

**CRUISE REPORT
C257**

**Scientific data collected aboard
*SSV Corwith Cramer***

**San Juan, Puerto Rico – Marigot, St. Martin – Little Bay, Montserrat –
Portsmouth, Dominica – St. Georges, Grenada – St John, USVI – San
Juan, Puerto Rico**

19 February – 30 March, 2015



Corey Wrinn and Toni Hall processing *Sargassum*.

**Sea Education Association
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Table 1. C257 Ship's crew and student participants

Nautical Staff	Sean Bercaw Kirsten Johnsrud Allison Taylor Cassie Sleeper Tanner Tillotson Becky Slattery	Captain Chief Mate 2 nd Mate 3 rd Mate Engineer Steward
Scientific Staff	Jeff Schell Maia Theophanis Nick Dragone Gar Secrist	Chief Scientist 1 st Scientist 2 nd Scientist 3 rd Scientist
Maritime Studies Staff	Craig Marin	
Visiting Faculty	Rick Jones Peter Stone	Illustration / Watercolor Watercolor / Journaling
Scientific Observer	Randall Richardson	Anguilla
Sailing Interns	Matt Harrison Marissa Shaw Sarah Salem	
Students	Samuel Beard Kathleen Brickner Katherine Brill Julio Ciani James Conley Molly Disbrow Robert Foley Antonia Hall Thomas Hiura Annie Reardon Nicole Reasonda Harmony Richman Lillian Robinson Emily Rubinstein Colin Terry Sarah Tyrrell Samuel Wooster Corey Wrinn	Boston College Mira Costa Community College Connecticut College Northeastern University Stonehill College Ohio Wesleyan University St. Michael's College University of Vermont Carleton College Union College Quinsigamond Community College Barnard College University of Vermont Hamilton College The George Washington University Miami University University of Vermont Eugene Lang, The New School

Data Description C257

The cruise track for C-257 (Figure 1) departed from San Juan, Puerto Rico and to the same port 40 days later. During the nearly six-week voyage we had five port stops; the first in Marigot, St Martin; the next in Little Bay, Montserrat; the third in Portsmouth, Dominica; the fourth in St Georges, Grenada; and the last in St John, USVI.

Our cruise track traversed several major oceanographic provinces (Figure 1): a) the sub-tropical North Atlantic gyre or southern Sargasso Sea, b), the meandering North Equatorial Current and the warm waters of the c) North Eastern and d) South Eastern Caribbean Sea. We did not venture to windward of the Lesser Antilles during this cruise.

We collected data with 89 individual deployments from 44 discrete geographic stations along our cruise track (Table 2). Comparison of the physical, chemical, biologic and geologic features of these regions represented the major oceanographic theme of this Sea Semester.

1. Physical oceanographic studies focused on the distribution of surface and sub-surface (to 1900 m) water masses and the delineation of hydrographic boundaries. Specifically, North Atlantic sub-tropical mode water (18°C Water) was studied in relation to the phase of the North Atlantic Oscillation (NAO). In addition, we delineated the boundary between the NE and SE Caribbean Sea based on sea surface salinities and chlorophyll-*a* fluorescence.
2. Chemical oceanographic studies focused on the geographic and vertical distribution of nutrients (phosphate and silicate) and extracted chlorophyll-*a*. These chemical parameters were related to patterns in physical hydrography at various scales: nearshore to offshore transitions, ocean fronts and eddies associated with the North Equatorial Current and island passages, and water column stratification.
3. Biological studies focused on the geographic distribution of charismatic megafauna (seabirds, sea turtles, flying fish, and marine mammals), several meroplanktonic larvae including spiny lobster (phyllosoma) and eels (leptocephali), the floating macrophyte – *Sargassum* spp., and the density (mL/m²) and diversity (i.e. Shannon-Weiner index) of the aggregate zooplankton community.
4. Geological sampling focused on bathymetric transects of continental shelf regions of several Caribbean Islands. Patterns were related to island age and distance from shore.

Sea surface temperature, salinity, fluorescence (chlorophyll-*a* and CDOM) and transmissivity levels; along with barometric pressure, winds, bathymetry, and geographic position were recorded continuously along the cruise track. Large-scale hydrography is summarized with surface plots for some parameters (Figure 2a-c) other data is available upon request. Surface samples (62) of nutrients (phosphate and silicate) and chlorophyll-*a* were collected every six hours and in conjunction with all neuston net tows during the cruise track (Table 3).

Additional Hourly Observations included the enumeration of seabirds, sea turtles, flying fish, marine mammals, *Sargassum* spp clumps, and floating plastic debris. Observations occurred only during daylight hours 0700-1900 for a period of 6 minutes each hour (n=229). Periodically, opportunistic sightings were also recorded when notable megafauna or marine debris were present. Data available upon request.

But for the occasional eddy surface currents along the C257 cruise track were weak (< 500mm/s, or 1.0 knot) and variable in direction. Regional examination of surface currents highlight the presence of eddies and meanders near constricted island passages (Figure 3a-b).

The density structure of the water column (maximum depth 1000 m) was determined using a Seabird CTD with attached *in situ* chlorophyll-*a* fluorescence and dissolved oxygen sensors (16 stations, Table 4). Vertical profiles of extracted chlorophyll-*a* and nutrients were determined using a 12-bottle carousel equipped with a CTD and three additional *in situ* sensors – CDOM, transmissivity, and PAR (5 stations, Table 5). Vertical profiles of temperature, salinity, dissolved oxygen and chlorophyll-*a* fluorescence are revealed along the cruise track (Figure 4a-d).

Surface plankton assemblages along with the floating macrophyte *Sargassum* spp., marine debris and tar balls were sampled regularly with a neuston net (23 stations, 335 µm mesh, Table 6). Plankton assemblages at discrete depths (200m) were collected using a 1m diameter Meter net (3 stations, 335 µm mesh, Table 7). In combination these myriad net deployments reveal the vertical and horizontal distribution patterns of the marine insect *Halobates*, eel (leptocephali) and spiny lobster (phyllosoma) larvae, pteropods, and general zooplankton diversity and taxonomic composition in relation to numerous environmental parameters (Table 8).

Additional phytoplankton samples were collected with a surface (~1-3m) drifted phytonet (3 stations, 30cm frame, 63 µm mesh, Table 9) for demonstrational purposes only.

Eight sediment samples were collected using a shipek grab ranging in depth from 5 to 1200m. Additional data available upon request.

Discrete samples of *Sargassum* clumps and marine plastic debris were collected with a dip net (14 stations, 335 µm mesh, Table 11). Shrimp, crab, fish, and snail specimens were rinsed from collected samples. Abundance and diversity of associated biota were related to mass (g) and morpho-type of *Sargassum* and geographic location. Three distinct morphological types of *Sargassum* were recognized (*S. fluitans* III, *S. natans* I, and *S. natans* VIII) and clear differences in associated fauna were observed even when the *Sargassum* was collected from the same windrow.

Final scientific work conducted aboard ship was the routine deployment of a secchi disc (12 stations, Table 12) to estimate the 1% light level.

Additional CTD, CHIRP, ADCP and biological data not reported here are available on request through Sea Education Association (SEA) and the Chief Scientist. The information in this report is not intended to represent final interpretation of the data and should not be excerpted or cited without written permission from SEA.

As part of SEA's educational program, undergraduates conducted independent oceanographic research during the cruise. Projects explored regionally, relevant topics in the disciplines of physical, chemical, and biological oceanography (Table 13). Student research efforts culminated in a written report and public presentation to the ship's company. These papers are available on request from SEA.

Jeffrey Schell, Associate Professor – Chief Scientist, C257

Figure 1. Final cruise track for C257 based on hourly (local time) positions, including ports of call.

