	2.1
Basin Hill Shoals	Upper Keys	25° 14.391'	80° 15.371'	2.7	3.0
North of Turtle Reef	Upper Keys	25° 18.684'	80° 13.031'	4.5	5.4
Southeast of Caesar Creek	Biscayne	25° 21.895'	80° 11.332'	3.3	4.8
SW of Pacific Reef	Biscayne	25° 20.923'	80° 10.857'	2.7	3.9
Northeast of Caesar Creek	Biscayne	25° 24.503'	80° 09.963'	3.6	5.7
Inshore of Pacific Reef	Biscayne	25° 21.047'	80° 09.920'	5.1	7.2
South of Margot Fish Shoal	Biscayne	25° 25.510'	80° 09.643'	3.3	4.8
Margot Fish Shoal	Biscayne	25° 26.727'	80° 09.255'	3.3	3.9
Inshore of Ajax Reef	Biscayne	25° 24.181'	80° 09.133'	4.8	8.1
SE of Margot Fish Shoal	Biscayne	25° 25.385'	80° 09.082'	2.1	3.0
Inshore of Long Reef	Biscayne	25° 26.091'	80° 08.148'	3.3	4.8
Northeast Bowles Bank	Biscayne	25° 31.398'	80° 08.121'	6.0	7.5
<i>Offshore patch reefs</i>					
North of Sand Key	Lower Keys	24° 28.001'	81° 52.890'	7.8	11.1
North of Sand Key	Lower Keys	24° 27.964'	81° 52.673'	7.8	9.6
West of Ship Channel	Lower Keys	24° 28.589'	81° 48.836'	8.4	8.7
Western Sambo ER**	Lower Keys	24° 29.978'	81° 42.198'	4.8	5.7
Western Sambo ER**	Lower Keys	24° 29.702'	81° 42.166'	6.9	7.8
Inshore of Eastern Sambo	Lower Keys	24° 30.091'	81° 40.255'	7.2	7.8
West of Looe Key RO	Lower Keys	24° 33.910'	81° 23.963'	5.4	7.2

Table 3 continued.

Habitat type/site location	Regional sector	Latitude N	Longitude W	Min. depth (m)	Max. depth (m)
Looe Key RO**	Lower Keys	24° 34.013'	81° 23.551'	6.0	6.6
Looe Key RO**	Lower Keys	24° 34.079'	81° 23.120'	6.3	7.2
East of Looe Key RO	Lower Keys	24° 34.130'	81° 22.883'	6.0	7.2
Inshore of Conch Reef	Upper Keys	24° 56.767'	80° 30.139'	5.4	6.0
Inshore of Pickles Reef	Upper Keys	24° 59.748'	80° 25.759'	4.2	4.5
Inside of Molasses Reef	Upper Keys	25° 01.593'	80° 23.342'	4.8	6.0
Inshore of Molasses Reef	Upper Keys	25° 01.951'	80° 23.227'	3.0	3.6
East of WB/Dry Rocks	Upper Keys	25° 02.664'	80° 22.833'	4.2	5.1
Inshore of Molasses Reef	Upper Keys	25° 01.922'	80° 22.657'	5.7	7.5
Southwest of Elbow Reef	Upper Keys	25° 09.365'	80° 17.289'	3.3	5.4
Near Watson's Reef	Upper Keys	25° 10.945'	80° 15.637'	3.3	6.6
Carysfort Reef SPA**	Upper Keys	25° 12.276'	80° 13.658'	3.3	4.5
Carysfort Reef SPA**	Upper Keys	25° 13.337'	80° 12.955'	5.1	6.3
North of Carysfort Reef	Upper Keys	25° 15.137'	80° 12.759'	4.5	5.4
North of Turtle Reef	Upper Keys	25° 18.124'	80° 11.748'	7.2	8.4
North of Turtle Reef	Upper Keys	25° 18.048'	80° 11.587'	8.7	9.0
SW of Pacific Reef	Biscayne	25° 20.703'	80° 09.797'	3.6	5.1
SW of Triumph Reef	Biscayne	25° 27.510'	80° 08.241'	3.3	4.2
SW of Triumph Reef	Biscayne	25° 27.690'	80° 07.987'	5.7	6.0
Inshore of Star Reef	Biscayne	25° 30.430'	80° 07.206'	5.1	6.0
<i>Inner line reef tract spur & groove</i>					
Little Grecian Rocks	Upper Keys	25° 07.145'	80° 18.043'	2.4	3.6
Key Largo Dry Rocks SPA**	Upper Keys	25° 07.496'	80° 17.888'	2.1	4.2
Key Largo Dry Rocks SPA**	Upper Keys	25° 07.424'	80° 17.754'	2.4	4.5
North Dry Rocks	Upper Keys	25° 07.841'	80° 17.651'	4.8	5.7
North North Dry Rocks	Upper Keys	25° 08.253'	80° 17.366'	4.8	5.4
<i>High-relief spur & groove</i>					
Western Sambo ER**	Lower Keys	24° 28.768'	81° 42.885'	1.5	3.6
Western Sambo ER**	Lower Keys	24° 28.831'	81° 42.724'	1.8	4.2
Middle Sambo	Lower Keys	24° 29.310'	81° 40.504'	2.1	4.5
Pelican Shoal	Lower Keys	24° 30.044'	81° 37.717'	1.2	4.2
American Shoal	Lower Keys	24° 31.344'	81° 31.344'	5.1	6.6
American Shoal	Lower Keys	24° 31.355'	81° 31.242'	4.8	5.7
Looe Key SPA**	Lower Keys	24° 32.718'	81° 24.620'	3.3	5.7
Looe Key SPA**	Lower Keys	24° 32.758'	81° 24.345'	3.6	5.7
Sombrero Key SPA**	Middle Keys	24° 37.522'	81° 06.746'	3.9	5.7
Sombrero Reef SPA**	Middle Keys	24° 37.535'	81° 06.682'	3.0	6.6
Molasses Reef SPA**	Upper Keys	25° 00.552'	80° 22.489'	5.7	6.3
Molasses Reef SPA**	Upper Keys	25° 00.593'	80° 22.488'	3.3	4.5
Sand Island	Upper Keys	25° 01.092'	80° 22.089'	3.3	5.4
Sand Island	Upper Keys	25° 01.119'	80° 22.053'	4.2	5.4
South of S. Carysfort	Upper Keys	25° 11.769'	80° 13.651'	3.9	5.7
South Carysfort Reef SPA**	Upper Keys	25° 12.429'	80° 13.247'	2.4	4.5
Carysfort Reef SPA**	Upper Keys	25° 13.372'	80° 12.564'	3.0	4.5
Ajax Reef	Biscayne	25° 24.595'	80° 07.718'	4.2	5.1
Fowey Rocks	Biscayne	25° 35.596'	80° 05.777'	5.7	7.2
<i>Low-relief hard-bottom (< 6 m)</i>					
East of Eastern Sambo RO	Lower Keys	24° 29.765'	81° 38.729'	5.1	6.0
Maryland Shoal	Lower Keys	24° 31.463'	81° 34.453'	5.1	5.7
Northeast of Alligator Light	Middle Keys	24° 52.795'	80° 35.553'	4.5	4.8
Conch Reef SPA**	Middle Keys	24° 57.119'	80° 27.572'	4.5	5.1
Conch Reef SPA**	Middle Keys	24° 57.371'	80° 27.442'	5.1	6.3
Pickles Reef P4	Upper Keys	24° 59.497'	80° 24.526'	4.8	6.3
Molasses Reef SPA**	Upper Keys	25° 00.941'	80° 22.384'	4.5	4.8
French Reef SPA**	Upper Keys	25° 02.102'	80° 21.054'	3.3	3.6
Northeast of Marker 8	Upper Keys	25° 05.048'	80° 19.300'	5.1	5.4
SW of Watson's Reef	Upper Keys	25° 10.555'	80° 15.970'	2.7	3.0
SW of Watson's Reef	Upper Keys	25° 10.987'	80° 15.851'	3.0	3.6
Carysfort Reef SPA	Upper Keys	25° 13.821'	80° 12.638'	5.7	6.0
SW of Pacific Reef	Biscayne	25° 19.927'	80° 10.889'	3.3	4.2
Inshore of Pacific Reef	Biscayne	25° 21.691'	80° 09.244'	5.7	6.0
Long Reef	Biscayne	25° 25.431'	80° 07.538'	3.0	3.6

Table 3 continued

Habitat type/site location	Regional sector	Latitude N	Longitude W	Min. depth (m)	Max. depth (m)
<i>Low-relief spur & groove (< 6 m)</i>					
Coffins Patch	Middle Keys	24° 41.756'	80° 56.176'	4.5	5.1
Triumph Reef	Biscayne	25° 28.598'	80° 06.684'	4.5	5.4
Fowey Rocks	Biscayne	25° 35.319'	80° 05.755'	2.7	3.9
<i>Low-relief hard-bottom (6-13 m)</i>					
Vestal Shoal	Lower Keys	24° 27.047'	81° 59.001'	9.3	9.6
West of Maryland Shoal	Lower Keys	24° 32.866'	81° 26.843'	6.6	6.9
West of Looe Key	Lower Keys	24° 32.397'	81° 26.574'	7.5	8.4
East of American Shoal	Lower Keys	24° 32.382'	81° 26.530'	8.7	9.3
Big Pine Shoal	Lower Keys	24° 34.075'	81° 195.10'	6.9	6.9
East of Sombrero Reef	Middle Keys	24° 38.791'	81° 03.761'	6.6	6.9
SW of Tennessee Light	Middle Keys	24° 43.342'	80° 50.336'	7.2	7.2
Tennessee Reef RO**	Middle Keys	24° 45.963'	80° 45.219'	7.2	7.8
Tennessee Reef RO**	Middle Keys	24° 46.051'	80° 45.003'	6.9	7.5
Northeast of Alligator Light	Middle Keys	24° 53.277'	80° 33.807'	6.0	7.2
North of Davis Reef	Upper Keys	24° 56.511'	80° 29.697'	7.5	8.1
North of Molasses Reef	Upper Keys	25° 01.376'	80° 21.916'	7.8	8.4
North of French Reef SPA	Upper Keys	25° 02.332'	80° 20.712'	6.9	8.1
North of Dixie Shoal	Upper Keys	25° 05.433'	80° 19.109'	6.3	6.6
South Carysfort Reef SPA**	Upper Keys	25° 12.624'	80° 12.996'	7.5	8.4
Carysfort Reef SPA**	Upper Keys	25° 13.289'	80° 12.562'	7.5	9.6
North of Carysfort Reef	Upper Keys	25° 14.119'	80° 12.165'	6.9	7.8
North of Carysfort Reef	Upper Keys	25° 16.571'	80° 11.912'	7.5	8.4
NE of Turtle Reef	Upper Keys	25° 17.605'	80° 10.518'	9.3	9.6
Near SE BNP Boundary	Upper Keys	25° 18.238'	80° 09.990'	8.1	9.0
Near SE BNP Boundary	Upper Keys	25° 18.542'	80° 09.549'	11.4	11.4
Near SE BNP Boundary	Biscayne	25° 19.234'	80° 09.291'	10.5	11.1
<i>Patchy hard-bottom (6-13 m)</i>					
Satan Shoal	Lower Keys	24° 26.786'	81° 57.774'	9.0	9.6
North of Sand Key Channel	Lower Keys	24° 27.282'	81° 55.143'	9.3	10.2
East of Rock Key	Lower Keys	24° 28.126'	81° 49.330'	8.4	8.7
West of Pelican Shoal	Lower Keys	24° 29.794'	81° 39.073'	8.4	9.0
Big Pine Shoal	Lower Keys	24° 34.695'	81° 18.483'	8.4	9.3
South of Money Key	Middle Keys	24° 36.242'	81° 11.433'	10.5	10.8
East of Sombrero Light	Middle Keys	24° 38.114'	81° 05.738'	5.7	6.0
Northeast of Alligator Light	Middle Keys	24° 53.087'	80° 34.543'	6.0	6.3
Near Grecian Rocks	Upper Keys	25° 05.914'	80° 17.957'	8.7	9.6
Inshore of Long Reef	Biscayne	25° 26.945'	80° 07.260'	6.9	7.8
Inshore of Star Reef	Biscayne	25° 30.679'	80° 06.977'	7.2	7.5
<i>Low-relief spur & groove (6-13 m)</i>					
Sand Key SPA**	Lower Keys	24° 27.085'	81° 52.657'	9.0	10.2
Sand Key SPA**	Lower Keys	24° 27.129'	81° 52.445'	9.9	11.4
Key West Ship Channel	Lower Keys	24° 27.868'	81° 49.310'	11.1	12.0
Marker 32	Lower Keys	24° 28.444'	81° 44.344'	10.5	10.8
Western Sambo ER**	Lower Keys	24° 28.670'	81° 43.323'	9.3	10.5
NW of Western Sambo	Lower Keys	24° 28.743'	81° 43.130'	8.4	8.7
East of Looe Key	Lower Keys	24° 33.097'	81° 22.815'	9.6	10.5
SW of Tennessee Light	Middle Keys	24° 43.571'	80° 49.505'	9.9	10.5
East of Alligator Light	Middle Keys	24° 51.587'	80° 35.799'	11.1	11.4
Crocker Reef	Middle Keys	24° 54.459'	80° 31.575'	8.7	9.3
Davis Reef SPA**	Middle Keys	24° 55.261'	80° 30.325'	9.9	10.2
Davis Reef SPA**	Middle Keys	24° 55.433'	80° 30.114'	10.2	11.1
South of Elbow Reef	Upper Keys	25° 07.426'	80° 16.443'	8.7	11.7
Carysfort Reef SPA**	Upper Keys	25° 13.363'	80° 12.403'	7.8	10.8
North of Carysfort Reef	Upper Keys	25° 16.107'	80° 11.053'	10.8	11.4
Fowey Rocks	Biscayne	25° 35.902'	80° 05.654'	9.0	10.2
<i>Fore reef slope (15-19 m)</i>					
Key West Ship Channel	Lower Keys	24° 28.035'	81° 49.942'	15.6	19.2
West of Ship Channel	Lower Keys	24° 27.953'	81° 48.656'	16.8	19.2
Key West Ship Channel	Lower Keys	24° 28.017'	81° 46.824'	16.8	19.2
West of Marker 32	Lower Keys	24° 28.238'	81° 44.881'	15.0	18.9
East of American Shoal	Lower Keys	24° 30.829'	81° 32.589'	15.9	17.4

Table 3 continued

Habitat type/site location	Regional sector	Latitude N	Longitude W	Min. depth (m)	Max. depth (m)
East of Looe Key	Lower Keys	24° 33.035'	81° 22.539'	15.6	18.9
Offshore of Sombrero Reef	Middle Keys	24° 37.373'	81° 06.492'	15.0	15.9
Northeast of Alligator Light	Middle Keys	24° 52.211'	80° 34.552'	16.5	18.0
Northeast of Alligator Light	Middle Keys	24° 52.503'	80° 34.138'	15.0	18.6
Offshore of Little Conch	Middle Keys	24° 56.211'	80° 28.431'	16.2	17.7
Offshore of Pickles Reef	Upper Keys	24° 58.796'	80° 25.055'	15.6	16.2
Offshore of Pickles Reef	Upper Keys	24° 58.985'	80° 24.881'	15.0	15.9
Offshore of Molasses SPA	Upper Keys	25° 00.248'	80° 22.792'	16.5	17.4
Northeast of Elbow Reef SPA	Upper Keys	25° 09.184'	80° 14.775'	17.4	18.3
Near SE BNP Boundary	Biscayne	25° 19.240'	80° 09.178'	15.9	18.3
Northeast of Triumph Reef	Biscayne	25° 29.670'	80° 06.219'	16.5	17.4
<i>Deeper fore reef slope (22-27 m)</i>					
Key West Ship Channel	Lower Keys	24° 27.977'	81° 47.192'	25.2	26.4
Offshore of Pelican Shoal	Lower Keys	24° 30.253'	81° 34.918'	23.7	25.2
West of American Shoal	Lower Keys	24° 30.664'	81° 32.509'	25.2	26.7
SW of Alligator Light	Middle Keys	24° 49.819'	80° 38.377'	22.5	26.4
Offshore of Little Conch	Middle Keys	24° 56.158'	80° 28.355'	21.6	24.9
Offshore of Little Conch	Middle Keys	24° 56.193'	80° 28.218'	21.9	27.0
Offshore of Dry Rocks	Upper Keys	25° 06.344'	80° 17.159'	21.9	25.5
Offshore of Dry Rocks	Upper Keys	25° 07.030'	80° 16.523'	22.5	26.4
Offshore of Elbow Reef	Upper Keys	25° 08.384'	80° 15.345'	22.5	26.7

Table 4. SCUBA diving effort in the Florida Keys during May-October 2005.

Diver	Affiliation	No. of dives	Depth range (ft.)	Bottom time
<i>Benthic surveys</i>				
Mark Chiappone	CMS/UNCW	213	2.4-27.0	335 hr 07 min
Steven Miller	CMS/UNCW	26	3.3-8.4	41 hr 38 min
Leanne Rutten	CMS/UNCW	211	2.4-27.0	345 hr 34 min
Burton Shank	Boston University	185	2.4-27.3	292 hr 13 min
Dione Swanson	RSMAS/UM	17	3.0-8.4	29 hr 10 min
Subtotal		652	2.4-27.3	1,043 hr 42 min
<i>Reef fish surveys</i>				
Neil Baertlein	NOAA/NMFS	21	4.5-28.5	23 hr 35 min
Mike Judge	NOAA/NMFS	38	4.2-27.3	37 hr 30 min
Dave McClellan	NOAA/NMFS	3	4.5-18.3	2 hr 01 min
Steve Smith	RSMAS/UM	4	6.9-26.7	3 hr 45 min
Subtotal		66	4.2-28.5	66 hr 51 min
Total all divers		718	2.4-28.5	1,110 hr 33 min

Table 5. Variables measured in Florida Keys hard-bottom and coral reef habitats during 2005.

Variable	Method	Factors assessed
Percent cover	Point-intercept along 4 transects	Percent cover, relative abundance
Species richness	1 m x 15 m swaths along 4 transects	Species density, total species
Coral density and size	1 m x 10 m swaths along 2 transects	Density, size, condition
Juvenile coral density	Twenty 0.68 m x 0.45 m quadrats	Species composition and density
Gorgonian density and height	1 m x 8 m swaths along 2 transects	Density, height distribution
Urchin density and size	1 m x 15 m swaths along 4 transects	Density, test diameter
Marine ornamentals	1 m x 15 m swaths along 4 transects	Density
Sponge density and volume	1 m x 8 m swaths along 4 transects	Density, size (volume)
<i>Cyphoma</i> density and prey	1 m x 15 m swaths along 4 transects	Density, prey utilization
Topography	0.4 m x 25 m swaths along 4 transects	Maximum relief, substratum slope

Table 6. Mean percent coverage of fire coral (*Millepora* spp.), scleractinian corals, the colonial zoanthid *Palythoa mammilosa*, and sponges. Sites asterisked are within Sanctuary no-take zones. Data are based upon 100 points surveyed along each of four 15-m transects per site.

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
<i>Mid-channel patch reefs</i>				
North of Vestal Shoal	0.5	10.5	17.5	14.8
North of Vestal Shoal	0.0	9.8	4.0	13.0
North of Sand Key Channel	0.5	12.3	1.3	7.3
North of Sand Key Channel	0.3	15.8	1.8	9.3
North of Sand Key Channel	0.0	1.8	0.0	5.5
SE of Middle Grounds	0.5	12.8	0.5	8.5
North of Rock Key	0.3	15.5	0.5	7.8
Western Sambo ER**	1.3	6.5	6.3	12.3
Western Sambo ER**	0.5	13.8	1.5	13.3
North of Middle Sambo	0.0	21.8	0.0	10.3
North of E. Sambo RO	0.8	18.3	2.3	13.8
North of E. Sambo RO	0.0	10.3	8.3	8.3
North of E. Sambo RO	0.0	6.8	0.0	11.5
North of Pelican Shoal	0.5	24.3	0.0	10.5
North of Pelican Shoal	0.5	25.8	1.3	14.0
North of Pelican Shoal	0.5	19.0	1.5	8.0
North of Pelican Shoal	0.0	16.8	20.0	11.3
West Washerwoman	0.3	32.5	0.0	5.8
Inshore of American Shoal	0.0	5.8	3.0	13.0
Inshore of American Shoal	0.5	22.0	0.0	8.0
Inshore of Looe Key RO	0.3	10.5	0.3	10.3
Due east of Marker 45	0.0	19.3	12.5	6.0
West end of Marathon	0.5	13.8	5.3	7.5
West end of Marathon	0.3	24.8	0.0	5.0
South of Marathon	0.5	42.8	5.3	3.8
South of Marathon	0.0	33.5	6.5	11.0
West Turtle Shoal	0.0	12.5	2.5	13.8
Marker 45	0.3	30.0	15.0	7.3
Southeast of Marker 45	0.3	36.8	16.5	6.8
East Washerwoman	0.0	29.0	24.3	10.8
Cheeca Rocks SPA**	0.5	31.3	0.0	1.8
Cheeca Rocks SPA**	0.3	12.5	0.0	0.5
Tavernier Rocks	1.3	10.3	0.0	0.5
Tavernier Rocks	0.5	32.3	0.0	0.8
Tavernier Rocks	0.0	17.3	0.0	0.0
Basin Hill Shoals	0.3	16.8	0.0	4.5
Basin Hill Shoals	0.5	14.8	0.0	4.5
Basin Hill Shoals	0.5	8.0	0.0	2.5
Basin Hill Shoals	0.3	12.0	0.0	6.3
Basin Hill Shoals	0.8	15.8	0.0	4.8
North of Turtle Reef	1.3	7.8	0.0	8.3
Southeast of Caesar Creek	0.0	12.5	0.0	6.3
SW of Pacific Reef	2.5	6.3	1.5	3.0
Northeast of Caesar Creek	0.8	8.0	1.5	5.3
Inshore of Pacific Reef	0.3	4.8	1.0	4.8
South of Margot Fish Shoal	0.8	6.8	0.0	9.3
Margot Fish Shoal	0.3	2.8	0.0	6.8
Inshore of Ajax Reef	1.3	6.3	0.3	7.0
SE of Margot Fish Shoal	0.3	8.8	0.0	5.0
Inshore of Long Reef	1.0	4.5	1.3	3.3
Northeast Bowles Bank	0.0	10.8	2.0	5.3
Habitat stratum mean (1 SD)	0.4 (0.5)	15.8 (9.6)	3.2 (5.8)	7.4 (3.9)
<i>Offshore patch reefs</i>				
North of Sand Key	0.0	15.3	0.0	8.0
North of Sand Key	0.8	11.0	0.0	8.5
West of Ship Channel	1.0	19.3	0.0	13.5
Western Sambo ER**	0.0	19.5	15.0	6.3
Western Sambo ER**	0.5	10.5	1.3	5.3
Inshore of Eastern Sambo	0.8	10.8	1.8	9.0
West of Looe Key RO	0.3	7.8	10.5	16.8

Table 6 continued

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
Looe Key RO**	0.0	10.3	8.8	16.0
Looe Key RO**	0.0	22.5	8.3	8.0
East of Looe Key RO	0.0	17.0	17.3	11.3
Inshore of Conch Reef	0.3	10.3	0.8	6.0
Inshore of Pickles Reef	0.3	5.3	0.0	6.0
Inside of Molasses Reef	1.3	2.3	0.0	3.3
Inshore of Molasses Reef	0.0	8.8	0.8	6.8
East of WB/Dry Rocks	0.8	6.3	0.5	4.0
Inshore of Molasses Reef	0.3	5.8	0.0	9.3
Southwest of Elbow Reef	1.3	3.3	7.0	6.3
Near Watson's Reef	1.0	6.8	0.5	1.0
Carysfort Reef SPA**	0.5	1.0	0.8	4.3
Carysfort Reef SPA**	0.0	2.3	0.5	4.8
North of Carysfort Reef	0.0	4.5	0.3	3.5
North of Turtle Reef	0.5	3.0	1.0	11.5
North of Turtle Reef	1.0	8.5	1.5	19.5
SW of Pacific Reef	1.3	3.8	3.8	1.5
SW of Triumph Reef	0.5	2.0	1.8	7.3
SW of Triumph Reef	0.0	0.5	0.0	3.0
Inshore of Star Reef	0.3	0.3	3.8	2.3
Habitat stratum mean (1 SD)	0.5 (0.4)	8.1 (6.2)	3.2 (4.8)	7.5 (4.7)
<i>Inner line reef tract spur & groove</i>				
Little Grecian Rocks	0.3	9.0	6.8	1.0
Key Largo Dry Rocks SPA**	0.5	5.5	4.3	1.8
Key Largo Dry Rocks SPA**	2.3	5.0	0.8	1.3
North Dry Rocks	0.3	6.0	7.0	6.0
North North Dry Rocks	0.3	6.0	5.0	6.0
Habitat stratum mean (1 SD)	0.7 (0.9)	6.3 (1.6)	4.8 (2.5)	3.2 (2.6)
<i>High-relief spur & groove</i>				
Western Sambo ER**	0.3	5.3	1.8	0.8
Western Sambo ER**	0.3	5.8	2.3	0.3
Middle Sambo	0.3	7.0	2.8	0.0
Pelican Shoal	0.0	0.5	6.8	1.3
American Shoal	0.0	2.5	10.5	5.3
American Shoal	0.3	1.0	7.5	4.0
Looe Key SPA**	0.3	4.5	11.8	0.8
Looe Key SPA**	0.0	4.5	18.3	2.3
Sombrero Key SPA**	0.0	4.5	26.5	2.0
Sombrero Reef SPA**	0.0	8.0	14.0	2.3
Molasses Reef SPA**	1.3	4.8	2.3	3.3
Molasses Reef SPA**	3.5	3.0	7.3	3.0
Sand Island	1.8	3.8	3.0	1.5
Sand Island	6.0	1.8	3.8	1.8
South of S. Carysfort	0.5	0.5	2.5	2.5
South Carysfort Reef SPA**	2.5	11.3	5.5	0.0
Carysfort Reef SPA**	0.8	6.5	1.8	1.0
Ajax Reef	1.8	1.0	4.8	1.0
Fowey Rocks	0.5	1.3	3.3	4.0
Habitat stratum mean (1 SD)	1.0 (1.5)	4.1 (2.9)	7.2 (6.6)	1.9 (1.5)
<i>Low-relief hard-bottom (< 6 m)</i>				
East of Eastern Sambo RO	0.5	1.0	0.5	1.0
Maryland Shoal	0.5	2.3	0.5	5.5
Northeast of Alligator Light	0.5	1.0	0.3	8.0
Conch Reef SPA**	1.0	0.5	2.0	2.3
Conch Reef SPA**	0.5	0.3	1.8	1.0
Pickles Reef P4	0.3	1.3	0.0	1.8
Molasses Reef SPA**	1.0	0.8	1.0	3.3
French Reef SPA**	0.8	0.0	0.0	0.0
Northeast of Marker 8	0.3	1.3	0.5	2.5
SW of Watson's Reef	0.5	2.5	0.0	1.5
SW of Watson's Reef	0.3	2.8	0.0	3.0
Carysfort Reef SPA	0.3	0.5	0.0	1.0
SW of Pacific Reef	1.3	1.0	0.5	4.5
Inshore of Pacific Reef	0.5	0.8	2.8	7.8

