

Table 1. Chronological list of survey locations in Dry Tortugas National Park (DTNP) and the Tortugas Bank, western Florida Keys National Marine Sanctuary, during June 5-June 26, 2006.

Date	Site #	General location	Habitat type	Depth sampled (m)
June 6, 2006	1	Northern DTNP	Patchy low -relief hard-bottom	13.5-14.1
June 6, 2006	2	Northern DTNP	Patchy medium-relief hard-bottom	18.3-18.3
June 6, 2006	3	Pulaski Shoal	Low -relief hard-bottom	7.2-7.5
June 7, 2006	4	Eastern DTNP	Medium-profile reef	17.4-19.5
June 7, 2006	5	Eastern DTNP	Patchy low -relief hard-bottom	8.7-8.7
June 7, 2006	6	Eastern DTNP	Medium-profile reef	6.3-7.2
June 8, 2006	7	Northeastern DTNP	Medium-profile reef	17.1-18.0
June 8, 2006	8	Northeastern DTNP	Medium-profile reef	14.4-15.3
June 8, 2006	9	Northern DTNP	Medium-profile reef	10.5-11.4
June 9, 2006	10	NE Tortugas Bank	Medium-profile reef	25.5-26.1
June 9, 2006	11	NE Tortugas Bank	Medium-profile reef	18.9-20.4
June 9, 2006	12	NE Tortugas Bank	Medium-profile reef	18.3-20.1
June 10, 2006	13	NW DTNP	Reef knoll	18.9-20.7
June 13, 2006	14	Northern DTNP	Patchy low -relief hard-bottom	14.7-15.3
June 13, 2006	15	NE Tortugas Bank	Rocky outcrops	19.8-21.3
June 14, 2006	16	NE Little Tortugas Bank	Reef terrace-high relief	21.0-21.6
June 14, 2006	17	Central Little Tortugas Bank	Low -relief hard-bottom	14.1-14.7
June 14, 2006	18	Central Tortugas Bank	Low -relief hard-bottom	15.9-17.
June 15, 2006	19	SE of DTNP	Low -relief hard-bottom	16.8-17.4
June 15, 2006	20	SE of DTNP	Low -relief hard-bottom	12.9-13.2
June 17, 2006	21	Northwestern Tortugas Bank	Reef terrace-medium relief	21.3-21.9
June 17, 2006	22	Northwestern Tortugas Bank	Reef terrace-medium relief	20.4-21.9
June 18, 2006	23	Northwestern Tortugas Bank	Reef terrace-high relief	21.6-23.4
June 18, 2006	24	Northwestern Tortugas Bank	Reef terrace-medium relief	20.1-21.0
June 19, 2006	25	Western Tortugas Bank	Reef terrace-medium relief	23.1-24.0
June 19, 2006	26	Western Tortugas Bank	Medium-profile reef	23.1-23.4
June 20, 2006	27	Western Tortugas Bank	Patchy medium-profile reef	24.3-24.6
June 20, 2006	28	Western Tortugas Bank	Low -relief hard-bottom	14.4-15.0
June 20, 2006	29	Western Tortugas Bank	Patchy medium-profile reef	13.2-13.5
June 21, 2006	30	East of Loggerhead Key	Patch reef	4.5-6.9
June 21, 2006	31	SE of Garden Key (SE Reef)	High-relief spur and groove	8.1-9.0
June 22, 2006	32	Northern DTNP	Medium-profile reef	15.6-16.5
June 22, 2006	33	NW DTNP	Low -relief hard-bottom	13.8-14.4
June 22, 2006	34	Western DTNP (Texas Rock)	Patch reef	4.5-5.7
June 23, 2006	35	Loggerhead Forest	Reef terrace-high relief	16.8-19.2
June 23, 2006	36	West of Loggerhead Key	Patchy medium-relief hard-bottom	16.5-17.1
June 23, 2006	37	West of Loggerhead Key	Patchy medium-relief hard-bottom	13.2-13.8
June 23, 2006	38	West of Loggerhead Key	Patch reef	7.2-8.1
June 24, 2006	39	SW of Loggerhead (outside park)	Low -relief hard-bottom	20.4-21.3
June 24, 2006	40	SW of Loggerhead (inside park)	Medium-profile reef	12.9-13.5
June 24, 2006	41	South of Loggerhead Key	Reef knoll	7.2-10.8
June 25, 2006	42	Southern DTNP	Patch reef	9.6-9.9
June 25, 2006	43	Central DTNP	Patch reef	4.5-5.4
June 25, 2006	44	North-central DTNP	Patch reef	8.7-11.1
June 25, 2006	45	Little Africa, western DTNP	Medium-profile reef	2.7-3.3
June 26, 2006	46	South of DTNP (outside park)	Reef terrace-high relief	18.0-19.8

Table 2. Survey locations in Dry Tortugas National Park (DTNP) and Tortugas Bank, western Florida Keys National Marine Sanctuary, during June 5-June 26, 2006. Sites are arranged by management area, habitat type, and depth sampled. Depth range indicates the minimum and maximum depths of transects. NTMR = no-take marine reserve.

Habitat type/site location	Management area	Latitude (N)	Longitude (W)	Min. depth (m)	Max. depth (m)
<i>Patchy low-relief hard-bottom</i>					
Site #5 - Eastern DTNP	DTNP	24° 37.793'	82° 49.960'	8.7	8.7
Site #14 - Northern DTNP	DTNP	24° 43.172'	82° 47.366'	13.5	14.1
Site #1 - Northern DTNP	DTNP	24° 42.376'	82° 54.014'	14.7	15.3
<i>Low-relief hard-bottom</i>					
Site #3 - Pulaski Shoal	DTNP	24° 42.075'	82° 46.915'	7.2	7.5
Site #33 - NW DTNP	DTNP	24° 41.999'	82° 54.702'	13.8	14.4
<i>Patchy medium-relief hard-bottom</i>					
Site #37 - West of Loggerhead Key	DTNP	24° 38.372'	82° 56.560'	13.2	13.8
Site #36 - West of Loggerhead Key	DTNP	24° 39.158'	82° 56.937'	16.5	17.1
Site #2 - Northern DTNP	DTNP	24° 43.879'	82° 47.211'	18.3	18.3
<i>Patch reef</i>					
Site #43 - Central DTNP	DTNP	24° 39.294'	82° 50.727'	4.5	5.4
Site #34 - Texas Rock, western DTNP	DTNP	24° 40.504'	82° 53.938'	4.5	5.7
Site #30 - East of Loggerhead Key	DTNP	24° 36.636'	83° 05.869'	4.5	6.9
Site #38 - West of Loggerhead Key	DTNP	24° 38.101'	82° 56.008'	7.2	8.1
Site #42 - Southern DTNP	DTNP	24° 35.378'	82° 53.451'	9.6	9.9
Site #44 - North-central DTNP	DTNP	24° 41.838'	82° 52.201'	8.7	11.1
<i>Reef knoll</i>					
Site #41 - South of Loggerhead Key	DTNP	24° 36.638'	82° 55.789'	7.2	10.8
Site #13 - NW DTNP	DTNP	24° 39.509'	82° 56.519'	18.9	20.7
<i>Medium-profile reef</i>					
Site #45 - Little Africa, western DTNP	DTNP	24° 38.168'	82° 55.465'	2.7	3.3
Site #6 - Eastern DTNP	DTNP	24° 38.327'	82° 49.369'	6.3	7.2
Site #9 - Northern DTNP	DTNP	24° 43.233'	82° 50.202'	10.5	11.4
Site #40 - SW of Loggerhead	DTNP	24° 36.638'	82° 57.783'	12.9	13.5
Site #8 - Northeastern DTNP	DTNP	24° 43.315'	82° 49.748'	14.4	15.3
Site #32 - Northern DTNP	DTNP	24° 43.195'	82° 52.571'	15.6	16.5
Site #7 - Northeastern DTNP	DTNP	24° 39.610'	82° 46.502'	17.1	18.0
Site #4 - Eastern DTNP	DTNP	24° 39.610'	82° 46.502'	17.4	19.5
<i>High-relief spur and groove</i>					
Site #31 - SE of Garden Key	DTNP	24° 38.233'	83° 03.547'	8.1	9.0
<i>Reef terrace-high relief</i>					
Site #35 - Loggerhead Forest	DTNP	24° 39.824'	82° 55.872'	16.8	19.2
<i>Low-relief hard-bottom</i>					
Site #20 - SE of DTNP	Outside DTNP	24° 33.471'	82° 56.126'	12.9	13.2
Site #19 - SE of DTNP	Outside DTNP	24° 32.615'	82° 56.887'	16.8	17.4
Site #39 - SW of Loggerhead	Outside DTNP	24° 35.379'	82° 59.623'	20.4	21.3
<i>Reef terrace-high relief</i>					
Site #46 - South of DTNP	Outside DTNP	24° 33.896'	82° 57.366'	18.0	19.8
<i>Low-relief hard-bottom</i>					
Site #28 - Western Tortugas Bank	Outside Tortugas North NTMR	24° 37.318'	83° 04.897'	14.4	15.0
<i>Patchy medium-profile reef</i>					
Site #29 - Western Tortugas Bank	Outside Tortugas North NTMR	24° 38.237'	83° 03.545'	13.2	13.5
<i>Low-relief hard-bottom</i>					
Site #17 - Central Little Bank	Tortugas North NTMR	24° 42.477'	82° 59.479'	14.1	14.7