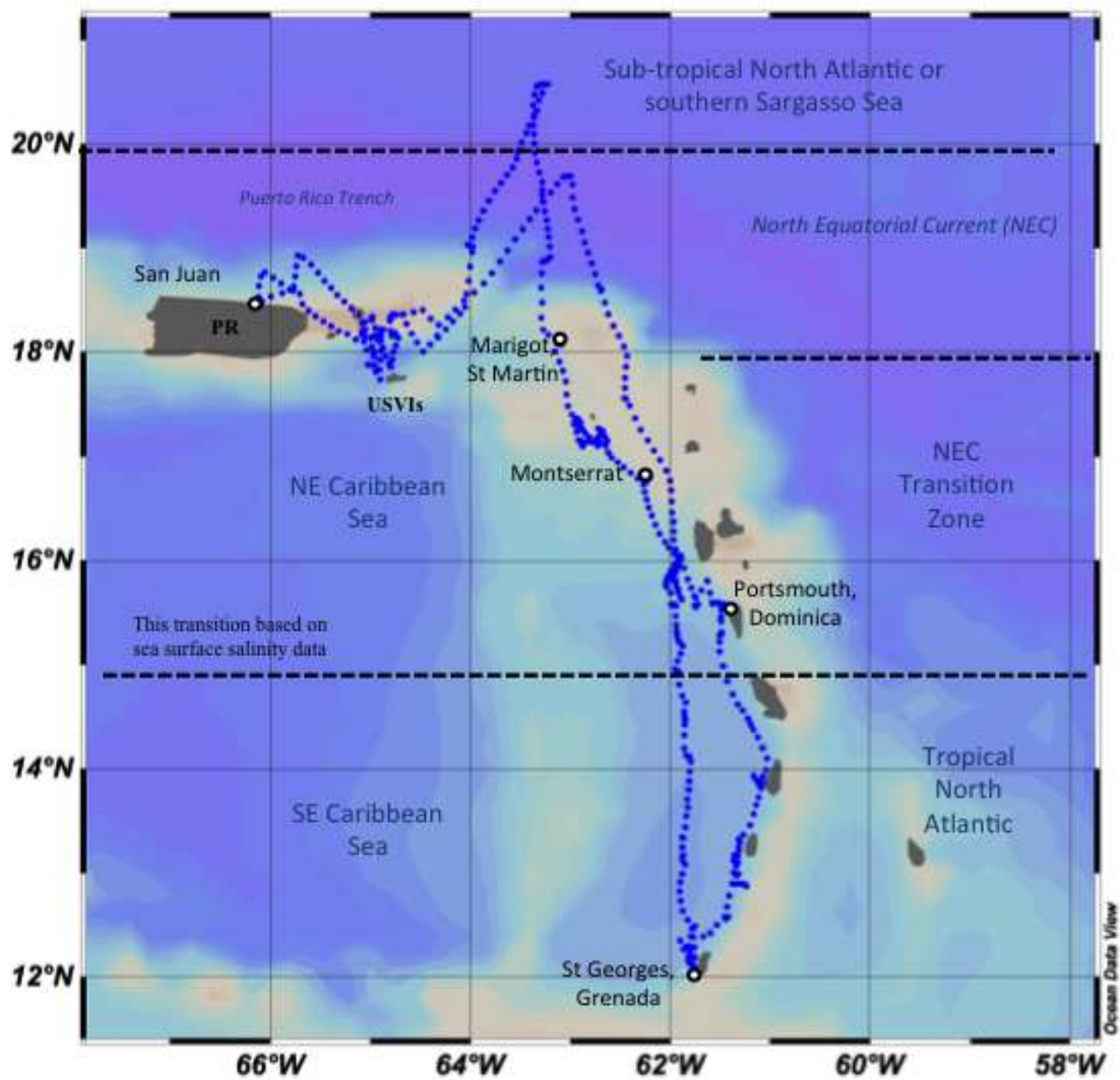


Table 2. Summary of oceanographic sampling stations for C257.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Log (nm)	Lat (dec Deg N)	Lon (dec Deg W)	Location	Station Type
001	22-Feb	1032	120.9	18.29	-65.06	St. Thomas Shelf	SG(A)
001	22-Feb	1044	119.0	18.29	-65.06	St. Thomas Shelf	SG(B)
001	22-Feb	1104	119.6	18.29	-65.07	St. Thomas Shelf	SD
001	22-Feb	1119	119.0	18.29	-65.07	St. Thomas Shelf	CTD
001	22-Feb	1156	119.0	18.28	-65.08	St. Thomas Shelf	NT
002	23-Feb	0936	158.5	18.16	-64.96	Northeast Caribbean	SD
002	23-Feb	0956	158.7	18.15	-64.97	Northeast Caribbean	CTD
002	23-Feb	1121	158.7	18.15	-64.99	Northeast Caribbean	NT
002	23-Feb	1133	158.6	18.14	-64.99	Northeast Caribbean	DN
003	24-Feb	0004	222.6	18.17	-64.89	St. Thomas Continental Slope	NT
004	24-Feb	0945	267.5	18.19	-64.75	St. John Shelf	SG(A)
004	24-Feb	0956	267.5	18.19	-64.75	St. John Shelf	SG(B)
004	24-Feb	1014	268.0	18.18	-64.76	St. John Shelf	NT
004	24-Feb	1106	269.0	18.16	-64.78	St. John Shelf	SD
004	24-Feb	1125	269.0	18.16	-64.78	St. John Shelf	CTD
005	25-Feb	0008	327.5	18.15	-64.33	Sombrero Passage	NT
006	25-Feb	0939	392.9	19.02	-63.98	North Equatorial Current	SD
006	25-Feb	1007	391.7	19.02	-63.97	North Equatorial Current	CTD
006	25-Feb	1015	391.8	19.02	-63.98	North Equatorial Current	DN
006	25-Feb	1136	391.8	19.02	-64.01	North Equatorial Current	HC
007	26-Feb	0009	445.7	19.93	-63.52	North Equatorial Current	NT
008	26-Feb	0924	493.2	20.05	-64.65	Sargasso Sea	SD
008	26-Feb	0944	493.2	20.58	-63.24	Sargasso Sea	HC
008	26-Feb	1050	493.2	20.58	-63.28	Sargasso Sea	CTD
008	26-Feb	1232	493.5	20.57	-63.32	Sargasso Sea	NT
009	27-Feb	0009	555.0	19.56	-63.28	North Equatorial Current	NT
010	27-Feb	0850	594.1	18.89	-63.22	North Equatorial Current	CTD
010	27-Feb	0905	594.1	18.89	-63.23	North Equatorial Current	DN
010	27-Feb	0932	594.1	18.90	-63.21	North Equatorial Current	SD
010	27-Feb	1030	594.4	18.88	-63.27	North Equatorial Current	NT
011	27-Feb	1640	638.4	18.17	-65.22	Anguilla Slope	SG
012	3-Mar	0022	698.8	17.34	-62.96	St Kitts Shelf	NT
013	3-Mar	0930	734.5	17.17	-62.81	St Kitts Shelf	SG
013	3-Mar	1024	734.8	17.15	-62.83	St Kitts Shelf	SD

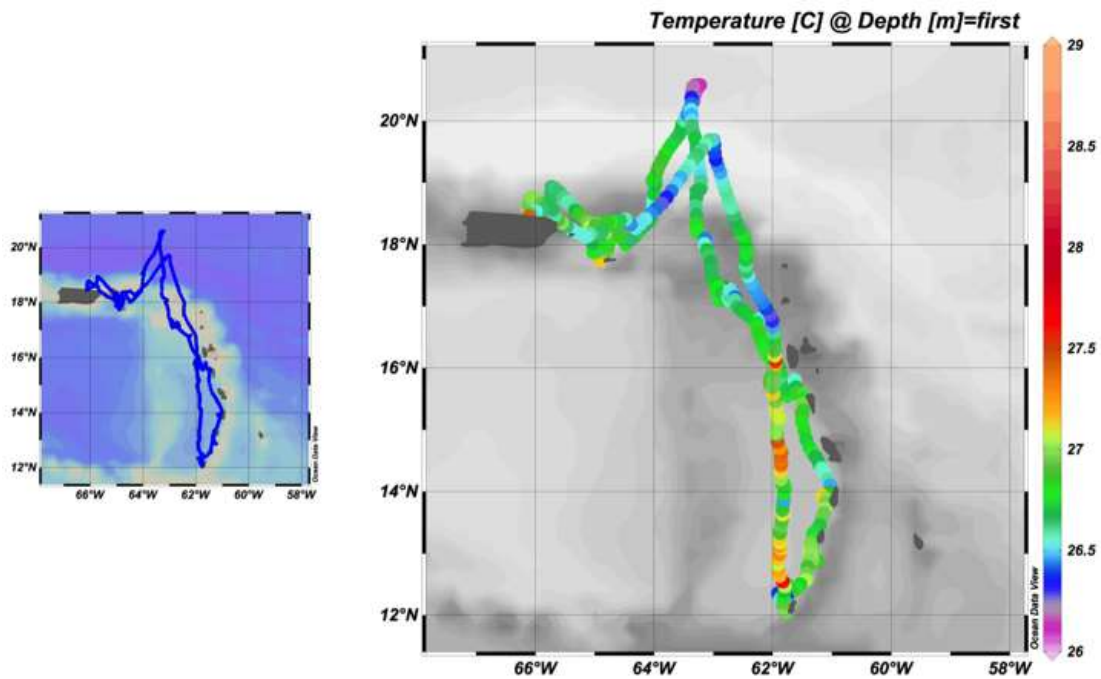
Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Log (nm)	Lat (dec Deg N)	Lon (dec Deg W)	Location	Station Type
013	3-Mar	1044	724.5	17.15	-62.84	St Kitts Shelf	HC
013	3-Mar	1148	734.7	17.12	-62.86	St Kitts Shelf	CTD
013	3-Mar	1250	734.5	17.11	-62.88	St Kitts Shelf	NT
014	4-Mar	0000	784.8	17.12	-62.71	St Kitts Shelf	NT
015	4-Mar	0638	825.1	17.24	-62.68	St. Kitts Shelf	SG(A)
015	4-Mar	0716	825.1	17.23	-62.69	St. Kitts Shelf	SG(B)
016	4-Mar	0930	825.6	17.19	-62.73	St. Kitts Shelf	SD
016	4-Mar	0947	825.6	17.18	-62.73	St. Kitts Shelf	CTD
016	4-Mar	1037	825.6	17.16	-62.75	St. Kitts Shelf	NT
016	4-Mar	1038	825.6	17.15	-62.75	St. Kitts Shelf	DN
017	4-Mar	2234	851.2	17.12	-62.64	Nevis Shelf	NT
018	5-Mar	0750	888.9	16.75	-62.24	Montserrat Shelf	SG
019	7-Mar	1436	905.3	16.54	-62.23	South of Montserrat	DN
020	8-Mar	0006	941.2	15.94	-61.93	Northeast Caribbean	NT
021	8-Mar	0925	979.9	15.89	-62.96	Northeast Caribbean	SD
021	8-Mar	0949	979.0	15.88	-61.92	Northeast Caribbean	HC
021	8-Mar	1057	979.1	15.87	-61.99	Northeast Caribbean	CTD
021	8-Mar	1220	979.2	15.85	-62.02	Northeast Caribbean	NT
022	9-Mar	0132	1035.9	15.57	-61.74	Northeast Caribbean	NT
023	9-Mar	1113	1084.2	15.57	-61.48	Dominica Slope	SG
024	14-Mar	0000	1151.4	14.49	-61.23	Northeast Caribbean	NT
025	14-Mar	0926	1189.9	13.84	-61.09	Northeast Caribbean	SD
025	14-Mar	0950	1189.9	13.84	-61.08	St. Lucia Shelf	CTD
025	14-Mar	1044	1189.9	13.84	-61.09	St. Lucia Shelf	NT
026	14-Mar	1730	1204.8	13.82	-61.08	St. Lucia - Les Pitons	DN
027	14-Mar	2354	1245.6	13.32	-61.32	Southeast Caribbean	NT
028	15-Mar	0940	1287.1	12.90	-61.29	Southeast Caribbean	SG
028	15-Mar	1055	1287.1	12.90	-61.31	Southeast Caribbean	SD
028	15-Mar	1116	1284.1	12.90	-61.32	Southeast Caribbean	CTD
028	15-Mar	1220	1287.1	12.89	-61.35	Southeast Caribbean	NT
029	15-Mar	1506	1300.0	13.12	-61.37	Southeast Caribbean	DN
030	16-Mar	0920	1360.4	12.20	-61.78	Southeast Caribbean	SD
030	16-Mar	0943	1364.0	12.20	-61.79	Southeast Caribbean	HC
030	16-Mar	1040	1364.0	12.19	-61.80	Southeast Caribbean	CTD
030	16-Mar	1121	1364.2	12.19	-61.80	Southeast Caribbean	NT
031	22-Mar	1634	1470.0	12.78	-61.90	Southeast Caribbean	DN