Table 6 continued

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
Long Reef	0.3	0.5	0.3	0.0
Habitat stratum mean (1 SD)	0.6 (0.3)	1.1 (0.8)	0.7 (0.8)	2.9 (2.5)
<i>Low-relief spur & groove (< 6 m)</i>				
Coffins Patch	0.5	1.0	0.0	3.8
Triumph Reef	0.5	1.3	1.8	0.8
Fowey Rocks	2.0	1.3	1.5	1.3
Habitat stratum mean (1 SD)	1.0 (0.9)	1.2 (0.1)	1.1 (0.9)	1.9 (1.6)
<i>Low-relief hard-bottom (6-13 m)</i>				
Vestal Shoal	0.3	3.5	0.0	5.0
West of Maryland Shoal	0.0	1.5	0.0	7.0
West of Looe Key	0.3	0.3	0.5	1.8
East of American Shoal	0.3	1.8	0.0	3.5
Big Pine Shoal	1.0	1.8	0.5	5.5
East of Sombrero Reef	0.3	5.5	0.8	6.3
SW of Tennessee Light	0.8	0.5	0.3	7.8
Tennessee Reef RO**	0.0	3.5	0.0	4.3
Tennessee Reef RO**	0.8	1.8	0.5	10.0
Northeast of Alligator Light	1.0	0.8	1.5	5.0
North of Davis Reef	0.5	9.3	0.5	8.5
North of Molasses Reef	0.5	12.5	1.3	10.3
North of French Reef SPA	0.0	2.0	0.3	0.5
North of Dixie Shoal	0.0	0.5	0.3	4.8
South Carysfort Reef SPA**	0.5	1.5	0.0	1.3
Carysfort Reef SPA**	1.0	1.3	0.0	0.3
North of Carysfort Reef	1.0	1.0	1.0	2.3
North of Carysfort Reef	0.5	0.8	1.8	10.8
NE of Turtle Reef	0.0	1.8	0.0	4.3
Near SE BNP Boundary	0.5	0.5	1.3	5.8
Near SE BNP Boundary	0.8	0.3	0.0	7.8
Near SE BNP Boundary	0.3	1.5	0.0	16.8
Star Reef	0.0	0.5	2.3	1.8
Habitat stratum mean (1 SD)	0.4 (0.4)	2.3 (3.0)	0.5 (0.7)	5.7 (3.9)
<i>Patchy hard-bottom (6-13 m)</i>				
Satan Shoal	0.3	1.3	0.0	2.3
North of Sand Key Channel	0.0	1.8	0.0	4.8
East of Rock Key	0.0	1.3	0.0	3.5
West of Pelican Shoal	0.0	0.3	0.0	1.0
Big Pine Shoal	0.5	4.0	0.8	9.3
South of Money Key	0.0	1.0	0.0	4.8
East of Sombrero Light	0.0	0.5	0.0	4.5
Northeast of Alligator Light	0.8	0.8	0.0	3.5
Near Grecian Rocks	0.5	1.3	0.0	5.5
Inshore of Long Reef	0.5	0.8	0.0	1.3
Inshore of Star Reef	0.3	0.5	0.3	6.5
Habitat stratum mean (1 SD)	0.3 (0.3)	1.2 (1.0)	0.1 (0.2)	4.3 (2.4)
<i>Low-relief spur & groove (6-13 m)</i>				
Sand Key SPA**	1.0	2.0	0.0	2.0
Sand Key SPA**	0.3	2.3	0.0	2.3
Key West Ship Channel	0.3	20.8	0.3	6.0
Marker 32	0.0	0.5	0.3	2.8
Western Sambo ER**	0.8	6.3	0.0	3.3
NW of Western Sambo	0.3	0.8	0.0	4.0
East of Looe Key	0.3	2.0	0.3	5.8
SW of Tennessee Light	0.5	0.5	0.0	8.3
East of Alligator Light	1.3	1.3	0.5	5.8
Crocker Reef	0.0	1.0	0.0	4.5
Davis Reef SPA**	1.0	0.8	0.0	1.8
Davis Reef SPA**	0.0	1.5	0.0	4.3
South of Elbow Reef	0.3	1.3	0.8	2.0
Carysfort Reef SPA**	0.0	0.5	0.0	3.3
North of Carysfort Reef	1.8	0.5	0.0	5.0
Fowey Rocks	0.5	2.3	2.0	2.3
Habitat stratum mean (1 SD)	0.5 (0.5)	2.8 (5.0)	0.3 (0.5)	3.9 (1.8)

Table 6 continued

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
<i>Fore reef slope (15-19 m)</i>				
Key West Ship Channel	0.5	7.8	0.0	5.5
West of Ship Channel	0.5	20.5	1.8	10.0
Key West Ship Channel	0.0	10.0	0.0	4.0
West of Marker 32	0.0	2.8	0.0	5.8
East of American Shoal	0.0	10.3	0.0	4.0
East of Looe Key	0.0	0.5	0.0	4.0
Offshore of Sombrero Reef	0.5	5.8	0.0	9.3
Northeast of Alligator Light	0.3	8.0	0.0	11.5
Northeast of Alligator Light	0.5	9.3	0.0	10.3
Offshore of Little Conch	0.5	7.5	0.0	12.8
Offshore of Pickles Reef	1.0	3.3	0.0	6.8
Offshore of Pickles Reef	0.5	7.8	0.0	9.0
Offshore of Molasses SPA	1.0	4.8	0.0	14.3
Northeast of Elbow Reef SPA	0.3	2.8	0.0	11.5
Near SE BNP Boundary	0.3	2.0	0.0	10.5
Northeast of Triumph Reef	0.8	2.0	0.0	14.3
Habitat stratum mean (1 SD)	0.4 (0.3)	6.5 (4.9)	0.1 (0.4)	9.0 (3.6)
<i>Deeper fore reef slope (22-27 m)</i>				
Key West Ship Channel	0.0	7.0	0.0	1.8
Offshore of Pelican Shoal	0.3	8.8	0.0	5.0
West of American Shoal	0.0	13.0	0.0	6.0
SW of Alligator Light	0.0	11.0	0.0	11.0
Offshore of Little Conch	0.5	5.8	0.0	9.5
Offshore of Little Conch	0.3	6.8	0.0	10.0
Offshore of Dry Rocks	0.0	3.0	0.0	3.8
Offshore of Dry Rocks	0.0	3.0	0.0	14.0
Offshore of Elbow Reef	0.3	5.0	0.0	7.5
Habitat stratum mean (1 SD)	0.1 (0.2)	7.0 (3.4)	0.0 (0.0)	7.6 (3.9)

Table 7. Mean percent coverage of algal turfs, crustose coralline algae, macroalgae (*Dictyota*, *Lobophora*, *Halimeda*, etc.), and total algal cover. Sites asterisked are within Sanctuary no-take zones. Data are based upon 100 points surveyed along each of four transects per site.

Habitat type/site location	Algal turf	Crustose algae	Macroalgae	Total algae
<i>Mid-channel patch reefs</i>				
North of Vestal Shoal	42.3	1.0	1.0	44.3
North of Vestal Shoal	55.5	2.8	0.5	58.8
North of Sand Key Channel	26.3	13.0	29.0	69.8
North of Sand Key Channel	49.8	6.0	8.0	64.0
North of Sand Key Channel	69.0	1.8	11.3	82.8
SE of Middle Grounds	69.0	1.8	1.0	71.8
North of Rock Key	62.8	2.8	1.5	67.0
Western Sambo ER**	60.5	3.5	0.0	64.0
Western Sambo ER**	52.3	5.3	0.0	57.5
North of Middle Sambo	48.5	10.3	0.8	59.5
North of E. Sambo RO	49.8	1.5	0.5	54.5
North of E. Sambo RO	51.8	1.3	1.8	56.3
North of E. Sambo RO	59.5	2.5	1.0	63.3
North of Pelican Shoal	52.3	1.8	1.0	55.5
North of Pelican Shoal	48.0	2.5	0.0	50.5
North of Pelican Shoal	60.0	1.0	1.3	63.3
North of Pelican Shoal	38.0	0.3	0.5	39.0
West Washerwoman	51.5	0.3	0.5	53.0
Inshore of American Shoal	38.5	2.8	0.0	43.5
Inshore of American Shoal	52.0	2.5	1.8	56.5
Inshore of Looe Key RO	14.0	0.3	0.0	25.5
Due east of Marker 45	53.0	1.5	0.3	54.8
West end of Marathon	46.5	3.5	20.3	70.3
West end of Marathon	42.3	4.3	15.0	61.5
South of Marathon	39.3	2.0	0.3	41.5
South of Marathon	35.3	0.8	0.3	36.3
West Turtle Shoal	41.3	2.3	5.3	48.8
Marker 45	37.5	0.8	0.3	38.5
Southeast of Marker 45	34.0	1.0	0.0	35.0
East Washerwoman	23.5	3.8	0.8	28.0
Cheeca Rocks SPA**	20.8	4.5	34.8	60.0
Cheeca Rocks SPA**	26.3	7.0	52.0	86.0
Tavernier Rocks	35.3	4.0	30.0	69.3
Tavernier Rocks	32.3	1.3	25.5	59.0
Tavernier Rocks	26.0	2.8	43.3	72.0
Basin Hill Shoals	46.5	2.5	6.0	55.0
Basin Hill Shoals	33.8	0.8	11.8	46.3
Basin Hill Shoals	20.5	0.5	22.8	44.0
Basin Hill Shoals	60.5	0.5	6.8	67.8
Basin Hill Shoals	35.5	2.5	22.8	60.8
North of Turtle Reef	25.8	5.5	40.5	71.0
Southeast of Caesar Creek	33.5	2.0	20.0	55.5
SW of Pacific Reef	32.0	9.5	36.0	77.8
Northeast of Caesar Creek	39.0	7.0	13.5	60.5
Inshore of Pacific Reef	25.0	3.3	48.3	76.8
South of Margot Fish Shoal	27.5	2.5	13.5	43.8
Margot Fish Shoal	41.3	1.3	29.8	74.3
Inshore of Ajax Reef	23.3	6.5	18.5	48.5
SE of Margot Fish Shoal	56.0	5.0	17.0	78.5
Inshore of Long Reef	33.5	4.8	43.5	82.3
Northeast Bowles Bank	33.3	7.0	34.5	75.0
Habitat stratum mean (1 SD)	41.4 (13.5)	3.2 (2.7)	13.2 (15.5)	58.4 (14.3)
<i>Offshore patch reefs</i>				
North of Sand Key	69.5	2.0	0.3	72.0
North of Sand Key	66.8	3.3	5.3	75.5
West of Ship Channel	59.5	4.0	0.0	63.5
Western Sambo ER**	41.8	7.3	0.8	49.8
Western Sambo ER**	68.0	3.8	3.8	75.5
Inshore of Eastern Sambo	51.3	9.5	11.3	72.0
West of Looe Key RO	32.0	4.0	0.0	36.0
Looe Key RO**	41.3	5.0	0.3	46.5

Table 7 continued

Habitat type/site location	Algal turf	Crustose algae	Macroalgae	Total algae
Looe Key RO**	46.5	4.3	0.3	51.0
East of Looe Key RO	38.8	3.0	0.0	41.8
Inshore of Conch Reef	30.8	3.0	34.3	68.0
Inshore of Pickles Reef	21.5	4.5	50.3	76.3
Inside of Molasses Reef	60.5	4.8	6.5	71.8
Inshore of Molasses Reef	32.8	6.8	28.3	67.8
East of WB/Dry Rocks	55.0	2.8	13.8	71.5
Inshore of Molasses Reef	35.8	7.8	33.8	77.3
Southwest of Elbow Reef	43.0	6.5	20.5	70.3
Near Watson's Reef	25.3	16.8	43.3	85.3
Carysfort Reef SPA**	78.8	0.0	12.5	91.3
Carysfort Reef SPA**	51.8	4.8	24.5	81.0
North of Carysfort Reef	56.3	3.3	24.8	84.5
North of Turtle Reef	50.0	6.5	11.8	68.8
North of Turtle Reef	57.5	0.5	1.3	59.5
SW of Pacific Reef	36.0	10.0	38.8	84.8
SW of Triumph Reef	44.0	4.5	33.3	82.0
SW of Triumph Reef	58.0	1.3	14.8	76.3
Inshore of Star Reef	29.3	3.3	51.8	85.5
Habitat stratum mean (1 SD)	47.5 (14.7)	4.9 (3.4)	17.2 (16.8)	69.8 (14.2)
<i>Inner line reef tract spur & groove</i>				
Little Grecian Rocks	17.8	22.5	40.0	80.3
Key Largo Dry Rocks SPA**	50.5	8.5	26.8	85.8
Key Largo Dry Rocks SPA**	53.8	17.3	17.5	88.5
North Dry Rocks	28.0	13.8	30.0	72.0
North North Dry Rocks	22.8	19.8	36.3	79.5
Habitat stratum mean (1 SD)	34.6 (16.5)	16.4 (5.4)	30.1 (8.7)	81.2 (6.4)
<i>High-relief spur & groove</i>				
Western Sambo ER**	76.8	11.3	2.5	90.5
Western Sambo ER**	66.3	17.3	7.5	91.0
Middle Sambo	67.3	11.0	11.3	89.5
Pelican Shoal	66.3	6.0	18.0	91.0
American Shoal	21.3	9.3	41.3	72.3
American Shoal	39.8	4.0	34.0	78.0
Looe Key SPA**	60.0	9.0	4.0	73.0
Looe Key SPA**	49.5	6.8	13.0	71.5
Sombrero Key SPA**	39.3	5.3	18.3	62.8
Sombrero Reef SPA**	38.5	12.0	23.5	74.0
Molasses Reef SPA**	59.3	15.3	12.3	86.8
Molasses Reef SPA**	33.3	28.0	19.8	81.0
Sand Island	52.5	24.8	10.8	88.0
Sand Island	46.3	30.3	8.8	85.8
South of S. Carysfort	51.5	13.0	27.0	91.5
South Carysfort Reef SPA**	28.5	20.0	30.3	78.8
Carysfort Reef SPA**	49.5	14.5	22.8	86.8
Ajax Reef	64.8	10.0	10.0	84.8
Fowey Rocks	51.8	6.5	24.5	84.0
Habitat stratum mean (1 SD)	50.6 (14.7)	13.4 (7.6)	17.9 (10.5)	82.1 (8.3)
<i>Low-relief hard-bottom (< 6 m)</i>				
East of Eastern Sambo RO	88.8	0.0	6.8	95.5
Maryland Shoal	50.5	8.5	10.8	70.3
Northeast of Alligator Light	51.8	0.8	18.0	70.5
Conch Reef SPA**	50.5	11.5	28.5	90.5
Conch Reef SPA**	38.3	4.8	47.3	90.3
Pickles Reef P4	48.8	7.8	26.0	82.5
Molasses Reef SPA**	61.0	2.3	9.5	72.8
French Reef SPA**	69.5	4.3	9.8	83.5
Northeast of Marker 8	59.8	1.0	9.5	70.3
SW of Watson's Reef	59.8	0.8	12.0	72.5
SW of Watson's Reef	60.0	4.5	17.5	82.0
Carysfort Reef SPA	54.5	5.5	19.5	79.5
SW of Pacific Reef	72.3	3.8	15.0	91.0
Inshore of Pacific Reef	38.0	1.0	44.5	85.5

Table 7 continued

Habitat type/site location	Algal turf	Crustose algae	Macroalgae	Total algae
Long Reef	85.0	1.5	0.8	89.5
Habitat stratum mean (1 SD)	59.2 (14.8)	3.9 (3.4)	18.4 (13.3)	81.7 (8.7)
<i>Low-relief spur & groove (< 6 m)</i>				
Coffins Patch	38.3	1.3	5.5	45.0
Triumph Reef	59.8	8.3	24.0	92.3
Fowey Rocks	85.0	1.8	0.5	87.5
Habitat stratum mean (1 SD)	61.0 (23.4)	3.8(3.9)	10.0 (12.4)	74.9 (26.0)
<i>Low-relief hard-bottom (6-13 m)</i>				
Vestal Shoal	60.8	12.0	13.8	86.5
West of Maryland Shoal	58.0	1.3	4.0	63.3
West of Looe Key	41.0	1.3	32.3	74.5
East of American Shoal	68.5	9.8	2.8	81.0
Big Pine Shoal	74.5	0.5	1.3	76.3
East of Sombrero Reef	49.0	2.3	21.3	72.5
SW of Tennessee Light	35.3	0.8	14.8	51.8
Tennessee Reef RO**	27.0	1.8	31.0	59.8
Tennessee Reef RO**	27.8	0.3	18.0	46.0
Northeast of Alligator Light	41.0	3.5	31.3	75.8
North of Davis Reef	30.0	6.3	18.5	54.8
North of Molasses Reef	33.8	3.5	19.3	59.5
North of French Reef SPA	37.0	4.8	52.0	93.8
North of Dixie Shoal	52.8	0.0	13.3	66.0
South Carysfort Reef SPA**	60.0	0.5	32.3	94.8
Carysfort Reef SPA**	27.5	6.0	57.5	92.3
North of Carysfort Reef	38.3	7.8	30.0	75.8
North of Carysfort Reef	55.0	2.3	9.3	67.5
NE of Turtle Reef	42.8	0.0	25.5	68.3
Near SE BNP Boundary	54.3	7.5	11.5	74.3
Near SE BNP Boundary	75.8	2.8	3.3	81.8
Near SE BNP Boundary	65.8	10.0	2.0	77.8
Star Reef	51.8	7.5	32.8	92.0
Habitat stratum mean (1 SD)	48.1 (15.1)	4.0 (3.6)	20.8 (15.2)	73.3 (13.6)
<i>Patchy hard-bottom (6-13 m)</i>				
Satan Shoal	75.8	6.8	6.8	89.5
North of Sand Key Channel	59.5	12.0	19.3	90.8
East of Rock Key	56.3	5.5	3.5	65.5
West of Pelican Shoal	77.8	4.8	4.8	92.3
Big Pine Shoal	33.5	1.5	1.5	36.5
South of Money Key	37.0	1.0	1.5	39.5
East of Sombrero Light	15.0	2.0	25.8	42.8
Northeast of Alligator Light	38.8	1.3	14.0	54.0
Near Grecian Rocks	27.0	1.0	37.8	65.8
Inshore of Long Reef	44.5	4.3	29.5	78.3
Inshore of Star Reef	64.0	1.5	7.5	73.0
Habitat stratum mean (1 SD)	48.1 (20.2)	3.8 (3.4)	13.8 (12.5)	66.2 (20.8)
<i>Low-relief spur & groove (6-13 m)</i>				
Sand Key SPA**	47.8	3.3	37.0	88.3
Sand Key SPA**	50.3	6.5	32.0	88.8
Key West Ship Channel	45.8	14.5	8.8	69.0
Marker 32	64.3	13.3	3.5	81.0
Western Sambo ER**	52.5	11.0	18.8	82.3
NW of Western Sambo	62.0	8.3	3.8	74.0
East of Looe Key	66.0	3.8	5.0	74.8
SW of Tennessee Light	24.5	0.5	2.3	27.3
East of Alligator Light	51.3	0.3	11.5	63.5
Crocker Reef	86.3	0.0	2.0	88.3
Davis Reef SPA**	87.8	0.8	0.8	91.0
Davis Reef SPA**	79.3	1.8	5.8	86.8
South of Elbow Reef	54.5	9.0	23.0	86.8
Carysfort Reef SPA**	52.3	3.0	35.5	90.8
North of Carysfort Reef	52.3	3.5	19.5	76.5
Fowey Rocks	29.5	2.8	55.3	87.5
Habitat stratum mean (1 SD)	56.6 (17.6)	5.1 (4.7)	16.5 (16.1)	78.5 (16.0)

Table 7 continued

Habitat type/site location	Algal turf	Crustose algae	Macroalgae	Total algae
<i>Fore reef slope (15-19 m)</i>				
Key West Ship Channel	44.8	16.5	10.0	71.3
West of Ship Channel	44.3	15.5	0.0	59.8
Key West Ship Channel	41.3	22.8	8.0	72.0
West of Marker 32	45.5	15.5	18.3	79.3
East of American Shoal	38.8	13.3	13.0	65.0
East of Looe Key	42.8	6.0	14.8	63.5
Offshore of Sombrero Reef	32.5	3.5	22.3	58.3
Northeast of Alligator Light	32.0	16.8	24.3	73.0
Northeast of Alligator Light	34.0	14.8	23.8	72.5
Offshore of Little Conch	35.3	16.0	21.5	72.8
Offshore of Pickles Reef	25.0	10.8	41.0	77.8
Offshore of Pickles Reef	45.0	10.3	20.3	75.5
Offshore of Molasses SPA	21.3	9.5	42.0	72.8
Northeast of Elbow Reef SPA	26.5	8.8	40.8	76.5
Near SE BNP Boundary	15.5	8.0	55.0	80.3
Northeast of Triumph Reef	34.3	12.3	24.0	71.0
Habitat stratum mean (1 SD)	34.9 (9.2)	12.5 (4.8)	23.7 (14.5)	71.3 (6.5)
<i>Deeper fore reef slope (22-27 m)</i>				
Key West Ship Channel	28.0	18.3	0.0	46.3
Offshore of Pelican Shoal	41.8	27.8	0.0	69.0
West of American Shoal	31.0	18.3	0.3	49.5
SW of Alligator Light	51.3	11.3	1.8	64.5
Offshore of Little Conch	19.3	5.3	52.0	76.5
Offshore of Little Conch	8.8	11.3	48.8	69.5
Offshore of Dry Rocks	52.5	3.5	32.0	88.5
Offshore of Dry Rocks	46.3	1.0	0.0	0.0
Offshore of Elbow Reef	47.3	5.3	27.0	81.8
Habitat stratum mean (1 SD)	36.2 (15.3)	11.3 (8.7)	18.0 (22.2)	60.6 (26.6)

Table 8. Mean (1 SD) number of species per 15 m² and total species surveyed per 60 m² for stony corals (Milleporina and Scleractinia), gorgonians, and sponges. Data are based upon four 15 m² plots sampled per site. Sites marked with asterisks are within FKNMS no-take zones.

Habitat type/site location	Stony corals			Gorgonians			Sponges		
	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
<i>Mid-channel patch reefs</i>	22	13.75	2.06	22	19.50	0.58	36	25.50	2.89
North of Vestal Shoal	16	12.50	0.58	21	19.50	1.29	37	22.00	0.82
North of Vestal Shoal	26	17.00	2.16	21	19.25	0.50	41	26.25	2.50
North of Sand Key Channel	27	21.00	2.45	21	19.00	0.82	42	28.50	1.00
North of Sand Key Channel	20	12.50	2.38	24	21.00	1.63	42	28.50	1.00
North of Sand Key Channel	21	15.25	3.20	23	16.25	4.03	38	25.75	2.22
SE of Middle Grounds	25	18.50	1.29	23	20.25	1.50	40	28.50	1.73
North of Rock Key	22	15.75	2.99	22	19.75	0.50	39	28.25	0.96
Western Sambo ER**	24	17.75	2.63	22	19.25	1.26	38	26.50	2.38
Western Sambo ER**	22	14.50	1.73	22	18.00	0.82	35	24.50	1.29
North of Middle Sambo	21	15.00	0.82	21	19.00	1.41	31	22.25	1.50
North of E. Sambo RO	22	14.50	2.08	22	20.00	1.41	32	22.50	1.29
North of E. Sambo RO	19	13.75	0.96	22	19.50	1.00	27	22.00	1.83
North of E. Sambo RO	24	18.50	1.92	20	17.75	1.89	32	24.75	1.26
North of Pelican Shoal	23	16.75	1.26	22	18.00	1.83	32	23.75	2.63
North of Pelican Shoal	22	16.00	1.41	23	17.75	1.71	38	26.75	1.71
North of Pelican Shoal	23	15.75	0.50	20	16.50	1.92	32	26.25	1.26
North of Pelican Shoal	20	15.50	1.29	21	16.50	1.73	31	23.00	0.82
West Washerwoman	21	14.00	1.41	24	19.25	1.89	31	22.50	3.87
Inshore of American Shoal	22	16.25	0.96	22	16.50	1.29	35	24.00	2.45
Inshore of American Shoal	19	16.00	1.41	20	15.00	1.41	31	22.25	2.06
Inshore of Looe Key RO	22	13.75	2.06	22	19.50	0.58	36	25.50	2.89
Due east of Marker 45	21	16.00	2.58	19	15.00	1.63	26	18.25	2.06
West end of Marathon	22	15.00	1.41	18	14.25	1.26	25	15.50	0.58
West end of Marathon	22	16.00	1.83	19	13.50	1.73	24	16.75	0.96
South of Marathon	21	14.75	1.71	14	7.75	0.96	24	15.00	3.27
South of Marathon	19	12.50	2.65	17	12.50	2.08	29	21.00	1.41
West Turtle Shoal	18	13.00	1.63	19	16.50	1.29	32	23.50	1.73
Marker 45	19	13.00	1.41	15	12.25	1.89	29	21.25	2.87
Southeast of Marker 45	21	14.50	1.00	8	4.00	1.41	27	19.25	2.87
East Washerwoman	17	11.25	0.96	18	11.75	2.22	30	21.25	2.50
Cheeca Rocks SPA**	15	9.50	2.08	4	2.00	0.82	12	5.50	0.58
Cheeca Rocks SPA**	13	7.50	1.73	6	2.25	1.26	5	3.00	1.16
Tavernier Rocks	15	9.00	4.55	7	4.50	1.29	12	5.50	2.08
Tavernier Rocks	10	6.50	2.38	8	4.25	0.50	7	3.50	1.29
Tavernier Rocks	9	6.00	0.82	6	4.25	0.50	6	4.25	0.50
Basin Hill Shoals	21	14.25	2.06	15	11.50	1.00	14	10.25	1.71
Basin Hill Shoals	24	15.25	2.06	16	12.25	2.63	21	13.00	2.94
Basin Hill Shoals	17	11.00	1.41	20	17.25	0.50	15	12.25	1.26
Basin Hill Shoals	18	10.75	0.96	16	12.75	0.50	16	12.00	0.00
Basin Hill Shoals	21	16.25	0.96	15	10.50	1.00	18	12.75	0.96
North of Turtle Reef	16	10.75	0.96	20	16.00	1.41	28	17.50	3.42
Southeast of Caesar Creek	20	12.75	2.99	19	15.00	1.63	16	10.75	1.71
SW of Pacific Reef	16	11.00	1.63	20	19.50	0.58	32	21.00	3.37
Northeast of Caesar Creek	19	12.00	0.82	22	19.75	1.26	34	22.00	3.16
Inshore of Pacific Reef	20	13.25	2.06	20	17.00	1.41	49	29.50	5.07
South of Margot Fish Shoal	14	11.25	0.50	23	17.50	2.38	28	18.50	1.29
Margot Fish Shoal	18	10.75	2.06	21	20.50	0.58	33	21.50	3.11
Inshore of Ajax Reef	22	14.25	2.75	21	17.75	1.71	39	27.25	3.30
SE of Margot Fish Shoal	14	9.75	0.50	20	17.50	2.52	28	15.75	0.96
Inshore of Long Reef	17	12.25	0.50	22	18.50	1.00	40	24.25	1.26
Northeast Bowles Bank	22	15.25	0.50	20	16.75	2.06	35	21.00	2.00
Habitat stratum Mean	19.6	13.6		18.5	15.1		28.9	19.7	
Habitat stratum SD	3.7	3.0		5.1	5.2		10.1	7.1	
<i>Offshore patch reefs</i>									
North of Sand Key	29	21.00	2.58	16	10.50	2.08	45	30.25	1.71
North of Sand Key	29	20.25	2.22	21	17.00	2.16	41	29.25	4.35
West of Ship Channel	20	14.00	2.45	19	13.00	1.41	34	22.75	2.22
Western Sambo ER**	22	15.25	1.26	20	18.00	1.83	41	26.50	3.11
Western Sambo ER**	24	17.25	1.89	20	17.25	1.71	37	26.00	2.00
Inshore of Eastern Sambo	24	17.25	1.71	20	17.50	1.29	42	28.75	2.06