Habitat type/site location	Management area	Latitude (N)	Longitude (W)	Min. depth (m)	Max. depth (m)
Site #18 - Central Tortugas Bank	Tortugas North NTMR	24° 39.060'	83° 01.415'	15.9	17.4
<i>Rocky outcrops</i>					
Site #15 - NE Tortugas Bank	Tortugas North NTMR	24° 40.949'	83° 02.017'	19.8	21.3
<i>Medium-profile reef</i>					
Site #12 - NE Tortugas Bank	Tortugas North NTMR	24° 41.021'	83° 00.701'	18.3	20.1
Site #11 - NE Tortugas Bank	Tortugas North NTMR	24° 40.636'	83° 00.174'	18.9	20.4
Site #10 - NE Tortugas Bank	Tortugas North NTMR	24° 40.375'	82° 59.092'	25.5	26.1
<i>Reef terrace-medium relief</i>					
Site #24 - NW Tortugas Bank	Tortugas North NTMR	24° 39.964'	83° 05.610'	20.1	21.0
Site #21 - NW Tortugas Bank	Tortugas North NTMR	24° 41.107'	83° 04.417'	21.3	21.9
Site #22 - NW Tortugas Bank	Tortugas North NTMR	24° 40.932'	83° 04.697'	20.4	21.9
<i>Reef terrace-high relief</i>					
Site #16 - NE Little Tortugas Bank	Tortugas North NTMR	24° 43.428'	82° 58.876'	21.0	21.6
Site #23 - NW Tortugas Bank	Tortugas North NTMR	24° 40.328'	83° 05.397'	21.6	23.4
<i>Medium-profile reef</i>					
Site #26 - Western Tortugas Bank	Outside FKNMS	24° 37.172'	83° 05.977'	23.1	23.4
<i>Patchy medium-profile reef</i>					
Site #27 - Western Tortugas Bank	Outside FKNMS	24° 36.636'	83° 05.869'	24.3	24.6
<i>Reef terrace-medium relief</i>					
Site #25 - Western Tortugas Bank	Outside FKNMS	24° 38.542'	83° 06.177'	23.1	24.0

Table 3. Benthic SCUBA diving effort and associated reef fish survey diving summary in the Tortugas region during June 5-June 26, 2006. CMS-UNCW = Center for Marine Science, University of North Carolina at Wilmington, RSMAS-UM = Rosenstiel School of Marine and Atmospheric Science, University of Miami, NPS = National Park Service

Diver	Affiliation	No. of dives	Depth range (m)	Bottom time
<i>Benthic surveyors</i>				
Mark Chiappone	CMS-UNCW	46	5.7-26.1 m	55 hr 59 min
Leanne Rutten	CMS-UNCW	46	6.3-26.4 m	56 hr 00 min
Dione Swanson	RSMAS-UM	46	5.4-25.8 m	56 hr 03 min
Robb Waara	NPS	15	6.9-22.8 m	19 hr 14 min
Total benthic dives		153	5.4-26.4 m	187 hr 16 min
<i>Accompanying fish surveyors</i>				
Neil Baertlein	NOAA Fisheries	18	7.5-25.8 m	16 hr 34 min
Mike Judge	NOAA Fisheries	26	6.3-25.8 m	27 hr 54 min
Steve Smith	RSMAS-UM	43	6.0-25.5 m	42 hr 25 min
Total fish dives		87	6.0-25.8 m	86 hr 53 min
Total all divers		240	5.4-26.4 m	274 hr 09 min

Table 4. Benthic variables measured in hard-bottom and coral reef habitats in the Tortugas region during June 5-June 26, 2006.

Variable	Method	Variables measured
Percent cover	100 points per transect 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 along 2 transects	Species composition and density
Gorgonian density	1 m x 8 m swaths along 2 transects	Density
Urchin density and size	1 m x 15 m swaths along 4 transects	Density, test diameter
Anemones/corallimorpharians	1 m x 15 m swaths along 4 transects	Density
Topography	1 m x 15 m swaths along 4 transects	Maximum relief, substratum slope

Table 5. Mean \pm 1 SE percent coverage of fire coral (*Millepora* spp.), scleractinian corals, the colonial zoanthid *Palythoa*, and sponges in the Dry Tortugas during June 2006. Data are based upon 100 points sampled on each of four 15-m transects per site. nd = no data collected

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
Dry Tortugas National Park				
<i>Patchy low-relief hard-bottom</i>				
Site #5 - Eastern DTNP	0 \pm 0	0.50 \pm 0.29	0 \pm 0	0.50 \pm 0.29
Site #14 - Northern DTNP	0.50 \pm 0.29	3.00 \pm 1.08	0 \pm 0	3.75 \pm 1.65
Site #1 - Northern DTNP	0 \pm 0	1.75 \pm 0.75	1.00 \pm 0.41	2.50 \pm 0.87
<i>Low-relief hard-bottom</i>				
Site #3 - Pulaski Shoal	0.50 \pm 0.29	0.50 \pm 0.29	0.75 \pm 0.48	1.00 \pm 0.58
Site #33 - NW DTNP	0.75 \pm 0.48	0.75 \pm 0.25	0 \pm 0	4.75 \pm 1.38
<i>Patchy medium-relief hard-bottom</i>				
Site #37 - West of Loggerhead Key	0 \pm 0	1.00 \pm 1.00	0 \pm 0	1.50 \pm 0.65
Site #36 - West of Loggerhead Key	1.25 \pm 0.48	3.00 \pm 1.08	0.75 \pm 0.48	3.50 \pm 0.96
Site #2 - Northern DTNP	0 \pm 0	5.50 \pm 2.18	1.25 \pm 0.95	3.50 \pm 0.50
<i>Patch reef</i>				
Site #43 - Central DTNP	2.50 \pm 0.65	4.25 \pm 0.85	0.25 \pm 0.25	2.25 \pm 0.63
Site #34 - Texas Rock, western DTNP	1.00 \pm 0.41	2.00 \pm 0.00	0 \pm 0	4.50 \pm 0.50
Site #30 - East of Loggerhead Key	0.75 \pm 0.48	0 \pm 0	0 \pm 0	4.00 \pm 0.71
Site #38 - West of Loggerhead Key	0 \pm 0	0.25 \pm 0.25	0 \pm 0	1.75 \pm 0.48
Site #42 - Southern DTNP	0.25 \pm 0.25	1.50 \pm 0.65	0.25 \pm 0.25	4.25 \pm 1.11
Site #44 - North-central DTNP	1.75 \pm 0.75	0.75 \pm 0.48	0 \pm 0	4.75 \pm 2.06
<i>Reef knoll</i>				
Site #41 - South of Loggerhead Key	0.50 \pm 0.50	8.00 \pm 3.56	0.50 \pm 0.29	4.00 \pm 0.58
Site #13 - NW DTNP	nd	nd	nd	nd
<i>Medium-profile reef</i>				
Site #45 - Little Africa, western DTNP	1.00 \pm 1.00	5.75 \pm 1.75	0.25 \pm 0.25	0.75 \pm 0.48
Site #6 - Eastern DTNP	0.75 \pm 0.25	2.50 \pm 1.85	1.00 \pm 0.41	3.75 \pm 0.95
Site #9 - Northern DTNP	0.75 \pm 0.25	5.50 \pm 3.59	8.00 \pm 1.73	1.25 \pm 0.25
Site #40 - SW of Loggerhead	1.00 \pm 0.71	1.00 \pm 0.00	0.50 \pm 0.29	8.25 \pm 1.11
Site #8 - Northeastern DTNP	0 \pm 0	31.00 \pm 4.16	1.00 \pm 0.58	1.00 \pm 0.58
Site #32 - Northern DTNP	0 \pm 0	15.50 \pm 3.30	0 \pm 0	4.25 \pm 1.44
Site #7 - Northeastern DTNP	0 \pm 0	14.50 \pm 4.21	0.50 \pm 0.29	2.50 \pm 0.29
Site #4 - Eastern DTNP	0.50 \pm 0.50	9.25 \pm 2.10	0.75 \pm 0.48	5.50 \pm 1.94
<i>High-relief spur and groove</i>				
Site #31 - SE of Garden Key	0.25 \pm 0.25	5.00 \pm 1.08	0 \pm 0	1.00 \pm 0.58
<i>Reef terrace-high relief</i>				
Site #35 - Loggerhead Forest	0.25 \pm 0.25	28.50 \pm 3.66	0.75 \pm 0.75	3.00 \pm 0.82
Outside Dry Tortugas NP				
<i>Low-relief hard-bottom</i>				
Site #20 - SE of DTNP	0 \pm 0	0.75 \pm 0.48	0 \pm 0	1.25 \pm 0.63
Site #19 - SE of DTNP	0 \pm 0	0.50 \pm 0.29	0 \pm 0	1.75 \pm 0.48
Site #39 - SW of Loggerhead	0.25 \pm 0.25	0 \pm 0	0 \pm 0	2.25 \pm 1.31
<i>Reef terrace-high relief</i>				
Site #46 - South of DTNP	1.50 \pm 0.65	17.50 \pm 3.57	0 \pm 0	5.75 \pm 1.31
Tortugas Bank (outside NTMR)				
<i>Low-relief hard-bottom</i>				
Site #28 - Western Tortugas Bank	0.25 \pm 0.25	0.25 \pm 0.25	0 \pm 0	3.25 \pm 1.44
<i>Patchy medium-profile reef</i>				
Site #29 - Western Tortugas Bank	0 \pm 0	0.75 \pm 0.48	0.25 \pm 0.25	0.75 \pm 0.48
Tortugas North NTMR				
<i>Low-relief hard-bottom</i>				
Site #17 - Central Little Tortugas Bank	0.75 \pm 0.25	1.25 \pm 0.63	1.50 \pm 0.87	2.50 \pm 0.65
Site #18 - Central Tortugas Bank	0.25 \pm 0.25	0.50 \pm 0.29	1.75 \pm 0.85	4.50 \pm 1.44