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Log (nm)	Lat (dec Deg N)	Lon (dec Deg W)	Location	Station Type
032	22-Mar	0008		13.34	-61.88	Southeast Caribbean	NT
033	23-Mar	0625	1499.0	13.83	-61.82	Southeast Caribbean	DN
034	23-Mar	0945	1508.6	14.12	-61.81	Southeast Caribbean	CTD
034	23-Mar	0945	1510.0	14.12	-61.81	Southeast Caribbean	PN
035	23-Mar	2134	1548.5	14.95	-61.93	Southeast Caribbean	MN
036	24-Mar	0932	1579.1	15.59	-61.95	Southeast Caribbean	PN
036	24-Mar	0946	1579.1	15.59	-61.96	Southeast Caribbean	CTD
036	24-Mar	1150	1582.9	15.57	-61.99	Southeast Caribbean	DN
038	24-Mar	2130	1616.3	16.38	-61.98	Northeast Caribbean	MN
039	25-Mar	0950	1679.3	17.55	-62.45	North Equatorial Current	PN
039	25-Mar	0959	1679.3	17.55	-62.45	North Equatorial Current	CTD
039	25-Mar	1014	1679.3	17.55	-62.45	North Equatorial Current	DN
040	25-Mar	1730	1713.2	18.20	-62.54	North Equatorial Current	DN
041	25-Mar	2132	1732.2	18.61	-62.70	North Equatorial current	MN
042	26-Mar	0922	1784.2	19.69	-63.01	Puerto Rico Trench	CTD
043	26-Mar	1405	1792.2	19.53	-63.20	North Equatorial Current	DN
044	29-Mar	0623	2017.3	18.27	-65.42	Off Puerto Rico	DN

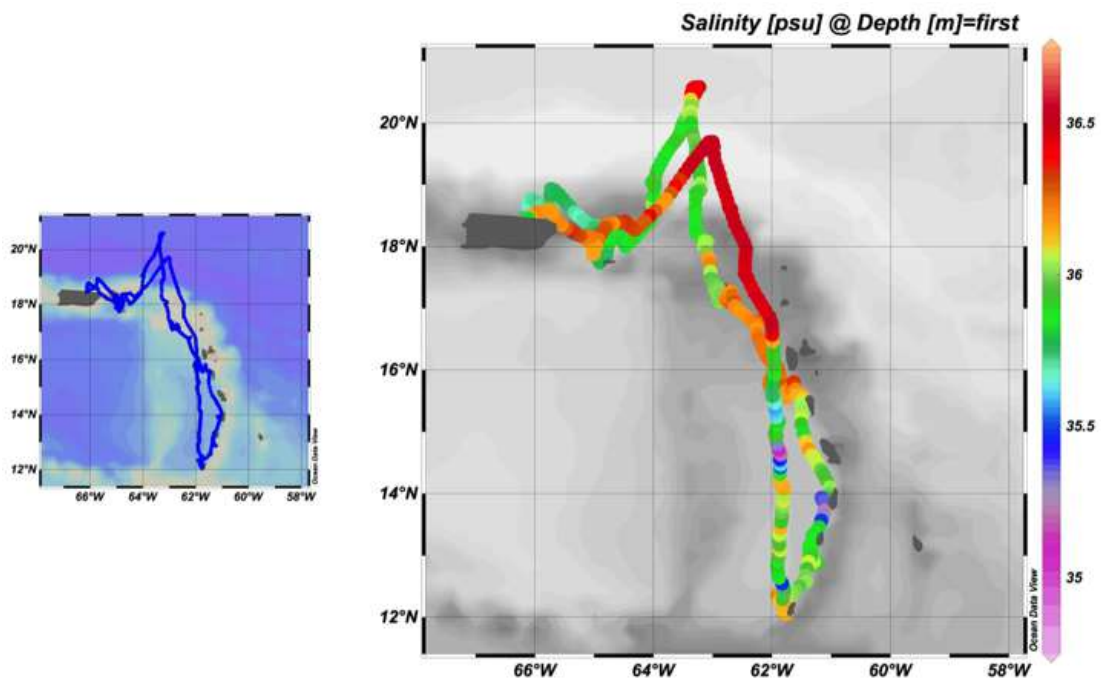
Duplicate station numbers indicate multiple oceanographic deployments that either occurred concurrently in the same location or were deployed sequentially in the same general location after the vessel was hove to. General Locations are categorized by traditional oceanic biomes or significant geologic feature. Abbreviations for oceanographic equipment deployed are: NT – Neuston Tow, DN – Dip Net, MN – Meter Net, PN – Phytoplankton Net, CTD – conductivity, temperature, and depth profilers, HC – carousel deployment with 12 niskin bottles, SG – Shipek Grab, and SD – Secchi Disc

Figure 2a-c. Surface water hydrography for C257.

a. Temperature (seawater flow thru system with in-line thermistor)



b. Salinity



- c. **Chlorophyll-*a* fluorescence.** For the first half of the cruise the chlorophyll-*a* fluorescence sensor was non-operational.