Table 8 continued

Habitat type/site location	Stony corals			Gorgonians			Sponges		
	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
West of Looe Key RO	19	11.50	2.52	21	17.00	2.31	35	24.75	0.50
Looe Key RO**	15	8.75	0.96	19	16.75	1.26	33	23.00	2.16
Looe Key RO**	20	14.25	2.22	22	17.25	1.71	29	19.75	1.50
East of Looe Key RO	17	11.00	2.31	19	15.50	2.38	30	20.75	2.63
Inshore of Conch Reef	19	13.50	1.92	18	14.50	1.29	40	27.50	3.32
Inshore of Pickles Reef	15	11.25	1.71	23	18.00	1.41	30	23.00	2.45
Inside of Molasses Reef	17	11.75	0.96	15	11.00	2.16	34	22.25	0.96
Inshore of Molasses Reef	14	11.00	1.83	21	17.00	2.16	31	21.25	2.06
East of WB/Dry Rocks	16	11.50	0.58	17	12.75	1.26	28	18.50	4.51
Inshore of Molasses Reef	22	15.25	3.30	17	12.75	1.50	36	24.50	2.89
Southwest of Elbow Reef	14	9.25	0.96	20	16.25	1.71	35	23.00	2.94
Near Watson's Reef	11	7.00	0.00	13	11.00	1.41	12	7.00	2.00
Carysfort Reef SPA**	9	6.00	1.83	22	16.00	2.58	33	21.75	1.50
Carysfort Reef SPA**	18	11.00	1.83	17	13.50	0.58	34	20.25	1.71
North of Carysfort Reef	17	11.25	1.26	19	16.25	2.87	34	24.00	0.82
North of Turtle Reef	18	11.75	1.71	19	15.75	1.71	36	23.50	3.11
North of Turtle Reef	16	9.50	1.73	21	15.25	2.63	29	23.00	2.83
SW of Pacific Reef	16	8.50	2.38	18	13.50	2.38	34	21.00	4.76
SW of Triumph Reef	18	10.25	0.50	22	16.75	2.06	46	27.25	4.65
SW of Triumph Reef	11	7.00	1.41	23	18.50	2.08	44	27.50	2.65
Inshore of Star Reef	11	8.00	1.41	19	16.25	1.71	33	21.75	1.89
Habitat stratum Mean	17.8	12.0		19.3	15.4		34.7	23.3	
Habitat stratum SD	5.0	3.8		2.4	2.3		6.7	4.5	
<i>Inner line reef tract spur & groove</i>									
Little Grecian Rocks	10	6.50	0.58	13	9.25	1.71	17	12.75	2.36
Key Largo Dry Rocks SPA**	11	7.25	0.50	16	11.50	0.58	24	13.75	2.50
Key Largo Dry Rocks SPA**	12	7.50	1.73	14	9.50	1.29	27	15.00	0.82
North Dry Rocks	13	7.75	0.96	18	14.50	0.58	35	22.00	0.82
North North Dry Rocks	12	7.00	0.82	16	12.25	2.22	29	20.25	3.20
Habitat stratum Mean	11.6	7.2		15.4	11.4		26.4	16.8	
Habitat stratum SD	1.1	0.5		1.9	2.2		6.6	4.1	
<i>High-relief spur & groove</i>									
Western Sambo ER**	9	6.50	1.29	11	5.25	1.26	13	7.50	1.29
Western Sambo ER**	9	6.25	0.96	10	4.75	2.22	15	8.75	2.22
Middle Sambo	11	7.00	0.82	15	8.00	1.63	16	8.75	0.96
Pelican Shoal	12	6.50	1.29	10	5.00	4.08	25	12.75	4.03
American Shoal	16	10.50	2.38	18	12.00	3.16	37	20.75	4.27
American Shoal	16	9.75	1.71	19	14.50	2.08	36	18.75	4.79
Looe Key SPA**	15	9.75	1.50	16	10.25	2.06	25	13.50	1.92
Looe Key SPA**	14	9.75	0.50	11	6.50	1.92	21	12.25	2.99
Sombrero Key SPA**	16	10.00	2.16	14	10.25	2.06	24	15.50	3.00
Sombrero Reef SPA**	15	7.75	1.89	11	8.50	1.73	24	13.50	4.04
Molasses Reef SPA**	15	8.75	0.96	12	7.50	0.58	17	10.25	2.22
Molasses Reef SPA**	7	5.25	0.50	10	6.50	2.38	15	9.25	0.50
Sand Island	15	8.25	2.75	11	6.25	1.89	24	12.75	2.50
Sand Island	10	5.25	1.26	11	5.50	2.38	20	10.75	2.50
South of S. Carysfort	10	7.25	1.26	19	12.00	2.16	30	18.00	1.41
South Carysfort Reef SPA**	12	7.25	0.96	11	8.25	1.71	9	6.75	1.71
Carysfort Reef SPA**	12	7.00	0.82	13	8.25	1.50	17	8.75	1.50
Ajax Reef	14	8.25	0.50	17	11.25	1.50	16	9.25	1.26
Fowey Rocks	15	9.75	2.06	18	11.75	1.50	36	20.00	1.63
Habitat stratum Mean	12.8	7.9		13.5	8.5		22.1	12.5	
Habitat stratum SD	2.8	1.6		3.3	2.8		8.1	4.3	
<i>Low-relief hard-bottom (< 6 m)</i>									
East of Eastern Sambo RO	17	9.50	0.58	20	16.50	0.58	32	16.75	3.30
Maryland Shoal	12	10.25	0.50	22	18.50	1.00	40	30.00	2.71
Northeast of Alligator Light	12	8.00	1.41	15	13.25	0.50	34	21.00	1.41
Conch Reef SPA**	11	7.75	0.96	16	12.25	1.26	25	16.75	1.89
Conch Reef SPA**	13	9.00	2.45	16	11.00	0.82	27	16.50	2.65
Pickles Reef P4	14	7.75	3.20	9	6.25	0.96	26	15.25	3.10
Molasses Reef SPA**	12	8.00	2.16	13	9.75	2.63	23	15.25	1.50
French Reef SPA**	8	4.75	0.96	11	7.25	1.26	13	7.00	2.16
Northeast of Marker 8	12	7.50	1.29	17	11.75	2.22	32	20.75	3.30

Table 8 continued

Habitat type/site location	Stony corals			Gorgonians			Sponges		
	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
SW of Watson's Reef	10	7.75	1.26	18	13.50	3.42	22	13.00	3.74
SW of Watson's Reef	12	6.75	2.06	19	14.25	3.50	25	13.50	1.73
Carysfort Reef SPA	9	6.25	1.26	18	11.50	1.73	30	17.25	1.71
SW of Pacific Reef	11	7.25	0.96	20	17.00	0.82	29	18.75	4.43
Inshore of Pacific Reef	13	8.50	2.08	23	17.00	2.83	29	18.75	3.30
Long Reef	9	5.75	1.50	13	8.00	2.71	11	6.25	0.96
Habitat stratum Mean	11.7	7.7		16.7	12.5		26.5	16.5	
Habitat stratum SD	2.2	1.4		4.0	3.7		7.5	5.7	
<i>Low-relief spur & groove (< 6 m)</i>									
Coffins Patch	12	8.50	1.73	16	10.75	2.22	34	20.25	2.06
Triumph Reef	13	8.00	3.16	13	9.25	2.50	23	12.25	1.71
Fowey Rocks	14	9.25	1.26	14	10.75	0.50	21	12.75	1.71
Habitat stratum Mean	13.0	8.6		14.3	10.3		26.0	15.1	
Habitat stratum SD	1.0	0.6		1.5	0.9		7.0	4.5	
<i>Low-relief hard-bottom (6-13 m)</i>									
Vestal Shoal	25	17.00	1.16	21	18.50	1.29	43	27.25	4.57
West of Maryland Shoal	11	8.00	0.82	22	16.00	1.83	34	22.00	3.74
West of Looe Key	14	10.50	2.08	21	16.50	2.38	32	17.50	1.92
East of American Shoal	17	12.50	1.00	22	16.75	1.50	36	24.00	1.16
Big Pine Shoal	16	10.75	1.50	21	17.75	1.50	26	15.25	3.20
East of Sombrero Reef	20	13.25	1.71	20	14.50	1.29	42	31.00	2.16
SW of Tennessee Light	16	10.00	2.31	14	12.25	0.96	39	24.50	1.73
Tennessee Reef RO**	17	14.25	0.50	20	12.75	1.71	44	26.75	1.26
Tennessee Reef RO**	15	10.75	1.89	20	15.00	2.58	38	27.50	1.29
Northeast of Alligator Light	19	11.50	1.29	19	14.00	2.83	43	28.00	5.89
North of Davis Reef	23	15.50	2.08	16	10.75	2.06	30	22.00	1.83
North of Molasses Reef	14	9.00	1.63	16	9.75	0.96	18	10.75	0.96
North of French Reef SPA	14	8.25	1.50	12	8.00	1.41	19	11.75	1.71
North of Dixie Shoal	10	6.75	0.50	16	12.75	1.26	31	20.00	4.08
South Carysfort Reef SPA**	12	7.50	1.73	18	14.00	0.82	28	16.50	4.73
Carysfort Reef SPA**	18	10.25	0.96	23	14.50	2.52	22	11.75	1.26
North of Carysfort Reef	15	9.75	2.50	19	14.00	0.82	27	14.75	0.96
North of Carysfort Reef	13	7.25	1.71	21	17.00	1.41	40	28.25	4.35
NE of Turtle Reef	11	8.25	0.96	23	16.25	0.50	28	22.25	2.36
Near SE BNP Boundary	11	7.75	0.96	19	13.75	2.87	41	28.50	2.08
Near SE BNP Boundary	11	7.25	1.26	18	14.50	0.58	31	22.75	1.71
Near SE BNP Boundary	13	8.50	1.73	20	15.25	0.50	34	23.50	1.92
Star Reef	14	9.50	1.73	18	11.50	1.92	35	20.50	1.92
Habitat stratum Mean	15.2	10.2		19.1	14.2		33.1	21.6	
Habitat stratum SD	3.9	2.8		2.8	2.6		7.6	6.0	
<i>Patchy hard-bottom (6-13 m)</i>									
Satan Shoal	16	10.75	2.50	21	16.75	1.26	32	19.50	3.42
North of Sand Key Channel	21	15.25	1.26	21	19.00	0.82	42	26.25	1.71
East of Rock Key	19	12.50	1.73	21	17.00	1.41	39	26.00	1.83
West of Pelican Shoal	11	7.25	0.96	19	15.25	0.96	31	18.25	2.22
Big Pine Shoal	17	12.00	1.16	20	16.75	1.71	37	22.75	3.50
South of Money Key	13	9.25	1.26	19	12.75	0.96	21	14.75	1.89
East of Sombrero Light	13	6.25	2.22	19	13.75	1.50	28	15.25	4.65
Northeast of Alligator Light	14	8.25	2.06	17	14.50	1.29	35	20.75	2.22
Near Grecian Rocks	14	9.50	1.29	17	11.25	2.36	33	20.50	2.38
Inshore of Long Reef	14	9.00	2.16	19	13.25	3.59	23	14.00	3.16
Inshore of Star Reef	12	7.50	1.73	22	18.75	1.50	38	27.00	2.94
Habitat stratum Mean	14.9	9.8		19.5	15.4		32.6	20.5	
Habitat stratum SD	3.0	2.7		1.6	2.5		6.6	4.7	
<i>Low-relief spur & groove (6-13 m)</i>									
Sand Key SPA**	18	12.75	0.50	15	11.00	3.16	29	19.75	3.59
Sand Key SPA**	17	12.25	2.06	21	18.00	1.41	32	24.50	1.73
Key West Ship Channel	25	15.75	1.50	17	13.25	2.75	38	27.00	4.24
Marker 32	13	9.50	0.58	22	19.50	2.65	38	28.25	2.87
Western Sambo ER**	24	15.25	1.71	20	17.25	1.26	41	28.75	2.75
NW of Western Sambo	15	10.25	1.26	22	19.00	1.16	39	26.50	1.29
East of Looe Key	13	9.25	1.89	23	18.00	2.16	41	25.00	1.83

Table 8 continued

Habitat type/site location	Stony corals			Gorgonians			Sponges		
	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
SW of Tennessee Light	5	2.75	0.50	12	7.50	2.65	21	10.75	2.99
East of Alligator Light	15	11.00	1.41	16	11.25	0.50	43	31.00	2.16
Crocker Reef	12	9.75	1.26	20	15.00	2.16	36	22.25	1.26
Davis Reef SPA**	14	9.75	1.50	17	12.50	1.73	38	24.50	1.73
Davis Reef SPA**	16	12.50	1.00	17	11.00	1.41	29	18.75	2.63
South of Elbow Reef	12	8.75	1.50	9	6.75	1.26	31	17.50	2.08
Carysfort Reef SPA**	12	8.75	1.71	20	15.25	3.10	27	18.00	2.94
North of Carysfort Reef	13	8.25	1.26	19	16.25	1.71	36	20.00	3.74
Fowey Rocks	16	11.00	1.83	15	11.25	1.26	39	25.75	2.99
Habitat stratum Mean	15.0	10.5		17.8	13.9		34.9	23.0	
Habitat stratum SD	4.7	3.0		3.8	4.0		6.1	5.2	
<i>Fore reef slope (15-19 m)</i>									
Key West Ship Channel	22	15.25	2.75	17	12.75	0.96	44	31.75	1.26
West of Ship Channel	18	13.25	1.50	15	10.25	2.50	41	26.75	3.78
Key West Ship Channel	20	12.25	0.96	17	12.25	1.71	44	28.75	2.50
West of Marker 32	19	13.00	1.41	10	9.75	1.26	43	29.75	2.36
East of American Shoal	20	13.00	0.82	13	9.25	2.06	32	21.75	2.63
East of Looe Key	15	9.50	1.29	10	5.75	0.50	30	22.75	1.50
Offshore of Sombrero Reef	20	13.00	1.63	16	12.50	1.92	47	33.50	1.00
Northeast of Alligator Light	19	14.00	1.63	17	10.00	1.63	44	32.50	2.52
Northeast of Alligator Light	21	15.00	2.58	15	9.25	0.96	46	31.75	2.87
Offshore of Little Conch	24	13.00	2.45	15	11.25	0.96	46	33.75	2.75
Offshore of Pickles Reef	18	11.50	1.92	12	8.25	0.50	46	30.00	2.16
Offshore of Pickles Reef	21	14.00	1.41	16	10.50	2.08	43	29.00	2.94
Offshore of Molasses SPA	16	10.25	2.50	18	13.75	3.20	42	31.00	2.00
Northeast of Elbow Reef SPA	18	10.00	0.82	16	9.25	2.36	39	26.00	0.82
Near SE BNP Boundary	14	10.00	0.82	15	10.25	0.96	43	26.75	3.69
Northeast of Triumph Reef	16	10.25	1.26	14	9.00	2.31	46	32.00	4.97
Habitat stratum Mean	18.8	12.3		14.7	10.3		42.3	29.2	
Habitat stratum SD	2.7	1.9		2.4	2.0		4.9	3.6	
<i>Deeper fore reef slope (22-27 m)</i>									
Key West Ship Channel	13	7.75	1.26	13	7.50	3.00	38	24.75	3.59
Offshore of Pelican Shoal	18	11.25	0.96	11	10.00	0.00	43	27.25	2.87
West of American Shoal	15	10.50	0.58	15	9.50	1.29	35	23.00	1.41
SW of Alligator Light	20	13.00	0.82	18	11.75	2.22	46	29.50	3.11
Offshore of Little Conch	20	12.75	2.63	10	6.75	0.96	43	29.75	1.50
Offshore of Little Conch	18	11.75	0.50	14	8.75	0.96	44	29.25	3.10
Offshore of Dry Rocks	16	10.75	2.06	10	6.25	0.96	37	23.75	2.50
Offshore of Dry Rocks	14	8.75	0.96	16	12.25	1.26	40	28.00	1.41
Offshore of Elbow Reef	14	9.75	1.71	10	6.25	0.96	35	24.50	3.32
Habitat stratum Mean	16.4	10.7		13.0	8.8		40.1	26.6	
Habitat stratum SD	2.7	1.7		3.0	2.3		4.1	2.7	

Table 9. Number measured and mean (1 SD) density (no. colonies/m²) of fire corals (*Millepora* spp.), scleractinian corals, and all stony corals. Data based upon surveys of two 10 m² strip transects per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	<i>Millepora</i> spp.			Scleractinia			Total corals		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>									
North of Vestal Shoal	38	1.90	0.57	168	8.40	0.85	206	10.30	0.28
North of Vestal Shoal	23	1.15	0.35	173	8.65	0.64	196	9.80	0.99
North of Sand Key Channel	58	2.90	0.42	182	9.10	2.26	240	12.00	2.69
North of Sand Key Channel	57	2.85	1.77	304	15.20	1.98	361	18.05	0.21
North of Sand Key Channel	19	0.95	0.07	83	4.15	0.07	102	5.10	0.00
SE of Middle Grounds	26	1.30	1.13	186	9.30	0.85	212	10.60	0.28
North of Rock Key	60	3.00	0.85	255	12.75	0.78	315	15.75	0.07
Western Sambo ER**	59	2.95	0.78	301	15.05	5.16	360	18.00	5.94
Western Sambo ER**	66	3.30	0.14	289	14.45	1.06	355	17.75	1.20
North of Middle Sambo	40	2.00	0.85	277	13.85	0.21	317	15.85	1.06
North of E. Sambo RO	55	2.75	0.21	215	10.75	0.21	270	13.50	0.42
North of E. Sambo RO	30	1.50	0.28	193	9.65	2.76	223	11.15	2.47
North of E. Sambo RO	41	2.05	1.20	214	10.70	0.99	255	12.75	2.19
North of Pelican Shoal	33	1.65	0.78	303	15.15	5.30	336	16.80	6.08
North of Pelican Shoal	26	1.30	0.99	307	15.35	2.33	333	16.65	3.32
North of Pelican Shoal	36	1.80	0.00	306	15.30	2.69	342	17.10	2.69
North of Pelican Shoal	17	0.85	0.07	193	9.65	1.91	210	10.50	1.98
West Washerwoman	24	1.20	0.42	218	10.90	4.95	242	12.10	5.37
Inshore of American Shoal	48	2.40	1.13	90	4.50	2.83	138	6.90	1.70
Inshore of American Shoal	17	0.85	0.07	205	10.25	0.49	222	11.10	0.42
Inshore of Looe Key RO	22	1.10	0.28	241	12.05	0.21	263	13.15	0.49
Due east of Marker 45	21	1.05	0.07	232	11.60	1.70	253	12.65	1.77
West end of Marathon	16	0.80	0.14	248	12.40	1.13	264	13.20	1.27
West end of Marathon	11	0.55	0.21	247	12.35	3.18	258	12.90	2.97
South of Marathon	13	0.65	0.35	205	10.25	1.34	218	10.90	0.99
South of Marathon	18	0.90	0.42	342	17.10	5.09	360	18.00	5.52
West Turtle Shoal	46	2.30	0.28	304	15.20	1.98	350	17.50	1.70
Marker 45	22	1.10	0.28	177	8.85	0.35	199	9.95	0.64
Southeast of Marker 45	11	0.55	0.21	195	9.75	1.48	206	10.30	1.70
East Washerwoman	11	0.55	0.49	218	10.90	0.85	229	11.45	1.34
Cheeca Rocks SPA**	6	0.30	0.28	157	7.85	3.75	163	8.15	4.03
Cheeca Rocks SPA**	7	0.35	0.21	31	1.55	0.21	38	1.90	0.42
Tavernier Rocks	22	1.10	0.14	63	3.15	0.64	85	4.25	0.78
Tavernier Rocks	3	0.15	0.07	57	2.85	0.35	60	3.00	0.42
Tavernier Rocks	0	0.00	0.00	70	3.50	0.14	70	3.50	0.14
Basin Hill Shoals	21	1.05	0.64	193	9.65	0.35	214	10.70	0.28
Basin Hill Shoals	23	1.15	0.35	147	7.35	0.21	170	8.50	0.57
Basin Hill Shoals	27	1.35	1.06	98	4.90	1.70	125	6.25	2.76
Basin Hill Shoals	30	1.50	0.28	165	8.25	3.18	195	9.75	3.46
Basin Hill Shoals	17	0.85	0.49	191	9.55	0.49	208	10.40	0.00
North of Turtle Reef	60	3.00	2.55	197	9.85	4.03	257	12.85	6.58
Southeast of Caesar Creek	27	1.35	0.07	191	9.55	1.06	218	10.90	1.13
SW of Pacific Reef	153	7.65	0.35	193	9.65	3.75	346	17.30	3.39
Northeast of Caesar Creek	34	1.70	0.57	115	5.75	1.20	149	7.45	0.64
Inshore of Pacific Reef	142	7.10	2.12	100	5.00	0.57	242	12.10	1.56
South of Margot Fish Shoal	70	3.50	1.27	148	7.40	0.71	218	10.90	0.57
Margot Fish Shoal	51	2.55	0.35	93	4.65	2.47	144	7.20	2.12
Inshore of Ajax Reef	62	3.10	0.28	124	6.20	0.28	186	9.30	0.00
SE of Margot Fish Shoal	46	2.30	1.56	508	25.40	0.28	554	27.70	1.84
Inshore of Long Reef	136	6.80	0.28	116	5.80	0.57	252	12.60	0.28
Northeast Bowles Bank	26	1.30	0.00	157	7.85	0.49	183	9.15	0.49
Habitat stratum Mean	1,927	3.74		9,985	8.73		11,912	12.46	
Habitat stratum SD		2.49			6.11			6.10	
<i>Offshore patch reefs</i>									
North of Sand Key	20	1.00	0.42	292	14.60	5.52	312	15.60	5.94
North of Sand Key	31	1.55	0.35	259	12.95	1.77	290	14.50	1.41
West of Ship Channel	8	0.40	0.14	152	7.60	1.41	160	8.00	1.27
Western Sambo ER**	52	2.60	0.42	202	10.10	0.28	254	12.70	0.14
Western Sambo ER**	12	0.60	0.42	299	14.95	1.48	311	15.55	1.91
Inshore of Eastern Sambo	36	1.80	0.14	276	13.80	1.27	312	15.60	1.41

Table 9 continued

Habitat type/site location	<i>Millepora</i> spp.			Scleractinia			Total corals		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	29	1.45	0.49	144	7.20	1.84	173	8.65	1.34
Looe Key RO**	36	1.80	0.57	211	10.55	1.48	247	12.35	0.92
Looe Key RO**	24	1.20	0.71	306	15.30	3.96	330	16.50	4.67
East of Looe Key RO	44	2.20	0.28	225	11.25	0.07	269	13.45	0.35
Inshore of Conch Reef	47	2.35	0.07	152	7.60	3.25	199	9.95	3.32
Inshore of Pickles Reef	43	2.15	1.34	217	10.85	2.33	260	13.00	3.68
Inside of Molasses Reef	52	2.60	0.14	93	4.65	0.35	145	7.25	0.49
Inshore of Molasses Reef	62	3.10	0.42	157	7.85	1.63	219	10.95	1.20
East of WB/Dry Rocks	34	1.70	0.00	75	3.75	0.07	109	5.45	0.07
Inshore of Molasses Reef	65	3.25	0.35	167	8.35	1.20	232	11.60	1.56
Southwest of Elbow Reef	66	3.30	2.40	116	5.80	2.12	182	9.10	4.53
Near Watson's Reef	18	0.90	1.13	47	2.35	0.78	65	3.25	1.91
Carysfort Reef SPA**	50	2.50	0.14	40	2.00	0.00	90	4.50	0.14
Carysfort Reef SPA**	37	1.85	0.35	124	6.20	1.70	161	8.05	1.34
North of Carysfort Reef	66	3.30	0.42	106	5.30	0.99	172	8.60	0.57
North of Turtle Reef	57	2.85	0.78	123	6.15	0.21	180	9.00	0.57
North of Turtle Reef	159	7.95	0.21	65	3.25	0.64	224	11.20	0.42
SW of Pacific Reef	68	3.40	0.57	108	5.40	1.84	176	8.80	2.40
SW of Triumph Reef	51	2.55	0.07	80	4.00	0.57	131	6.55	0.49
SW of Triumph Reef	83	4.15	0.21	20	1.00	0.14	103	5.15	0.07
Inshore of Star Reef	75	3.75	0.35	73	3.65	0.07	148	7.40	0.28
Habitat stratum Mean	1,325	2.45		4,129	7.65		5,454	10.10	
Habitat stratum SD		1.47			4.21			3.70	
<i>Inner line reef tract spur & groove</i>									
Little Grecian Rocks	10	0.50	0.42	124	6.20	1.56	134	6.70	1.13
Key Largo Dry Rocks SPA**	18	0.90	0.57	89	4.45	2.33	107	5.35	1.77
Key Largo Dry Rocks SPA**	13	0.65	0.07	82	4.10	0.14	95	4.75	0.21
North Dry Rocks	119	5.95	1.48	80	4.00	0.14	199	9.95	1.63
North North Dry Rocks	49	2.45	1.34	61	3.05	1.06	110	5.50	2.40
Habitat stratum Mean	209	2.09		436	4.36		645	6.45	
Habitat stratum SD		2.29			1.15			2.08	
<i>High-relief spur & groove</i>									
Western Sambo ER**	4	0.20	0.00	325	16.25	9.83	329	16.45	9.83
Western Sambo ER**	13	0.65	0.35	180	9.00	4.38	193	9.65	4.74
Middle Sambo	2	0.10	0.14	194	9.70	0.57	196	9.80	0.71
Pelican Shoal	1	0.05	0.07	32	1.60	0.28	33	1.65	0.21
American Shoal	22	1.10	0.28	56	2.80	2.26	78	3.90	1.98
American Shoal	13	0.65	0.35	29	1.45	0.35	42	2.10	0.00
Looe Key SPA**	14	0.70	0.00	64	3.20	2.12	78	3.90	2.12
Looe Key SPA**	3	0.15	0.21	56	2.80	1.84	59	2.95	2.05
Sombrero Key SPA**	8	0.40	0.28	86	4.30	0.42	94	4.70	0.71
Sombrero Reef SPA**	13	0.65	0.35	128	6.40	0.42	141	7.05	0.78
Molasses Reef SPA**	129	6.45	2.47	72	3.60	0.14	201	10.05	2.62
Molasses Reef SPA**	51	2.55	0.21	82	4.10	1.27	133	6.65	1.06
Sand Island	36	1.80	0.99	53	2.65	0.92	89	4.45	1.91
Sand Island	48	2.40	0.42	71	3.55	0.64	119	5.95	0.21
South of S. Carysfort	58	2.90	2.83	27	1.35	0.07	85	4.25	2.76
South Carysfort Reef SPA**	36	1.80	1.27	193	9.65	2.90	229	11.45	4.17
Carysfort Reef SPA**	37	1.85	0.92	94	4.70	0.99	131	6.55	1.91
Ajax Reef	72	3.60	1.41	32	1.60	0.14	104	5.20	1.27
Fowey Rocks	23	1.15	0.78	68	3.40	0.00	91	4.55	0.78
Habitat stratum Mean	583	1.53		1,842	4.85		2,425	6.38	
Habitat stratum SD		1.58			3.82			3.68	
<i>Low-relief hard-bottom (< 6 m)</i>									
East of Eastern Sambo RO	33	1.65	0.49	27	1.35	0.64	60	3.00	0.14
Maryland Shoal	36	1.80	0.28	157	7.85	1.77	193	9.65	2.05
Northeast of Alligator Light	113	5.65	1.34	42	2.10	0.71	155	7.75	2.05
Conch Reef SPA**	53	2.65	0.92	27	1.35	0.07	80	4.00	0.99
Conch Reef SPA**	23	1.15	0.64	35	1.75	0.35	58	2.90	0.28
Pickles Reef P4	36	1.80	0.14	54	2.70	0.99	90	4.50	1.13
Molasses Reef SPA**	42	2.10	0.14	55	2.75	1.48	97	4.85	1.34
French Reef SPA**	47	2.35	1.48	16	0.80	0.28	63	3.15	1.20
Northeast of Marker 8	32	1.60	0.28	23	1.15	0.21	55	2.75	0.49

Table 9 continued

Habitat type/site location	Millepora spp.			Scleractinia			Total corals		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	26	1.30	1.13	36	1.80	1.41	62	3.10	2.55
SW of Watson's Reef	28	1.40	0.28	38	1.90	0.14	66	3.30	0.42
Carysfort Reef SPA	26	1.30	0.14	35	1.75	0.49	61	3.05	0.64
SW of Pacific Reef	75	3.75	1.77	25	1.25	0.78	100	5.00	2.55
Inshore of Pacific Reef	100	5.00	0.42	61	3.05	0.21	161	8.05	0.21
Long Reef	31	1.55	1.06	20	1.00	0.57	51	2.55	1.63
Habitat stratum Mean	701	2.34		651	2.17		1,352	4.51	
Habitat stratum SD		1.39			1.71			2.23	
<i>Low-relief spur & groove (< 6 m)</i>									
Coffins Patch	8	0.40	0.00	40	2.00	0.71	48	2.40	0.71
Triumph Reef	22	1.10	0.00	83	4.15	0.49	105	5.25	0.49
Fowey Rocks	58	2.90	0.42	49	2.45	0.35	107	5.35	0.78
Habitat stratum Mean	88	1.47		172	2.87		260	4.33	
Habitat stratum SD		1.29			1.13			1.68	
<i>Low-relief hard-bottom (6-13 m)</i>									
Vestal Shoal	54	2.70	0.14	79	3.95	0.07	133	6.65	0.07
West of Maryland Shoal	24	1.20	0.28	36	1.80	0.28	60	3.00	0.57
West of Looe Key	40	2.00	0.71	51	2.55	0.49	91	4.55	1.20
East of American Shoal	68	3.40	0.28	85	4.25	1.20	153	7.65	1.48
Big Pine Shoal	36	1.80	0.28	52	2.60	1.27	88	4.40	0.99
East of Sombrero Reef	40	2.00	0.85	145	7.25	4.17	185	9.25	3.32
SW of Tennessee Light	53	2.65	0.49	34	1.70	0.28	87	4.35	0.78
Tennessee Reef RO**	46	2.30	0.00	150	7.50	0.42	196	9.80	0.42
Tennessee Reef RO**	96	4.80	1.13	54	2.70	0.42	150	7.50	1.56
Northeast of Alligator Light	93	4.65	0.49	58	2.90	0.14	151	7.55	0.64
North of Davis Reef	47	2.35	0.49	118	5.90	1.84	165	8.25	1.34
North of Molasses Reef	24	1.20	0.71	59	2.95	0.64	83	4.15	0.07
North of French Reef SPA	83	4.15	0.49	77	3.85	1.06	160	8.00	1.56
North of Dixie Shoal	24	1.20	0.71	21	1.05	0.78	45	2.25	1.48
South Carysfort Reef SPA**	65	3.25	2.05	37	1.85	0.35	102	5.10	1.70
Carysfort Reef SPA**	53	2.65	1.34	94	4.70	0.42	147	7.35	0.92
North of Carysfort Reef	59	2.95	0.49	89	4.45	2.47	148	7.40	2.97
North of Carysfort Reef	84	4.20	0.57	64	3.20	0.85	148	7.40	0.28
NE of Turtle Reef	76	3.80	0.85	71	3.55	0.64	147	7.35	1.48
Near SE BNP Boundary	98	4.90	0.42	55	2.75	1.20	153	7.65	1.63
Near SE BNP Boundary	95	4.75	0.35	19	0.95	0.35	114	5.70	0.71
Near SE BNP Boundary	115	5.75	2.19	25	1.25	0.78	140	7.00	2.97
Star Reef	54	2.70	0.71	59	2.95	0.21	113	5.65	0.49
Habitat stratum Mean	1,427	3.10		1,532	3.33		2,959	6.43	
Habitat stratum SD		1.32			1.77			1.95	
<i>Patchy hard-bottom (6-13 m)</i>									
Satan Shoal	54	2.70	0.57	58	2.90	0.57	112	5.60	1.13
North of Sand Key Channel	20	1.00	0.14	60	3.00	0.71	80	4.00	0.85
East of Rock Key	29	1.45	0.21	47	2.35	1.06	76	3.80	1.27
West of Pelican Shoal	9	0.45	0.35	8	0.40	0.00	17	0.85	0.35
Big Pine Shoal	42	2.10	0.42	92	4.60	0.57	134	6.70	0.14
South of Money Key	10	0.50	0.14	22	1.10	0.28	32	1.60	0.42
East of Sombrero Light	11	0.55	0.07	10	0.50	0.28	21	1.05	0.35
Northeast of Alligator Light	70	3.50	0.71	24	1.20	0.42	94	4.70	0.28
Near Grecian Rocks	45	2.25	0.78	63	3.15	1.06	108	5.40	0.28
Inshore of Long Reef	54	2.70	0.00	34	1.70	1.13	88	4.40	1.13
Inshore of Star Reef	106	5.30	0.14	24	1.20	0.42	130	6.50	0.28
Habitat stratum Mean	450	2.05		442	2.01		892	4.05	
Habitat stratum SD		1.49			1.30			2.08	
<i>Low-relief spur & groove (6-13 m)</i>									
Sand Key SPA**	54	2.70	0.99	49	2.45	0.07	103	5.15	0.92
Sand Key SPA**	73	3.65	0.78	52	2.60	0.00	125	6.25	0.78
Key West Ship Channel	30	1.50	0.71	206	10.30	0.00	236	11.80	0.71
Marker 32	52	2.60	0.14	52	2.60	0.28	104	5.20	0.14
Western Sambo ER**	88	4.40	1.70	82	4.10	0.42	170	8.50	2.12
NW of Western Sambo	27	1.35	0.21	34	1.70	0.28	61	3.05	0.07
East of Looe Key	93	4.65	0.35	65	3.25	1.63	158	7.90	1.27