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
<i>Rocky outcrops</i>				
Site #15 - NE Tortugas Bank	nd	nd	nd	nd
<i>Medium-profile reef</i>				
Site #12 - NE Tortugas Bank	0.75 ± 0.25	28.00 ± 3.32	0.25 ± 0.25	5.75 ± 1.03
Site #11 - NE Tortugas Bank	0 ± 0	19.00 ± 3.37	0.75 ± 0.48	5.00 ± 1.08
Site #10 - NE Tortugas Bank	nd	nd	nd	nd
<i>Reef terrace-medium relief</i>				
Site #24 - NW Tortugas Bank	1.00 ± 0.58	11.75 ± 1.70	0.25 ± 0.25	3.75 ± 1.31
Site #21 - NW Tortugas Bank	nd	nd	nd	Nd
Site #22 - NW Tortugas Bank	0 ± 0	7.75 ± 1.03	0.25 ± 0.25	3.50 ± 0.29
<i>Reef terrace-high relief</i>				
Site #16 - NE Little Tortugas Bank	0.25 ± 0.25	30.00 ± 1.15	0 ± 0	0.75 ± 0.48
Site #23 - NW Tortugas Bank	0.00	20.00	0.00	2.00
West of FKNMS Boundary				
<i>Medium-profile reef</i>				
Site #26 - Western Tortugas Bank	0 ± 0	1.00 ± 0.41	0 ± 0	2.00 ± 0.41
<i>Patchy medium-profile reef</i>				
Site #27 - Western Tortugas Bank	0 ± 0	0.75 ± 0.48	0 ± 0	1.00 ± 0.71
<i>Reef terrace-medium relief</i>				
Site #25 - Western Tortugas Bank	0.25 ± 0.25	8.75 ± 3.25	0 ± 0	6.00 ± 1.41

Table 6. Mean percent coverage of algal turfs, crustose coralline algae, macroalgae (*Dictyota*, *Lobophora*, *Halimeda*, etc.), and total algal cover in the Dry Tortugas during June 2006. Data are based upon 100 points sampled on each of four transects per site. nd = no data collected

Habitat type/site location	Algal turf	Crustose algae	Macroalgae	Total algae
Dry Tortugas National Park				
<i>Patchy low-relief hard-bottom</i>				
Site #5 - Eastern DTNP	17.75 ± 0.63	4.00 ± 2.27	32.00 ± 3.51	56.00 ± 4.36
Site #14 - Northern DTNP	31.50 ± 6.56	2.50 ± 1.85	23.50 ± 2.36	57.50 ± 7.26
Site #1 - Northern DTNP	8.00 ± 1.08	8.25 ± 2.53	34.75 ± 3.35	51.00 ± 0.76
<i>Low-relief hard-bottom</i>				
Site #3 - Pulaski Shoal	4.25 ± 0.63	11.25 ± 3.68	44.75 ± 1.25	60.25 ± 2.47
Site #33 - NW DTNP	14.75 ± 3.40	1.75 ± 0.63	34.00 ± 2.48	50.50 ± 1.73
<i>Patchy medium-relief hard-bottom</i>				
Site #37 - West of Loggerhead Key	28.25 ± 3.50	2.50 ± 0.65	24.50 ± 5.84	55.25 ± 9.29
Site #36 - West of Loggerhead Key	21.75 ± 1.60	0.75 ± 0.25	34.25 ± 2.50	56.75 ± 3.75
Site #2 - Northern DTNP	14.25 ± 4.05	6.00 ± 2.52	19.75 ± 1.49	43.00 ± 2.02
<i>Patch reef</i>				
Site #43 - Central DTNP	35.25 ± 3.01	2.75 ± 0.95	15.50 ± 2.22	53.50 ± 2.18
Site #34 - Texas Rock, western DTNP	23.25 ± 4.17	2.00 ± 1.08	41.50 ± 4.41	66.75 ± 1.04
Site #30 - East of Loggerhead Key	34.00 ± 3.56	5.25 ± 2.25	27.25 ± 7.54	66.50 ± 8.26
Site #38 - West of Loggerhead Key	19.50 ± 1.44	6.00 ± 1.91	35.75 ± 8.65	61.25 ± 13.11
Site #42 - Southern DTNP	16.00 ± 1.87	6.75 ± 1.03	33.00 ± 2.31	55.75 ± 3.25
Site #44 - North-central DTNP	30.75 ± 0.48	1.75 ± 0.85	15.25 ± 3.22	47.75 ± 4.75
<i>Reef knoll</i>				
Site #41 - South of Loggerhead Key	28.50 ± 5.84	9.00 ± 0.71	32.25 ± 2.87	69.75 ± 2.84
Site #13 - NW DTNP	nd	nd	nd	nd
<i>Medium-profile reef</i>				
Site #45 - Little Africa, western DTNP	30.00 ± 2.12	7.75 ± 2.25	42.25 ± 1.55	80.00 ± 2.08
Site #6 - Eastern DTNP	18.75 ± 3.40	4.25 ± 1.49	53.50 ± 2.25	77.00 ± 1.61
Site #9 - Northern DTNP	12.25 ± 0.95	1.75 ± 0.85	47.50 ± 5.24	61.75 ± 5.22
Site #40 - SW of Loggerhead	21.50 ± 2.60	4.75 ± 0.48	38.50 ± 2.96	64.75 ± 4.86
Site #8 - Northeastern DTNP	11.67 ± 0.67	3.67 ± 1.20	39.33 ± 3.48	54.67 ± 2.19
Site #32 - Northern DTNP	20.50 ± 4.11	0.25 ± 0.25	35.75 ± 3.90	56.50 ± 2.08
Site #7 - Northeastern DTNP	25.50 ± 3.38	0.50 ± 0.29	29.25 ± 2.56	55.75 ± 2.08
Site #4 - Eastern DTNP	31.75 ± 4.61	0.50 ± 0.29	20.00 ± 4.02	52.50 ± 8.19
<i>High-relief spur and groove</i>				
Site #31 - SE of Garden Key	19.25 ± 3.75	8.75 ± 3.47	42.00 ± 3.03	70.00 ± 2.57
<i>Reef terrace-high relief</i>				
Site #35 - Loggerhead Forest	17.50 ± 1.71	2.00 ± 0.91	35.50 ± 2.96	55.00 ± 1.80
Outside Dry Tortugas NP				
<i>Low-relief hard-bottom</i>				
Site #20 - SE of DTNP	69.50 ± 4.35	6.25 ± 3.20	5.50 ± 0.96	81.25 ± 1.76
Site #19 - SE of DTNP	49.75 ± 3.45	1.25 ± 0.95	13.75 ± 3.09	64.75 ± 2.65
Site #39 - SW of Loggerhead	42.00 ± 5.05	0.25 ± 0.25	25.75 ± 1.65	68.00 ± 4.54
<i>Reef terrace-high relief</i>				
Site #46 - South of DTNP	18.75 ± 1.70	5.00 ± 1.47	33.00 ± 2.04	56.75 ± 2.65
Tortugas Bank (outside NTMR)				
<i>Low-relief hard-bottom</i>				
Site #28 - Western Tortugas Bank	23.75 ± 4.48	4.75 ± 2.29	38.00 ± 6.34	66.50 ± 9.99
<i>Patchy medium-profile reef</i>				
Site #29 - Western Tortugas Bank	14.25 ± 2.32	7.75 ± 2.84	37.25 ± 6.14	59.25 ± 7.52
Tortugas North NTMR				
<i>Low-relief hard-bottom</i>				
Site #17 - Central Little Tortugas Bank	16.25 ± 5.11	4.50 ± 2.18	36.00 ± 2.48	56.75 ± 10.39
Site #18 - Central Tortugas Bank	15.25 ± 5.22	3.50 ± 1.66	43.50 ± 1.44	62.25 ± 8.04