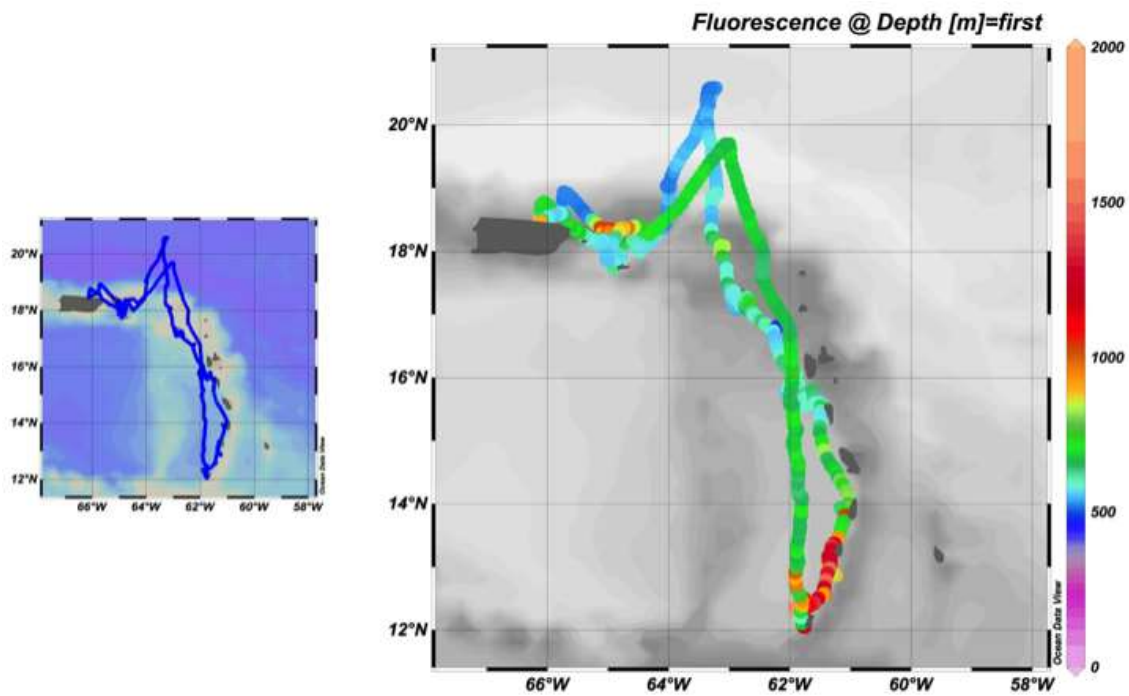


Table 3. Surface station location and surface sensor data for C257.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Log (nm)	Lat (dec Deg N)	Lon (dec Deg W)	Temp (°C)	Salinity (ppt)
001	21-Feb	1212		18.5	-66.1	27.3	35.09
002	21-Feb	1753	24.3	18.7	-66.0	27.0	35.70
003	22-Feb	0012	62.1	18.9	-65.7	26.3	35.74
004	22-Feb	0555	93.9	18.6	-65.3	26.6	35.71
005	22-Feb	1157	119.0	18.3	-65.1	27.0	35.70
006	22-Feb	1810	HB	18.3	-65.0	26.8	35.69
007	23-Feb	1130	158.6	18.1	-65.0	26.8	35.79
008	23-Feb	1800	190.4	17.8	-64.9	27.1	35.77
009	24-Feb	0015	222.9	18.2	-64.9	26.8	35.83
010	24-Feb	0556	247.9	18.0	-64.8	27.0	35.73
011	24-Feb	1028	268.0	18.2	-64.8	26.8	35.82
012	24-Feb	1800	288.8	18.4	-64.7	27.0	35.78
013	25-Feb	0009	327.5	18.1	-64.3	26.6	35.87
014	25-Feb	0600	362.9	18.6	-64.0	26.5	35.90
015	25-Feb	1145	392.9	19.0	-64.0	26.7	35.91
016	25-Feb	1812	415.2	19.5	-63.8	26.8	35.83
017	26-Feb	0012	445.7	19.7	-63.9	26.7	35.83
018	26-Feb	0602	475.5	20.3	-63.3	26.2	36.01
019	26-Feb	0955	495.2	20.6	-63.2	26.1	36.45
020	26-Feb	1758	521.1	20.1	-63.4	26.5	36.02
021	27-Feb	0013	555.0	19.5	-63.3	26.6	35.92
022	27-Feb	0558	580.5	19.1	-63.2	26.4	35.90
023	27-Feb	1040	594.4	18.9	-63.3	26.6	35.90
024	27-Feb	1801	644.8	18.1	-63.1	26.7	35.84
025	2-Mar	1801	662.2	17.9	-63.1	26.6	36.10
026	3-Mar	0030	698.8	17.3	-63.0	26.7	36.00
027	3-Mar	0600	722.5	17.4	-62.9	26.6	35.98
028	3-Mar	1056	734.5	17.1	-62.8	26.7	36.01
029	3-Mar	1810	755.7	17.3	-62.9	26.7	35.99
030	4-Mar	0012	786.6	17.1	-62.7	26.6	36.23
031	4-Mar	0600	820.9	17.2	-62.7	26.3	36.25
032	4-Mar	1039	825.6	17.2	-62.7	26.5	36.20
033	4-Mar	1757	HB	17.2	-62.6	26.5	36.23
034	4-Mar	2241	851.2	17.1	-62.6	26.4	36.25
035	5-Mar	0605	886.4	16.8	-62.3	26.7	36.22
036	5-Mar	0924	889.1	16.8	-62.2	26.5	36.21
037	7-Mar	1148	892.9	16.8	-62.3	26.7	36.21
038	7-Mar	1758	922.0	16.3	-62.1	26.8	36.22
039	8-Mar	0013	941.2	15.9	-61.9	26.8	36.23
040	8-Mar	0601	964.1	15.6	-61.9	26.7	36.22
041	8-Mar	1108	979.4	15.9	-62.0	26.8	36.22
042	8-Mar	1842	1003.0	16.0	-61.9	26.8	36.26
043	9-Mar	0000	1028.4	15.7	-61.8	26.7	36.18
044	9-Mar	0556	1055.1	15.8	-61.6	26.5	36.31
045	13-Mar	1159	1090.2	15.5	-61.5	26.8	36.04
046	13-Mar	1752	1106.5	15.1	-61.8	26.7	35.91
047	14-Mar	0010	1157.4	14.5	-61.2	26.7	36.06
048	14-Mar	0554	1181.5	14.0	-61.0	26.6	35.98

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Log (nm)	Lat (dec Deg N)	Lon (dec Deg W)	Temp (°C)	Salinity (ppt)
049	14-Mar	1100	1199.9	13.8	-61.1	27.0	35.44
050	14-Mar	1807	1204.8	13.8	-61.1	26.9	35.33
051	15-Mar	0000	1245.6	13.3	-61.3	26.6	35.80
052	15-Mar	0600	1270.8	13.0	-61.3	26.9	35.93
053	15-Mar	1220	1287.1	12.9	-61.4	27.0	36.05
054	15-Mar	1800	1315.2	13.0	-61.3	27.0	35.90
055	15-Mar	2357	1316.3	12.6	-61.4	27.0	36.03
056	16-Mar	0553	1350.6	12.4	-61.8	26.6	36.05
057	16-Mar	1136	1364.5	12.2	-61.8	26.6	36.09
058	16-Mar	1801	1360.4	12.2	-61.8	26.9	36.15
059	23-Mar	0015		13.3	-61.9	26.8	36.10
060	23-Mar	1045	1510.0	14.1	-61.8	26.8	36.10
061	24-Mar	0954	1579.1	15.6	-62.0	26.8	35.69
062	25-Mar	1052	1679.5	17.5	-62.5	26.6	35.51

Table 3 continued. Surface station location and surface sensor data for C257.

Station # (C257-)	chl-a Fluor (volts x30)	Chl-a (ug/l)	PO4 (uM)	SiO2 (uM)	CDOM Fluor (volts)	Xmiss (volts)
001	3093.1	3.242	0.204	14.648	202	9967
002	757.8	0.109	0.136		92	13618
003	514.7	0.037	0.191	6.532	83	14376
004	547.2	0.024	0.183		85	14730
005	1060.8	0.353	0.199	5.994	102	1817
006	1235.5	0.531	0.212		112	13949
007	548.3	0.038	0.153	6.398	83	13588
008	595.5	0.083	0.199		86	14340
009	577.9	0.037	0.208	6.563	82	14494
010	567.6	0.055	0.183		85	14371
011	761.4	0.226	0.466	4.888	94	14377
012	1458.1	0.565	0.166		106	13690
013	559.3	0.027	0.216	7.700	81	14455
014	514.1	0.037	0.187		81	14269
015	506.4	0.029	0.259	6.811	81	14491
016	538.2	0.068	0.166		83	14297
017	541.4	0.033	0.204	6.697	83	14516
018	531.9	0.069	0.153		80	14420
019	520.4	0.024	0.161	7.638	79	14572
020	541.1	0.018	0.212		79	14540
021	557.8	0.025	0.250	5.798	81	14262
022	544.8	0.059	0.254		80	14539
023	574.4	0.095	0.106	8.072	85	14516
024	708.9	0.067	0.132		96	14217
025	625.4	0.072	0.381		86	
026	561.5	0.065	0.187	7.473		1720
027	588.4	0.070	0.119		83	15217
028	536.9	0.069	0.212	8.269	84	15193

Station # (C257-)	chl-a Fluor (volts x30)	Chl-a (ug/l)	PO4 (uM)	SiO2 (uM)	CDOM Fluor (volts)	Xmiss (volts)
029	571.8	0.074	0.208		81	15184
030	704.4	0.132	0.174	4.495	85	15124
031	711.8	0.165	0.174		99	14078
032	586.6	0.102	0.127	7.380	85	14949
033	775.7	0.001	0.153		93	14975
034	832.6	0.215	0.250	12.001	91	14956
035	624.7	0.115	0.183	5.519	84	14891
036	669.2	0.148	0.204		86	15105
037	560.4	0.127	0.225	4.537	84	15066
038	643.2	0.134	0.208		84	15141
039	593.2	0.087	0.242	5.374	83	15183
040	576.6	0.110	0.178		83	15101
041	544.5	0.146	0.195	5.984	84	15519
042	594.4	0.101	0.204		83	15080
043	578.2	0.081	0.191	6.304	84	15159
044	696.2	0.195	0.212		85	13407
045	574.1	0.133	0.104		90	15105
046	706.4	0.154	0.145		91	14977
047	663.0	0.117	0.240		90	14947
048	716.3	0.228	0.177		93	14550
049	668.9	0.162	0.131		98	14507
050	875.0	0.230	0.393		111	14991
051	1332.7	0.348	0.122		104	14720
052	1011.0	0.310	0.118		99	15037
053	827.8	0.282	0.190		99	14928
054	1419.9	0.391	0.370		99	14376
055	968.2	0.208	0.177		103	14707
056	1206.4	0.361	0.276		99	14992
057	880.3	0.162	0.483		95	14911
058	943.5	0.157	0.438		93	14771
059	677.1	0.169	0.375		95	14829
060	637.6	0.247	0.379		116	14784
061	650.4	0.186	0.434		96	14759
062	653.5	0.059	0.379		84	14576

Surface water samples were collected using a clean, seawater flow-thru system (intake ~ 1-3m depth) with in-line temperature, salinity and *in vivo* chlorophyll-*a*, fluorescence sensors. Discrete water samples were collected for nd extracted chlorophyll-*a* (Chl-*a*) concentrations, measured with a Turner Designs Model 10-AU Fluorometer following methods outlined in Parsons, Maita and Lalli, *A Manual of Chemical and Biological Methods for Seawater Analysis*, Pergamon Press 1984. Chlorophyll-*a* samples were filtered through 0.45 µm filters. A blank space indicates that no sample was collected for that analysis. Sea surface temperature was measured with an inline electronic thermistor as part of a seawater flow-thru system (intake at 1-3m below surface) as well as with a surface bucket and alcohol thermometer.

Figure 3a-b. Surface current a) magnitude and b) direction during C257. Note, 500 mm/s is approximately 1.0 knot.