Table 9 continued

Habitat type/site location	<i>Millepora</i> spp.			Scleractinia			Total corals		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	18	0.90	0.14	3	0.15	0.07	21	1.05	0.07
East of Alligator Light	129	6.45	0.35	69	3.45	0.64	198	9.90	0.28
Crocker Reef	121	6.05	0.21	42	2.10	1.13	163	8.15	0.92
Davis Reef SPA**	142	7.10	0.14	47	2.35	0.21	189	9.45	0.07
Davis Reef SPA**	100	5.00	0.42	23	1.15	1.06	123	6.15	0.64
South of Elbow Reef	38	1.90	1.84	48	2.40	0.42	86	4.30	2.26
Carysfort Reef SPA**	72	3.60	0.57	42	2.10	0.71	114	5.70	1.27
North of Carysfort Reef	50	2.50	0.71	76	3.80	0.57	126	6.30	1.27
Fowey Rocks	75	3.75	0.07	46	2.30	0.71	121	6.05	0.64
Habitat stratum Mean	1,162	3.63		936	2.93		2,098	6.56	
Habitat stratum SD		1.88			2.19			2.68	
<i>Fore reef slope (15-19 m)</i>									
Key West Ship Channel	25	1.25	0.64	206	10.30	0.14	231	11.55	0.49
West of Ship Channel	9	0.45	0.35	199	9.95	1.20	208	10.40	1.56
Key West Ship Channel	13	0.65	0.07	168	8.40	1.84	181	9.05	1.91
West of Marker 32	7	0.35	0.07	48	2.40	0.42	55	2.75	0.35
East of American Shoal	8	0.40	0.14	138	6.90	5.37	146	7.30	5.52
East of Looe Key	8	0.40	0.14	18	0.90	0.14	26	1.30	0.00
Offshore of Sombrero Reef	65	3.25	0.21	180	9.00	0.71	245	12.25	0.92
Northeast of Alligator Light	78	3.90	0.28	235	11.75	4.31	313	15.65	4.60
Northeast of Alligator Light	56	2.80	0.28	185	9.25	0.07	241	12.05	0.35
Offshore of Little Conch	85	4.25	1.48	173	8.65	1.48	258	12.90	2.97
Offshore of Pickles Reef	108	5.40	0.57	89	4.45	0.07	197	9.85	0.64
Offshore of Pickles Reef	64	3.20	0.99	132	6.60	2.97	196	9.80	3.96
Offshore of Molasses SPA	143	7.15	1.06	107	5.35	0.21	250	12.50	1.27
Northeast of Elbow Reef SPA	79	3.95	1.20	73	3.65	0.35	152	7.60	0.85
Near SE BNP Boundary	69	3.45	0.49	77	3.85	2.76	146	7.30	3.25
Northeast of Triumph Reef	111	5.55	1.20	50	2.50	0.42	161	8.05	0.78
Habitat stratum Mean	928	2.90		2,078	6.49		3,006	9.39	
Habitat stratum SD		2.14			3.28			3.70	
<i>Deeper fore reef slope (22-27 m)</i>									
Key West Ship Channel	2	0.10	0.14	217	10.85	0.21	219	10.95	0.35
Offshore of Pelican Shoal	5	0.25	0.35	247	12.35	0.35	252	12.60	0.00
West of American Shoal	1	0.05	0.07	276	13.80	2.12	277	13.85	2.05
SW of Alligator Light	13	0.65	0.21	222	11.10	0.85	235	11.75	1.06
Offshore of Little Conch	73	3.65	2.19	164	8.20	1.56	237	11.85	3.75
Offshore of Little Conch	52	2.60	0.99	148	7.40	1.98	200	10.00	0.99
Offshore of Dry Rocks	23	1.15	0.21	53	2.65	0.92	76	3.80	0.71
Offshore of Dry Rocks	44	2.20	1.13	53	2.65	1.20	97	4.85	2.33
Offshore of Elbow Reef	17	0.85	0.07	51	2.55	0.49	68	3.40	0.42
Habitat stratum Mean	230	1.28		1,431	7.95		1,661	9.23	
Habitat stratum SD		1.26			4.44			4.06	

Table 10. Frequency of disease and disease-like conditions of scleractinian corals by benthic habitat type in the Florida Keys. Data are based upon surveys of two 10 m x 1 m transects per site. Data represent the frequency (%) of all colonies by habitat type that exhibited particular symptoms.

Habitat (area surveyed, m ²)	Dark/gray spot	Black band disease	Chalky margin	White spot	Colonies assessed
Mid-channel patch reef (1,020 m ²)	141 (1.41%)			1 (0.01%)	9,985
Offshore patch reef (540 m ²)	18 (0.44%)				4,129
Inner line reef tract spur & groove (100 m ²)					436
High-relief spur & groove (380 m ²)	3 (0.16%)	1 (0.05%)			1,842
Low-relief hard-bottom (< 6 m) (300 m ²)	13 (2.00%)				651
Low-relief spur & groove (<6 m) (60 m ²)					172
Low-relief hard-bottom (6-13 m) (460 m ²)	19 (1.24%)				1,532
Patchy hard-bottom (6-13 m) (220 m ²)	4 (0.91%)				442
Low-relief spur & groove (6-13 m) (320 m ²)	3 (0.32%)				936
Fore reef (15-19 m) (320 m ²)	10 (0.48%)		1 (0.05%)		2,078
Fore reef (22-27 m) (180 m ²)	2 (0.14%)				1,431
Total (3,900 m ²)	213 (0.90%)	1 (< 0.01%)	1 (< 0.01%)	1 (< 0.01%)	23,634

Table 11. Prevalence of scleractinian coral bleaching in Biscayne National Park from 16 August 2005 through 10 September 2005. Data represent the frequency and percentage of colonies exhibiting bleaching symptoms (partially bleached, pale with bleaching, and totally bleached by habitat type.

Habitat (area surveyed, m ²)	Bleached		Not bleached		Colonies assessed	
	# colonies	% total	# colonies	% total	# colonies	% total
Mid-channel patch reef (1,020 m ²)	255	14.6%	1,490	85.4%	1,745	100.0%
Offshore patch reef (540 m ²)	26	9.3%	255	90.7%	281	100.0%
High-relief spur & groove (380 m ²)	9	10.0%	81	90%	90	100.0%
Low-relief hard-bottom (<6 m) (300m ²)	9	8.5%	97	91.5%	106	100.0%
Low-relief spur & groove (<6 m) (60m ²)	10	7.6%	122	92.4%	132	100.0%
Low-relief hard-bottom (6-13 m) (460 m ²)	4	2.5%	154	97.5%	158	100.0%
Patchy hard-bottom (6-13 m) (220 m ²)	4	6.9%	54	93.1%	58	100.0%
Low-relief spur & groove (6-13 m) (320 m ²)	2	4.3%	44	95.7%	46	100.0%
Fore reef (15-19 m) (180 m ²)	2	1.6%	125	98.4%	127	100.0%
Total (3,480 m ²)	321	11.7%	2,422	88.3%	2,743	100.0%

Table 12. Numbers measured and mean (1 SE) densities (no. per m²) of gorgonians and juvenile stony corals (< 4 cm maximum diameter). Juvenile coral data are based upon surveys of ten 0.65-m x 0.48-m transects along each of two 15 m transects per site (area per site = 6.24 m²). Gorgonian densities (no. colonies/m²) are based upon surveys of two 8 m² plots in each site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Juvenile stony corals			Gorgonians		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>	73	11.70	4.76	310	19.38	0.35
North of Vestal Shoal	49	7.85	0.23	400	25.00	3.36
North of Vestal Shoal	73	11.70	2.95	338	21.13	0.18
North of Sand Key Channel	108	17.31	7.25	260	16.25	5.48
North of Sand Key Channel	89	14.26	1.59	454	28.38	4.95
North of Sand Key Channel	53	8.49	2.04	247	15.44	9.46
SE of Middle Grounds	77	12.34	3.85	330	20.63	0.00
North of Rock Key	83	13.30	2.49	341	21.31	3.45
Western Sambo ER**	67	10.74	6.12	334	20.88	0.53
Western Sambo ER**	51	8.17	2.49	379	23.69	0.62
North of Middle Sambo	59	9.46	2.49	374	23.38	2.83
North of E. Sambo RO	56	8.97	5.44	465	29.06	2.74
North of E. Sambo RO	76	12.18	3.17	455	28.44	1.68
North of E. Sambo RO	74	11.86	2.72	311	19.44	0.62
North of Pelican Shoal	103	16.51	2.04	227	14.19	2.39
North of Pelican Shoal	57	9.13	2.49	360	22.50	0.88
North of Pelican Shoal	33	5.29	2.04	251	15.69	7.34
North of Pelican Shoal	56	8.97	4.08	237	14.81	0.62
West Washerwoman	142	22.76	15.41	458	28.63	7.07
Inshore of American Shoal	40	6.41	1.81	191	11.94	1.33
Inshore of American Shoal	115	18.43	7.03	329	20.56	4.15
Inshore of Looe Key RO	73	11.70	4.76	310	19.38	0.35
Due east of Marker 45	20	3.21	0.91	221	13.81	0.80
West end of Marathon	33	5.29	2.95	171	10.69	2.21
West end of Marathon	16	2.56	0.45	115	7.19	1.15
South of Marathon	18	2.88	1.36	66	4.13	0.18
South of Marathon	26	4.17	0.45	108	6.75	4.24
West Turtle Shoal	36	5.77	0.91	373	23.31	0.80
Marker 45	11	1.76	0.68	89	5.56	1.86
Southeast of Marker 45	19	3.04	0.23	139	8.69	7.16
East Washerwoman	19	3.04	0.68	103	6.44	2.39
Cheeca Rocks SPA**	6	0.96	1.36	12	0.75	0.53
Cheeca Rocks SPA**	0	0.00	0.00	4	0.25	0.00
Tavernier Rocks	9	1.44	0.23	12	0.75	0.18
Tavernier Rocks	8	1.28	0.91	26	1.63	0.18
Tavernier Rocks	1	0.16	0.23	0	0.00	0.00
Basin Hill Shoals	35	5.61	3.85	285	17.81	5.75
Basin Hill Shoals	25	4.01	0.23	302	18.88	0.18
Basin Hill Shoals	17	2.72	0.68	253	15.81	0.80
Basin Hill Shoals	21	3.37	0.68	389	24.31	1.68
Basin Hill Shoals	45	7.21	4.76	263	16.44	3.98
North of Turtle Reef	44	7.05	3.17	400	25.00	4.95
Southeast of Caesar Creek	64	10.26	4.53	442	27.63	3.01
SW of Pacific Reef	46	7.37	4.53	746	46.63	6.19
Northeast of Caesar Creek	23	3.69	2.04	475	29.69	8.22
Inshore of Pacific Reef	42	6.73	3.63	793	49.56	3.80
South of Margot Fish Shoal	61	9.78	1.13	525	32.81	4.68
Margot Fish Shoal	29	4.65	1.13	578	36.13	0.88
Inshore of Ajax Reef	88	14.10	1.81	622	38.88	0.00
SE of Margot Fish Shoal	58	9.29	2.27	487	30.44	8.22
Inshore of Long Reef	48	7.69	0.91	499	31.19	0.27
Northeast Bowles Bank	53	8.49	0.68	277	17.31	3.62
Habitat stratum Mean						
Habitat stratum SD						
<i>Offshore patch reefs</i>						
North of Sand Key	120	19.23	4.53	100	6.25	1.77
North of Sand Key	120	19.23	2.72	240	15.00	3.71
West of Ship Channel	135	21.63	1.59	128	8.00	0.18

Table 12 continued

Habitat type/site location	Juvenile stony corals			Gorgonians		
	No.	Mean	SD	No.	Mean	SD
Western Sambo ER**	80	12.82	0.91	282	17.63	1.24
Western Sambo ER**	159	25.48	5.67	270	16.88	3.18
Inshore of Eastern Sambo	103	16.51	3.40	222	13.88	0.18
West of Looe Key RO	53	8.49	3.40	236	14.75	0.53
Looe Key RO**	56	8.97	1.81	319	19.94	1.33
Looe Key RO**	74	11.86	1.36	231	14.44	0.44
East of Looe Key RO	120	19.23	4.53	227	14.19	2.56
Inshore of Conch Reef	39	6.25	3.85	172	10.75	2.30
Inshore of Pickles Reef	33	5.29	2.49	209	13.06	1.50
Inside of Molasses Reef	52	8.33	0.00	329	20.56	0.09
Inshore of Molasses Reef	20	3.21	1.36	405	25.31	1.68
East of WB/Dry Rocks	44	7.05	2.72	164	10.25	3.01
Inshore of Molasses Reef	36	5.77	1.81	302	18.88	0.18
Southwest of Elbow Reef	22	3.53	0.45	442	27.63	10.43
Near Watson's Reef	2	0.32	0.00	385	24.06	1.33
Carysfort Reef SPA**	11	1.76	1.13	336	21.00	0.35
Carysfort Reef SPA**	54	8.65	2.72	312	19.50	8.49
North of Carysfort Reef	32	5.13	1.36	303	18.94	5.04
North of Turtle Reef	16	2.56	0.45	262	16.38	0.18
North of Turtle Reef	11	1.76	0.68	211	13.19	1.15
SW of Pacific Reef	20	3.21	0.91	480	30.00	10.96
SW of Triumph Reef	34	5.45	0.45	330	20.63	2.12
SW of Triumph Reef	23	3.69	4.31	315	19.69	1.86
Inshore of Star Reef	43	6.89	2.95	563	35.19	2.92
Habitat stratum Mean	1,444	8.57		7,775	18.00	
Habitat stratum SD		6.59			6.57	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	19	3.04	2.49	129	8.06	0.09
Key Largo Dry Rocks SPA**	18	2.88	1.36	104	6.50	1.24
Key Largo Dry Rocks SPA**	20	3.21	0.45	94	5.88	0.53
North Dry Rocks	21	3.37	2.04	537	33.56	5.39
North North Dry Rocks	5	0.80	0.23	254	15.88	15.56
Habitat stratum Mean	83	2.66		1,118	13.98	
Habitat stratum SD		1.05			11.66	
<i>High-relief spur & groove</i>						
Western Sambo ER**	46	7.37	3.63	14	0.88	0.18
Western Sambo ER**	33	5.29	1.59	25	1.56	0.62
Middle Sambo	12	1.92	0.45	33	2.06	2.03
Pelican Shoal	20	3.21	0.45	18	1.13	0.53
American Shoal	33	5.29	1.13	168	10.50	1.24
American Shoal	18	2.88	1.81	178	11.13	2.12
Looe Key SPA**	36	5.77	1.36	160	10.00	3.18
Looe Key SPA**	38	6.09	3.17	84	5.25	0.35
Sombrero Key SPA**	26	4.17	0.45	90	5.63	0.53
Sombrero Reef SPA**	10	1.60	0.91	106	6.63	1.06
Molasses Reef SPA**	20	3.21	1.81	346	21.63	1.24
Molasses Reef SPA**	11	1.76	0.68	135	8.44	1.15
Sand Island	25	4.01	1.59	98	6.13	1.59
Sand Island	15	2.40	0.68	56	3.50	1.77
South of S. Carysfort	19	3.04	0.68	219	13.69	5.75
South Carysfort Reef SPA**	4	0.64	0.45	126	7.88	2.47
Carysfort Reef SPA**	14	2.24	0.91	182	11.38	2.65
Ajax Reef	5	0.80	0.23	236	14.75	2.30
Fowey Rocks	19	3.04	0.68	162	10.13	3.89
Habitat stratum Mean	404	3.41		2,436	8.01	
Habitat stratum SD		1.86			5.34	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	28	4.49	1.36	387	24.19	0.44
Maryland Shoal	77	17.15	10.65	483	30.19	6.28
Northeast of Alligator Light	19	3.04	2.04	220	13.75	5.48
Conch Reef SPA**	14	2.24	0.45	152	9.50	0.18
Conch Reef SPA**	25	4.01	0.23	186	11.63	1.94
Pickles Reef P4	13	2.08	1.13	158	9.88	0.71

Table 12 continued

Habitat type/site location	Juvenile stony corals			Gorgonians		
	No.	Mean	SD	No.	Mean	SD
Molasses Reef SPA**	36	5.77	4.08	93	5.81	1.15
French Reef SPA**	14	2.24	0.00	373	23.31	5.57
Northeast of Marker 8	33	5.29	1.13	113	7.06	1.33
SW of Watson's Reef	18	2.88	0.91	109	6.81	5.04
SW of Watson's Reef	35	5.61	2.04	323	20.19	1.15
Carysfort Reef SPA	10	1.60	0.91	152	9.50	2.83
SW of Pacific Reef	8	1.28	0.00	549	34.31	0.09
Inshore of Pacific Reef	11	1.76	1.13	382	23.88	2.12
Long Reef	36	5.77	0.00	214	13.38	3.01
Habitat stratum Mean	377	4.35		3,894	16.23	
Habitat stratum SD		3.89			9.09	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	13	2.08	0.23	74	4.63	0.35
Triumph Reef	35	5.61	2.95	72	4.50	2.47
Fowey Rocks	15	2.40	1.59	259	16.19	5.92
Habitat stratum Mean	63	3.37		405	8.44	
Habitat stratum SD		1.95			6.71	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	200	32.05	20.40	400	25.00	0.18
West of Maryland Shoal	89	14.26	0.68	193	12.06	1.15
West of Looe Key	72	11.54	2.27	416	26.00	1.94
East of American Shoal	88	14.10	4.99	410	25.63	3.18
Big Pine Shoal	22	3.53	0.45	488	30.50	1.24
East of Sombrero Reef	30	4.81	3.63	163	10.19	0.09
SW of Tennessee Light	35	5.61	3.85	109	6.81	0.09
Tennessee Reef RO**	102	16.35	4.99	182	11.38	1.77
Tennessee Reef RO**	72	11.54	2.27	168	10.50	0.71
Northeast of Alligator Light	55	8.81	3.85	196	12.25	1.77
North of Davis Reef	128	20.51	5.44	72	4.50	0.35
North of Molasses Reef	21	3.37	0.68	109	6.81	0.44
North of French Reef SPA	16	2.56	0.45	239	14.94	4.68
North of Dixie Shoal	22	3.53	0.45	115	7.19	1.68
South Carysfort Reef SPA**	12	1.92	0.91	257	16.06	0.27
Carysfort Reef SPA**	35	5.61	0.23	374	23.38	0.18
North of Carysfort Reef	15	2.40	0.23	175	10.94	0.44
North of Carysfort Reef	6	0.96	0.91	258	16.13	0.00
NE of Turtle Reef	9	1.44	1.59	192	12.00	0.18
Near SE BNP Boundary	21	3.37	0.23	336	21.00	0.18
Near SE BNP Boundary	6	0.96	0.91	426	26.63	1.41
Near SE BNP Boundary	10	1.60	0.45	152	9.50	0.71
Star Reef	29	4.65	2.49	252	15.75	1.06
Habitat stratum Mean	1,095	7.63		5,682	15.44	
Habitat stratum SD		7.69			7.53	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	36	5.77	0.45	310	19.38	1.94
North of Sand Key Channel	121	19.39	0.68	325	20.31	0.27
East of Rock Key	78	12.50	5.44	231	14.44	3.98
West of Pelican Shoal	22	3.53	1.36	118	7.38	0.53
Big Pine Shoal	43	6.89	3.85	218	13.63	0.53
South of Money Key	37	5.93	0.23	79	4.94	0.27
East of Sombrero Light	34	5.45	2.72	89	5.56	0.80
Northeast of Alligator Light	35	5.61	1.13	237	14.81	1.33
Near Grecian Rocks	24	3.85	3.63	118	7.38	1.06
Inshore of Long Reef	32	5.13	4.08	210	13.13	4.60
Inshore of Star Reef	9	1.44	0.68	205	12.81	3.27
Habitat stratum Mean	471	6.86		2,140	12.16	
Habitat stratum SD		4.97			5.25	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	70	11.22	5.44	281	17.56	0.27
Sand Key SPA**	65	10.42	2.95	497	31.06	2.92
Key West Ship Channel	124	19.87	0.00	116	7.25	1.06
Marker 32	107	17.15	0.23	474	29.63	6.01

Table 12 continued

Habitat type/site location	Juvenile stony corals			Gorgonians		
	No.	Mean	SD	No.	Mean	SD
Western Sambo ER**	186	29.81	15.86	504	31.50	3.36
NW of Western Sambo	134	21.47	1.81	420	26.25	1.06
East of Looe Key	72	11.54	5.89	306	19.13	1.24
SW of Tennessee Light	22	3.53	2.72	43	2.69	1.86
East of Alligator Light	112	17.95	0.45	253	15.81	2.03
Crocker Reef	21	3.37	0.23	167	10.44	5.57
Davis Reef SPA**	42	6.73	1.81	150	9.38	2.12
Davis Reef SPA**	57	9.13	2.95	186	11.63	1.77
South of Elbow Reef	11	1.76	2.04	207	12.94	3.27
Carysfort Reef SPA**	21	3.37	1.59	288	18.00	2.12
North of Carysfort Reef	15	2.40	0.68	261	16.31	0.80
Fowey Rocks	11	1.76	0.68	218	13.63	1.24
Habitat stratum Mean	1,070	10.72		4,371	17.07	
Habitat stratum SD		8.43			8.64	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	93	14.90	3.85	348	21.75	1.24
West of Ship Channel	63	10.10	1.59	286	17.88	3.01
Key West Ship Channel	100	16.03	3.17	224	14.00	0.71
West of Marker 32	66	10.58	1.36	223	13.94	1.50
East of American Shoal	67	10.74	2.49	194	12.13	0.53
East of Looe Key	144	23.08	8.16	148	9.25	0.71
Offshore of Sombrero Reef	137	21.96	0.23	271	16.94	0.09
Northeast of Alligator Light	126	20.19	6.80	227	14.19	0.80
Northeast of Alligator Light	81	12.98	2.95	215	13.44	0.09
Offshore of Little Conch	35	5.61	2.95	177	11.06	2.74
Offshore of Pickles Reef	32	5.13	0.00	146	9.13	1.77
Offshore of Pickles Reef	41	6.57	1.13	196	12.25	1.24
Offshore of Molasses SPA	30	4.81	0.45	257	16.06	0.44
Northeast of Elbow Reef SPA	11	1.76	1.13	267	16.69	1.33
Near SE BNP Boundary	8	1.28	0.00	121	7.56	0.62
Northeast of Triumph Reef	36	5.77	5.44	380	23.75	3.89
Habitat stratum Mean	1,070	10.72		3,680	14.38	
Habitat stratum SD		6.94			4.41	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	11	1.76	0.68	145	9.06	0.09
Offshore of Pelican Shoal	36	5.77	3.17	75	4.69	0.44
West of American Shoal	32	5.13	2.72	83	5.19	1.15
SW of Alligator Light	55	8.81	0.68	179	11.19	5.75
Offshore of Little Conch	23	3.69	1.13	98	6.13	0.53
Offshore of Little Conch	16	2.56	1.81	176	11.00	2.65
Offshore of Dry Rocks	26	4.17	4.08	138	8.63	1.77
Offshore of Dry Rocks	14	2.24	0.45	178	11.13	1.24
Offshore of Elbow Reef	15	2.40	0.23	60	3.75	0.53
Habitat stratum Mean	228	4.06		1,132	7.86	1,132
Habitat stratum SD		2.25			2.97	

Table 13. Numbers of individuals, mean density (no. individuals/m²), total volume, and mean volume (cm³) per 8 m² transect for the tube sponge *Callyspongia vaginalis*. Data are based upon surveys of two 8 m² plots per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>	2	0.13	0.18	58.7	29.4	41.5
North of Vestal Shoal	2	0.13	0.00	757.0	378.5	407.3
North of Vestal Shoal	2	0.13	0.00	436.2	218.1	251.3
North of Sand Key Channel	10	0.63	0.35	1,266.3	633.2	704.3
North of Sand Key Channel	3	0.19	0.09	368.7	184.4	211.7
North of Sand Key Channel	4	0.25	0.35	650.7	325.3	460.1
SE of Middle Grounds	13	0.81	0.97	1,733.8	866.9	1201.8
North of Rock Key	5	0.31	0.09	1,150.3	575.2	484.4
Western Sambo ER**	4	0.25	0.18	102.7	51.3	34.0
Western Sambo ER**	4	0.25	0.18	95.8	47.9	48.3
North of Middle Sambo	2	0.13	0.18	171.5	85.8	121.3
North of E. Sambo RO	5	0.31	0.09	955.3	477.6	424.0
North of E. Sambo RO	3	0.19	0.27	1,337.2	668.6	945.5
North of E. Sambo RO	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	6	0.38	0.18	2,942.0	1471.0	1217.1
North of Pelican Shoal	3	0.19	0.09	227.5	113.7	63.1
North of Pelican Shoal	2	0.13	0.00	1,749.2	874.6	1195.6
North of Pelican Shoal	1	0.06	0.09	19.6	9.8	13.9
West Washerwoman	7	0.44	0.27	1,429.5	714.8	795.4
Inshore of American Shoal	1	0.06	0.00	957.1	478.6	676.8
Inshore of American Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Looe Key RO	0	0.00	0.00	0.0	0.0	0.0
Due east of Marker 45	0	0.00	0.00	0.0	0.0	0.0
West end of Marathon	1	0.06	0.09	312.1	156.1	220.7
West end of Marathon	6	0.38	0.00	644.8	322.4	141.6
South of Marathon	0	0.00	0.00	0.0	0.0	0.0
South of Marathon	2	0.13	0.18	299.4	149.7	211.7
West Turtle Shoal	2	0.13	0.18	2,467.3	1233.6	1744.6
Marker 45	0	0.00	0.00	0.0	0.0	0.0
Southeast of Marker 45	0	0.00	0.00	0.0	0.0	0.0
East Washerwoman	1	0.06	0.00	957.1	478.6	676.8
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	3	0.19	0.09	10,035.3	5017.6	4261.2
Basin Hill Shoals	2	0.13	0.00	2,284.5	1142.2	966.0
Basin Hill Shoals	4	0.25	0.00	929.1	464.6	373.5
Basin Hill Shoals	3	0.19	0.09	1,489.6	744.8	626.8
Basin Hill Shoals	3	0.19	0.09	1,239.5	619.7	759.8
North of Turtle Reef	7	0.44	0.27	1,460.8	730.4	720.2
Southeast of Caesar Creek	3	0.19	0.09	1,322.5	661.2	357.1
SW of Pacific Reef	3	0.19	0.27	237.3	118.6	167.8
Northeast of Caesar Creek	2	0.13	0.00	840.4	420.2	194.2
Inshore of Pacific Reef	3	0.19	0.09	72.5	36.3	6.3
South of Margot Fish Shoal	6	0.38	0.35	2,469.2	1234.6	1401.6
Margot Fish Shoal	2	0.13	0.18	516.9	258.5	365.5
Inshore of Ajax Reef	1	0.06	0.09	40.7	20.4	28.8
SE of Margot Fish Shoal	1	0.06	0.09	179.7	89.9	127.1
Inshore of Long Reef	3	0.19	0.27	338.2	169.1	239.1
Northeast Bowles Bank	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	141	0.17		44,636.3	437.6	
Habitat stratum SD		0.17			758.8	
<i>Offshore patch reefs</i>						
North of Sand Key	7	0.44	0.09	842.4	421.2	140.3
North of Sand Key	11	0.69	0.44	1,033.4	516.7	164.1
West of Ship Channel	3	0.19	0.27	1,093.7	546.9	773.4
Western Sambo ER**	1	0.06	0.09	35.1	17.6	24.8
Western Sambo ER**	3	0.19	0.27	246.5	123.2	174.3
Inshore of Eastern Sambo	0	0.00	0.00	0.0	0.0	0.0