Habitat type/site location	<i>Millepora</i> spp.	Scleractinia	<i>Palythoa</i>	Sponges
<i>Rocky outcrops</i>				
Site #15 - NE Tortugas Bank	nd	nd	nd	nd
<i>Medium-profile reef</i>				
Site #12 - NE Tortugas Bank	14.25 ± 2.17	2.25 ± 0.48	35.75 ± 1.97	52.25 ± 2.31
Site #11 - NE Tortugas Bank	10.50 ± 2.60	4.00 ± 1.47	42.00 ± 2.08	56.50 ± 3.01
Site #10 - NE Tortugas Bank	nd	nd	nd	nd
<i>Reef terrace-medium relief</i>				
Site #24 - NW Tortugas Bank	10.75 ± 3.45	4.25 ± 0.63	51.75 ± 2.21	66.75 ± 2.00
Site #21 - NW Tortugas Bank	nd	nd	nd	nd
Site #22 - NW Tortugas Bank	12.50 ± 2.84	8.75 ± 1.25	45.50 ± 2.72	66.75 ± 1.61
<i>Reef terrace-high relief</i>				
Site #16 - NE Little Tortugas Bank	18.00 ± 1.87	3.50 ± 0.65	41.75 ± 2.87	63.25 ± 2.65
Site #23 - NW Tortugas Bank	0.00	10.00	55.00	16.25
West of FKNMS Boundary				
<i>Medium-profile reef</i>				
Site #26 - Western Tortugas Bank	22.75 ± 2.56	6.25 ± 2.29	44.75 ± 3.07	73.75 ± 6.21
<i>Patchy medium-profile reef</i>				
Site #27 - Western Tortugas Bank	24.25 ± 4.53	4.25 ± 2.32	37.50 ± 5.69	66.00 ± 4.44
<i>Reef terrace-medium relief</i>				
Site #25 - Western Tortugas Bank	18.25 ± 5.31	5.50 ± 1.26	38.75 ± 2.59	62.50 ± 6.06

Table 7. 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 in the Dry Tortugas during June 2006. Data are based upon four 15-m x 1-m belt transects sampled per site.

Habitat type/site location	Stony corals			Gorgonians			Sponges		
	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
Dry Tortugas National Park									
<i>Patchy low-relief hard-bottom</i>									
Site #5 - Eastern DTNP	7	3.75	1.71	16	11.25	2.06	21	9.75	1.26
Site #14 - Northern DTNP	12	6.75	0.96	19	12.00	1.63	25	13.50	3.79
Site #1 - Northern DTNP	13	7.75	0.96	15	9.75	1.71	33	16.50	4.12
<i>Low-relief hard-bottom</i>									
Site #3 - Pulaski Shoal	12	7.75	1.71	20	17.00	2.94	25	12.75	2.99
Site #33 - NW DTNP	17	9.00	2.16	23	17.25	2.87	33	22.50	4.04
<i>Patchy medium-relief hard-bottom</i>									
Site #37 - West of Loggerhead Key	11	5.50	1.92	17	10.50	1.92	27	14.00	3.56
Site #36 - West of Loggerhead Key	19	10.75	2.75	14	9.00	1.41	40	25.00	2.94
Site #2 - Northern DTNP	14	8.25	1.89	11	7.50	1.29	29	16.25	2.75
<i>Patch reef</i>									
Site #43 - Central DTNP	20	13.50	1.73	24	17.75	4.72	26	13.00	1.83
Site #34 - Texas Rock, DTNP	15	11.00	0.82	22	17.00	2.71	31	16.50	3.00
Site #30 - East of Loggerhead Key	20	9.25	2.22	22	17.25	3.40	27	15.00	4.69
Site #38 - West of Loggerhead Key	7	4.00	1.41	12	5.00	1.41	18	9.50	2.65
Site #42 - Southern DTNP	16	9.75	1.89	22	17.75	2.50	29	17.25	2.63
Site #44 - North-central DTNP	12	6.25	0.96	22	20.50	1.92	36	21.00	4.00
<i>Reef knoll</i>									
Site #41 - South of Loggerhead	22	16.00	1.83	11	9.25	1.71	28	16.75	2.63
Site #13 - NW DTNP	22	14.00	2.16	14	8.50	1.29	40	21.75	2.75
<i>Medium-profile reef</i>									
Site #45 - Little Africa, DTNP	17	10.50	2.89	11	8.75	0.96	6	3.50	0.58
Site #6 - Eastern DTNP	18	8.50	1.73	18	13.00	2.94	33	19.50	3.32
Site #9 - Northern DTNP	22	12.50	3.00	19	13.75	2.50	33	17.75	2.50
Site #40 - SW of Loggerhead	14	8.25	2.22	17	14.25	2.50	45	28.25	3.95
Site #8 - Northeastern DTNP	19	13.75	1.26	5	2.75	0.96	22	13.25	1.71
Site #32 - Northern DTNP	20	12.75	2.22	20	13.00	1.41	36	24.25	1.71
Site #7 - Northeastern DTNP	19	10.50	3.42	6	3.25	1.50	31	16.75	1.26
Site #4 - Eastern DTNP	13	7.25	0.50	14	10.50	0.58	38	25.75	1.71
<i>High-relief spur and groove</i>									
Site #31 - SE of Garden Key	25	14.75	1.50	18	14.00	2.58	28	15.50	2.89
<i>Reef terrace-high relief</i>									
Site #35 - Loggerhead Forest	22	15.25	1.71	8	4.75	1.71	33	19.75	2.99
Outside Dry Tortugas NP									
<i>Low-relief hard-bottom</i>									
Site #20 - SE of DTNP	10	5.00	1.63	12	7.25	2.22	23	10.50	1.29
Site #19 - SE of DTNP	5	3.25	0.96	6	2.00	1.41	16	9.25	1.71
Site #39 - SW of Loggerhead	9	5.50	0.58	16	8.50	1.73	30	17.75	2.22
<i>Reef terrace-high relief</i>									
Site #46 - South of DTNP	22	14.75	1.50	10	7.00	0.82	43	27.50	5.75
Tortugas Bank (outside NTMR)									
<i>Low-relief hard-bottom</i>									
Site #28 - Western Tortugas Bank	11	7.25	2.22	14	10.00	1.41	24	16.25	1.26
<i>Patchy medium-profile reef</i>									
Site #29 - Western Tortugas Bank	15	7.50	2.08	11	5.00	1.41	24	12.25	0.96