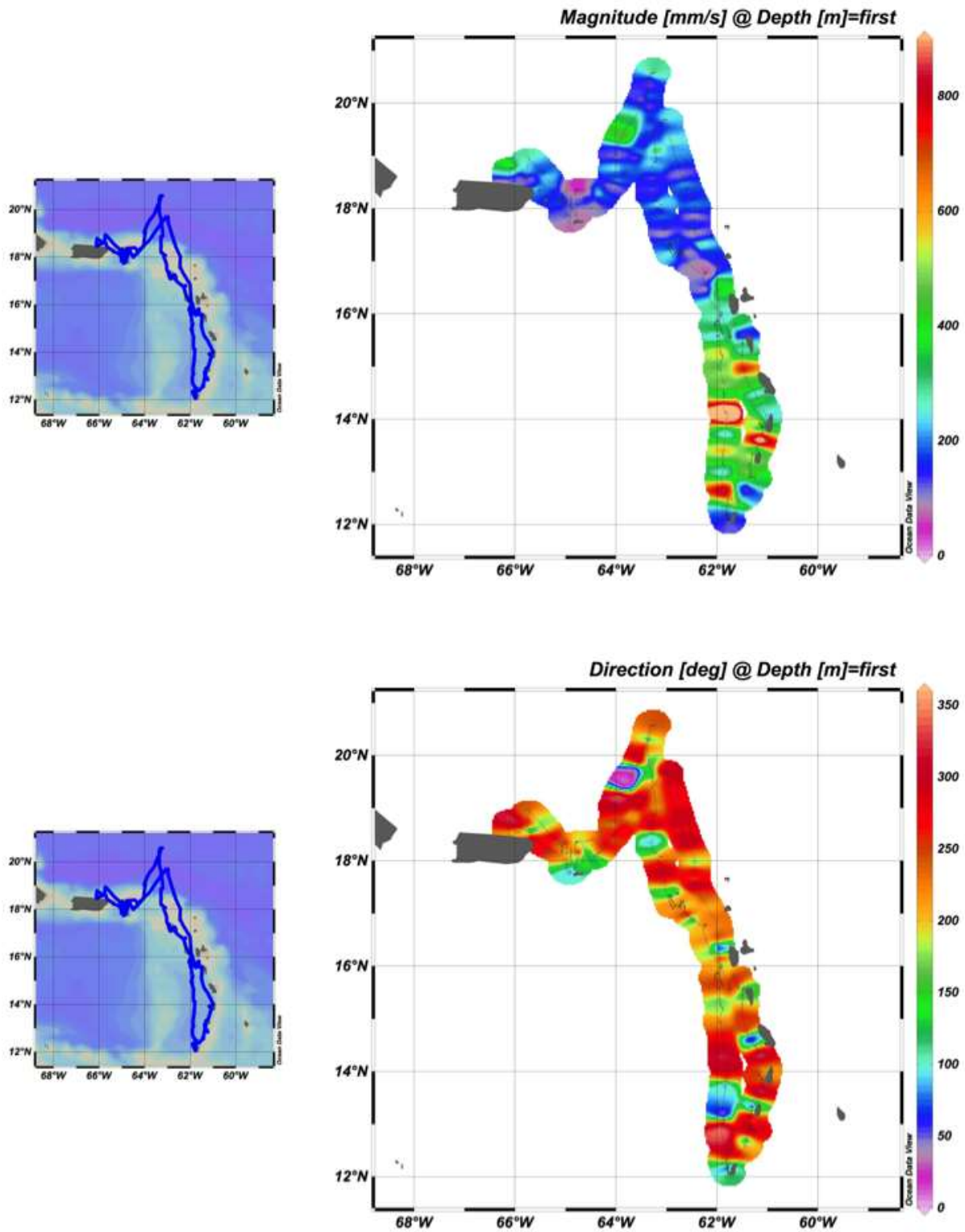


Table 4. CTD station data for C257. Physical characteristics of the water column were measured with a Seabird SEACAT Profiler Model SBE 19plus Conductivity-Temperature-Depth profiler. Vertical profile data available upon request.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Cast Depth (m)	Water Depth (m)	General Locale	CTD Unit #	Volt. 0 sensor/ SN	Volt. 1 sensor/ SN	Volt. 2 sensor/ SN	Volt.3 sensor/ SN	Volt. 4 sensor/ SN	Volt. 5 sensor/ SN
001	22-Feb	1119	25	30	St. Thomas Shelf	2737	DO	CHL-A				
002	23-Feb	0956	1200	1481	Northeast Caribbean	2737	DO	CHL-A				
004	24-Feb	1125	912	1007	St. John Shelf	2737	DO	CHL-A				
006	25-Feb	1007	1218	3100	North Equatorial Current	2737	DO	CHL-A				
008	26-Feb	1050	1155	7500	Sargasso Sea	2737	DO	CHL-A				
010	27-Feb	0850	1208	6079	North Equatorial Current	2737	DO	CHL-A				
013	3-Mar	1148	475	919	NEC, SW of St. Kitts	2737	DO	CHL-A				
016	4-Mar	0947	466	523	St. Kitts Shelf	2737	DO	CHL-A				
021	8-Mar	1057	1087	1522	Northeast Caribbean	2737	DO	CHL-A				
025	14-Mar	0950	792	796	St Lucia Shelf	2737	DO	CHL-A				
028	15-Mar	1116	742	1547	South East Caribbean	2737	DO	CHL-A				
030	16-Mar	1040	260	1395	South East Caribbean	2737	DO	CHL-A				
034	23-Mar	0945	736	2955	South East Caribbean	2737	DO	CHL-A				
036	24-Mar	0946	967	1662	South East Caribbean	2737	DO	CHL-A				
039	25-Mar	0959	446	459	North Equatorial Current	2737	DO	CHL-A				
042	26-Mar	0922	1538	6688	Puerto Rico Trench	2737	DO	CHL-A				

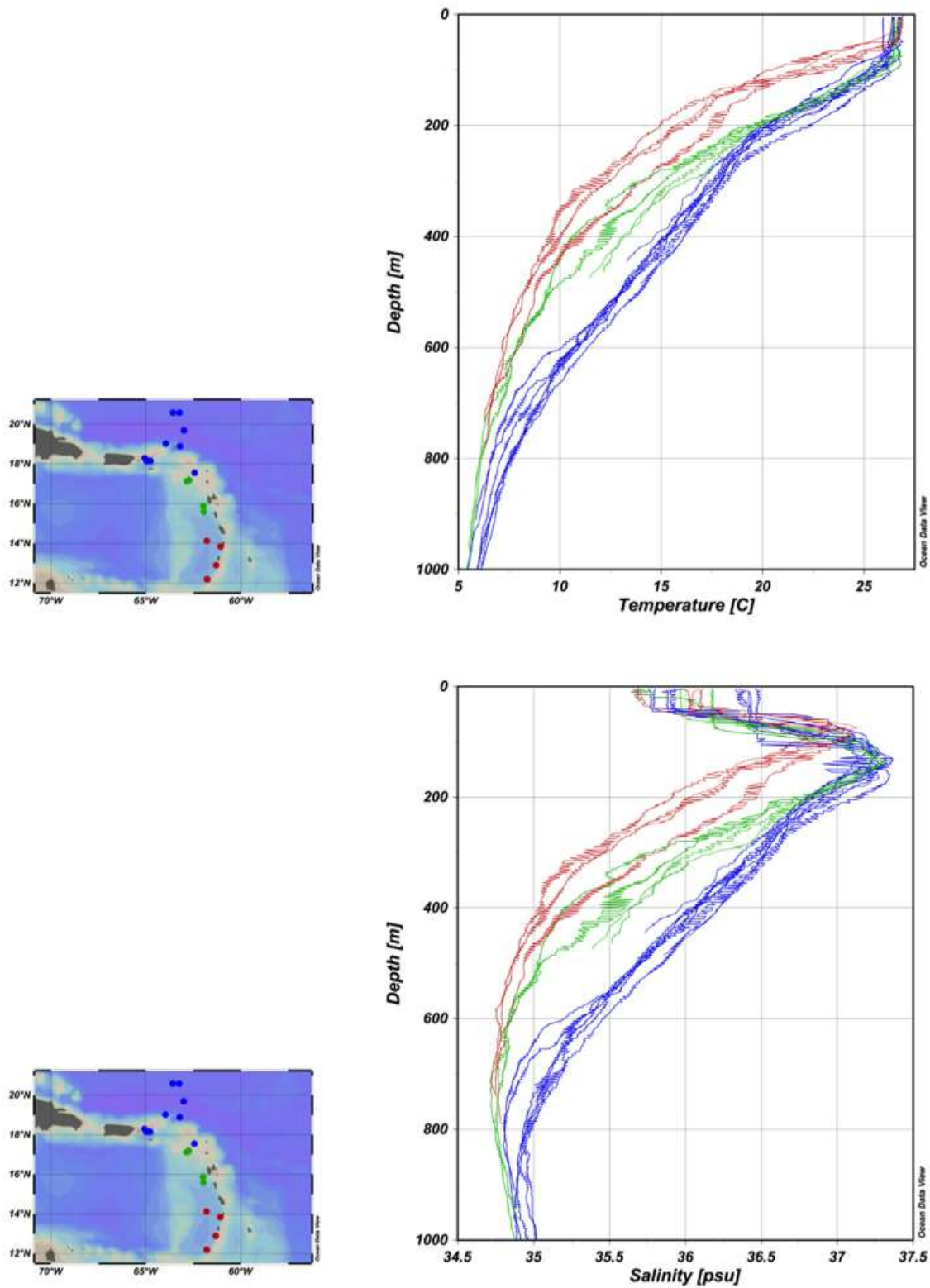
Table 5. Hydrocast station data for C257. Physical characteristics of the water column were measured with a Seabird SEACAT Profiler Model SBE 19plus Conductivity-Temperature-Depth unit (Unit #4447) and three attached sensors. Accessory sensors include: Tx (143PR), CDOM (1258 WSCD), PAR (70187). Water samples were collected from 12 depths using niskin bottles and a surface sample (Associated SS #) using a clean, seawater flow-thru system (intake ~ 1-3m depth).

Station # (C257-) General Locale Date and Time	Bottle	Z Corr (m)	Temp (deg C)	Salinity (psu)	Density (kg/m3)	PO4 (uM)	SiO2 (uM)	Chl a (ug/l)	Associated SS
Station - 006	12	9.8	26.5	35.882	23.543			0.029	SS-015
North Equatorial Current	11	DNC	26.4	35.877	23.554				
25-Feb-15	10	49.9	26.4	35.897	23.578	0.233		0.032	
1136	9	73.9	26.2	36.560	24.135	0.149	3.875	0.058	
	8	91.6	26.0	36.723	24.339			0.082	
Cast Depth	7	90.6	26.0	36.725	24.338	0.081		0.077	
546	6	90.7	26.0	36.717	24.328			0.094	
	5	90.4	26.0	36.723	24.327	0.064	5.178	0.075	
Water Depth	4	84.5	26.0	36.723	24.326			0.080	
3321	3	89	26.0	36.724	24.324	0.030			
	2	86.6	26.1	36.687	24.290				
CTD Unit # 4447	1	85.0	26.0	36.691	24.295	0.072	5.322		
Station - 008	12	10.5	25.9	36.415	24.119			0.020	SS-019
Sargasso Sea	11	25.3	25.9	36.416	24.120	0.039		0.016	
26-Feb-15	10	50.0	25.9	36.440	24.147			0.021	
0944	9	73.9	25.8	36.678	24.350	0.123	5.726	0.045	
	8	99.7	25.3	37.156	24.877			0.155	
Cast Depth	7	123.8	24.1	37.290	25.337	0.077		0.250	
486	6	150.2	23.0	37.165	25.569			0.094	
	5	199.6	20.3	36.879	26.110	0.094	4.392	0.001	
Water Depth	4	297.5	17.8	36.535	26.495			0.000	
5000	3	397.6	16.1	36.237	26.671	0.441			
	2	486.9	13.9	35.853	26.874				
CTD Unit # 4447	1	486.8	13.8	35.853	26.881	0.762	8.672		