Table 13 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	3	0.19	0.27	256.8	128.4	181.6
Looe Key RO**	3	0.19	0.09	576.6	288.3	302.0
Looe Key RO**	2	0.13	0.18	529.4	264.7	374.4
East of Looe Key RO	3	0.19	0.27	150.5	75.3	106.4
Inshore of Conch Reef	7	0.44	0.09	1,266.2	633.1	388.5
Inshore of Pickles Reef	6	0.38	0.18	1,264.6	632.3	320.8
Inside of Molasses Reef	4	0.25	0.18	1,541.3	770.7	1085.8
Inshore of Molasses Reef	1	0.06	0.09	91.1	45.6	64.4
East of WB/Dry Rocks	3	0.19	0.09	299.2	149.6	151.6
Inshore of Molasses Reef	4	0.25	0.18	785.6	392.8	18.1
Southwest of Elbow Reef	2	0.13	0.18	770.6	385.3	544.9
Near Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	3	0.19	0.09	540.1	270.1	202.8
Carysfort Reef SPA**	4	0.25	0.18	717.3	358.7	418.8
North of Carysfort Reef	8	0.50	0.35	2,267.1	1133.5	800.3
North of Turtle Reef	3	0.19	0.27	2,128.0	1064.0	1504.7
North of Turtle Reef	9	0.56	0.09	1,747.7	873.8	86.9
SW of Pacific Reef	1	0.06	0.09	14.8	7.4	10.5
SW of Triumph Reef	6	0.38	0.18	2,266.8	1133.4	719.5
SW of Triumph Reef	3	0.19	0.09	561.5	280.8	310.8
Inshore of Star Reef	4	0.25	0.35	1,463.5	731.8	1034.9
Habitat stratum Mean	104	0.24		22,490.0	416.5	
Habitat stratum SD		0.17			353.8	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
North Dry Rocks	4	0.25	0.18	471.9	235.9	315.9
North North Dry Rocks	1	0.06	0.09	28.1	14.1	19.9
Habitat stratum Mean	5	0.06		500.0	50.0	
Habitat stratum SD		0.11			104.1	
<i>High-relief spur & groove</i>						
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	1	0.06	0.09	117.6	58.8	83.2
American Shoal	1	0.06	0.09	90.5	45.3	64.0
Looe Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Looe Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sombrero Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sombrero Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Sand Island	1	0.06	0.09	212.1	106.1	150.0
Sand Island	0	0.00	0.00	0.0	0.0	0.0
South of S. Carysfort	4	0.25	0.18	617.5	308.8	305.6
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	4	0.25	0.18	366.2	183.1	187.9
Habitat stratum Mean	11	0.04		1,403.9	36.9	
Habitat stratum SD		0.08			81.5	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	0	0.00	0.00	0.0	0.0	0.0
Maryland Shoal	3	0.19	0.09	918.7	459.3	64.8
Northeast of Alligator Light	12	0.75	0.35	2,169.6	1084.8	1205.2
Conch Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Conch Reef SPA**	5	0.31	0.09	650.1	325.1	423.0
Pickles Reef P4	2	0.13	0.18	229.0	114.5	161.9
Molasses Reef SPA**	4	0.25	0.18	400.9	200.4	175.5
French Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Northeast of Marker 8	6	0.38	0.00	372.7	186.4	2.8

Table 13 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	7	0.44	0.09	2,296.1	1148.1	1159.6
SW of Watson's Reef	5	0.31	0.44	665.9	332.9	470.9
Carysfort Reef SPA	1	0.06	0.09	129.6	64.8	91.6
SW of Pacific Reef	8	0.50	0.18	613.5	306.7	75.7
Inshore of Pacific Reef	3	0.19	0.09	254.2	127.1	39.0
Long Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	56	0.23		8,700.3	290.0	
Habitat stratum SD		0.22			364.8	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	5	0.31	0.09	626.2	313.1	220.1
Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	5	0.10		626.2	104.4	
Habitat stratum SD		0.18			180.8	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	7	0.44	0.27	1,038.7	519.3	352.0
West of Maryland Shoal	4	0.25	0.00	364.2	182.1	10.8
West of Looe Key	1	0.06	0.09	22.7	11.4	16.1
East of American Shoal	2	0.13	0.00	489.0	244.5	305.8
Big Pine Shoal	7	0.44	0.09	638.3	319.1	262.8
East of Sombrero Reef	2	0.13	0.18	63.3	31.7	44.8
SW of Tennessee Light	3	0.19	0.09	135.6	67.8	78.5
Tennessee Reef RO**	4	0.25	0.18	61.6	30.8	39.5
Tennessee Reef RO**	1	0.06	0.09	735.1	367.6	519.8
Northeast of Alligator Light	6	0.38	0.18	1,594.1	797.0	349.5
North of Davis Reef	4	0.25	0.18	823.2	411.6	522.3
North of Molasses Reef	5	0.31	0.44	1,020.9	510.5	721.9
North of French Reef SPA	6	0.38	0.18	557.1	278.5	174.0
North of Dixie Shoal	7	0.44	0.09	3,549.8	1774.9	1528.4
South Carysfort Reef SPA**	3	0.19	0.09	870.1	435.0	484.4
Carysfort Reef SPA**	1	0.06	0.09	308.4	154.2	218.1
North of Carysfort Reef	4	0.25	0.00	2,403.2	1201.6	341.6
North of Carysfort Reef	6	0.38	0.18	1,240.5	620.3	54.0
NE of Turtle Reef	4	0.25	0.35	1,115.2	557.6	788.6
Near SE BNP Boundary	1	0.06	0.09	57.0	28.5	40.3
Near SE BNP Boundary	4	0.25	0.00	161.8	80.9	65.7
Near SE BNP Boundary	0	0.00	0.00	0.0	0.0	0.0
Star Reef	3	0.19	0.09	1,305.2	652.6	860.7
Habitat stratum Mean	85	0.23		18,554.8	403.4	
Habitat stratum SD		0.13			423.4	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	7	0.44	0.09	303.3	151.6	17.2
North of Sand Key Channel	5	0.31	0.09	440.6	220.3	270.7
East of Rock Key	4	0.25	0.18	750.7	375.3	69.0
West of Pelican Shoal	2	0.13	0.00	284.5	142.2	140.4
Big Pine Shoal	5	0.31	0.09	712.2	356.1	60.7
South of Money Key	1	0.06	0.09	70.8	35.4	50.1
East of Sombrero Light	1	0.06	0.09	84.7	42.4	59.9
Northeast of Alligator Light	11	0.69	0.27	2,045.0	1022.5	756.9
Near Grecian Rocks	6	0.38	0.18	677.9	339.0	213.9
Inshore of Long Reef	3	0.19	0.09	633.0	316.5	85.5
Inshore of Star Reef	2	0.13	0.18	195.2	97.6	138.1
Habitat stratum Mean	47	0.27		6,197.8	281.7	
Habitat stratum SD		0.19			275.6	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	3	0.19	0.09	269.5	134.8	67.1
Sand Key SPA**	4	0.25	0.18	701.3	350.7	16.1
Key West Ship Channel	1	0.06	0.09	106.8	53.4	75.5
Marker 32	4	0.25	0.18	986.4	493.2	447.6
Western Sambo ER**	7	0.44	0.09	537.6	268.8	311.3
NW of Western Sambo	3	0.19	0.27	271.7	135.8	192.1
East of Looe Key	4	0.25	0.00	746.8	373.4	264.4

Table 13 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	0	0.00	0.00	0.0	0.0	0.0
East of Alligator Light	1	0.06	0.09	369.8	184.9	261.5
Crocker Reef	1	0.06	0.09	1,073.0	536.5	758.7
Davis Reef SPA**	2	0.13	0.18	178.2	89.1	126.0
Davis Reef SPA**	1	0.06	0.09	480.7	240.3	339.9
South of Elbow Reef	4	0.25	0.00	1,825.0	912.5	135.4
Carysfort Reef SPA**	4	0.25	0.00	1,036.9	518.5	331.8
North of Carysfort Reef	3	0.19	0.09	1,880.1	940.0	459.4
Fowey Rocks	5	0.31	0.09	1,088.8	544.4	375.9
Habitat stratum Mean	47	0.18		11,552.6	361.0	
Habitat stratum SD		0.12			283.0	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	7	0.44	0.09	799.7	399.9	240.5
West of Ship Channel	6	0.38	0.18	1,255.1	627.5	687.4
Key West Ship Channel	0	0.00	0.00	0.0	0.0	0.0
West of Marker 32	2	0.13	0.18	188.8	94.4	133.5
East of American Shoal	0	0.00	0.00	0.0	0.0	0.0
East of Looe Key	25	1.56	0.62	3,843.5	1921.7	843.8
Offshore of Sombrero Reef	4	0.25	0.35	1,165.6	582.8	824.2
Northeast of Alligator Light	1	0.06	0.09	45.7	22.9	32.3
Northeast of Alligator Light	1	0.06	0.09	452.4	226.2	319.9
Offshore of Little Conch	3	0.19	0.27	4,509.0	2254.5	3188.4
Offshore of Pickles Reef	1	0.06	0.09	246.4	123.2	174.2
Offshore of Pickles Reef	0	0.00	0.00	0.0	0.0	0.0
Offshore of Molasses SPA	3	0.19	0.09	920.6	460.3	561.4
Northeast of Elbow Reef SPA	4	0.25	0.00	527.7	263.8	158.6
Near SE BNP Boundary	3	0.19	0.09	204.5	102.3	31.9
Northeast of Triumph Reef	3	0.19	0.27	1,331.2	665.6	941.3
Habitat stratum Mean	63	0.25		15,490.3	484.1	
Habitat stratum SD		0.37			669.9	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	1	0.06	0.09	11.0	5.5	7.8
Offshore of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
West of American Shoal	0	0.00	0.00	0.0	0.0	0.0
SW of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Offshore of Little Conch	1	0.06	0.09	15.2	7.6	10.7
Offshore of Little Conch	1	0.06	0.09	480.9	240.5	340.0
Offshore of Dry Rocks	1	0.06	0.09	32.8	16.4	23.2
Offshore of Dry Rocks	3	0.19	0.09	3,551.5	1775.8	399.7
Offshore of Elbow Reef	2	0.13	0.18	383.4	191.7	271.1
Habitat stratum Mean	9	0.06		4,474.8	248.6	
Habitat stratum SD		0.06			580.1	

Table 14. Numbers of individuals, mean density (no. individuals/m²), total volume, and mean volume (cm³) per 8 m² transect for the vase sponge *Ircinia campana*. Data are based upon surveys of two 8 m² plots per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>	1	0.06	0.09	366.5	183.3	259.2
North of Vestal Shoal	1	0.06	0.09	2,078.2	1039.1	1469.5
North of Vestal Shoal	0	0.00	0.00	0.0	0.0	0.0
North of Sand Key Channel	0	0.00	0.00	0.0	0.0	0.0
North of Sand Key Channel	3	0.19	0.09	898.9	449.4	382.5
North of Sand Key Channel	0	0.00	0.00	0.0	0.0	0.0
SE of Middle Grounds	3	0.19	0.27	908.6	454.3	642.5
North of Rock Key	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	1	0.06	0.09	64.9	32.5	45.9
Western Sambo ER**	2	0.13	0.00	604.8	302.4	272.1
North of Middle Sambo	4	0.25	0.18	2,231.3	1115.7	1294.6
North of E. Sambo RO	2	0.13	0.00	658.1	329.0	227.8
North of E. Sambo RO	4	0.25	0.00	3,894.6	1947.3	2197.3
North of E. Sambo RO	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	4	0.25	0.00	4,886.4	2443.2	2187.2
North of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	3	0.19	0.09	687.2	343.6	180.5
North of Pelican Shoal	1	0.06	0.09	58.9	29.5	41.6
West Washerwoman	3	0.19	0.27	464.8	232.4	328.7
Inshore of American Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of American Shoal	6	0.38	0.18	2,841.2	1420.6	1063.6
Inshore of Looe Key RO	1	0.06	0.09	366.5	183.3	259.2
Due east of Marker 45	3	0.19	0.09	1,278.6	639.3	554.2
West end of Marathon	0	0.00	0.00	0.0	0.0	0.0
West end of Marathon	0	0.00	0.00	0.0	0.0	0.0
South of Marathon	0	0.00	0.00	0.0	0.0	0.0
South of Marathon	0	0.00	0.00	0.0	0.0	0.0
West Turtle Shoal	2	0.13	0.00	553.0	276.5	197.3
Marker 45	3	0.19	0.09	882.3	441.1	432.9
Southeast of Marker 45	0	0.00	0.00	0.0	0.0	0.0
East Washerwoman	2	0.13	0.18	731.1	365.5	516.9
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	1	0.06	0.09	1,425.0	712.5	1007.6
Basin Hill Shoals	2	0.13	0.18	1,124.7	562.3	795.3
Basin Hill Shoals	1	0.06	0.09	439.8	219.9	311.0
Basin Hill Shoals	1	0.06	0.09	108.0	54.0	76.4
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
North of Turtle Reef	0	0.00	0.00	0.0	0.0	0.0
Southeast of Caesar Creek	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
Northeast of Caesar Creek	1	0.06	0.09	480.0	240.0	339.4
Inshore of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
South of Margot Fish Shoal	4	0.25	0.00	1,576.5	788.2	578.1
Margot Fish Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
SE of Margot Fish Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Long Reef	0	0.00	0.00	0.0	0.0	0.0
Northeast Bowles Bank	2	0.13	0.18	86.7	43.4	61.3
Habitat stratum Mean	60	0.07		29,330.1	287.5	
Habitat stratum SD		0.09			511.3	
<i>Offshore patch reefs</i>						
North of Sand Key	0	0.00	0.00	0.0	0.0	0.0
North of Sand Key	0	0.00	0.00	0.0	0.0	0.0
West of Ship Channel	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	1	0.06	0.09	1,000.0	500.0	707.1
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Inshore of Eastern Sambo	0	0.00	0.00	0.0	0.0	0.0

Table 14 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	2	0.13	0.18	462.0	231.0	326.7
Looe Key RO**	8	0.50	0.18	5,453.8	2726.9	380.2
Looe Key RO**	5	0.31	0.09	3,586.1	1793.1	1252.9
East of Looe Key RO	2	0.13	0.18	1,148.0	574.0	811.8
Inshore of Conch Reef	1	0.06	0.09	2,079.2	1039.6	1470.2
Inshore of Pickles Reef	0	0.00	0.00	0.0	0.0	0.0
Inside of Molasses Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Molasses Reef	2	0.13	0.18	1,534.0	767.0	1084.7
East of WB/Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Inshore of Molasses Reef	0	0.00	0.00	0.0	0.0	0.0
Southwest of Elbow Reef	1	0.06	0.09	2,125.0	1062.5	1502.6
Near Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	1	0.06	0.09	1,361.4	680.7	962.7
Carysfort Reef SPA**	2	0.13	0.00	1,434.7	717.4	586.7
North of Carysfort Reef	1	0.06	0.09	637.0	318.5	450.4
North of Turtle Reef	0	0.00	0.00	0.0	0.0	0.0
North of Turtle Reef	2	0.13	0.00	630.3	315.1	84.7
SW of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Triumph Reef	2	0.13	0.00	229.0	114.5	119.5
Inshore of Star Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	30	0.07		21,680.4	401.5	
Habitat stratum SD		0.11			648.1	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
North Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
North North Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	0	0.00		0.0	0.0	
Habitat stratum SD		0.00			0.0	
<i>High-relief spur & groove</i>						
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	0	0.00	0.00	0.0	0.0	0.0
Looe Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Looe Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sombrero Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sombrero Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Sand Island	0	0.00	0.00	0.0	0.0	0.0
Sand Island	0	0.00	0.00	0.0	0.0	0.0
South of S. Carysfort	0	0.00	0.00	0.0	0.0	0.0
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	0	0.00		0.0	0.0	
Habitat stratum SD		0.00			0.0	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	0	0.00	0.00	0.0	0.0	0.0
Maryland Shoal	1	0.06	0.09	42.0	21.0	29.7
Northeast of Alligator Light	1	0.06	0.09	4,080.9	2040.5	2885.6
Conch Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Conch Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Pickles Reef P4	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
French Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Northeast of Marker 8	0	0.00	0.00	0.0	0.0	0.0

Table 14 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
Long Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	2	0.01		4,122.9	137.4	
Habitat stratum SD		0.02			526.5	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	1	0.06	0.09	144.0	72.0	101.8
Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	1	0.02		144.0	24.0	
Habitat stratum SD		0.04			41.6	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	0	0.00	0.00	0.0	0.0	0.0
West of Maryland Shoal	16	1.00	0.53	9,204.0	4602.0	4450.2
West of Looe Key	0	0.00	0.00	0.0	0.0	0.0
East of American Shoal	0	0.00	0.00	0.0	0.0	0.0
Big Pine Shoal	2	0.13	0.18	730.9	365.5	516.8
East of Sombrero Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Tennessee Light	1	0.06	0.09	1,480.5	740.3	1046.9
Tennessee Reef RO**	0	0.00	0.00	0.0	0.0	0.0
Tennessee Reef RO**	5	0.31	0.44	2,013.8	1006.9	1424.0
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
North of Davis Reef	0	0.00	0.00	0.0	0.0	0.0
North of Molasses Reef	1	0.06	0.09	105.8	52.9	74.8
North of French Reef SPA	0	0.00	0.00	0.0	0.0	0.0
North of Dixie Shoal	0	0.00	0.00	0.0	0.0	0.0
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	1	0.06	0.09	252.0	126.0	178.2
NE of Turtle Reef	2	0.13	0.18	1,130.8	565.4	799.6
Near SE BNP Boundary	0	0.00	0.00	0.0	0.0	0.0
Near SE BNP Boundary	1	0.06	0.09	26.0	13.0	18.4
Near SE BNP Boundary	0	0.00	0.00	0.0	0.0	0.0
Star Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	29	0.08		14,943.8	324.9	
Habitat stratum SD		0.21			972.0	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	0	0.00	0.00	0.0	0.0	0.0
North of Sand Key Channel	0	0.00	0.00	0.0	0.0	0.0
East of Rock Key	0	0.00	0.00	0.0	0.0	0.0
West of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
Big Pine Shoal	0	0.00	0.00	0.0	0.0	0.0
South of Money Key	1	0.06	0.09	1,138.8	569.4	805.3
East of Sombrero Light	1	0.06	0.09	360.5	180.3	254.9
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Near Grecian Rocks	0	0.00	0.00	0.0	0.0	0.0
Inshore of Long Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Star Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	2	0.01		1,499.3	68.2	
Habitat stratum SD		0.03			174.8	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sand Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Key West Ship Channel	9	0.56	0.44	25.8	12.9	16.0
Marker 32	1	0.06	0.09	0.2	0.1	0.1
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
NW of Western Sambo	0	0.00	0.00	0.0	0.0	0.0
East of Looe Key	1	0.06	0.09	160.0	80.0	113.1

Table 14 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	0	0.00	0.00	0.0	0.0	0.0
East of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Crocker Reef	1	0.06	0.09	388.8	194.4	274.9
Davis Reef SPA**	1	0.06	0.09	30.0	15.0	21.2
Davis Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
South of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	13	0.05		604.8	18.9	
Habitat stratum SD		0.14			50.9	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	0	0.00	0.00	0.0	0.0	0.0
West of Ship Channel	0	0.00	0.00	0.0	0.0	0.0
Key West Ship Channel	0	0.00	0.00	0.0	0.0	0.0
West of Marker 32	0	0.00	0.00	0.0	0.0	0.0
East of American Shoal	0	0.00	0.00	0.0	0.0	0.0
East of Looe Key	0	0.00	0.00	0.0	0.0	0.0
Offshore of Sombrero Reef	1	0.06	0.09	3,418.0	1709.0	2416.9
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Offshore of Little Conch	0	0.00	0.00	0.0	0.0	0.0
Offshore of Pickles Reef	0	0.00	0.00	0.0	0.0	0.0
Offshore of Pickles Reef	0	0.00	0.00	0.0	0.0	0.0
Offshore of Molasses SPA	0	0.00	0.00	0.0	0.0	0.0
Northeast of Elbow Reef SPA	0	0.00	0.00	0.0	0.0	0.0
Near SE BNP Boundary	0	0.00	0.00	0.0	0.0	0.0
Northeast of Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	1	0.00		3,418.0	106.8	
Habitat stratum SD		0.02			427.3	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	0	0.00	0.00	0.0	0.0	0.0
Offshore of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
West of American Shoal	0	0.00	0.00	0.0	0.0	0.0
SW of Alligator Light	1	0.06	0.09	1,170.0	585.0	827.3
Offshore of Little Conch	0	0.00	0.00	0.0	0.0	0.0
Offshore of Little Conch	0	0.00	0.00	0.0	0.0	0.0
Offshore of Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Offshore of Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Offshore of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	1	0.01		1,170.0	65.0	
Habitat stratum SD		0.02			195.0	

Table 15. Numbers of individuals, mean density (no. individuals/m²), total volume, and mean volume (cm³) per 8 m² transect for the amorphous sponge *Ircinia felix*. Data are based upon surveys of two 8 m² plots per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>						
North of Vestal Shoal	51	3.19	0.44	4,151.3	2075.6	1481.9
North of Vestal Shoal	75	4.69	0.09	5,090.9	2545.4	687.6
North of Sand Key Channel	9	0.56	0.44	517.5	258.8	245.7
North of Sand Key Channel	10	0.63	0.18	274.5	137.3	77.4
North of Sand Key Channel	41	2.56	0.62	2,886.3	1443.1	680.4
SE of Middle Grounds	4	0.25	0.18	310.0	155.0	176.8
North of Rock Key	15	0.94	0.27	773.0	386.5	331.6
Western Sambo ER**	7	0.44	0.09	528.5	264.3	18.7
Western Sambo ER**	14	0.88	0.18	1,215.0	607.5	58.7
North of Middle Sambo	29	1.81	0.27	1,535.5	767.8	225.2
North of E. Sambo RO	14	0.88	0.18	2,017.0	1008.5	57.3
North of E. Sambo RO	18	1.13	0.53	2,226.5	1113.3	411.2
North of E. Sambo RO	38	2.38	0.18	2,410.6	1205.3	119.1
North of Pelican Shoal	15	0.94	0.09	852.5	426.3	177.8
North of Pelican Shoal	6	0.38	0.00	850.5	425.3	12.4
North of Pelican Shoal	17	1.06	0.97	873.0	436.5	318.9
North of Pelican Shoal	3	0.19	0.09	336.0	168.0	186.7
West Washerwoman	9	0.56	0.27	1,828.0	914.0	630.7
Inshore of American Shoal	39	2.44	0.44	5,340.7	2670.4	1281.1
Inshore of American Shoal	13	0.81	0.09	1,313.5	656.8	457.9
Inshore of Looe Key RO	12	0.75	0.35	1,009.5	504.8	193.4
Due east of Marker 45	5	0.31	0.09	349.0	174.5	57.3
West end of Marathon	2	0.13	0.18	380.0	190.0	268.7
West end of Marathon	1	0.06	0.09	36.0	18.0	25.5
South of Marathon	2	0.13	0.18	169.0	84.5	119.5
South of Marathon	3	0.19	0.09	1,605.0	802.5	519.7
West Turtle Shoal	37	2.31	0.09	4,668.0	2334.0	181.0
Marker 45	4	0.25	0.18	569.5	284.8	303.7
Southeast of Marker 45	1	0.06	0.09	150.0	75.0	106.1
East Washerwoman	4	0.25	0.35	1,872.0	936.0	1323.7
Cheeca Rocks SPA**	2	0.13	0.00	140.0	70.0	0.0
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	1	0.06	0.09	440.0	220.0	311.1
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	3	0.19	0.09	489.0	244.5	142.1
Basin Hill Shoals	3	0.19	0.09	1,677.8	838.9	1089.1
Basin Hill Shoals	7	0.44	0.27	1,501.0	750.5	365.6
Basin Hill Shoals	14	0.88	0.71	1,659.3	829.6	245.5
Basin Hill Shoals	14	0.88	0.18	3,401.0	1700.5	826.6
North of Turtle Reef	6	0.38	0.00	94.6	47.3	30.5
Southeast of Caesar Creek	3	0.19	0.09	483.0	241.5	239.7
SW of Pacific Reef	29	1.81	0.09	3,131.4	1565.7	424.9
Northeast of Caesar Creek	5	0.31	0.09	1,118.0	559.0	222.0
Inshore of Pacific Reef	15	0.94	0.44	243.7	121.9	98.5
South of Margot Fish Shoal	24	1.50	0.00	1,470.6	735.3	15.1
Margot Fish Shoal	10	0.63	0.00	1,509.1	754.5	340.4
Inshore of Ajax Reef	14	0.88	0.71	947.3	473.6	378.5
SE of Margot Fish Shoal	17	1.06	0.62	516.2	258.1	267.8
Inshore of Long Reef	6	0.38	0.18	313.3	156.6	215.3
Northeast Bowles Bank	27	1.69	0.44	1,238.3	619.2	129.8
Habitat stratum Mean	698	0.86		66,512.0	652.1	
Habitat stratum SD		0.94			665.6	
<i>Offshore patch reefs</i>						
North of Sand Key	14	0.88	0.35	1,637.3	818.6	717.5
North of Sand Key	21	1.31	1.15	968.5	484.3	311.5
West of Ship Channel	19	1.19	0.27	2,946.0	1473.0	1006.9
Western Sambo ER**	9	0.56	0.44	763.0	381.5	296.3
Western Sambo ER**	3	0.19	0.09	228.5	114.3	90.9
Inshore of Eastern Sambo	15	0.94	0.27	1,251.0	625.5	150.6

Table 15 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	12	0.75	0.35	1,757.0	878.5	574.9
Looe Key RO**	12	0.75	0.18	1,384.0	692.0	432.7
Looe Key RO**	4	0.25	0.00	516.0	258.0	166.9
East of Looe Key RO	5	0.31	0.09	357.0	178.5	65.8
Inshore of Conch Reef	6	0.38	0.18	350.0	175.0	113.1
Inshore of Pickles Reef	20	1.25	0.53	2,148.5	1074.3	42.8
Inside of Molasses Reef	7	0.44	0.09	1,635.0	817.5	646.5
Inshore of Molasses Reef	10	0.63	0.18	735.0	367.5	519.7
East of WB/Dry Rocks	5	0.31	0.09	721.0	360.5	176.1
Inshore of Molasses Reef	10	0.63	0.00	1,315.0	657.5	775.4
Southwest of Elbow Reef	11	0.69	0.62	1,890.4	945.2	1241.6
Near Watson's Reef	3	0.19	0.09	246.0	123.0	114.6
Carysfort Reef SPA**	28	1.75	0.18	4,168.4	2084.2	209.6
Carysfort Reef SPA**	6	0.38	0.00	642.5	321.3	387.2
North of Carysfort Reef	23	1.44	0.27	2,156.9	1078.5	535.5
North of Turtle Reef	9	0.56	0.27	920.5	460.3	95.8
North of Turtle Reef	9	0.56	0.09	1,556.5	778.3	781.7
SW of Pacific Reef	19	1.19	0.09	551.3	275.6	240.2
SW of Triumph Reef	10	0.63	0.35	1,182.3	591.2	449.2
SW of Triumph Reef	8	0.50	0.35	1,438.6	719.3	8.9
Inshore of Star Reef	12	0.75	0.53	355.5	177.8	79.5
Habitat stratum Mean	310	0.72		33,821.5	626.3	
Habitat stratum SD		0.41			449.0	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	2	0.13	0.00	148.5	74.3	98.6
Key Largo Dry Rocks SPA**	1	0.06	0.09	105.0	52.5	74.2
Key Largo Dry Rocks SPA**	7	0.44	0.62	725.7	362.9	513.2
North Dry Rocks	15	0.94	0.27	1,323.0	661.5	229.1
North North Dry Rocks	7	0.44	0.44	884.3	442.1	611.1
Habitat stratum Mean	32	0.40		3,186.5	318.6	
Habitat stratum SD		0.35			257.5	
<i>High-relief spur & groove</i>						
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	5	0.31	0.09	84.8	42.4	52.5
American Shoal	2	0.13	0.18	76.5	38.3	54.1
Looe Key SPA**	1	0.06	0.09	49.0	24.5	34.6
Looe Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sombrero Key SPA**	4	0.25	0.18	349.0	174.5	2.1
Sombrero Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	3	0.19	0.27	72.4	36.2	51.2
Molasses Reef SPA**	2	0.13	0.18	452.3	226.2	319.8
Sand Island	3	0.19	0.09	374.6	187.3	213.1
Sand Island	6	0.38	0.35	612.8	306.4	431.8
South of S. Carysfort	4	0.25	0.18	132.1	66.1	76.3
South Carysfort Reef SPA**	2	0.13	0.18	150.0	75.0	106.1
Carysfort Reef SPA**	1	0.06	0.09	20.0	10.0	14.1
Ajax Reef	2	0.13	0.18	13.5	6.8	9.5
Fowey Rocks	8	0.50	0.18	469.5	234.7	78.5
Habitat stratum Mean	43	0.14		2,856.4	75.2	
Habitat stratum SD		0.14			98.2	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	3	0.19	0.09	255.0	127.5	130.8
Maryland Shoal	19	1.19	0.09	1,297.8	648.9	423.0
Northeast of Alligator Light	15	0.94	0.44	2,974.9	1487.4	707.7
Conch Reef SPA**	7	0.44	0.09	560.8	280.4	382.4
Conch Reef SPA**	3	0.19	0.09	37.6	18.8	10.6
Pickles Reef P4	2	0.13	0.18	1,198.0	599.0	847.1
Molasses Reef SPA**	11	0.69	0.62	897.6	448.8	598.0
French Reef SPA**	6	0.38	0.18	502.9	251.5	198.1
Northeast of Marker 8	5	0.31	0.09	122.5	61.3	5.3