Habitat type/site location	Stony corals			Gorgonians			Sponges		
	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
Tortugas North NTMP									
<i>Low-relief hard-bottom</i>									
Site #17 - Central Little Bank	17	9.50	0.58	13	10.50	1.92	25	14.00	2.00
Site #18 - Central Tortugas Bank	10	6.00	1.41	15	12.00	1.83	31	17.25	4.35
<i>Rocky outcrops</i>									
Site #15 - NE Tortugas Bank	14	7.75	2.36	11	8.25	2.63	36	17.25	2.63
<i>Medium-profile reef</i>									
Site #12 - NE Tortugas Bank	18	11.75	0.96	8	5.75	1.50	40	25.25	2.06
Site #11 - NE Tortugas Bank	17	10.25	0.96	4	2.75	0.50	38	25.50	1.29
Site #10 - NE Tortugas Bank	17	9.00	2.16	3	1.00	0.00	29	16.75	2.22
<i>Reef terrace-medium relief</i>									
Site #24 - NW Tortugas Bank	19	12.25	1.26	9	5.25	1.50	33	22.50	1.29
Site #21 - NW Tortugas Bank	19	13.00	1.16	7	5.25	0.50	32	18.25	1.71
Site #22 - NW Tortugas Bank	22	13.00	0.82	6	5.75	0.50	36	22.75	1.89
<i>Reef terrace-high relief</i>									
Site #16 - NE Little Tortugas Bank	22	13.25	1.50	5	3.25	0.96	20	11.00	1.83
Site #23 - NW Tortugas Bank	20	12.50	2.52	7	5.25	0.96	23	15.75	0.96
West of FKNMS Boundary									
<i>Medium-profile reef</i>									
Site #26 - Western Tortugas Bank	13	7.50	1.00	6	3.75	0.96	37	23.75	2.87
<i>Patchy medium-profile reef</i>									
Site #27 - Western Tortugas Bank	10	5.25	0.96	5	3.50	0.58	24	10.50	0.58
<i>Reef terrace-medium relief</i>									
Site #25 - Western Tortugas Bank	16	10.50	2.65	8	4.75	1.26	35	23.00	2.16

Table 8. Number measured and mean (1 SD) density (no. colonies/m²) of fire corals (*Millepora* spp.), scleractinian corals, and all stony corals in the Dry Tortugas during June 2006. Data based upon surveys of two 10-m x 1-m belt transects per site.

Habitat type/site location	<i>Millepora</i> spp.			Scleractinia			Total corals		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Dry Tortugas National Park									
<i>Patchy low-relief hard-bottom</i>									
Site #5 - Eastern DTNP	7	0.35	0.07	6	0.30	0.14	13	0.65	0.07
Site #14 - Northern DTNP	14	0.70	0.00	26	1.30	0.57	40	2.00	0.57
Site #1 - Northern DTNP	11	0.55	0.07	25	1.25	0.35	36	1.80	0.42
<i>Low-relief hard-bottom</i>									
Site #3 - Pulaski Shoal	4	0.20	0.28	19	0.95	0.49	23	1.15	0.21
Site #33 - NW DTNP	22	1.10	0.14	18	0.90	0.85	40	2.00	0.71
<i>Patchy medium-relief hard-bottom</i>									
Site #37 - West of Loggerhead Key	3	0.15	0.07	5	0.25	0.07	8	0.40	0.00
Site #36 - West of Loggerhead Key	12	0.60	0.14	65	3.25	1.91	77	3.85	1.77
Site #2 - Northern DTNP	8	0.40	0.28	57	2.85	1.63	65	3.25	1.91
<i>Patch reef</i>									
Site #43 - Central DTNP	39	1.95	0.64	90	4.50	1.98	129	6.45	2.62
Site #34 - Texas Rock, DTNP	25	1.25	0.21	48	2.40	0.85	73	3.65	0.64
Site #30 - East of Loggerhead Key	31	1.55	0.21	12	0.60	0.28	43	2.15	0.07
Site #38 - West of Loggerhead Key	2	0.10	0.14	1	0.05	0.07	3	0.15	0.07
Site #42 - Southern DTNP	17	0.85	0.21	70	3.50	0.14	87	4.35	0.07
Site #44 - North-central DTNP	31	1.55	1.06	26	1.30	0.57	57	2.85	1.63
<i>Reef knoll</i>									
Site #41 - South of Loggerhead	49	2.45	1.06	99	4.95	0.49	148	7.40	1.56
Site #13 - NW DTNP	7	0.81	0.90	163	16.22	1.26	170	17.03	2.16
<i>Medium-profile reef</i>									
Site #45 - Little Africa, DTNP	9	0.45	0.21	67	3.35	2.47	76	3.80	2.69
Site #6 - Eastern DTNP	9	0.45	0.64	23	1.15	0.07	32	1.60	0.57
Site #9 - Northern DTNP	30	1.50	1.13	65	3.25	0.64	95	4.75	1.77
Site #40 - SW of Loggerhead	9	0.45	0.21	29	1.45	0.64	38	1.90	0.85
Site #8 - Northeastern DTNP	10	0.50	0.28	163	8.15	1.20	173	8.65	1.48
Site #32 - Northern DTNP	41	2.05	0.07	106	5.30	0.14	147	7.35	0.07
Site #7 - Northeastern DTNP	11	0.55	0.35	101	5.05	0.92	112	5.60	1.27
Site #4 - Eastern DTNP	7	0.35	0.49	80	4.00	0.28	87	4.35	0.78
<i>High-relief spur and groove</i>									
Site #31 - SE of Garden Key	61	3.05	0.21	124	6.20	3.39	185	9.25	3.61
<i>Reef terrace-high relief</i>									
Site #35 - Loggerhead Forest	14	0.88	0.35	188	11.75	1.94	202	12.63	2.30
Outside Dry Tortugas NP									
<i>Low-relief hard-bottom</i>									
Site #20 - SE of DTNP	3	0.15	0.21	0	0.00	0.00	3	0.15	0.21
Site #19 - SE of DTNP	1	0.05	0.07	5	0.25	0.07	6	0.30	0.00
Site #39 - SW of Loggerhead	5	0.25	0.07	14	0.70	0.14	19	0.95	0.07
<i>Reef terrace-high relief</i>									
Site #46 - South of DTNP	53	2.65	0.07	151	7.55	1.48	204	10.20	1.41
Tortugas Bank (outside NTMR)									
<i>Low-relief hard-bottom</i>									
Site #28 - Western Tortugas Bank	23	1.15	0.49	18	0.90	0.57	41	2.05	1.06
<i>Patchy medium-profile reef</i>									
Site #29 - Western Tortugas Bank	2	0.10	0.00	6	0.30	0.14	8	0.40	0.14

Habitat type/site location	<i>Millepora</i> spp.			Scleractinia			Total corals		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Tortugas North NTMR									
<i>Low-relief hard-bottom</i>									
Site #17 - Central Little Bank	18	0.90	0.57	13	0.65	0.07	31	1.55	0.64
Site #18 - Central Tortugas Bank	16	0.80	0.42	11	0.55	0.21	27	1.35	0.64
<i>Rocky outcrops</i>									
Site #15 - NE Tortugas Bank	62	3.10	0.57	95	4.75	2.05	157	7.85	2.62
<i>Medium-profile reef</i>									
Site #12 - NE Tortugas Bank	10	0.50	0.14	149	7.45	0.35	159	7.95	0.49
Site #11 - NE Tortugas Bank	9	0.45	0.49	105	5.25	1.34	114	5.70	1.84
Site #10 - NE Tortugas Bank	2	0.10	0.14	130	6.50	2.97	132	6.60	3.11
<i>Reef terrace-medium relief</i>									
Site #24 - NW Tortugas Bank	13	0.74	0.19	99	5.68	2.23	112	6.41	2.42
Site #21 - NW Tortugas Bank	28	1.40	0.42	138	6.90	3.82	166	8.30	3.39
Site #22 - NW Tortugas Bank	20	1.11	0.02	108	5.91	1.11	128	7.03	1.10
<i>Reef terrace-high relief</i>									
Site #16 - NE Little Tortugas Bank	13	0.92	0.03	166	11.61	0.12	179	12.54	0.09
Site #23 - NW Tortugas Bank	11	0.69	0.27	134	8.38	2.47	145	9.06	2.74
West of FKNMS Boundary									
<i>Medium-profile reef</i>									
Site #26 - Western Tortugas Bank	1	0.05	0.07	38	1.90	0.14	39	1.95	0.07
<i>Patchy medium-profile reef</i>									
Site #27 - Western Tortugas Bank	0	0.00	0.00	21	1.05	0.49	21	1.05	0.49
<i>Reef terrace-medium relief</i>									
Site #25 - Western Tortugas Bank	12	0.75	0.18	109	6.81	1.68	121	7.56	1.50

Table 9. Number (N) and relatively frequency (%F) of scleractinian corals with disease or disease-like conditions by region and habitat type in the Dry Tortugas during June 2006. Data are based upon surveys of replicate 10-m x 1-m belt transects per site.