Station # (C257-) General Locale Date and Time	Bottle	Z Corr (m)	Temp (deg C)	Salinity (psu)	Density (kg/m3)	PO4 (uM)	SiO2 (uM)	Chl a (ug/l)	Associated SS
Station - 013	12	10.127	26.5	35.989	23.611			0.069	SS-028
St. Kitts Shelf	11	DNC	26.5	35.990	23.617				
3-Mar-15	10	50.566	26.5	36.000	23.632			0.068	
1044	9	74.621	26.7	36.369	23.858	0.043	6.284	0.140	
	8	99.22	25.6	37.088	24.726			0.308	
Cast Depth	7	124.578	24.6	37.231	25.164	2.828		0.195	
446	6	149.766	23.1	37.221	25.577			0.046	
	5	191.829	20.1	36.859	26.141	0.174	4.909	0.000	
Water Depth	4	190.975	20.2	36.862	26.139			0.000	
810	3	190.539	20.2	36.866	26.141	4.284			
	2	190.189	20.2	36.865	26.139				
CTD Unit # 4447	1	188.732	20.2	36.867	26.135	0.199	4.495		
Station - 021	12	10.3	26.7	36.202	23.728			0.130	SS-041
North East Caribbean	11	24.9	26.7	36.200	23.730	0.094		0.153	
8-Mar-15	10	49.6	26.7	36.201	23.731			0.176	
0949	9	75.0	26.7	36.207	23.736	0.000	4.857	0.205	
	8	99.9	26.5	36.989	24.372			0.321	
Cast Depth	7	124.7	24.4	37.262	25.223	0.026		0.181	
546	6	149.3	23.5	37.325	25.561			0.083	
	5	198.7	19.3	36.756	26.299	0.297	5.064	0.000	
Water Depth	4	297.9	15.0	35.973	26.729			0.000	
1547	3	397.8	12.2	35.539	26.978	1.122			
	2	496.6	9.6	35.082	27.078				
CTD Unit # 4447	1	541.5	8.9	34.976	27.111	1.592	20.106		

Station # (C257-) General Locale Date and Time	Bottle	Z Corr (m)	Temp (deg C)	Salinity (psu)	Density (kg/m3)	PO4 (uM)	SiO2 (uM)	Chl a (ug/l)	Associated SS
Station - 030	12	10.435	26.4	36.059	23.716			0.211	SS-057
South East Caribbean	11	25.138	26.3	36.058	23.726	0.700		0.253	
316/2015	10	49.49	25.4	36.476	24.323			0.767	
0943	9	75.181	23.2	37.176	25.521	0.582		0.178	
	8	99.378	21.9	37.018	25.790			0.089	
Cast Depth	7	124.403	19.6	36.671	26.130	0.939		0.013	
591	6	149.294	17.2	36.300	26.453			0.002	
	5	198.849	15.8	36.078	26.622	1.619		0.004	
Water Depth	4	298.154	12.8	35.569	26.881			0.000	
1395	3	397.361	9.9	35.091	27.045	3.360			
	2	496.818	8.3	34.883	27.130				
CTD Unit # 4447	1	584.97	7.4	34.779	27.188	3.197			

Figure 4a-d CTD vertical profiles plots for C257. Water column structure of a) temperature, b) salinity, c) dissolved oxygen and d) chlorophyll-*a* fluorescence. Stations are coded by geographic region.



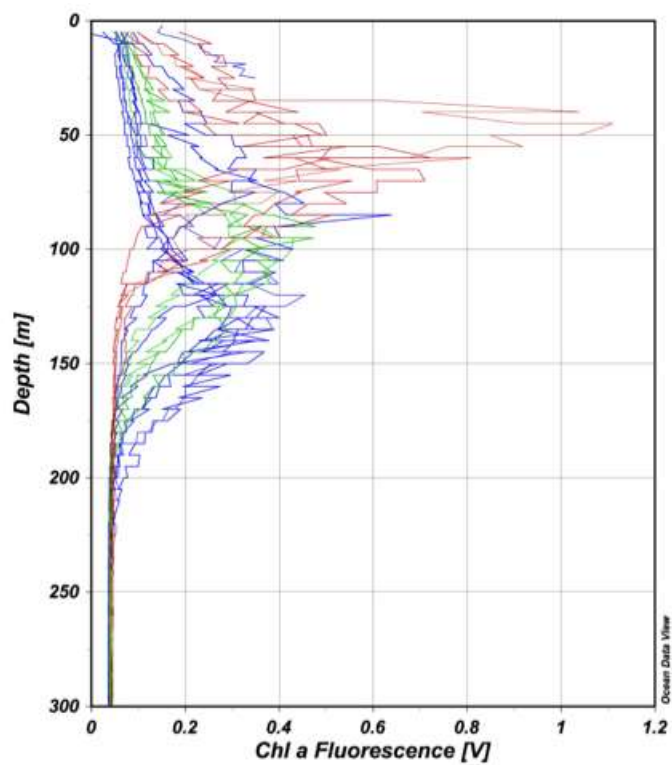
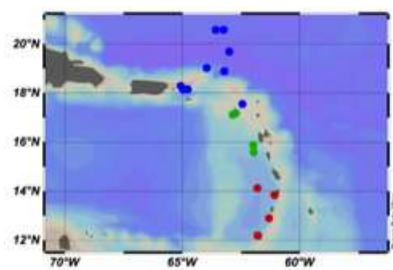
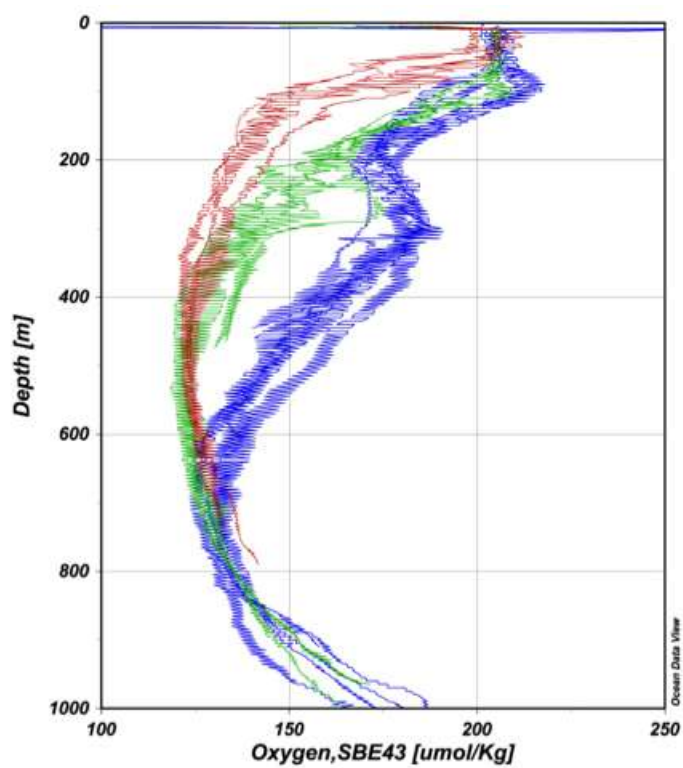
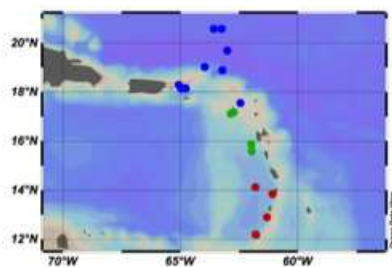


Table 6. Neuston station data for C257.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Moon Phase %	risen or set	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Tow Area (m²)	Zoop Biomass (ml)	Zoop Den (ml/m²)	General Locale
001	22-Feb	1156	17%	risen	27.0	35.70	979.3	2300	1.6	0.0007	St. Thomas Shelf
002	23-Feb	1121	27%	risen	26.9	35.80	565.8	1932	4.0	0.0021	North East Caribbean
003	24-Feb	0004	36%	risen	26.8	35.82	583.2	1751	18.5	0.0106	St. Thomas Continental Slope
004	24-Feb	1014	37%	risen	26.8	35.81	799.7	2607	2.0	0.0008	St. John Shelf
005	25-Feb	0008	48%	risen	26.6	35.87	559.3	2289	7.4	0.0032	Sombrero Passage
007	26-Feb	0009	58%	risen	26.7	35.84	539.6	2338	4.0	0.0017	North Equatorial Current
008	26-Feb	1232		set	26.1	36.38	511.7	3030	3.1	0.0010	Sargasso Sea
009	27-Feb	0009	68%	risen	26.6	35.93	568.4	2488	3.5	0.0014	North Equatorial Current
010	27-Feb	1030		set	26.6	35.91	577.7	1843	4.5	0.0024	North Equatorial Current
012	3-Mar	0022	95%	risen	26.7	36.01	563.4	2322	5.5	0.0024	St Kitts Shelf
013	3-Mar	1250		set	26.7	35.97	522.0	2344	2.6	0.0011	St Kitts Shelf
014	4-Mar	0000	99%	risen	26.5	36.22	703.4	2388	6.5	0.0027	St Kitts Shelf
016	4-Mar	1037		set	26.5	36.20	586.2	1853	6.5	0.0035	St. Kitts Shelf
017	4-Mar	2234	99%	risen	26.5	36.26	811.0	2082	30.0	0.0144	Nevis Shelf
020	8-Mar	0006	93%	risen	26.7	36.22	593.2	2608	14.0	0.0054	North East Caribbean
021	8-Mar	1220		set	26.8	36.22	543.4	2066	4.0	0.0019	North East Caribbean
022	9-Mar	0132	88%	risen	26.8	36.17	583.3	2053	7.0	0.0034	North East Caribbean
024	14-Mar	0000	42%	set	26.6	36.06	677.7	1751	12.0	0.0069	North East Caribbean
025	14-Mar	1044		set	26.9	35.56	770.7	1267	5.1	0.0040	St. Lucia Shelf

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Moon Phase %	risen or set	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Tow Area (m ²)	Zoop Biomass (ml)	Zoop Den (ml/m ²)	General Locale
027	14-Mar	2354	31%	risen	26.8	35.76	1357.3	1394	43.5	0.0312	South East Caribbean
028	15-Mar	1220		set	27.0	36.05	827.8	1080	7.0	0.0065	South East Caribbean
030	16-Mar	1121	21%	risen	26.6	36.09	887.0	1095	6.5	0.0059	South East Caribbean
032	22-Mar	0008	13%	risen	26.8	36.07	631.0	2174	34.0	0.0156	South East Caribbean

Table 6 continued. Neuston station data for C257.