Table 15 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	2	0.13	0.00	372.0	186.0	93.3
SW of Watson's Reef	5	0.31	0.27	358.3	179.1	179.1
Carysfort Reef SPA	10	0.63	0.18	872.2	436.1	282.0
SW of Pacific Reef	7	0.44	0.09	321.6	160.8	73.8
Inshore of Pacific Reef	4	0.25	0.18	1,741.5	870.8	1225.1
Long Reef	1	0.06	0.09	26.0	13.0	18.4
Habitat stratum Mean	100	0.42		11,538.6	384.6	
Habitat stratum SD		0.32			394.4	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	26	1.63	0.71	5,194.5	2597.3	204.7
Triumph Reef	1	0.06	0.09	99.0	49.5	70.0
Fowey Rocks	1	0.06	0.09	85.5	42.8	60.5
Habitat stratum Mean	28	0.58		5,379.0	896.5	
Habitat stratum SD		0.90			1472.9	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	4	0.25	0.00	55.5	27.8	2.5
West of Maryland Shoal	19	1.19	0.44	2,051.0	1025.5	24.7
West of Looe Key	4	0.25	0.18	461.0	230.5	286.4
East of American Shoal	4	0.25	0.18	49.8	24.9	30.9
Big Pine Shoal	4	0.25	0.18	464.0	232.0	226.3
East of Sombrero Reef	12	0.75	0.35	893.0	446.5	37.7
SW of Tennessee Light	12	0.75	0.00	1,393.0	696.5	164.8
Tennessee Reef RO**	12	0.75	0.35	1,448.1	724.1	43.9
Tennessee Reef RO**	9	0.56	0.27	1,079.0	539.5	133.6
Northeast of Alligator Light	5	0.31	0.09	397.5	198.8	134.7
North of Davis Reef	2	0.13	0.18	393.2	196.6	278.0
North of Molasses Reef	1	0.06	0.09	45.0	22.5	31.8
North of French Reef SPA	3	0.19	0.09	18.2	9.1	12.4
North of Dixie Shoal	3	0.19	0.09	1,162.9	581.4	543.9
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	2	0.13	0.00	21.3	10.6	9.7
North of Carysfort Reef	1	0.06	0.09	35.0	17.5	24.7
North of Carysfort Reef	7	0.44	0.09	1,068.2	534.1	309.9
NE of Turtle Reef	14	0.88	0.18	3,291.5	1645.8	71.1
Near SE BNP Boundary	14	0.88	0.18	1,348.0	674.0	705.0
Near SE BNP Boundary	14	0.88	0.35	1,508.0	754.0	967.3
Near SE BNP Boundary	1	0.06	0.09	936.0	468.0	661.9
Star Reef	7	0.44	0.62	301.0	150.5	212.8
Habitat stratum Mean	154	0.42		18,420.0	400.4	
Habitat stratum SD		0.34			407.2	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	3	0.19	0.27	14.5	7.3	10.3
North of Sand Key Channel	15	0.94	0.44	734.6	367.3	351.9
East of Rock Key	9	0.56	0.09	323.8	161.9	135.2
West of Pelican Shoal	5	0.31	0.09	92.3	46.1	22.5
Big Pine Shoal	6	0.38	0.18	1,306.0	653.0	734.0
South of Money Key	13	0.81	0.09	1,527.0	763.5	145.0
East of Sombrero Light	4	0.25	0.00	136.5	68.3	24.4
Northeast of Alligator Light	15	0.94	0.62	2,393.0	1196.5	1097.4
Near Grecian Rocks	2	0.13	0.18	57.0	28.5	40.3
Inshore of Long Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Star Reef	12	0.75	0.18	905.2	452.6	223.3
Habitat stratum Mean	84	0.48		7,489.8	340.4	
Habitat stratum SD		0.34			392.4	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	14	0.88	0.88	183.6	91.8	111.5
Sand Key SPA**	14	0.88	0.35	387.0	193.5	221.3
Key West Ship Channel	4	0.25	0.00	351.0	175.5	215.7
Marker 32	8	0.50	0.53	208.8	104.4	141.2
Western Sambo ER**	8	0.50	0.18	146.0	73.0	70.7
NW of Western Sambo	7	0.44	0.09	122.5	61.3	86.6
East of Looe Key	3	0.19	0.09	559.0	279.5	78.5

Table 15 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	0	0.00	0.00	0.0	0.0	0.0
East of Alligator Light	10	0.63	0.18	1,916.5	958.3	356.0
Crocker Reef	10	0.63	0.18	2,175.0	1087.5	578.4
Davis Reef SPA**	6	0.38	0.18	958.5	479.3	368.0
Davis Reef SPA**	3	0.19	0.09	414.3	207.2	250.1
South of Elbow Reef	3	0.19	0.09	114.9	57.5	14.2
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	3	0.19	0.27	156.3	78.2	110.5
Fowey Rocks	11	0.69	0.62	401.3	200.6	237.5
Habitat stratum Mean	104	0.41		8,094.6	253.0	
Habitat stratum SD		0.28			323.9	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	5	0.31	0.09	116.0	58.0	26.9
West of Ship Channel	1	0.06	0.09	60.0	30.0	42.4
Key West Ship Channel	8	0.50	0.71	475.0	237.5	335.9
West of Marker 32	8	0.50	0.00	331.5	165.8	92.3
East of American Shoal	2	0.13	0.00	132.0	66.0	8.5
East of Looe Key	7	0.44	0.27	308.9	154.4	181.3
Offshore of Sombrero Reef	1	0.06	0.09	54.0	27.0	38.2
Northeast of Alligator Light	3	0.19	0.09	553.0	276.5	4.9
Northeast of Alligator Light	4	0.25	0.18	48.4	24.2	17.3
Offshore of Little Conch	8	0.50	0.35	2,228.5	1114.3	737.2
Offshore of Pickles Reef	3	0.19	0.09	15.8	7.9	1.2
Offshore of Pickles Reef	2	0.13	0.00	52.5	26.3	19.4
Offshore of Molasses SPA	15	0.94	0.62	425.0	212.5	84.9
Northeast of Elbow Reef SPA	0	0.00	0.00	0.0	0.0	0.0
Near SE BNP Boundary	0	0.00	0.00	0.0	0.0	0.0
Northeast of Triumph Reef	2	0.13	0.18	44.7	22.4	31.6
Habitat stratum Mean	69	0.27		4,845.2	151.4	
Habitat stratum SD		0.25			272.7	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	2	0.13	0.00	73.5	36.8	1.1
Offshore of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
West of American Shoal	0	0.00	0.00	0.0	0.0	0.0
SW of Alligator Light	2	0.13	0.18	576.0	288.0	407.3
Offshore of Little Conch	1	0.06	0.09	15.8	7.9	11.2
Offshore of Little Conch	1	0.06	0.09	378.0	189.0	267.3
Offshore of Dry Rocks	1	0.06	0.09	30.0	15.0	21.2
Offshore of Dry Rocks	1	0.06	0.09	54.0	27.0	38.2
Offshore of Elbow Reef	1	0.06	0.09	144.0	72.0	101.8
Habitat stratum Mean	9	0.06		1,271.3	70.6	
Habitat stratum SD		0.04			100.8	

Table 16. Numbers of individuals, mean density (no. individuals/m²), total volume, and mean volume (cm³) per 8 m² transect for the amorphous sponge *Ircinia strobilina*. Data are based upon surveys of two 8 m² plots per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>	16	1.00	0.35	1,457.5	728.8	198.3
North of Vestal Shoal	9	0.56	0.27	2,186.0	1093.0	700.0
North of Vestal Shoal	2	0.13	0.18	834.0	417.0	589.7
North of Sand Key Channel	6	0.38	0.18	2,904.0	1452.0	763.7
North of Sand Key Channel	15	0.94	0.27	3,851.0	1925.5	1065.6
North of Sand Key Channel	4	0.25	0.00	2,774.0	1387.0	1226.1
SE of Middle Grounds	11	0.69	0.27	7,275.0	3637.5	2865.9
North of Rock Key	10	0.63	0.18	2,292.0	1146.0	116.0
Western Sambo ER**	8	0.50	0.18	1,935.0	967.5	163.3
Western Sambo ER**	5	0.31	0.09	2,058.0	1029.0	236.2
North of Middle Sambo	6	0.38	0.35	3,889.0	1944.5	2601.4
North of E. Sambo RO	8	0.50	0.18	1,686.0	843.0	852.8
North of E. Sambo RO	14	0.88	0.71	5,021.0	2510.5	2523.7
North of E. Sambo RO	9	0.56	0.44	3,525.0	1762.5	1831.4
North of Pelican Shoal	10	0.63	0.18	7,575.0	3787.5	2065.5
North of Pelican Shoal	4	0.25	0.00	1,661.0	830.5	1067.0
North of Pelican Shoal	8	0.50	0.35	5,723.0	2861.5	980.8
North of Pelican Shoal	9	0.56	0.09	5,330.0	2665.0	2564.0
West Washerwoman	8	0.50	0.18	2,594.5	1297.3	496.7
Inshore of American Shoal	2	0.13	0.18	150.0	75.0	106.1
Inshore of American Shoal	7	0.44	0.27	8,900.0	4450.0	1917.7
Inshore of Looe Key RO	16	1.00	0.35	1,457.5	728.8	198.3
Due east of Marker 45	5	0.31	0.09	2,859.0	1429.5	680.9
West end of Marathon	2	0.13	0.18	480.8	240.4	339.9
West end of Marathon	0	0.00	0.00	0.0	0.0	0.0
South of Marathon	3	0.19	0.27	331.0	165.5	234.1
South of Marathon	3	0.19	0.09	449.5	224.8	241.5
West Turtle Shoal	5	0.31	0.09	1,018.0	509.0	103.2
Marker 45	2	0.13	0.00	5,830.0	2915.0	3749.1
Southeast of Marker 45	0	0.00	0.00	0.0	0.0	0.0
East Washerwoman	3	0.19	0.09	4,074.0	2037.0	2541.3
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	1	0.06	0.09	1,210.0	605.0	855.6
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	2	0.13	0.18	20,520.0	10260.0	14509.8
Basin Hill Shoals	6	0.38	0.18	25,540.0	12770.0	14246.8
Basin Hill Shoals	1	0.06	0.09	8,820.0	4410.0	6236.7
Basin Hill Shoals	8	0.50	0.18	11,278.0	5639.0	2493.3
Basin Hill Shoals	6	0.38	0.18	11,768.8	5884.4	3158.8
North of Turtle Reef	4	0.25	0.18	628.8	314.4	154.3
Southeast of Caesar Creek	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	5	0.31	0.27	535.0	267.5	289.2
Northeast of Caesar Creek	1	0.06	0.09	1,280.0	640.0	905.1
Inshore of Pacific Reef	4	0.25	0.35	2,313.0	1156.5	1635.5
South of Margot Fish Shoal	6	0.38	0.00	3,074.0	1537.0	554.4
Margot Fish Shoal	5	0.31	0.27	5,446.5	2723.3	2419.4
Inshore of Ajax Reef	2	0.13	0.18	1,352.0	676.0	956.0
SE of Margot Fish Shoal	1	0.06	0.09	1,080.0	540.0	763.7
Inshore of Long Reef	5	0.31	0.09	2,717.5	1358.8	539.2
Northeast Bowles Bank	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	251	0.31		186,226.8	1825.8	
Habitat stratum SD		0.25			2473.2	
<i>Offshore patch reefs</i>						
North of Sand Key	9	0.56	0.09	5,829.0	2914.5	178.9
North of Sand Key	8	0.50	0.18	5,175.0	2587.5	1340.0
West of Ship Channel	14	0.88	0.53	4,828.0	2414.0	2713.9
Western Sambo ER**	5	0.31	0.09	1,491.0	745.5	348.6
Western Sambo ER**	2	0.13	0.00	1,064.0	532.0	616.6
Inshore of Eastern Sambo	11	0.69	0.09	3,045.0	1522.5	89.8

Table 16 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	9	0.56	0.09	2,315.0	1157.5	191.6
Looe Key RO**	5	0.31	0.09	1,476.0	738.0	42.4
Looe Key RO**	5	0.31	0.09	1,910.0	955.0	468.1
East of Looe Key RO	4	0.25	0.00	1,828.0	914.0	636.4
Inshore of Conch Reef	7	0.44	0.09	2,961.6	1480.8	1156.5
Inshore of Pickles Reef	1	0.06	0.09	44.0	22.0	31.1
Inside of Molasses Reef	4	0.25	0.00	7,935.3	3967.7	1796.5
Inshore of Molasses Reef	1	0.06	0.09	850.0	425.0	601.0
East of WB/Dry Rocks	2	0.13	0.00	422.3	211.1	142.7
Inshore of Molasses Reef	1	0.06	0.09	214.5	107.3	151.7
Southwest of Elbow Reef	4	0.25	0.18	635.3	317.6	242.4
Near Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	7	0.44	0.09	4,622.9	2311.5	2513.0
Carysfort Reef SPA**	1	0.06	0.09	15.0	7.5	10.6
North of Carysfort Reef	9	0.56	0.27	4,883.6	2441.8	511.6
North of Turtle Reef	5	0.31	0.27	3,900.0	1950.0	2520.1
North of Turtle Reef	10	0.63	0.00	6,803.0	3401.5	993.5
SW of Pacific Reef	3	0.19	0.27	240.0	120.0	169.7
SW of Triumph Reef	3	0.19	0.27	1,010.0	505.0	714.2
SW of Triumph Reef	4	0.25	0.35	1,481.0	740.5	1047.2
Inshore of Star Reef	3	0.19	0.09	1,331.4	665.7	54.2
Habitat stratum Mean	137	0.32		66,310.8	1228.0	
Habitat stratum SD		0.22			1131.8	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	1	0.06	0.09	832.0	416.0	588.3
North Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
North North Dry Rocks	2	0.13	0.00	1,532.8	766.4	224.3
Habitat stratum Mean	3	0.04		2,364.8	236.5	
Habitat stratum SD		0.06			346.7	
<i>High-relief spur & groove</i>						
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	1	0.06	0.09	480.0	240.0	339.4
American Shoal	0	0.00	0.00	0.0	0.0	0.0
Looe Key SPA**	1	0.06	0.09	275.0	137.5	194.5
Looe Key SPA**	1	0.06	0.09	1,300.0	650.0	919.2
Sombrero Key SPA**	2	0.13	0.00	915.0	457.5	53.0
Sombrero Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	1	0.06	0.09	30.0	15.0	21.2
Molasses Reef SPA**	1	0.06	0.09	1.5	0.8	1.1
Sand Island	1	0.06	0.09	572.0	286.0	404.5
Sand Island	0	0.00	0.00	0.0	0.0	0.0
South of S. Carysfort	0	0.00	0.00	0.0	0.0	0.0
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	1	0.06	0.09	2.0	1.0	1.4
Habitat stratum Mean	9	0.03		3,575.5	94.1	
Habitat stratum SD		0.04			185.9	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	0	0.00	0.00	0.0	0.0	0.0
Maryland Shoal	3	0.19	0.09	1,093.5	546.8	533.5
Northeast of Alligator Light	1	0.06	0.09	912.0	456.0	644.9
Conch Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Conch Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Pickles Reef P4	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	1	0.06	0.09	1,560.0	780.0	1103.1
French Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Northeast of Marker 8	0	0.00	0.00	0.0	0.0	0.0

Table 16 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	2	0.13	0.00	780.0	390.0	195.2
SW of Watson's Reef	2	0.13	0.00	1,860.0	930.0	551.5
Carysfort Reef SPA	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	3	0.19	0.09	3,240.0	1620.0	1103.1
Inshore of Pacific Reef	3	0.19	0.09	2,965.0	1482.5	958.1
Long Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	15	0.06		12,410.5	413.7	
Habitat stratum SD		0.08			559.8	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	1	0.06	0.09	825.0	412.5	583.4
Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	1	0.02		825.0	137.5	
Habitat stratum SD		0.04			238.2	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	4	0.25	0.00	557.0	278.5	210.0
West of Maryland Shoal	6	0.38	0.35	3,585.0	1792.5	2416.2
West of Looe Key	2	0.13	0.00	1,674.0	837.0	496.4
East of American Shoal	2	0.13	0.00	725.0	362.5	166.2
Big Pine Shoal	0	0.00	0.00	0.0	0.0	0.0
East of Sombrero Reef	5	0.31	0.09	1,894.0	947.0	243.2
SW of Tennessee Light	1	0.06	0.09	12.0	6.0	8.5
Tennessee Reef RO**	3	0.19	0.09	475.0	237.5	3.5
Tennessee Reef RO**	3	0.19	0.27	500.0	250.0	353.6
Northeast of Alligator Light	5	0.31	0.27	768.0	384.0	127.3
North of Davis Reef	1	0.06	0.09	3,476.3	1738.2	2458.1
North of Molasses Reef	1	0.06	0.09	40.5	20.3	28.6
North of French Reef SPA	0	0.00	0.00	0.0	0.0	0.0
North of Dixie Shoal	1	0.06	0.09	72.0	36.0	50.9
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	9	0.56	0.09	6,414.0	3207.0	594.0
NE of Turtle Reef	2	0.13	0.18	464.0	232.0	328.1
Near SE BNP Boundary	2	0.13	0.18	1,481.0	740.5	1047.2
Near SE BNP Boundary	1	0.06	0.09	960.0	480.0	678.8
Near SE BNP Boundary	3	0.19	0.27	14,350.0	7175.0	10147.0
Star Reef	3	0.19	0.09	2,840.0	1420.0	605.3
Habitat stratum Mean	54	0.15		40,287.8	875.8	
Habitat stratum SD		0.14			1585.2	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	2	0.13	0.00	1,545.0	772.5	944.0
North of Sand Key Channel	3	0.19	0.09	3,441.0	1720.5	596.1
East of Rock Key	3	0.19	0.09	830.0	415.0	190.9
West of Pelican Shoal	1	0.06	0.09	294.0	147.0	207.9
Big Pine Shoal	1	0.06	0.09	936.0	468.0	661.9
South of Money Key	1	0.06	0.09	385.0	192.5	272.2
East of Sombrero Light	4	0.25	0.18	3,238.0	1619.0	1460.9
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Near Grecian Rocks	1	0.06	0.09	15.2	7.6	10.7
Inshore of Long Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Star Reef	1	0.06	0.09	264.0	132.0	186.7
Habitat stratum Mean	17	0.10		10,948.2	497.6	
Habitat stratum SD		0.08			626.2	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	1	0.06	0.09	224.0	112.0	158.4
Sand Key SPA**	1	0.06	0.09	80.0	40.0	56.6
Key West Ship Channel	2	0.13	0.00	1,174.0	587.0	824.5
Marker 32	4	0.25	0.35	830.5	415.3	587.3
Western Sambo ER**	2	0.13	0.18	1,584.0	792.0	1120.1
NW of Western Sambo	2	0.13	0.18	514.0	257.0	363.5
East of Looe Key	2	0.13	0.00	709.0	354.5	3.5

Table 16 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	2	0.13	0.00	2,683.0	1341.5	637.1
East of Alligator Light	3	0.19	0.09	1,634.0	817.0	151.3
Crocker Reef	4	0.25	0.00	680.0	340.0	333.8
Davis Reef SPA**	5	0.31	0.09	1,189.5	594.8	701.1
Davis Reef SPA**	1	0.06	0.09	864.0	432.0	610.9
South of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	1	0.06	0.09	54.0	27.0	38.2
Fowey Rocks	2	0.13	0.18	108.0	54.0	76.4
Habitat stratum Mean	32	0.13		12,328.0	385.3	
Habitat stratum SD		0.09			374.4	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	4	0.25	0.18	2,703.0	1351.5	1522.4
West of Ship Channel	1	0.06	0.09	24.0	12.0	17.0
Key West Ship Channel	7	0.44	0.27	1,324.0	662.0	469.5
West of Marker 32	1	0.06	0.09	99.0	49.5	70.0
East of American Shoal	1	0.06	0.09	32.0	16.0	22.6
East of Looe Key	15	0.94	0.27	1,937.0	968.5	341.5
Offshore of Sombrero Reef	3	0.19	0.09	1,183.0	591.5	610.2
Northeast of Alligator Light	1	0.06	0.09	780.0	390.0	551.5
Northeast of Alligator Light	2	0.13	0.00	160.0	80.0	90.5
Offshore of Little Conch	4	0.25	0.18	4,851.0	2425.5	133.6
Offshore of Pickles Reef	1	0.06	0.09	780.0	390.0	551.5
Offshore of Pickles Reef	2	0.13	0.18	635.0	898.0	1533.0
Offshore of Molasses SPA	2	0.13	0.00	222.0	111.0	97.6
Northeast of Elbow Reef SPA	1	0.06	0.09	49.5	24.8	35.0
Near SE BNP Boundary	7	0.44	0.09	1,055.0	527.5	474.5
Northeast of Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	52	0.20		15,834.5	531.1	
Habitat stratum SD		0.24			649.8	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	3	0.19	0.09	636.0	318.0	173.9
Offshore of Pelican Shoal	3	0.19	0.09	2,381.0	1190.5	594.7
West of American Shoal	1	0.06	0.09	560.0	280.0	396.0
SW of Alligator Light	3	0.19	0.27	1,020.0	510.0	721.2
Offshore of Little Conch	0	0.00	0.00	0.0	0.0	0.0
Offshore of Little Conch	0	0.00	0.00	0.0	0.0	0.0
Offshore of Dry Rocks	2	0.13	0.18	580.8	290.4	410.7
Offshore of Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Offshore of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	12	0.08		5,177.8	287.7	
Habitat stratum SD		0.09			386.7	

Table 17. Numbers of individuals, mean density (no. individuals/m²), total volume, and mean volume (cm³) per 8 m² transect for the tube/vase sponge *Niphates digitalis*. Data are based upon surveys of two 8 m² plots per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>						
North of Vestal Shoal	5	0.31	0.27	163.8	81.9	105.9
North of Vestal Shoal	1	0.06	0.09	38.2	19.1	27.0
North of Sand Key Channel	6	0.38	0.18	329.5	164.8	168.6
North of Sand Key Channel	13	0.81	0.27	766.4	383.2	146.5
North of Sand Key Channel	6	0.38	0.18	425.1	212.5	154.5
SE of Middle Grounds	5	0.31	0.09	799.5	399.7	437.2
North of Rock Key	3	0.19	0.09	104.9	52.4	20.3
Western Sambo ER**	9	0.56	0.27	483.1	241.6	0.2
Western Sambo ER**	3	0.19	0.27	58.5	29.3	41.4
North of Middle Sambo	3	0.19	0.27	509.9	255.0	360.6
North of E. Sambo RO	1	0.06	0.09	21.1	10.6	14.9
North of E. Sambo RO	5	0.31	0.09	163.2	81.6	38.1
North of E. Sambo RO	1	0.06	0.09	16.5	8.3	11.7
North of Pelican Shoal	3	0.19	0.09	122.4	61.2	12.9
North of Pelican Shoal	8	0.50	0.18	555.5	277.8	272.8
North of Pelican Shoal	4	0.25	0.00	77.8	38.9	19.9
North of Pelican Shoal	6	0.38	0.00	887.0	443.5	10.7
West Washerwoman	2	0.13	0.00	167.4	83.7	46.4
Inshore of American Shoal	4	0.25	0.18	128.9	64.4	50.9
Inshore of American Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Looe Key RO	2	0.13	0.18	400.5	200.3	283.2
Due east of Marker 45	2	0.13	0.00	574.0	287.0	363.5
West end of Marathon	1	0.06	0.09	60.0	30.0	42.4
West end of Marathon	0	0.00	0.00	0.0	0.0	0.0
South of Marathon	3	0.19	0.09	441.1	220.6	112.3
South of Marathon	0	0.00	0.00	0.0	0.0	0.0
West Turtle Shoal	3	0.19	0.27	109.4	54.7	77.4
Marker 45	2	0.13	0.18	50.2	25.1	35.5
Southeast of Marker 45	2	0.13	0.18	67.8	33.9	47.9
East Washerwoman	1	0.06	0.09	31.4	15.7	22.2
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
North of Turtle Reef	4	0.25	0.18	2,610.5	1305.3	1732.1
Southeast of Caesar Creek	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	2	0.13	0.18	204.1	102.1	144.3
Northeast of Caesar Creek	1	0.06	0.09	18.0	9.0	12.7
Inshore of Pacific Reef	9	0.56	0.09	502.0	251.0	152.5
South of Margot Fish Shoal	3	0.19	0.09	922.9	461.4	614.2
Margot Fish Shoal	6	0.38	0.53	227.9	114.0	161.2
Inshore of Ajax Reef	8	0.50	0.53	404.5	202.3	199.7
SE of Margot Fish Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Long Reef	5	0.31	0.09	163.7	81.9	70.2
Northeast Bowles Bank	4	0.25	0.18	326.1	163.0	83.3
Habitat stratum Mean	146	0.18		12,932.8	126.8	
Habitat stratum SD		0.19			211.9	
<i>Offshore patch reefs</i>						
North of Sand Key	5	0.31	0.27	730.8	365.4	419.3
North of Sand Key	8	0.50	0.18	261.1	130.6	50.3
West of Ship Channel	3	0.19	0.09	167.9	83.9	14.8
Western Sambo ER**	3	0.19	0.27	85.4	42.7	60.4
Western Sambo ER**	2	0.13	0.18	22.0	11.0	15.6
Inshore of Eastern Sambo	8	0.50	0.00	357.5	178.7	18.0

Table 17 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	4	0.25	0.18	201.4	100.7	24.1
Looe Key RO**	7	0.44	0.44	300.0	150.0	164.2
Looe Key RO**	5	0.31	0.09	65.9	32.9	11.6
East of Looe Key RO	8	0.50	0.35	229.6	114.8	102.1
Inshore of Conch Reef	8	0.50	0.35	335.4	167.7	113.3
Inshore of Pickles Reef	8	0.50	0.35	448.2	224.1	204.5
Inside of Molasses Reef	4	0.25	0.18	440.0	220.0	300.5
Inshore of Molasses Reef	5	0.31	0.27	72.4	36.2	29.4
East of WB/Dry Rocks	3	0.19	0.09	31.1	15.5	10.5
Inshore of Molasses Reef	5	0.31	0.27	483.4	241.7	195.8
Southwest of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Near Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	8	0.50	0.00	1,262.1	631.1	138.5
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
North of Turtle Reef	9	0.56	0.09	1,799.0	899.5	70.0
North of Turtle Reef	8	0.50	0.35	254.1	127.1	47.1
SW of Pacific Reef	3	0.19	0.09	170.1	85.0	86.3
SW of Triumph Reef	1	0.06	0.09	477.7	238.9	337.8
SW of Triumph Reef	6	0.38	0.18	320.3	160.2	0.9
Inshore of Star Reef	3	0.19	0.27	46.6	23.3	32.9
Habitat stratum Mean	124	0.29		8,561.8	158.6	
Habitat stratum SD		0.18			201.9	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
North Dry Rocks	1	0.06	0.09	39.0	19.5	27.6
North North Dry Rocks	1	0.06	0.09	35.6	17.8	25.2
Habitat stratum Mean	2	0.03		74.6	7.5	
Habitat stratum SD		0.03			10.2	
<i>High-relief spur & groove</i>						
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	9	0.56	0.27	315.8	157.9	90.8
American Shoal	3	0.19	0.27	128.8	64.4	91.1
Looe Key SPA**	10	0.63	0.18	874.0	437.0	105.5
Looe Key SPA**	4	0.25	0.35	373.5	186.8	264.1
Sombrero Key SPA**	9	0.56	0.09	287.0	143.5	63.7
Sombrero Reef SPA**	3	0.19	0.27	38.7	19.4	27.4
Molasses Reef SPA**	4	0.25	0.35	131.7	65.9	93.1
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Sand Island	1	0.06	0.09	14.5	7.3	10.3
Sand Island	1	0.06	0.09	92.6	46.3	65.5
South of S. Carysfort	1	0.06	0.09	44.9	22.5	31.7
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	8	0.50	0.18	488.5	244.3	183.1
Habitat stratum Mean	53	0.17		2,790.0	73.4	
Habitat stratum SD		0.22			115.5	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	2	0.13	0.18	41.8	20.9	29.6
Maryland Shoal	1	0.06	0.09	24.7	12.4	17.5
Northeast of Alligator Light	3	0.19	0.27	241.1	120.5	170.5
Conch Reef SPA**	1	0.06	0.09	20.0	10.0	14.1
Conch Reef SPA**	3	0.19	0.09	238.6	119.3	130.4
Pickles Reef P4	4	0.25	0.35	238.5	119.3	168.6
Molasses Reef SPA**	2	0.13	0.00	99.6	49.8	42.7
French Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Northeast of Marker 8	5	0.31	0.09	115.4	57.7	51.7