Habitat type/site location	White plague		Dark spot syndrome		Dead white skeleton		Tissue necrosis		Total
	N	%F	N	%F	N	%F	N	%F	
Dry Tortugas National Park									
<i>Patchy low-relief hard-bottom</i>									
Site #5 - Eastern DTNP	0	0.00	0	0.00	0	0.00	0	0.00	6
Site #14 - Northern DTNP	1	3.85	0	0.00	0	0.00	0	0.00	26
Site #1 - Northern DTNP	1	4.00	0	0.00	1	4.00	0	0.00	25
<i>Low-relief hard-bottom</i>									
Site #3 - Pulaski Shoal	1	5.26	0	0.00	0	0.00	0	0.00	19
Site #33 - NW DTNP	0	0.00	0	0.00	1	5.56	0	0.00	18
<i>Patchy medium-relief hard-bottom</i>									
Site #37 - West of Loggerhead Key	0	0.00	0	0.00	0	0.00	0	0.00	5
Site #36 - West of Loggerhead Key	2	3.08	0	0.00	0	0.00	0	0.00	65
Site #2 - Northern DTNP	19	33.33	0	0.00	0	0.00	0	0.00	57
<i>Patch reef</i>									
Site #43 - Central DTNP	1	1.11	2	2.22	0	0.00	0	0.00	90
Site #34 - Texas Rock, DTNP	0	0.00	0	0.00	0	0.00	0	0.00	48
Site #30 - East of Loggerhead Key	0	0.00	0	0.00	0	0.00	0	0.00	12
Site #38 - West of Loggerhead Key	0	0.00	0	0.00	0	0.00	0	0.00	1
Site #42 - Southern DTNP	1	1.43	3	4.29	0	0.00	0	0.00	70
Site #44 - North-central DTNP	0	0.00	0	0.00	0	0.00	0	0.00	26
<i>Reef knoll</i>									
Site #41 - South of Loggerhead	0	0.00	2	2.02	0	0.00	0	0.00	99
Site #13 - NW DTNP	1	0.61	1	0.61	0	0.00	0	0.00	163
<i>Medium-profile reef</i>									
Site #45 - Little Africa, DTNP	0	0.00	0	0.00	0	0.00	0	0.00	67
Site #6 - Eastern DTNP	0	0.00	0	0.00	0	0.00	0	0.00	23
Site #9 - Northern DTNP	2	3.08	0	0.00	0	0.00	1	1.54	65
Site #40 - SW of Loggerhead	0	0.00	0	0.00	0	0.00	0	0.00	29
Site #8 - Northeastern DTNP	23	14.11	1	0.61	0	0.00	0	0.00	163
Site #32 - Northern DTNP	4	3.77	0	0.00	0	0.00	0	0.00	106
Site #7 - Northeastern DTNP	37	36.63	1	0.99	0	0.00	8	7.92	101
Site #4 - Eastern DTNP	2	2.50	0	0.00	0	0.00	0	0.00	80
<i>High-relief spur and groove</i>									
Site #31 - SE of Garden Key	0	0.00	0	0.00	0	0.00	0	0.00	124
<i>Reef terrace-high relief</i>									
Site #35 - Loggerhead Forest	0	0.00	0	0.00	1	0.53	0	0.00	188
Outside Dry Tortugas NP									
<i>Low-relief hard-bottom</i>									
Site #20 - SE of DTNP	0	0.00	0	0.00	0	0.00	0	0.00	0
Site #19 - SE of DTNP	0	0.00	0	0.00	0	0.00	0	0.00	5
Site #39 - SW of Loggerhead	0	0.00	0	0.00	0	0.00	0	0.00	14
<i>Reef terrace-high relief</i>									
Site #46 - South of DTNP	11	7.28	1	0.66	1	0.66	0	0.00	151
Tortugas Bank (outside NTMR)									
<i>Low-relief hard-bottom</i>									
Site #28 - Western Tortugas Bank	0	0.00	0	0.00	0	0.00	0	0.00	18
<i>Patchy medium-profile reef</i>									
Site #29 - Western Tortugas Bank	0	0.00	0	0.00	0	0.00	0	0.00	6

Habitat type/site location	White plague		Dark spot syndrome		Dead white skeleton		Tissue necrosis		Total
	N	%F	N	%F	N	%F	N	%F	
Tortugas North NTMR									
<i>Low-relief hard-bottom</i>									
Site #17 - Central Little Bank	0	0.00	0	0.00	0	0.00	0	0.00	13
Site #18 - Central Tortugas Bank	0	0.00	0	0.00	0	0.00	0	0.00	11
<i>Rocky outcrops</i>									
Site #15 - NE Tortugas Bank	2	2.11	1	1.05	0	0.00	0	0.00	95
<i>Medium-profile reef</i>									
Site #12 - NE Tortugas Bank	8	5.37	0	0.00	0	0.00	0	0.00	149
Site #11 - NE Tortugas Bank	1	0.95	0	0.00	0	0.00	0	0.00	105
Site #10 - NE Tortugas Bank	2	1.54	0	0.00	0	0.00	0	0.00	130
<i>Reef terrace-medium relief</i>									
Site #24 - NW Tortugas Bank	5	5.05	1	1.01	7	7.07	0	0.00	99
Site #21 - NW Tortugas Bank	1	0.72	0	0.00	5	3.62	0	0.00	138
Site #22 - NW Tortugas Bank	5	4.63	0	0.00	3	2.78	0	0.00	108
<i>Reef terrace-high relief</i>									
Site #16 - NE Little Tortugas Bank	2	1.20	0	0.00	0	0.00	0	0.00	166
Site #23 - NW Tortugas Bank	7	5.22	0	0.00	5	3.73	0	0.00	134
West of FKNMS Boundary									
<i>Medium-profile reef</i>									
Site #26 - Western Tortugas Bank	1	2.63	0	0.00	0	0.00	0	0.00	38
<i>Patchy medium-profile reef</i>									
Site #27 - Western Tortugas Bank	1	4.76	0	0.00	0	0.00	0	0.00	21
<i>Reef terrace-medium relief</i>									
Site #25 - Western Tortugas Bank	2	1.83	0	0.00	3	2.75	0	0.00	109

Table 10. Numbers measured and mean (1 SD) densities (no. per m²) of gorgonians and juvenile stony corals (< 4 cm max. diameter) in the Dry Tortugas during June 2006. 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/site = 6.24 m²). Gorgonian densities (no. colonies/m²) are based upon replicate 8 m² belt transects surveyed at each site.