Station # (C257-)	Halo (#)	Lepto (#)	Phyllo (#)	Mycto (#)	Plastic Pellets (#)	Plastic Pieces (#)	Tar (#)	Snatans I (g)	Snatans VIII (g)	Sfluitans III (g)
001	0	0	0	0	0	3	0	0.0	37.0	0.0
002	0	0	0	0	2	0	0	0.0	250.0	1.0
003	0	1	0	7	0	0	0	0.0	10.0	0.0
004	2	0	0	0	0	3	0	0.0	43.0	5.0
005	11	3	0	19	1	26	0	0.0	205.0	0.0
007	4	0	0	17	0	0	0	0.0	70.0	0.0
008	1	0	0	0	0	3	0	0.0	250.0	0.0
009	3	0	0	12	0	6	0	0.0	20.0	0.0
010	1	0	0	0	0	1	0	10.0	510.0	20.0
012	0	0	0	0	0	0	0	7.0	1875.0	180.0
013	0	0	0	0	0	0	0	0.0	440.0	0.0
014	0	0	0	0	0	1	0	0.0	0.0	0.0
016	0	0	0	0	0	2	0	0.0	200.0	0.0
017	0	1	0	0	0	1	0	6.0	1365.0	30.0
020	2	0	0	1.0	0	1	0	0.0	0.0	0.0
021	1	0	0	0	0	0	0	0.0	12.0	0.0

Station # (C257-)	Halo (#)	Lepto (#)	Phyllo (#)	Mycto (#)	Plastic Pellets (#)	Plastic Pieces (#)	Tar (#)	Snatans I (g)	Snatans VIII (g)	Sfluitans III (g)
022	6	1	0	0	0	0	0	0.0	5.0	0.0
024	1	0	0	4	0	0	0	0.0	160.0	0.0
025	16	0	0	0	0	1	0	0.0	0.0	18.0
027	3	0	0	2	0	0	0	0.0	0.0	0.0
028	1	0	0	0	0	0	0	0.0	50.2	195.0
030	1	0	0	0	0	1	0	0.0	0.0	0.0
032	0	1	0	31	0	0	0	0.0	72.0	0.0

Table 6 continued. Neuston station data for C257.

Station # (C257-)	Gelatinous >2cm (#)	Types of Gelatinous	Other Nekton >2cm (#)	Types of Nekton	Tow Description and other notes	Surface station #
001	0		11	1 syngnathus pelagicus (3.5 cm), 1 crab (2 cm), 3 ballyhoo (1/5,3,4, cm), 1 unidentified fish (olive/grey color, ~2cm), 5 unidentified round fish	Small amount of Sargassum other (37 g), around 7 fronds, as well as 15 floating bladders	SS-005
002	0		2	1 needlefish, 1 sargassum crab	The tow contained a large amount of Sargassum other (250 g), with a high abundance of blue copepods and shrimp like organisms	SS-007
003	0		15	1 crab, 1 flounder larvae, 2 possible stomatopod larvae, 2 pipefish, 1 flying fish larvae	good amount of sargassum other, with one branch of other seaweed. Lots of orange shrimp like critters	SS-009
004	0		50	2 file fish, 1 unknown fish, 1 pipe fish, 43 puffer fish, 3 unknown fish	many different juvenile fish, sargassum, zooplankton and a crab larvae	SS-011
005	0		36	1 flying fish, 1 puffer fish, 1 pipe fish, 3 euphausiids, 3 stomatopods, 3 fish larvae, 1 crab	Moderate amount of sargassum, zoopl. Are mostly shrimp	SS-013
007	2	2 salps	18	1 shrimp	observed biolum., many shrimp, many salps <2cm	SS-017
008	0		7	1 ballyhoo	we found plastic a ballyhoo, one halobate, sargassum and zooplankton	SS-019
009	1	1 salp	15	1 flying fish, 2 unidentified fish	Small amount of sargassum, a lot of myctophids, a flying fish, some alobates and copepods.	SS-021
010	0		3	1 flying fish, 1 small puffer fish	Large amount of Sargassum including all three species. Zooplankton were abundant with a lot of large shrimp and one large blue copepod. There was also three small fish, one being a young flying fish. Mostly clear zooplankton with lots of jelly bits	SS-023

Station # (C257-)	Gelatinous >2cm (#)	Types of Gelatinous	Other Nekton >2cm (#)	Types of Nekton	Tow Description and other notes	Surface station #
012	0		2	1 crab, 1 juvenile fish	Lots of isopods (< 2 cm), zooplankton small and grainy with some large small nekton	SS-026
013	0		0	2 land insects (1moth, 1 winged ant)	Very little plankton, lots of Sargassum as well as a moderate amount of brown and green seagrass (~70 strands 3-15 cm long)	SS-028
014	0		37	36 isopods	Large amount of Sargassum and isopods. White and black zooplankton. More gel substance than usual	SS-030
016	0		5	3 crabs, 3 fish larvae	SO MUCH MANITEE GRASS! (1920 g). Both Sargassum and grass tow contained shrimps, plastic	SS-032
017	0		19	4 Long Silver fish, 1 founder larvae, 1 shrimp, 1 needle fish, 1 puffer fish, 9 clear fish with red face, blue neck, 1 silver clear fish	Zooplankton brownish, small and grainy with some shrimp critters, lots of worm tubes from rinsed Sargassum.	SS-034
020	1	1 salp	4	1 fish (1cm, silver with dark stripes), 1 fish (0.5cm, Dark), 1 fish (1.5 cm, long and dark)	Quite a bit of zooplankton, small nekton and little else. Small crabs < 2 cm. Some small salps, no Sargassum, <30	SS-039
021	0		0		Lots of Shrimp, some small crabs (4), 9 juvenile fish less than 2 cm. 7 small pieces of seagrass, 2 pieces eel grass, some land plants	SS-041
022	4	4 salps	4	2 juvenile fish, 1 pipefish	Diverse-looking zooplankton, lots of small gelatinous, brownish-clear with blue copepods, dark pteropods	SS-043
024	0	none	4	none (other than myctophids)	Lots of copepods, some shrimp-like zooplankton, brownish yellow, pteropods, larger zooplankton, some gelatinous	SS-047
025	0		7	2 pufferfish, 1 larger juvenile fish, 4 long skinny fish	Sparse zooplankton, Sargassum colored, some small fish < 2cm, some gelatinous organisms < 2cm, lots of Sargassum floats: 73g	SS-049
027	0		3	Eel 2.5mL	rich with copepods and euphausiids, an eel, Halobates and myctophids	SS-051
028	0		8	1 flat sided dark fish, 6 small light blue fish, 1 small eel juvenile	there were a large number of gelatinous organisms and a couple of fish. There was more Sargassum fluitans than other.	SS-053
030	0		2	2 fish larvae	small amount of seagrass debris, including manatee grass and fragments of wide, flat bodied grass. Zooplankton mainly tan-brown	SS-057
032	0		45	10 flying fish, 1 stomatopod, 1 shrimp, 1 round spotted fish	A lot of fish, mainly large flying fish as well as over 60 Halobates crawling around. A few Small Crabs and other small fish amongst a large clump of Sargassum.	SS-059

Tow area was calculated using distance in meters between successive (every minute) GPS positions. Net opening was 1.0 m wide by 0.5 m tall with a net mesh of 335 μ m. Zooplankton density is recorded as wet volume displacement per tow area (ml/m^2). Eel larvae (leptocephali), spiny lobster larvae (phyllosoma), and Lantern fish (Family Myctophidae), were sorted from net contents and recorded as numbers caught per tow. Micronekton, gelatinous micronekton, and plant material was removed using a 1 cm mesh sieve and biomass (ml) or length (cm) was recorded. Floating plastic was also removed from net contents, sorted as pellets (none collected entire cruise) or pieces and recorded as numbers collected per tow. Floating tar was sorted from the nets contents and recorded present or absent (none collected entire cruise). Floating *Sargassum* weed was removed, identified to species and measured in grams using a spring scale. Qualitative description of micronekton removed from the zooplankton biomass is provided, and when available biomass (ml) and length (cm) of specimens are recorded.

Table 7. Meter net station data for C257.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	Water Depth (m)	Tow Depth (m)	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Tow Volume (m3)	Zoop Biomass (ml)	Zoop Den (ml/m²)	General Locale	Mesh Size (µm)
035	23-Mar	2134	2714	50-60	26.9	35.91	664.5	1858	141.0	0.0759	South East Caribbean	335
038	24-Mar	2130	1149	118	26.9	35.94	685.6	803	42.0	0.0523	North East Caribbean	335
041	25-Mar	2132	2871	81	26.6	36.50	677.1	1935	32.2	0.0166	North Equatorial current	335

Table 7 continued. Meter net station data for C257.

Station # (C257-)	Halo (#)	Lepto (#)	Phyllo (#)	Mycto (#)	Plastic Pellets (#)	Plastic Pieces (#)	Tar (#)	Snatans I (g)	Snatans VIII (g)	Sfluitans III (g)
035	0	2	0	18	0	0	0	0	0	0
038	0	1	0	0	0	0	0	0	0	0
041	0	5	0	1	0	0	0	0	8	0

Table 7 continued. Meter net station data for C257.