Table 17 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA	3	0.19	0.09	77.3	38.7	16.5
SW of Pacific Reef	1	0.06	0.09	124.6	62.3	88.1
Inshore of Pacific Reef	6	0.38	0.18	849.7	424.8	348.1
Long Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	31	0.13		2,071.2	69.0	
Habitat stratum SD		0.12			108.2	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	1	0.06	0.09	21.1	10.6	14.9
Triumph Reef	1	0.06	0.09	52.5	26.3	37.1
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	2	0.04		73.6	12.3	
Habitat stratum SD		0.04			13.2	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	9	0.56	0.09	556.6	278.3	16.5
West of Maryland Shoal	0	0.00	0.00	0.0	0.0	0.0
West of Looe Key	5	0.31	0.09	131.3	65.7	59.1
East of American Shoal	3	0.19	0.09	40.7	20.4	1.0
Big Pine Shoal	1	0.06	0.09	79.2	39.6	56.0
East of Sombrero Reef	4	0.25	0.18	68.7	34.4	33.0
SW of Tennessee Light	3	0.19	0.09	129.9	65.0	26.2
Tennessee Reef RO**	8	0.50	0.18	306.1	153.0	106.7
Tennessee Reef RO**	7	0.44	0.27	513.1	256.5	280.7
Northeast of Alligator Light	4	0.25	0.00	248.4	124.2	59.3
North of Davis Reef	8	0.50	0.00	82.8	41.4	11.8
North of Molasses Reef	7	0.44	0.09	322.9	161.5	153.8
North of French Reef SPA	4	0.25	0.00	434.1	217.1	263.8
North of Dixie Shoal	2	0.13	0.00	363.6	181.8	89.4
South Carysfort Reef SPA**	1	0.06	0.09	5.6	2.8	4.0
Carysfort Reef SPA**	3	0.19	0.09	263.1	131.5	57.7
North of Carysfort Reef	9	0.56	0.27	177.2	88.6	62.8
North of Carysfort Reef	9	0.56	0.09	612.1	306.1	175.0
NE of Turtle Reef	6	0.38	0.35	261.2	130.6	88.0
Near SE BNP Boundary	8	0.50	0.00	704.3	352.1	357.8
Near SE BNP Boundary	3	0.19	0.09	1,023.8	511.9	584.0
Near SE BNP Boundary	4	0.25	0.00	316.9	158.4	19.8
Star Reef	3	0.19	0.09	255.4	127.7	146.3
Habitat stratum Mean	111	0.30		6,897.0	149.9	
Habitat stratum SD		0.18			125.8	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	2	0.13	0.00	55.8	27.9	34.3
North of Sand Key Channel	8	0.50	0.18	145.0	72.5	51.2
East of Rock Key	5	0.31	0.09	139.7	69.9	0.2
West of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
Big Pine Shoal	4	0.25	0.18	144.3	72.2	60.5
South of Money Key	3	0.19	0.09	230.9	115.5	57.4
East of Sombrero Light	0	0.00	0.00	0.0	0.0	0.0
Northeast of Alligator Light	4	0.25	0.18	506.8	253.4	161.7
Near Grecian Rocks	2	0.13	0.00	136.0	68.0	53.2
Inshore of Long Reef	9	0.56	0.27	837.2	418.6	162.7
Inshore of Star Reef	8	0.50	0.00	1,165.7	582.9	316.1
Habitat stratum Mean	45	0.26		3,361.6	152.8	
Habitat stratum SD		0.20			188.8	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	8	0.50	0.18	280.1	140.1	97.9
Sand Key SPA**	11	0.69	0.27	313.9	157.0	39.2
Key West Ship Channel	4	0.25	0.00	192.9	96.5	77.4
Marker 32	8	0.50	0.35	305.7	152.9	148.0
Western Sambo ER**	8	0.50	0.00	438.9	219.5	170.1
NW of Western Sambo	3	0.19	0.09	230.7	115.4	143.9
East of Looe Key	5	0.31	0.09	437.6	218.8	181.0

Table 17 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	0	0.00	0.00	0.0	0.0	0.0
East of Alligator Light	5	0.31	0.09	370.7	185.3	179.3
Crocker Reef	3	0.19	0.09	41.4	20.7	26.4
Davis Reef SPA**	4	0.25	0.18	866.3	433.1	536.0
Davis Reef SPA**	7	0.44	0.09	761.5	380.8	12.2
South of Elbow Reef	12	0.75	0.18	864.9	432.5	449.5
Carysfort Reef SPA**	4	0.25	0.00	149.1	74.6	2.7
North of Carysfort Reef	5	0.31	0.44	555.4	277.7	392.7
Fowey Rocks	9	0.56	0.44	675.1	337.5	12.9
Habitat stratum Mean	96	0.38		6,484.4	202.6	
Habitat stratum SD		0.20			136.7	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	8	0.50	0.18	264.4	132.2	98.6
West of Ship Channel	4	0.25	0.18	329.6	164.8	86.8
Key West Ship Channel	4	0.25	0.00	275.9	137.9	156.2
West of Marker 32	7	0.44	0.09	263.7	131.8	120.8
East of American Shoal	4	0.25	0.18	200.6	100.3	61.8
East of Looe Key	29	1.81	0.62	1,325.5	662.8	143.9
Offshore of Sombrero Reef	6	0.38	0.00	474.6	237.3	234.9
Northeast of Alligator Light	9	0.56	0.09	877.6	438.8	4.8
Northeast of Alligator Light	4	0.25	0.35	412.1	206.1	291.4
Offshore of Little Conch	7	0.44	0.27	457.5	228.8	263.7
Offshore of Pickles Reef	9	0.56	0.27	1,099.8	549.9	96.4
Offshore of Pickles Reef	13	0.81	0.09	699.6	349.8	138.2
Offshore of Molasses SPA	12	0.75	0.35	815.2	407.6	26.6
Northeast of Elbow Reef SPA	17	1.06	0.44	3,384.3	1692.2	1778.6
Near SE BNP Boundary	7	0.44	0.27	2,633.6	1316.8	169.6
Northeast of Triumph Reef	8	0.50	0.00	321.9	160.9	187.3
Habitat stratum Mean	148	0.58		13,835.8	432.4	
Habitat stratum SD		0.40			454.4	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	4	0.25	0.18	152.0	76.0	70.0
Offshore of Pelican Shoal	3	0.19	0.27	174.7	87.4	123.5
West of American Shoal	6	0.38	0.18	447.9	223.9	283.8
SW of Alligator Light	5	0.31	0.09	116.8	58.4	58.3
Offshore of Little Conch	8	0.50	0.18	327.3	163.7	124.7
Offshore of Little Conch	13	0.81	0.09	724.6	362.3	289.8
Offshore of Dry Rocks	8	0.50	0.18	689.6	344.8	24.2
Offshore of Dry Rocks	6	0.38	0.35	677.0	338.5	150.9
Offshore of Elbow Reef	2	0.13	0.00	646.3	323.1	439.0
Habitat stratum Mean	55	0.38		3,956.2	219.8	
Habitat stratum SD		0.21			126.6	

Table 18. Numbers of individuals, mean density (no. individuals/m²), total volume, and mean volume (cm³) per 8 m² transect for the massive sponge *Xestospongia muta*. Data are based upon surveys of two 8 m² plots per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>						
North of Vestal Shoal	4	0.25	0.18	21,680.0	10840.0	13401.9
North of Vestal Shoal	1	0.06	0.09	132.0	66.0	93.3
North of Sand Key Channel	3	0.19	0.09	39,118.3	19559.1	21896.2
North of Sand Key Channel	7	0.44	0.44	11,711.2	5855.6	8255.6
North of Sand Key Channel	1	0.06	0.09	688.0	344.0	486.5
SE of Middle Grounds	6	0.38	0.35	7,918.1	3959.1	4155.0
North of Rock Key	3	0.19	0.09	11,581.5	5790.7	6132.3
Western Sambo ER**	6	0.38	0.18	140,429.1	70214.5	33823.6
Western Sambo ER**	1	0.06	0.09	120.0	60.0	84.9
North of Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
North of E. Sambo RO	1	0.06	0.09	3,780.0	1890.0	2672.9
North of E. Sambo RO	1	0.06	0.09	5,123.1	2561.6	3622.6
North of E. Sambo RO	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
North of Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
West Washerwoman	0	0.00	0.00	0.0	0.0	0.0
Inshore of American Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of American Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Looe Key RO	0	0.00	0.00	0.0	0.0	0.0
Due east of Marker 45	1	0.06	0.09	300.0	150.0	212.1
West end of Marathon	0	0.00	0.00	0.0	0.0	0.0
West end of Marathon	0	0.00	0.00	0.0	0.0	0.0
South of Marathon	1	0.06	0.09	219.9	110.0	155.5
South of Marathon	0	0.00	0.00	0.0	0.0	0.0
West Turtle Shoal	0	0.00	0.00	0.0	0.0	0.0
Marker 45	0	0.00	0.00	0.0	0.0	0.0
Southeast of Marker 45	0	0.00	0.00	0.0	0.0	0.0
East Washerwoman	1	0.06	0.09	3,267.3	1633.7	2310.3
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Cheeca Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Tavernier Rocks	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
Basin Hill Shoals	0	0.00	0.00	0.0	0.0	0.0
North of Turtle Reef	0	0.00	0.00	0.0	0.0	0.0
Southeast of Caesar Creek	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
Northeast of Caesar Creek	0	0.00	0.00	0.0	0.0	0.0
Inshore of Pacific Reef	1	0.06	0.09	8,379.0	4189.5	5924.8
South of Margot Fish Shoal	0	0.00	0.00	0.0	0.0	0.0
Margot Fish Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
SE of Margot Fish Shoal	0	0.00	0.00	0.0	0.0	0.0
Inshore of Long Reef	0	0.00	0.00	0.0	0.0	0.0
Northeast Bowles Bank	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	38	0.05		254,447.5	2494.6	
Habitat stratum SD		0.10			10224.3	
<i>Offshore patch reefs</i>						
North of Sand Key	7	0.44	0.27	93,169.7	46584.9	5144.6
North of Sand Key	5	0.31	0.09	96,208.1	48104.0	45790.5
West of Ship Channel	1	0.06	0.09	28.0	14.0	19.8
Western Sambo ER**	1	0.06	0.09	20,871.9	10436.0	14758.7
Western Sambo ER**	4	0.25	0.00	6,692.0	3346.0	4138.0
Inshore of Eastern Sambo	6	0.38	0.18	28,316.9	14158.5	19609.5

Table 18 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
West of Looe Key RO	3	0.19	0.09	70,448.3	35224.2	15982.0
Looe Key RO**	1	0.06	0.09	3,528.0	1764.0	2494.7
Looe Key RO**	6	0.38	0.00	56,896.6	28448.3	9370.2
East of Looe Key RO	5	0.31	0.27	60,586.7	30293.3	37073.3
Inshore of Conch Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Pickles Reef	0	0.00	0.00	0.0	0.0	0.0
Inside of Molasses Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Molasses Reef	0	0.00	0.00	0.0	0.0	0.0
East of WB/Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Inshore of Molasses Reef	0	0.00	0.00	0.0	0.0	0.0
Southwest of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Near Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
North of Turtle Reef	6	0.38	0.35	23,846.2	11923.1	16327.9
North of Turtle Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Triumph Reef	1	0.06	0.09	84.0	42.0	59.4
SW of Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Star Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	46	0.11		460,676.4	8531.0	
Habitat stratum SD		0.15			15131.1	
<i>Inner line reef tract spur & groove</i>						
Little Grecian Rocks	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
Key Largo Dry Rocks SPA**	0	0.00	0.00	0.0	0.0	0.0
North Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
North North Dry Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	0	0.00		0.0	0.0	
Habitat stratum SD		0.00			0.0	
<i>High-relief spur & groove</i>						
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Western Sambo ER**	0	0.00	0.00	0.0	0.0	0.0
Middle Sambo	0	0.00	0.00	0.0	0.0	0.0
Pelican Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	0	0.00	0.00	0.0	0.0	0.0
American Shoal	1	0.06	0.09	20,973.3	10486.6	14830.3
Looe Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Looe Key SPA**	1	0.06	0.09	869.5	434.8	614.8
Sombrero Key SPA**	1	0.06	0.09	18,265.2	9132.6	12915.4
Sombrero Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Sand Island	0	0.00	0.00	0.0	0.0	0.0
Sand Island	0	0.00	0.00	0.0	0.0	0.0
South of S. Carysfort	0	0.00	0.00	0.0	0.0	0.0
South Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Ajax Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	2	0.13	0.18	1,128.3	564.2	797.8
Habitat stratum Mean	5	0.02		41,236.3	1085.2	
Habitat stratum SD		0.04			3086.8	
<i>Low-relief hard-bottom (< 6 m)</i>						
East of Eastern Sambo RO	1	0.06	0.09	288.0	144.0	203.6
Maryland Shoal	1	0.06	0.09	20.0	10.0	14.1
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Conch Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Conch Reef SPA**	1	0.06	0.09	22.4	11.2	15.8
Pickles Reef P4	0	0.00	0.00	0.0	0.0	0.0
Molasses Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
French Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
Northeast of Marker 8	0	0.00	0.00	0.0	0.0	0.0

Table 18 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
SW of Watson's Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA	0	0.00	0.00	0.0	0.0	0.0
SW of Pacific Reef	0	0.00	0.00	0.0	0.0	0.0
Inshore of Pacific Reef	1	0.06	0.09	273.0	136.5	193.0
Long Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	4	0.02		603.4	20.1	
Habitat stratum SD		0.03			48.9	
<i>Low-relief spur & groove (< 6 m)</i>						
Coffins Patch	0	0.00	0.00	0.0	0.0	0.0
Triumph Reef	0	0.00	0.00	0.0	0.0	0.0
Fowey Rocks	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	0	0.00		0.0	0.0	
Habitat stratum SD		0.00			0.0	
<i>Low-relief hard-bottom (6-13 m)</i>						
Vestal Shoal	3	0.19	0.27	1,971.0	985.5	1393.7
West of Maryland Shoal	3	0.19	0.09	35,445.0	17722.5	6430.0
West of Looe Key	1	0.06	0.09	19,217.1	9608.6	13588.5
East of American Shoal	4	0.25	0.18	7,143.3	3571.7	4962.0
Big Pine Shoal	1	0.06	0.09	62,988.9	31494.4	44539.9
East of Sombrero Reef	1	0.06	0.09	1,393.7	696.9	985.5
SW of Tennessee Light	7	0.44	0.09	77,020.0	38510.0	26744.2
Tennessee Reef RO**	1	0.06	0.09	702.0	351.0	496.4
Tennessee Reef RO**	0	0.00	0.00	0.0	0.0	0.0
Northeast of Alligator Light	2	0.13	0.18	1,285.4	642.7	908.9
North of Davis Reef	0	0.00	0.00	0.0	0.0	0.0
North of Molasses Reef	3	0.19	0.09	28,883.7	14441.9	18358.0
North of French Reef SPA	0	0.00	0.00	0.0	0.0	0.0
North of Dixie Shoal	0	0.00	0.00	0.0	0.0	0.0
South Carysfort Reef SPA**	1	0.06	0.09	25,635.4	12817.7	18126.9
Carysfort Reef SPA**	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
North of Carysfort Reef	0	0.00	0.00	0.0	0.0	0.0
NE of Turtle Reef	4	0.25	0.18	71,938.7	35969.3	3385.1
Near SE BNP Boundary	2	0.13	0.00	29,422.2	14711.1	20736.3
Near SE BNP Boundary	0	0.00	0.00	0.0	0.0	0.0
Near SE BNP Boundary	1	0.06	0.09	298.6	149.3	211.1
Star Reef	0	0.00	0.00	0.0	0.0	0.0
Habitat stratum Mean	34	0.09		363,345.0	7898.8	
Habitat stratum SD		0.11			12329.2	
<i>Patchy hard-bottom (6-13 m)</i>						
Satan Shoal	1	0.06	0.09	460.0	230.0	325.3
North of Sand Key Channel	5	0.31	0.09	16,088.4	8044.2	1029.9
East of Rock Key	1	0.06	0.09	8.0	4.0	5.7
West of Pelican Shoal	2	0.13	0.18	105.0	52.5	74.2
Big Pine Shoal	2	0.13	0.18	2,294.5	1147.3	1622.5
South of Money Key	0	0.00	0.00	0.0	0.0	0.0
East of Sombrero Light	1	0.06	0.09	50,388.0	25194.0	35629.7
Northeast of Alligator Light	0	0.00	0.00	0.0	0.0	0.0
Near Grecian Rocks	5	0.31	0.09	39,088.9	19544.5	5163.6
Inshore of Long Reef	3	0.19	0.09	1,119.2	559.6	482.2
Inshore of Star Reef	3	0.19	0.27	54,002.8	27001.4	38185.7
Habitat stratum Mean	23	0.13		163,554.9	7434.3	
Habitat stratum SD		0.11			10973.8	
<i>Low-relief spur & groove (6-13 m)</i>						
Sand Key SPA**	0	0.00	0.00	0.0	0.0	0.0
Sand Key SPA**	7	0.44	0.09	15,667.2	7833.6	10244.0
Key West Ship Channel	2	0.13	0.00	31,297.3	15648.7	21228.6
Marker 32	4	0.25	0.18	1,009.3	504.7	487.4
Western Sambo ER**	4	0.25	0.18	13,703.1	6851.6	5114.1
NW of Western Sambo	4	0.25	0.18	50,010.7	25005.3	9509.8
East of Looe Key	1	0.06	0.09	20,016.6	10008.3	14153.9

Table 18 continued

Habitat type/site location	Abundance			Volume (cm ³)		
	No.	Mean	SD	No.	Mean	SD
SW of Tennessee Light	0	0.00	0.00	0.0	0.0	0.0
East of Alligator Light	4	0.25	0.00	3,505.9	1752.9	2424.0
Crocker Reef	1	0.06	0.09	68,160.0	34080.0	48196.4
Davis Reef SPA**	1	0.06	0.09	698.2	349.1	493.7
Davis Reef SPA**	2	0.13	0.18	7,517.8	3758.9	5315.9
South of Elbow Reef	0	0.00	0.00	0.0	0.0	0.0
Carysfort Reef SPA**	3	0.19	0.27	1,271.2	635.6	898.9
North of Carysfort Reef	2	0.13	0.00	6,165.6	3082.8	1077.2
Fowey Rocks	3	0.19	0.09	57,411.8	28705.9	11474.3
Habitat stratum Mean	38	0.15		276,434.8	8638.6	
Habitat stratum SD		0.12			11247.5	
<i>Fore reef slope (15-19 m)</i>						
Key West Ship Channel	6	0.38	0.00	53,944.5	26972.2	19411.8
West of Ship Channel	7	0.44	0.44	22,116.8	11058.4	15634.7
Key West Ship Channel	7	0.44	0.27	31,884.9	15942.4	3493.4
West of Marker 32	5	0.31	0.09	16,352.1	8176.1	8932.3
East of American Shoal	5	0.31	0.09	36,385.2	18192.6	15620.6
East of Looe Key	1	0.06	0.09	15.0	7.5	10.6
Offshore of Sombrero Reef	5	0.31	0.09	10,396.5	5198.3	5354.0
Northeast of Alligator Light	6	0.38	0.18	22,171.4	11085.7	13752.1
Northeast of Alligator Light	8	0.50	0.18	9,452.3	4726.2	2972.5
Offshore of Little Conch	3	0.19	0.27	55,435.4	27717.7	39198.8
Offshore of Pickles Reef	3	0.19	0.09	1,190.3	595.1	40.8
Offshore of Pickles Reef	4	0.25	0.35	796.0	398.0	562.9
Offshore of Molasses SPA	14	0.88	0.18	159,185.2	79592.6	73235.8
Northeast of Elbow Reef SPA	11	0.69	0.09	313,233.6	156616.8	44207.9
Near SE BNP Boundary	6	0.38	0.18	523,209.5	261604.7	198376.5
Northeast of Triumph Reef	8	0.50	0.00	97,202.5	48601.3	33227.3
Habitat stratum Mean	99	0.39		1,352,971.2	42280.3	
Habitat stratum SD		0.20			70947.7	
<i>Deeper fore reef slope (22-27 m)</i>						
Key West Ship Channel	15	0.94	0.27	2,610.1	1305.0	526.8
Offshore of Pelican Shoal	10	0.63	0.35	15,823.4	7911.7	832.5
West of American Shoal	10	0.63	0.00	50,193.4	25096.7	21899.1
SW of Alligator Light	6	0.38	0.18	1,134.5	567.3	688.9
Offshore of Little Conch	2	0.13	0.00	1,772.6	886.3	1090.2
Offshore of Little Conch	4	0.25	0.00	29,489.1	14744.5	2658.3
Offshore of Dry Rocks	10	0.63	0.53	28,695.4	14347.7	19498.3
Offshore of Dry Rocks	15	0.94	0.80	465,833.8	232916.9	317116.9
Offshore of Elbow Reef	9	0.56	0.27	228,447.0	114223.5	49458.1
Habitat stratum Mean	81	0.56		823,999.3	45777.7	
Habitat stratum SD		0.28			78704.7	

Table 19. Mean (1 SD) densities of urchins (no. per m²) from surveys of four 15 m² plots at each site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	<i>D. antillarum</i>		<i>E. lucunter</i>		<i>E. viridis</i>		<i>E. tribuloides</i>	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<i>Mid-channel patch reefs</i>	0.017	0.033	0.000	0.000	0.000	0.000	0.017	0.033
North of Vestal Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.033
North of Vestal Shoal	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
North of Sand Key Channel	0.033	0.067	0.000	0.000	0.333	0.196	0.083	0.100
North of Sand Key Channel	0.083	0.126	0.000	0.000	0.017	0.033	0.183	0.114
North of Sand Key Channel	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.000
SE of Middle Grounds	0.000	0.000	0.000	0.000	0.000	0.000	0.133	0.189
North of Rock Key	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Western Sambo ER**	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
Western Sambo ER**	0.067	0.094	0.000	0.000	0.100	0.128	0.033	0.067
North of Middle Sambo	0.017	0.033	0.000	0.000	0.233	0.086	0.050	0.033
North of E. Sambo RO	0.017	0.033	0.000	0.000	1.767	0.482	0.033	0.038
North of E. Sambo RO	0.033	0.038	0.000	0.000	5.650	0.753	0.017	0.033
North of E. Sambo RO	0.017	0.033	0.000	0.000	2.217	1.176	0.033	0.038
North of Pelican Shoal	0.000	0.000	0.017	0.033	0.000	0.000	0.033	0.038
North of Pelican Shoal	0.017	0.033	0.000	0.000	0.850	0.529	0.050	0.033
North of Pelican Shoal	0.000	0.000	0.000	0.000	0.150	0.114	0.067	0.054
North of Pelican Shoal	0.067	0.094	0.000	0.000	0.017	0.033	0.000	0.000
West Washerwoman	0.000	0.000	0.000	0.000	0.000	0.000	0.150	0.175
Inshore of American Shoal	0.033	0.067	0.000	0.000	0.000	0.000	0.017	0.033
Inshore of American Shoal	0.000	0.000	0.000	0.000	0.017	0.033	0.100	0.086
Inshore of Looe Key RO	0.017	0.033	0.000	0.000	0.000	0.000	0.017	0.033
Due east of Marker 45	0.000	0.000	0.000	0.000	0.050	0.100	0.033	0.067
West end of Marathon	0.000	0.000	0.017	0.033	1.933	0.475	0.167	0.038
West end of Marathon	0.000	0.000	0.000	0.000	0.033	0.067	0.000	0.000
South of Marathon	0.000	0.000	0.000	0.000	0.167	0.159	0.100	0.038
South of Marathon	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
West Turtle Shoal	0.017	0.033	0.000	0.000	1.700	1.035	0.017	0.033
Marker 45	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Southeast of Marker 45	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
East Washerwoman	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Cheeca Rocks SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Cheeca Rocks SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tavernier Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Tavernier Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tavernier Rocks	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
Basin Hill Shoals	0.000	0.000	0.000	0.000	0.117	0.064	0.000	0.000
Basin Hill Shoals	0.000	0.000	0.000	0.000	0.100	0.038	0.000	0.000
Basin Hill Shoals	0.000	0.000	0.000	0.000	0.083	0.167	0.000	0.000
Basin Hill Shoals	0.000	0.000	0.000	0.000	0.550	0.382	0.000	0.000
Basin Hill Shoals	0.000	0.000	0.000	0.000	0.083	0.084	0.000	0.000
North of Turtle Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Southeast of Caesar Creek	0.000	0.000	0.000	0.000	0.517	0.647	0.000	0.000
SW of Pacific Reef	0.000	0.000	0.017	0.033	0.383	0.233	0.033	0.038
Northeast of Caesar Creek	0.000	0.000	0.000	0.000	0.667	0.094	0.017	0.033
Inshore of Pacific Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.100
South of Margot Fish Shoal	0.000	0.000	0.000	0.000	0.383	0.227	0.000	0.000
Margot Fish Shoal	0.000	0.000	0.033	0.038	0.133	0.122	0.017	0.033
Inshore of Ajax Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE of Margot Fish Shoal	0.017	0.033	0.533	0.393	4.083	1.238	0.033	0.038
Inshore of Long Reef	0.083	0.033	0.000	0.000	0.033	0.038	0.000	0.000
Northeast Bowles Bank	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.010	0.021	0.012	0.075	0.440	1.056	0.033	0.045
<i>Offshore patch reefs</i>								
North of Sand Key	0.067	0.094	0.000	0.000	0.033	0.067	0.083	0.084
North of Sand Key	0.050	0.064	0.000	0.000	0.000	0.000	0.067	0.054
West of Ship Channel	0.017	0.033	0.000	0.000	0.000	0.000	1.517	0.559
Western Sambo ER**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western Sambo ER**	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.054
Inshore of Eastern Sambo	0.083	0.084	0.000	0.000	0.050	0.064	0.033	0.067
West of Looe Key RO	0.167	0.038	0.000	0.000	0.000	0.000	0.017	0.033
Looe Key RO**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 19 continued

Habitat type/site location	<i>D. antillarum</i>		<i>E. lucunter</i>		<i>E. viridis</i>		<i>E. tribuloides</i>	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Looe Key RO**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of Looe Key RO	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Inshore of Conch Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inshore of Pickles Reef	0.017	0.033	0.000	0.000	0.033	0.067	0.283	0.280
Inside of Molasses Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.050	0.064
Inshore of Molasses Reef	0.033	0.038	0.000	0.000	0.000	0.000	0.083	0.033
East of WB/Dry Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inshore of Molasses Reef	0.033	0.038	0.000	0.000	0.017	0.033	0.017	0.033
Southwest of Elbow Reef	0.033	0.038	0.000	0.000	0.000	0.000	0.017	0.033
Near Watson's Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Carysfort Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Carysfort Reef SPA**	0.050	0.064	0.000	0.000	0.000	0.000	0.017	0.033
North of Carysfort Reef	0.033	0.067	0.000	0.000	0.000	0.000	0.000	0.000
North of Turtle Reef	0.050	0.064	0.000	0.000	0.000	0.000	0.017	0.033
North of Turtle Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
SW of Pacific Reef	0.117	0.137	0.000	0.000	0.017	0.033	0.233	0.086
SW of Triumph Reef	0.050	0.033	0.000	0.000	0.000	0.000	0.033	0.038
SW of Triumph Reef	0.050	0.064	0.000	0.000	0.017	0.033	0.000	0.000
Inshore of Star Reef	0.033	0.038	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.034	0.040	0.000	0.000	0.006	0.013	0.094	0.292
<i>Inner line reef tract spur & groove</i>								
Little Grecian Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.094
Key Largo Dry Rocks SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.000
Key Largo Dry Rocks SPA**	0.050	0.033	0.000	0.000	0.000	0.000	0.050	0.064
North Dry Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.094
North North Dry Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.010	0.022	0.000	0.000	0.000	0.000	0.050	0.029
<i>High-relief spur & groove</i>								
Western Sambo ER**	0.000	0.000	0.017	0.033	0.000	0.000	0.150	0.100
Western Sambo ER**	0.017	0.033	0.000	0.000	0.000	0.000	0.050	0.033
Middle Sambo	0.033	0.038	0.000	0.000	0.033	0.038	0.200	0.094
Pelican Shoal	0.017	0.033	0.000	0.000	0.000	0.000	0.100	0.128
American Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
American Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.064
Looe Key SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Looe Key SPA**	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
Sombrero Key SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sombrero Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Molasses Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Molasses Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.064
Sand Island	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Sand Island	0.017	0.033	0.017	0.033	0.000	0.000	0.050	0.033
South of S. Carysfort	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
South Carysfort Reef SPA**	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
Carysfort Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ajax Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fowey Rocks	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.005	0.010	0.002	0.005	0.004	0.009	0.038	0.056
<i>Low-relief hard-bottom (< 6 m)</i>								
East of Eastern Sambo RO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maryland Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.211
Northeast of Alligator Light	0.017	0.033	0.000	0.000	0.000	0.000	0.050	0.064
Conch Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.183	0.084
Conch Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.038
Pickles Reef P4	0.017	0.033	0.000	0.000	0.000	0.000	0.017	0.033
Molasses Reef SPA**	0.033	0.038	0.000	0.000	0.000	0.000	0.017	0.033
French Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northeast of Marker 8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW of Watson's Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.038
SW of Watson's Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.067
Carysfort Reef SPA	0.033	0.038	0.000	0.000	0.000	0.000	0.000	0.000
SW of Pacific Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.017	0.033
Inshore of Pacific Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.033	0.067

Table 19 continued

Habitat type/site location	<i>D. antillarum</i>		<i>E. lucunter</i>		<i>E. viridis</i>		<i>E. tribuloides</i>	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Long Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.009	0.012	0.000	0.000	0.000	0.000	0.050	0.091
<i>Low-relief spur & groove (< 6 m)</i>								
Coffins Patch	0.000	0.000	0.000	0.000	0.000	0.000	0.117	0.084
Triumph Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Fowey Rocks	0.067	0.054	0.000	0.000	0.000	0.000	0.033	0.067
Habitat stratum mean	0.022	0.038	0.000	0.000	0.000	0.000	0.056	0.054
<i>Low-relief hard-bottom (6-13 m)</i>								
Vestal Shoal	0.033	0.038	0.000	0.000	0.017	0.033	0.000	0.000
West of Maryland Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.117	0.084
West of Looe Key	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of American Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Big Pine Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of Sombrero Reef	0.050	0.100	0.000	0.000	0.000	0.000	0.033	0.038
SW of Tennessee Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tennessee Reef RO**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tennessee Reef RO**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northeast of Alligator Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
North of Davis Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
North of Molasses Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
North of French Reef SPA	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
North of Dixie Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.067
South Carysfort Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Carysfort Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
North of Carysfort Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
North of Carysfort Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.017	0.033
NE of Turtle Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Near SE BNP Boundary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Near SE BNP Boundary	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
Near SE BNP Boundary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Star Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.007	0.013	0.000	0.000	0.001	0.003	0.010	0.025
<i>Patchy hard-bottom (6-13 m)</i>								
Satan Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
North of Sand Key Channel	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.038
East of Rock Key	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
West of Pelican Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Big Pine Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
South of Money Key	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of Sombrero Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northeast of Alligator Light	0.000	0.000	0.000	0.000	0.050	0.064	0.000	0.000
Near Grecian Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inshore of Long Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inshore of Star Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.000	0.000	0.000	0.000	0.005	0.015	0.008	0.011
<i>Low-relief spur & groove (6-13 m)</i>								
Sand Key SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sand Key SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Key West Ship Channel	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Marker 32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western Sambo ER**	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
NW of Western Sambo	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of Looe Key	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW of Tennessee Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of Alligator Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Crocker Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Davis Reef SPA**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Davis Reef SPA**	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
South of Elbow Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Carysfort Reef SPA**	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
North of Carysfort Reef	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
Fowey Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 19 continued

Habitat type/site location	<i>D. antillarum</i>		<i>E. lucunter</i>		<i>E. viridis</i>		<i>E. tribuloides</i>	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Habitat stratum mean	0.003	0.007	0.000	0.000	0.000	0.000	0.002	0.006
<i>Fore reef slope (15-19 m)</i>								
Key West Ship Channel	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
West of Ship Channel	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Key West Ship Channel	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
West of Marker 32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of American Shoal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
East of Looe Key	0.017	0.033	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Sombrero Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.033
Northeast of Alligator Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northeast of Alligator Light	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Little Conch	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Pickles Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Pickles Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Molasses SPA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northeast of Elbow Reef SPA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Near SE BNP Boundary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northeast of Triumph Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.001	0.004	0.000	0.000	0.000	0.000	0.002	0.006
<i>Deeper fore reef slope (22-27 m)</i>								
Key West Ship Channel	0.000	0.000	0.000	0.000	0.033	0.038	0.050	0.064
Offshore of Pelican Shoal	0.017	0.033	0.000	0.000	0.033	0.038	0.017	0.033
West of American Shoal	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
SW of Alligator Light	0.000	0.000	0.000	0.000	0.017	0.033	0.000	0.000
Offshore of Little Conch	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Little Conch	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Dry Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Dry Rocks	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Offshore of Elbow Reef	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Habitat stratum mean	0.002	0.006	0.000	0.000	0.011	0.014	0.007	0.017

Table 20. Incidental marine invertebrates surveyed for density during 2005. Listed are only those species recorded within four 15 m² plots per site.