Habitat type/site location	Juvenile stony corals			Gorgonians (Octocorallia)		
	No.	Mean	SD	No.	Mean	SD
Dry Tortugas National Park						
<i>Patchy low-relief hard-bottom</i>						
Site #5 - Eastern DTNP	3	0.48	0.23	114	7.13	1.41
Site #14 - Northern DTNP	9	1.44	1.13	85	5.31	2.03
Site #1 - Northern DTNP	8	1.28	0.45	64	4.00	1.06
<i>Low-relief hard-bottom</i>						
Site #3 - Pulaski Shoal	7	1.12	0.68	355	22.19	12.64
Site #33 - NW DTNP	6	0.96	0.45	204	12.75	2.83
<i>Patchy medium-relief hard-bottom</i>						
Site #37 - West of Loggerhead Key	1	0.16	0.23	67	4.19	0.80
Site #36 - West of Loggerhead Key	25	4.01	2.49	127	7.94	0.62
Site #2 - Northern DTNP	11	1.76	0.68	43	2.69	0.09
<i>Patch reef</i>						
Site #43 - Central DTNP	28	4.49	0.45	175	10.94	5.22
Site #34 - Texas Rock, DTNP	30	4.81	3.63	386	24.13	1.59
Site #30 - East of Loggerhead Key	16	2.56	2.72	273	17.06	3.27
Site #38 - West of Loggerhead Key	4	0.64	0.00	11	0.69	0.27
Site #42 - Southern DTNP	33	5.29	1.59	398	24.88	1.59
Site #44 - North-central DTNP	10	1.60	0.45	322	20.13	2.12
<i>Reef knoll</i>						
Site #41 - South of Loggerhead	34	5.45	0.91	255	15.94	2.92
Site #13 - NW DTNP	12	3.85		75	4.69	1.15
<i>Medium-profile reef</i>						
Site #45 - Little Africa, DTNP	28	4.49	3.63	247	15.44	5.22
Site #6 - Eastern DTNP	20	3.21	0.00	235	14.69	2.56
Site #9 - Northern DTNP	20	3.21	2.27	178	11.13	4.77
Site #40 - SW of Loggerhead	27	4.33	1.13	222	13.88	4.77
Site #8 - Northeastern DTNP	11	1.76	0.68	83	5.19	1.33
Site #32 - Northern DTNP	32	5.13	2.72	220	13.75	1.06
Site #7 - Northeastern DTNP	12	1.92	0.91	5	0.31	0.09
Site #4 - Eastern DTNP	3	0.48	0.23	91	5.69	0.27
<i>High-relief spur and groove</i>						
Site #31 - SE of Garden Key	32	5.13	1.81	290	18.13	6.54
<i>Reef terrace-high relief</i>						
Site #35 - Loggerhead Forest	6	0.96	0.00	177	11.06	0.09
Outside Dry Tortugas NP						
<i>Low-relief hard-bottom</i>						
Site #20 - SE of DTNP	16	2.56	0.45	34	2.13	1.24
Site #19 - SE of DTNP	3	0.48	0.68	5	0.31	0.09
Site #39 - SW of Loggerhead	9	1.44	0.68	52	3.25	0.53
<i>Reef terrace-high relief</i>						
Site #46 - South of DTNP	36	5.77	2.27	143	8.94	0.09
Tortugas Bank (outside NTMR)						
<i>Low-relief hard-bottom</i>						
Site #28 - Western Tortugas Bank	4	0.64	0.45	109	6.81	0.62
<i>Patchy medium-profile reef</i>						
Site #29 - Western Tortugas Bank	16	2.56	1.81	27	1.69	0.27

Habitat type/site location	Juvenile stony corals			Gorgonians (Octocorallia)		
	No.	Mean	SD	No.	Mean	SD
Tortugas North NTMR						
<i>Low-relief hard-bottom</i>						
Site #17 - Central Little Bank	13	2.08	0.23	279	17.44	4.51
Site #18 - Central Tortugas Bank	18	2.89	2.27	144	9.00	8.31
<i>Rocky outcrops</i>						
Site #15 - NE Tortugas Bank	19	3.05	0.68	173	10.81	5.57
<i>Medium-profile reef</i>						
Site #12 - NE Tortugas Bank	15	2.58	1.39	94	5.88	0.71
Site #11 - NE Tortugas Bank	33	5.29	0.23	56	3.50	1.06
Site #10 - NE Tortugas Bank	1	0.16	0.23	1	0.06	0.09
<i>Reef terrace-medium relief</i>						
Site #24 - NW Tortugas Bank	6	0.96	0.00	60	3.75	1.95
Site #21 - NW Tortugas Bank	25	4.01	2.04	124	7.75	1.95
Site #22 - NW Tortugas Bank	15	2.40	1.13	163	10.19	0.44
<i>Reef terrace-high relief</i>						
Site #16 - NE Little Tortugas Bank	22	3.53	3.17	53	3.31	1.15
Site #23 - NW Tortugas Bank	6	0.96	0.00	157	9.81	0.80
West of FKNMS Boundary						
<i>Medium-profile reef</i>						
Site #26 - Western Tortugas Bank	15	2.40	1.59	30	1.88	0.18
<i>Patchy medium-profile reef</i>						
Site #27 - Western Tortugas Bank	4	0.64	0.45	11	0.69	0.44
<i>Reef terrace-medium relief</i>						
Site #25 - Western Tortugas Bank	11	1.70	0.22	140	8.75	0.71

Table 11. Mean and standard deviation (SD) of urchin densities (no. per m²) from surveys of four 15 m² plots at each site in the Dry Tortugas during June 2006.

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
Dry Tortugas National Park								
<i>Patchy low-relief hard-bottom</i>								
Site #5 - Eastern DTNP	5	0.083	0.084	40	0.667	0.313	0	0.000
Site #14 - Northern DTNP	1	0.017	0.033	0	0.000	0.000	0	0.000
Site #1 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Low-relief hard-bottom</i>								
Site #3 - Pulaski Shoal	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #33 - NW DTNP	1	0.017	0.033	0	0.000	0.000	0	0.000
<i>Patchy medium-relief hard-bottom</i>								
Site #37 - West of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #36 - West of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #2 - Northern DTNP	1	0.017	0.033	0	0.000	0.000	0	0.000
<i>Patch reef</i>								
Site #43 - Central DTNP	22	0.367	0.246	1	0.017	0.033	22	0.367
Site #34 - Texas Rock, DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #30 - East of Loggerhead Key	22	0.367	0.258	29	0.483	0.257	40	0.667
Site #38 - West of Loggerhead Key	1	0.017	0.033	0	0.000	0.000	0	0.000
Site #42 - Southern DTNP	11	0.183	0.158	6	0.100	0.115	5	0.083
Site #44 - North-central DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Reef knoll</i>								
Site #41 - South of Loggerhead	2	0.033	0.038	0	0.000	0.000	5	0.083
Site #13 - NW DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Medium-profile reef</i>								
Site #45 - Little Africa, DTNP	2	0.033	0.067	1	0.017	0.033	0	0.000
Site #6 - Eastern DTNP	4	0.067	0.094	1	0.017	0.033	9	0.150
Site #9 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #40 - SW of Loggerhead	1	0.017	0.033	0	0.000	0.000	1	0.017
Site #8 - Northeastern DTNP	1	0.017	0.033	0	0.000	0.000	1	0.017
Site #32 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #7 - Northeastern DTNP	1	0.017	0.033	0	0.000	0.000	1	0.017
Site #4 - Eastern DTNP	1	0.017	0.033	0	0.000	0.000	0	0.000
<i>High-relief spur and groove</i>								
Site #31 - SE of Garden Key	4	0.067	0.077	4	0.067	0.077	12	0.200
<i>Reef terrace-high relief</i>								
Site #35 - Loggerhead Forest	2	0.033	0.038	0	0.000	0.000	1	0.017
Outside Dry Tortugas NP								
<i>Low-relief hard-bottom</i>								
Site #20 - SE of DTNP	2	0.033	0.067	96	3.000	1.229	0	0.000
Site #19 - SE of DTNP	0	0.000	0.000	1	0.017	0.033	0	0.000
Site #39 - SW of Loggerhead	1	0.017	0.033	0	0.000	0.000	0	0.000
<i>Reef terrace-high relief</i>								
Site #46 - South of DTNP	2	0.033	0.038	0	0.000	0.000	0	0.000
Tortugas Bank (outside NTMR)								
<i>Low-relief hard-bottom</i>								
Site #28 - Western Tortugas Bank	1	0.017	0.033	0	0.000	0.000	0	0.000
<i>Patchy medium-profile reef</i>								
Site #29 - Western Tortugas Bank	4	0.067	0.054	0	0.000	0.000	0	0.000

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
Tortugas North NTMR								
<i>Low-relief hard-bottom</i>								
Site #17 - Central Little Bank	3	0.050	0.064	0	0.000	0.000	0	0.000
Site #18 - Central Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Rocky outcrops</i>								
Site #15 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Medium-profile reef</i>								
Site #12 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #11 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #10 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Reef terrace-medium relief</i>								
Site #24 - NW Tortugas Bank	2	0.033	0.067	0	0.000	0.000	0	0.000
Site #21 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
Site #22 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Reef terrace-high relief</i>								
Site #16 - NE Little Tortugas Bank	1	0.017	0.033	0	0.000	0.000	0	0.000
Site #23 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
West of FKNMS Boundary								
<i>Medium-profile reef</i>								
Site #26 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Patchy medium-profile reef</i>								
Site #27 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000
<i>Reef terrace-medium relief</i>								
Site #25 - Western Tortugas Bank	2	0.033	0.038	0	0.000	0.000	0	0.000

Table 12. Incidental marine invertebrates surveyed for density in the Tortugas Region during 2006. 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>Heteractis lucida</i>	knobby 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 13. Numbers and mean (1 SD) density (no. colonies/m²) of the anemones *Bartholomea annulata*, *Condylactis gigantea*, *Epicystis crucifera*, *Heteractis lucida* and *Lebrunia danae* (Cnidaria, Actiniaria) from surveys of four 15 m² belt transects per site.