Species	Common name	Phylum	Class	Order
Anemones				
<i>Bartholomea annulata</i>	corkscrew anemone	Cnidaria	Anthozoa	Actiniaria
<i>Condylactis gigantea</i>	pink-tipped anemone	Cnidaria	Anthozoa	Actiniaria
<i>Epicystis crucifera</i>	spotted anemone	Cnidaria	Anthozoa	Actiniaria
<i>Lebrunia danae</i>		Cnidaria	Anthozoa	Actiniaria
Corallimorpharians				
<i>Discosoma carlgreni</i>		Cnidaria	Anthozoa	Corallimorpharia
<i>D. sanctithomae</i>		Cnidaria	Anthozoa	Corallimorpharia
<i>Ricordea florida</i>	Florida corallimorph	Cnidaria	Anthozoa	Corallimorpharia
Mollusks				
<i>Cyphoma gibbosum</i>	flamingo tongue snail	Mollusca	Gastropoda	Prosobranchia
<i>Cyphoma signatum</i>		Mollusca	Gastropoda	Prosobranchia
<i>Hypselodoris bayeri</i>	black-spotted sea goddess	Mollusca	Gastropoda	Nudibranchia
<i>H. edenticulata</i>	Florida regal sea goddess	Mollusca	Gastropoda	Nudibranchia
<i>Tridachia crispata</i>	lettuce slug	Mollusca	Gastropoda	Sacoglossa

Table 21. Numbers measured and mean (1 SD) density (no. colonies/m²) of the anemones *Bartholomea annulata*, *Condylactis gigantea*, and *Lebrunia danae* (Cnidaria, Actiniaria). Data are based upon surveys of four 15 m² strip transects per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	<i>B. annulata</i>			<i>C. gigantea</i>			<i>L. danae</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>	4	0.067	0.054	0	0.000	0.000	24	0.400	0.109
North of Vestal Shoal	1	0.017	0.033	0	0.000	0.000	15	0.250	0.148
North of Vestal Shoal	1	0.017	0.033	0	0.000	0.000	2	0.033	0.067
North of Sand Key Channel	6	0.100	0.067	1	0.017	0.033	16	0.267	0.077
North of Sand Key Channel	3	0.050	0.064	2	0.033	0.038	2	0.033	0.067
North of Sand Key Channel	1	0.017	0.033	0	0.000	0.000	10	0.167	0.115
SE of Middle Grounds	4	0.067	0.077	2	0.033	0.038	25	0.417	0.175
North of Rock Key	0	0.000	0.000	0	0.000	0.000	13	0.217	0.126
Western Sambo ER**	0	0.000	0.000	0	0.000	0.000	10	0.167	0.115
Western Sambo ER**	2	0.033	0.067	0	0.000	0.000	0	0.000	0.000
North of Middle Sambo	0	0.000	0.000	0	0.000	0.000	9	0.150	0.100
North of E. Sambo RO	1	0.017	0.033	0	0.000	0.000	14	0.233	0.086
North of E. Sambo RO	3	0.050	0.064	0	0.000	0.000	5	0.083	0.100
North of E. Sambo RO	3	0.050	0.064	0	0.000	0.000	19	0.317	0.064
North of Pelican Shoal	0	0.000	0.000	0	0.000	0.000	21	0.350	0.257
North of Pelican Shoal	2	0.033	0.038	0	0.000	0.000	17	0.283	0.175
North of Pelican Shoal	1	0.017	0.033	0	0.000	0.000	16	0.267	0.189
North of Pelican Shoal	4	0.067	0.077	0	0.000	0.000	11	0.183	0.100
West Washerwoman	0	0.000	0.000	0	0.000	0.000	3	0.050	0.064
Inshore of American Shoal	0	0.000	0.000	0	0.000	0.000	5	0.083	0.064
Inshore of American Shoal	1	0.017	0.033	0	0.000	0.000	1	0.017	0.033
Inshore of Looe Key RO	4	0.067	0.054	0	0.000	0.000	24	0.400	0.109
Due east of Marker 45	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West end of Marathon	2	0.033	0.067	1	0.017	0.033	0	0.000	0.000
West end of Marathon	3	0.050	0.033	0	0.000	0.000	0	0.000	0.000
South of Marathon	5	0.083	0.064	0	0.000	0.000	2	0.033	0.038
South of Marathon	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West Turtle Shoal	3	0.050	0.033	1	0.017	0.033	2	0.033	0.038
Marker 45	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Southeast of Marker 45	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
East Washerwoman	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
Cheeca Rocks SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Cheeca Rocks SPA**	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Tavernier Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tavernier Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tavernier Rocks	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Basin Hill Shoals	3	0.050	0.033	1	0.017	0.033	0	0.000	0.000
Basin Hill Shoals	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
Basin Hill Shoals	2	0.033	0.038	0	0.000	0.000	1	0.017	0.033
Basin Hill Shoals	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Basin Hill Shoals	2	0.033	0.067	2	0.033	0.067	1	0.017	0.033
North of Turtle Reef	1	0.017	0.033	1	0.017	0.033	0	0.000	0.000
Southeast of Caesar Creek	0	0.000	0.000	2	0.033	0.038	4	0.067	0.054
SW of Pacific Reef	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
Northeast of Caesar Creek	3	0.050	0.033	0	0.000	0.000	0	0.000	0.000
Inshore of Pacific Reef	4	0.067	0.054	0	0.000	0.000	0	0.000	0.000
South of Margot Fish Shoal	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Margot Fish Shoal	2	0.033	0.067	1	0.017	0.033	0	0.000	0.000
Inshore of Ajax Reef	4	0.067	0.054	1	0.017	0.033	0	0.000	0.000
SE of Margot Fish Shoal	6	0.100	0.086	14	0.233	0.192	0	0.000	0.000
Inshore of Long Reef	1	0.017	0.033	2	0.033	0.067	0	0.000	0.000
Northeast Bowles Bank	4	0.067	0.054	1	0.017	0.033	0	0.000	0.000
Habitat stratum Mean	86	0.028		35	0.011		249	0.081	
Habitat stratum SD		0.029			0.034			0.122	
<i>Offshore patch reefs</i>									
North of Sand Key	1	0.017	0.033	1	0.017	0.033	0	0.000	0.000
North of Sand Key	2	0.033	0.067	0	0.000	0.000	3	0.050	0.033
West of Ship Channel	0	0.000	0.000	0	0.000	0.000	10	0.167	0.086
Western Sambo ER**	1	0.017	0.033	0	0.000	0.000	17	0.283	0.137
Western Sambo ER**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000

Table 21 continued

Habitat type/site location	<i>B. annulata</i>			<i>C. gigantea</i>			<i>L. danae</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Inshore of Eastern Sambo	2	0.033	0.038	1	0.017	0.033	9	0.150	0.064
West of Looe Key RO	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Looe Key RO**	0	0.000	0.000	2	0.033	0.067	1	0.017	0.033
Looe Key RO**	1	0.017	0.033	1	0.017	0.033	3	0.050	0.064
East of Looe Key RO	0	0.000	0.000	0	0.000	0.000	2	0.033	0.038
Inshore of Conch Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Pickles Reef	4	0.067	0.000	0	0.000	0.000	0	0.000	0.000
Inside of Molasses Reef	7	0.117	0.084	1	0.017	0.033	0	0.000	0.000
Inshore of Molasses Reef	0	0.000	0.000	0	0.000	0.000	2	0.033	0.038
East of WB/Dry Rocks	1	0.017	0.033	0	0.000	0.000	1	0.017	0.033
Inshore of Molasses Reef	2	0.050	0.033	0	0.000	0.000	0	0.000	0.000
Southwest of Elbow Reef	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Near Watson's Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	1	0.017	0.033	3	0.050	0.064	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
North of Carysfort Reef	7	0.117	0.084	4	0.067	0.054	0	0.000	0.000
North of Turtle Reef	3	0.050	0.100	1	0.017	0.033	0	0.000	0.000
North of Turtle Reef	6	0.100	0.086	1	0.017	0.033	0	0.000	0.000
SW of Pacific Reef	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
SW of Triumph Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Triumph Reef	2	0.033	0.038	1	0.017	0.033	0	0.000	0.000
Inshore of Star Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	41	0.026		18	0.011		50	0.031	
Habitat stratum SD		0.036			0.017			0.066	
<i>Inner line reef tract spur & groove</i>									
Little Grecian Rocks	2	0.033	0.067	0	0.000	0.000	0	0.000	0.000
Key Largo Dry Rocks SPA**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Key Largo Dry Rocks SPA**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
North Dry Rocks	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
North North Dry Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	6	0.020		0	0.000		0	0.000	
Habitat stratum SD		0.014			0.000			0.000	
<i>High-relief spur & groove</i>									
Western Sambo ER**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Western Sambo ER**	2	0.033	0.038	0	0.000	0.000	1	0.017	0.033
Middle Sambo	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Pelican Shoal	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Looe Key SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Looe Key SPA**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Sombrero Key SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Sombrero Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Molasses Reef SPA**	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
Molasses Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Sand Island	1	0.017	0.033	0	0.000	0.000	1	0.017	0.033
Sand Island	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South of S. Carysfort	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Ajax Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Fowey Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	6	0.005		0	0.000		3	0.003	
Habitat stratum SD		0.011			0.000			0.006	
<i>Low-relief hard-bottom (< 6 m)</i>									
East of Eastern Sambo RO	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Maryland Shoal	1	0.017	0.033	0	0.000	0.000	6	0.100	0.115
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Conch Reef SPA**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Conch Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Pickles Reef P4	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Molasses Reef SPA**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
French Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000

Table 21 continued

Habitat type/site location	<i>B. annulata</i>			<i>C. gigantea</i>			<i>L. danae</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Northeast of Marker 8	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Watson's Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Watson's Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Pacific Reef	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Inshore of Pacific Reef	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
Long Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	6	0.007		0	0.000		6	0.007	
Habitat stratum SD		0.011			0.000			0.026	
<i>Low-relief spur & groove (< 6 m)</i>									
Coffins Patch	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Triumph Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Fowey Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	0	0.000		0	0.000		0	0.000	
Habitat stratum SD		0.000			0.000			0.000	
<i>Low-relief hard-bottom (6-13 m)</i>									
Vestal Shoal	2	0.033	0.038	0	0.000	0.000	6	0.100	0.128
West of Maryland Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of Looe Key	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
East of American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Big Pine Shoal	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
East of Sombrero Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Tennessee Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tennessee Reef RO**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Tennessee Reef RO**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
North of Davis Reef	3	0.050	0.064	0	0.000	0.000	0	0.000	0.000
North of Molasses Reef	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
North of French Reef SPA	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
North of Dixie Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South Carysfort Reef SPA**	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Carysfort Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Carysfort Reef	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
NE of Turtle Reef	3	0.050	0.064	1	0.017	0.033	0	0.000	0.000
Near SE BNP Boundary	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	3	0.050	0.064	0	0.000	0.000	0	0.000	0.000
Star Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	21	0.015		1	0.001		6	0.004	
Habitat stratum SD		0.017			0.003			0.021	
<i>Patchy hard-bottom (6-13 m)</i>									
Satan Shoal	2	0.033	0.067	0	0.000	0.000	0	0.000	0.000
North of Sand Key Channel	0	0.000	0.000	0	0.000	0.000	2	0.033	0.038
East of Rock Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of Pelican Shoal	2	0.033	0.038	1	0.017	0.033	1	0.017	0.033
Big Pine Shoal	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
South of Money Key	0	0.017	0.033	0	0.000	0.000	0	0.000	0.000
East of Sombrero Light	3	0.050	0.033	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
Near Grecian Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Long Reef	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
Inshore of Star Reef	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	10	0.017		3	0.005		3	0.005	
Habitat stratum SD		0.018			0.008			0.011	
<i>Low-relief spur & groove (6-13 m)</i>									
Sand Key SPA**	0	0.000	0.000	0	0.000	0.000	3	0.050	0.064
Sand Key SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	3	0.050	0.033
Marker 32	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Western Sambo ER**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
NW of Western Sambo	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033

Table 21 continued

Habitat type/site location	<i>B. annulata</i>			<i>C. gigantea</i>			<i>L. danae</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
East of Looe Key	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
SW of Tennessee Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Crocker Reef	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Davis Reef SPA**	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
Davis Reef SPA**	7	0.117	0.114	0	0.000	0.000	1	0.017	0.033
South of Elbow Reef	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
North of Carysfort Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Fowey Rocks	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	13	0.014		1	0.001		8	0.008	
Habitat stratum SD		0.029			0.004			0.017	
<i>Fore reef slope (15-19 m)</i>									
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of Ship Channel	0	0.000	0.000	0	0.000	0.000	3	0.050	0.064
Key West Ship Channel	1	0.017	0.033	0	0.000	0.000	1	0.017	0.033
West of Marker 32	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of Looe Key	1	0.017	0.033	0	0.000	0.000	2	0.033	0.038
Offshore of Sombrero Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Little Conch	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Offshore of Pickles Reef	2	0.033	0.038	0	0.000	0.000	0	0.000	0.000
Offshore of Pickles Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Molasses SPA	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Elbow Reef SPA	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
Northeast of Triumph Reef	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	7	0.007		1	0.001		7	0.007	
Habitat stratum SD		0.010			0.004			0.015	
<i>Deeper fore reef slope (22-27 m)</i>									
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Pelican Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Alligator Light	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Offshore of Little Conch	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Offshore of Little Conch	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Dry Rocks	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Offshore of Dry Rocks	1	0.017	0.033	1	0.017	0.033	1	0.017	0.033
Offshore of Elbow Reef	0	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	4	0.009		1	0.002		1	0.002	
Habitat stratum SD		0.009			0.006			0.006	

Table 22. Numbers measured and mean (1 SD) density (no. colonies/m²) of the corallimorpharians *Discosoma carlgeni*, *D. sanctithomae*, and *Ricordea florida* (Cnidaria, Corallimorpharia). Data are based upon surveys of four 15 m² strip transects per site. Sites asterisked are within FKNMS no-take zones.

Habitat type/site location	<i>D. carlgeni</i>			<i>D. sanctithomae</i>			<i>R. florida</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
<i>Mid-channel patch reefs</i>	11	0.183	0.213	61	1.017	0.494	807	13.450	4.743
North of Vestal Shoal	22	0.367	0.645	10	0.159	0.000	127	2.117	0.812
North of Vestal Shoal	0	0.000	0.000	0	0.000	0.000	121	2.017	1.573
North of Sand Key Channel	0	0.000	0.000	47	0.783	0.842	413	6.883	11.651
North of Sand Key Channel	5	0.083	0.167	3	0.050	0.100	10	0.167	0.246
North of Sand Key Channel	0	0.000	0.000	14	0.233	0.383	0	0.000	0.000
SE of Middle Grounds	0	0.000	0.000	54	0.900	1.257	65	1.083	1.168
North of Rock Key	18	0.300	0.556	86	1.433	0.931	40	0.667	0.787
Western Sambo ER**	59	0.983	1.967	50	0.833	0.717	59	0.983	1.967
Western Sambo ER**	0	0.000	0.000	62	1.033	1.116	62	1.033	1.291
North of Middle Sambo	3	0.050	0.064	3	0.050	0.064	84	1.400	2.540
North of E. Sambo RO	10	0.167	0.221	110	1.833	1.012	586	9.767	5.931
North of E. Sambo RO	1	0.017	0.033	98	1.633	2.078	3,535	58.917	34.648
North of E. Sambo RO	0	0.000	0.000	220	3.667	2.279	170	2.833	2.462
North of Pelican Shoal	13	0.217	0.433	61	1.017	1.099	232	3.867	4.521
North of Pelican Shoal	6	0.100	0.159	160	2.667	2.211	249	4.150	2.837
North of Pelican Shoal	0	0.000	0.000	71	1.183	1.043	33	0.550	1.100
North of Pelican Shoal	0	0.000	0.000	7	0.117	0.084	0	0.000	0.000
West Washerwoman	0	0.000	0.000	2	0.033	0.067	304	5.067	3.662
Inshore of American Shoal	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
Inshore of American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Looe Key RO	11	0.183	0.213	61	1.017	0.494	807	13.450	4.743
Due east of Marker 45	0	0.000	0.000	0	0.000	0.000	184	3.067	2.446
West end of Marathon	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West end of Marathon	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South of Marathon	0	0.000	0.000	0	0.000	0.000	94	1.567	3.133
South of Marathon	0	0.000	0.000	0	0.000	0.000	147	2.450	3.724
West Turtle Shoal	0	0.000	0.000	0	0.000	0.000	143	2.383	0.681
Marker 45	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Southeast of Marker 45	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East Washerwoman	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Cheeca Rocks SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Cheeca Rocks SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tavernier Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tavernier Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tavernier Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Basin Hill Shoals	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Basin Hill Shoals	0	0.000	0.000	0	0.000	0.000	9	0.150	0.300
Basin Hill Shoals	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Basin Hill Shoals	0	0.000	0.000	4	0.067	0.133	0	0.000	0.000
Basin Hill Shoals	14	0.233	0.467	0	0.000	0.000	0	0.000	0.000
North of Turtle Reef	0	0.000	0.000	0	0.000	0.000	229	3.817	1.664
Southeast of Caesar Creek	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Pacific Reef	0	0.000	0.000	0	0.000	0.000	16	0.267	0.196
Northeast of Caesar Creek	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Pacific Reef	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
South of Margot Fish Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Margot Fish Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Ajax Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SE of Margot Fish Shoal	0	0.000	0.000	0	0.000	0.000	22	0.367	0.246
Inshore of Long Reef	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Northeast Bowles Bank	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Habitat stratum Mean	162	0.053		1,124	0.367		7,744	2.531	
Habitat stratum SD		0.157			0.755			8.470	
<i>Offshore patch reefs</i>									
North of Sand Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Sand Key	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000
West of Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Western Sambo ER**	0	0.000	0.000	7	0.117	0.137	366	6.100	3.086
Western Sambo ER**	0	0.000	0.000	5	0.083	0.064	111	1.850	1.653

Table 22 continued

Habitat type/site location	<i>D. carlgreni</i>			<i>D. sanctithomae</i>			<i>R. florida</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Inshore of Eastern Sambo	0	0.000	0.000	0	0.000	0.000	489	8.150	6.503
West of Looe Key RO	0	0.000	0.000	0	0.000	0.000	1,245	20.750	15.457
Looe Key RO**	0	0.000	0.000	0	0.000	0.000	1,757	29.283	4.123
Looe Key RO**	0	0.000	0.000	0	0.000	0.000	196	3.267	2.164
East of Looe Key RO	0	0.000	0.000	0	0.000	0.000	214	3.567	3.683
Inshore of Conch Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Pickles Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inside of Molasses Reef	0	0.000	0.000	0	0.000	0.000	48	0.800	1.215
Inshore of Molasses Reef	0	0.000	0.000	0	0.000	0.000	7	0.117	0.233
East of WB/Dry Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Molasses Reef	0	0.000	0.000	0	0.000	0.000	5	0.083	0.126
Southwest of Elbow Reef	0	0.000	0.000	0	0.000	0.000	12	0.200	0.163
Near Watson's Reef	0	0.000	0.000	0	0.000	0.000	38	0.633	0.780
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	9	0.150	0.175
North of Carysfort Reef	0	0.000	0.000	0	0.000	0.000	15	0.250	0.412
North of Turtle Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Turtle Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Pacific Reef	0	0.000	0.000	0	0.000	0.000	9	0.150	0.191
SW of Triumph Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Triumph Reef	0	0.000	0.000	0	0.000	0.000	24	0.400	0.800
Inshore of Star Reef	0	0.000	0.000	0	0.000	0.000	68	1.133	0.779
Habitat stratum Mean	0	0.000		13	0.008		4,613	2.848	
Habitat stratum SD		0.000			0.027			6.800	
<i>Inner line reef tract spur & groove</i>									
Little Grecian Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Key Largo Dry Rocks SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Key Largo Dry Rocks SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North Dry Rocks	0	0.000	0.000	0	0.000	0.000	17	0.283	0.257
North North Dry Rocks	0	0.000	0.000	0	0.000	0.000	3	0.050	0.100
Habitat stratum Mean	0	0.000		0	0.000		20	0.067	
Habitat stratum SD									
<i>High-relief spur & groove</i>									
Western Sambo ER**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Western Sambo ER**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Middle Sambo	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Pelican Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
American Shoal	0	0.000	0.000	0	0.000	0.000	7	0.117	0.233
American Shoal	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Looe Key SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Looe Key SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Sombrero Key SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Sombrero Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Molasses Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Molasses Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Sand Island	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Sand Island	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South of S. Carysfort	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Ajax Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Fowey Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	0	0.000		0	0.000		8	0.007	
Habitat stratum SD		0.000			0.000			0.027	
<i>Low-relief hard-bottom (< 6 m)</i>									
East of Eastern Sambo RO	0	0.000	0.000	0	0.000	0.000	0	0.094	0.000
Maryland Shoal	0	0.000	0.000	17	0.283	0.285	411	6.850	2.820
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Conch Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Conch Reef SPA**	0	0.000	0.000	0	0.000	0.000	2	0.033	0.067
Pickles Reef P4	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Molasses Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
French Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000

Table 22 continued

Habitat type/site location	<i>D. carlgreni</i>			<i>D. sanctithomae</i>			<i>R. florida</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Northeast of Marker 8	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Watson's Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Watson's Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Pacific Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Pacific Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Long Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	0	0.000		17	0.019		413	0.465	
Habitat stratum SD		0.000			0.073			1.766	
<i>Low-relief spur & groove (< 6 m)</i>									
Coffins Patch	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Triumph Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Fowey Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	0	0.000		0	0.000		1	0.006	
Habitat stratum SD		0.000			0.000			0.010	
<i>Low-relief hard-bottom (6-13 m)</i>									
Vestal Shoal	0	0.000	0.000	1	0.017	0.033	26	0.433	0.086
West of Maryland Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of Looe Key	0	0.000	0.000	0	0.000	0.000	34	0.567	0.416
East of American Shoal	0	0.000	0.000	0	0.000	0.000	46	0.767	0.413
Big Pine Shoal	0	0.000	0.000	0	0.000	0.000	31	0.517	0.227
East of Sombrero Reef	0	0.000	0.000	0	0.000	0.000	2	0.033	0.067
SW of Tennessee Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tennessee Reef RO**	0	0.000	0.000	0	0.000	0.000	8	0.133	0.154
Tennessee Reef RO**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Davis Reef	0	0.000	0.000	0	0.000	0.000	59	0.983	0.643
North of Molasses Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of French Reef SPA	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Dixie Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Carysfort Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Carysfort Reef	0	0.000	0.000	0	0.000	0.000	4	0.067	0.133
NE of Turtle Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Star Reef	0	0.000	0.000	0	0.000	0.000	4	0.067	0.077
Habitat stratum Mean	0	0.000		1	0.001		214	0.155	
Habitat stratum SD		0.000			0.003			0.286	
<i>Patchy hard-bottom (6-13 m)</i>									
Satan Shoal	0	0.000	0.000	0	0.000	0.000	33	0.550	0.252
North of Sand Key Channel	0	0.000	0.000	0	0.000	0.000	15	0.250	0.191
East of Rock Key	0	0.000	0.000	0	0.000	0.000	7	0.117	0.100
West of Pelican Shoal	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Big Pine Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South of Money Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of Sombrero Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Near Grecian Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Long Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Inshore of Star Reef	0	0.000	0.000	0	0.000	0.000	5	0.083	0.100
Habitat stratum Mean	0	0.000		0	0.000		61	0.092	
Habitat stratum SD		0.000			0.000			0.171	
<i>Low-relief spur & groove (6-13 m)</i>									
Sand Key SPA**	0	0.000	0.000	0	0.000	0.000	14	0.233	0.269
Sand Key SPA**	0	0.000	0.000	0	0.000	0.000	8	0.133	0.267
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Marker 32	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Western Sambo ER**	0	0.000	0.000	0	0.000	0.000	5	0.083	0.126
NW of Western Sambo	0	0.000	0.000	0	0.000	0.000	10	0.167	0.168

Table 22 continued

Habitat type/site location	<i>D. carlgreni</i>			<i>D. sanctithomae</i>			<i>R. florida</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
East of Looe Key	0	0.000	0.000	0	0.000	0.000	2	0.033	0.067
SW of Tennessee Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Crocker Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Davis Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Davis Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
South of Elbow Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Carysfort Reef SPA**	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
North of Carysfort Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Fowey Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	0	0.000		0	0.000		39	0.041	
Habitat stratum SD		0.000			0.000			0.074	
<i>Fore reef slope (15-19 m)</i>									
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of Marker 32	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
East of Looe Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Sombrero Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Little Conch	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Pickles Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Pickles Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Molasses SPA	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Elbow Reef SPA	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Near SE BNP Boundary	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Northeast of Triumph Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean									
Habitat stratum SD									
<i>Deeper fore reef slope (22-27 m)</i>									
Key West Ship Channel	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Pelican Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of American Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
SW of Alligator Light	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Little Conch	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Little Conch	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Dry Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Dry Rocks	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Offshore of Elbow Reef	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Habitat stratum Mean	0	0.000		0	0.000		0	0.000	
Habitat stratum SD		0.000			0.000			0.000	