Habitat type/site location	<i>B. annulata</i>			<i>C. gigantea</i>			<i>E. crucifera</i>			<i>H. lucida</i>			<i>L. danae</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Dry Tortugas National Park															
<i>Patchy low-relief hard-bottom</i>															
Site #5 - Eastern DTNP	3	0.050	0.033	0	0.000	0.000	6	0.100	0.086	0	0.000	0.000	0	0.000	0.000
Site #14 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #1 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
<i>Low-relief hard-bottom</i>															
Site #3 - Pulaski Shoal	0	0.000	0.000	2	0.033	0.067	23	0.383	0.191	0	0.000	0.000	4	0.067	0.094
Site #33 - NW DTNP	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	2	0.033	0.038
<i>Patchy medium-relief hard-bottom</i>															
Site #37 - West of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033	3	0.050	0.100
Site #36 - West of Loggerhead Key	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #2 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Patch reef</i>															
Site #43 - Central DTNP	2	0.033	0.038	0	0.000	0.000	51	0.983	0.405	0	0.000	0.000	10	0.167	0.192
Site #34 - Texas Rock, DTNP	1	0.017	0.033	0	0.000	0.000	24	0.400	0.357	0	0.000	0.000	5	0.083	0.126
Site #30 - East of Loggerhead Key	11	0.183	0.100	0	0.000	0.000	7	0.133	0.094	0	0.000	0.000	66	1.038	0.651
Site #38 - West of Loggerhead Key	2	0.033	0.038	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	2	0.033	0.067
Site #42 - Southern DTNP	0	0.000	0.000	0	0.000	0.000	4	0.067	0.054	1	0.017	0.033	1	0.017	0.033
Site #44 - North-central DTNP	1	0.017	0.033	1	0.017	0.033	18	0.300	0.159	0	0.000	0.000	2	0.033	0.038
<i>Reef knoll</i>															
Site #41 - South of Loggerhead	3	0.050	0.064	0	0.000	0.000	1	0.017	0.033	1	0.017	0.033	9	0.150	0.064
Site #13 - NW DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
<i>Medium-profile reef</i>															
Site #45 - Little Africa, DTNP	0	0.000	0.000	0	0.000	0.000	4	0.067	0.054	1	0.017	0.033	4	0.067	0.054
Site #6 - Eastern DTNP	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	7	0.117	0.064
Site #9 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	2	0.033	0.038	1	0.017	0.033	2	0.033	0.067
Site #40 - SW of Loggerhead	2	0.033	0.038	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	4	0.067	0.077
Site #8 - Northeastern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033	3	0.050	0.064
Site #32 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033	4	0.067	0.133
Site #7 - Northeastern DTNP	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Site #4 - Eastern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>High-relief spur and groove</i>															
Site #31 - SE of Garden Key	2	0.033	0.038	0	0.000	0.000	5	0.083	0.126	1	0.017	0.033	12	0.200	0.054
<i>Reef terrace-high relief</i>															
Site #35 - Loggerhead Forest	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033

Habitat type/site location	<i>B. annulata</i>			<i>C. gigantea</i>			<i>E. crucifera</i>			<i>H. lucida</i>			<i>L. danae</i>		
	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD	No.	Mean	SD
Outside Dry Tortugas NP															
<i>Low-relief hard-bottom</i>															
Site #20 - SE of DTNP	3	0.050	0.064	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #19 - SE of DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #39 - SW of Loggerhead	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Reef terrace-high relief</i>															
Site #46 - South of DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tortugas Bank (outside NTMR)															
<i>Low-relief hard-bottom</i>															
Site #28 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
<i>Patchy medium-profile reef</i>															
Site #29 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Tortugas North NTMR															
<i>Low-relief hard-bottom</i>															
Site #17 - Central Little Bank	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #18 - Central Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Rocky outcrops</i>															
Site #15 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Medium-profile reef</i>															
Site #12 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #11 - NE Tortugas Bank	0	0.000	0.000	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #10 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Reef terrace-medium relief</i>															
Site #24 - NW Tortugas Bank	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #21 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #22 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Reef terrace-high relief</i>															
Site #16 - NE Little Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #23 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of FKNMS Boundary															
<i>Medium-profile reef</i>															
Site #26 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Patchy medium-profile reef</i>															
Site #27 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Reef terrace-medium relief</i>															
Site #25 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000

Table 14. Numbers and mean (1 SD) densities (no. colonies/m²) of the corallimorpharians *Discosoma carlgeni*, *D. sanctithomae*, and *Ricordea florida* (Cnidaria, Corallimorpharia) from surveys of four 15 m² belt transects per site.

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
Dry Tortugas National Park									
<i>Patchy low-relief hard-bottom</i>									
Site #5 - Eastern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #14 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #1 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Low-relief hard-bottom</i>									
Site #3 - Pulaski Shoal	0	0.000	0.000	0	0.000	0.000	5	0.083	0.084
Site #33 - NW DTNP	0	0.000	0.000	0	0.000	0.000	18	0.300	0.301
<i>Patchy medium-relief hard-bottom</i>									
Site #37 - West of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	2	0.033	0.067
Site #36 - West of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	3	0.050	0.100
Site #2 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	4	0.067	0.094
<i>Patch reef</i>									
Site #43 - Central DTNP	1	0.017	0.033	0	0.000	0.000	0	0.000	0.000
Site #34 - Texas Rock, western DTNP	0	0.000	0.000	16	0.267	0.449	3	0.050	0.064
Site #30 - East of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #38 - West of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #42 - Southern DTNP	0	0.000	0.000	0	0.000	0.000	33	0.550	0.694
Site #44 - North-central DTNP	3	0.050	0.100	0	0.000	0.000	6	0.100	0.067
<i>Reef knoll</i>									
Site #41 - South of Loggerhead Key	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #13 - NW DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Medium-profile reef</i>									
Site #45 - Little Africa, western DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #6 - Eastern DTNP	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #9 - Northern DTNP	0	0.000	0.000	4	0.067	0.133	1	0.017	0.033
Site #40 - SW of Loggerhead	0	0.000	0.000	0	0.000	0.000	3	0.050	0.064
Site #8 - Northeastern DTNP	0	0.000	0.000	0	0.000	0.000	23	0.383	0.767
Site #32 - Northern DTNP	0	0.000	0.000	0	0.000	0.000	48	0.800	0.954
Site #7 - Northeastern DTNP	0	0.000	0.000	0	0.000	0.000	6	0.100	0.200
Site #4 - Eastern DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>High-relief spur and groove</i>									
Site #31 - SE of Garden Key	0	0.000	0.000	1	0.017	0.033	56	0.933	1.867
<i>Reef terrace-high relief</i>									
Site #35 - Loggerhead Forest	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Outside Dry Tortugas NP									
<i>Low-relief hard-bottom</i>									
Site #20 - SE of DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #19 - SE of DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #39 - SW of Loggerhead	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
<i>Reef terrace-high relief</i>									
Site #46 - South of DTNP	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Tortugas Bank (outside NTMR)									
<i>Low-relief hard-bottom</i>									
Site #28 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Patchy medium-profile reef</i>									
Site #29 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033

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
Tortugas North NTMR									
<i>Low-relief hard-bottom</i>									
Site #17 - Central Little Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #18 - Central Tortugas Bank	0	0.000	0.000	0	0.000	0.000	19	0.317	0.503
<i>Rocky outcrops</i>									
Site #15 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Medium-profile reef</i>									
Site #12 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #11 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	70	1.167	1.501
Site #10 - NE Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Reef terrace-medium relief</i>									
Site #24 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	1	0.017	0.033
Site #21 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	4	0.067	0.133
Site #22 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	3	0.050	0.100
<i>Reef terrace-high relief</i>									
Site #16 - NE Little Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Site #23 - NW Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
West of FKNMS Boundary									
<i>Medium-profile reef</i>									
Site #26 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
<i>Patchy medium-profile reef</i>									
Site #27 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	4	0.067	0.133
<i>Reef terrace-medium relief</i>									
Site #25 - Western Tortugas Bank	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000