Station # (C257-)	Gelatinous >2cm (#)	Types of Gelatinous	Other Nekton >2cm (#)	Types of Nekton	Tow Description and other notes
035	4	4 siphonophore	11	Unidentified fish larva (5), shrimp (6)	Lots of shrimp clouds. GIANT leptocephali. Mat of gelatinous organism chunks. Three large red shrimp
038	2	1 chaetognath, 1 siphonophore	9	6 shrimp (0.2mL), 4 fish (0.1mL)	It was a moist, mushy tow with a large amount of bioluminescence; 17g of Sargassum other
041	2	2 salps	0		lots of small shrimp-like organisms and zooplankton. Light refracting copepods throughout bucket. Some Sargassum other.

Table 8. Zooplankton 100 count station data for C257.

Station # (C257-)	Net Type	Time	Cnidarian medusa	Siphonophores	Ctenophores	Salp/Doliolids	Pteropods	Nudibranch	Heteropods	Other snails	Squid larvae	Polychaete	Chaetognaths	Copepods	Gammarids Amphipods	Hyperiid Amphipod	Megalopae	Zoea
001	NT	1156	0	9	0	0	0	0	0	0	0	1	0	35	0	2	2	4
002	NT	1121	0	13	0	0	0	0	0	1	0	0	0	77	1	3	0	0
003	NT	0004	0	3	0	0	3	0	0	3	0	1	3	63	0	9	3	0
004	NT	1014	0	3	0	3	3	0	0	9	0	0	2	24	0	2	3	2
005	NT	0008	0	15	0	2	8	0	1	2	0	0	2	52	0	2	3	0
007	NT	0009	0	30	0	0	14	0	0	0	0	0	2	37	0	8	1	1
008	NT	1232	0	9	0	0	1	0	0	40	0	0	0	25	0	0	2	0
009	NT	0009	0	24	0	1	3	0	5	3	0	3	1	14	1	8	0	1
010	NT	1030	0	7	0	0	2	0	0	4	0	0	2	76	0	0	0	0
012	NT	0022	0	20	0	0	1	0	1	0	0	0	0	54	0	14	0	0
013	NT	1250	0	10	0	0	2	0	0	1	0	0	0	80	0	0	0	0
014	NT	0000	0	1	0	0	0	0	0	4	0	2	0	11	6	24	1	0
016	NT	1037	0	0	0	9	9	0	3	2	0	0	1	21	1	0	2	0
017	NT	2234	0	4	0	0	0	0	0	1	0	0	10	5	13	1	4	3
020	NT	0006	0	3	0	1	4	0	1	2	0	2	0	29	0	29	0	0
021	NT	1220	1	0	0	1	1	0	1	0	0	0	0	12	1	26	2	1
022	NT	0132	0	1	0	2	5	0	0	0	0	0	15	60	1	4	0	0
024	NT	0000	0	1	0	1	3	0	0	0	0	0	5	57	1	13	2	1
025	NT	1044	1	4	7	10	0	0	3	2	0	0	2	10	5	1	0	0
027	NT	2354	0	3	0	1	0	0	0	0	0	0	1	60	0	0	0	0
028	NT	1220	15	23	0	16	1	0	0	0	0	0	0	6	2	0	1	1
030	NT	1121	0	11	0	2	0	0	0	3	0	0	0	47	0	0	0	0
032	NT	0008	6	0	1	2	0	0	0	1	0	0	4	36	11	10	0	5
035	MN	2134	0	4	0	1	0	0	0	0	0	0	0	57	0	11	0	0
038	MN	2130	0	0	1	7	1	0	4	1	0	0	0	46	5	2	0	0
041	MN	2132	0	7	0	1	0	0	0	2	0	1	4	26	4	5	0	0

Table 8 continued. Zooplankton 100 count station data for C257.

Station # (C257-)	Net Type	Time	Shrimp (larvae)	Lobster (larvae)	Mysids	Euphausiids	Stomatopod (larvae)	Ostracods	Cladocera	Isopods	Fish Larvae	Fish Eggs	Other	Other	Other	Total # of organisms	Shannon- Weiner Diversity Index
001	NT	1156	0	0	3	0	0	0	0	1	9	34	0	0	0	100	0.72
002	NT	1121	2	0	0	0	0	0	1	0	1	0	1	0	0	100	0.38
003	NT	0004	1	0	0	14	3	7	0	0	0	0	6	0	0	119	0.75
004	NT	1014	12	0	0	5	0	0	0	0	2	30	0	0	0	100	0.89
005	NT	0008	5	0	1	0	0	2	1	0	0	0	4	0	0	100	0.76
007	NT	0009	3	0	2	6	0	0	0	0	0	0	0	0	0	104	0.74
008	NT	1232	20	0	0	0	0	2	0	0	1	0	0	0	0	100	0.65
009	NT	0009	10	0	0	4	0	0	0	0	0	26	0	0	0	104	0.93
010	NT	1030	6	0	0	0	0	1	0	0	0	2	0	0	0	100	0.42
012	NT	0022	8	0	0	1	0	1	0	1	0	0	0	0	0	101	0.59
013	NT	1250	5	0	0	0	0	0	0	0	0	2	0	0	0	100	0.33
014	NT	0000	3	0	13	3	0	0	0	29	0	3	0	0	0	100	0.87
016	NT	1037	0	0	0	4	0	0	0	1	0	4	0	0	0	57	0.84
017	NT	2234	5	0	41	2	2	0	0	0	4	2	11	0	0	108	0.93
020	NT	0006	2	0	7	5	2	1	0	4	2	6	0	0	0	100	0.92
021	NT	1220	15	0	18	7	0	0	1	0	13	0	0	0	0	100	0.89
022	NT	0132	0	0	8	4	0	0	0	0	0	0	0	0	0	100	0.60
024	NT	0000	3	0	4	5	2	0	0	1	1	0	0	0	0	100	0.72
025	NT	1044	6	0	4	1	0	0	0	2	1	40	1	0	0	100	0.94
027	NT	2354	0	0	0	35	0	0	0	0	0	0	0	0	0	100	0.38
028	NT	1220	14	0	0	23	0	0	0	0	3	0	0	0	0	105	0.86
030	NT	1121	2	0	0	0	0	0	0	0	1	35	0	0	0	101	0.55
032	NT	0008	9	0	1	2	0	2	0	0	2	12	0	0	0	104	0.94
035	MN	2134	25	0	0	0	0	1	0	0	1	0	0	0	0	100	0.51
038	MN	2130	11	0	2	20	0	0	0	0	0	0	0	0	0	100	0.73
041	MN	2132	6	0	3	8	0	1	0	0	6	26	0	0	0	100	0.94

Table 9. Phytoplankton net station data for C257. Drift depth 1-3m

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	General Locale	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Drift Depth (m)	NOTES
034	23-Mar	0945	South East Caribbean Sea	26.7	36.78	642.9	surface (1-3m)	Sample Collected, preserved in 10% formalin and archived for a collaboration with St. Georges University
036	24-Mar	0932	South East Caribbean Sea	26.8	35.67	659.0	surface (1-3m)	Sample Collected, preserved in 10% formalin and archived for a collaboration with St. Georges University
039	25-Mar	0950	North Equatorial Current	26.5	36.50	666.5	surface (1-3m)	Sample Collected, preserved in 10% formalin and archived for a collaboration with St. Georges University

Table 10. Shipek Station data for C257.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	General Locale	Water Depth (m)	Color Description (# / words)	General size	Sediment Shape	Organics	Comments
001 - A	22-Feb	1032	St Thomas Shelf	30					A and B shipek Combined together
001 - B	22-Feb	1044	St Thomas Shelf	30	Greyish Orange 10YR 7/4, Pinkish Grey 5YR 8/1	Granular, Sandy	Very Angular	Hermit Crab in Conch sahell (~8cm in length), algae, Halimeda diseoidea, Red Encrusting algae, Unidentified organism(Green, ~0.5cm. Expands and contracts in movement)	A and B shipek Combined together
004 - A	24-Feb	0945	St. John Shelf	53	Moderate Yellowish Brown (10YR 5/4), Smaller grains very pale orange (10YR 8/2)	Very little sand and some fragments of coral	sharp	Yes, some yellowish brown algae present, other algae crusting on the coral	A and B shipek Combined together
004 - B	24-Feb	0956	St. John Shelf	53					A and B shipek Combined together
011	27-Feb	1640	Anguilla Slope	333	SY 7/2	silty	rounded	earthy	
013	3-Mar	0930	St. Kitts Shelf	716	10YR 7/4 grayish orange	slightly silty, slightly granular	rounded-tan sediments, angular-black sediments	small pteropod shells visible	sorted, volcanic sediments strewed throughout
015 - A	4-Mar	0638	St. Kitts Shelf	20					Did not deploy to bottom due to poort bottom conditions

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	General Locale	Water Depth (m)	Color Description (# / words)	General size	Sediment Shape	Organics	Comments
015 - B	4-Mar	0716	St. Kitts Shelf	21	SY 5/2 Light Olive Grey	combo: sandy to granular	comco: part rounded part angular	tall green plant stem, shells, megalope	well sorted
018	5-Mar	0750	Montserrat Shelf	55	5Y 4/1 Olive Gray	Very fine / mucky	very small and angular		sorted, smell: sulfur from volcano
023	9-Mar	1113	Dominica Slope	382	Dark Brownish grey	Very Fine, silty Clay	angular fragments with some rounded particles	slightly anoxic odor	Poorly sorted, very sticky
028	15-Mar	0940	South East Caribbean	1238	5Y 7/2	Sandy	Angular Fragments	none	Poorly Sorted

Table 11. Dip Net station data for C257.

Station # (C257-)	Dip Net (A, B, C, etc)	Date (2015)	Local Time (+4 GMT)	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Water Depth (m)	General Locale	Notes
002	A	23-Feb	1133	26.8	35.70	545.1	1558	Northeast Caribbean	A and B processed for community analysis.
006	B								
	A	25-Feb	1015	26.7	35.92	514.5	3208	North Equatorial Current	A and B processed for community analysis.
006	B								
	C	25-Feb	1049	26.7	35.92	524.0	3446	North Equatorial Current	C and D processed for community analysis.
010	D								
	A	27-Feb	0905	26.6	36.00	575.0	5944	North Equatorial Current	A and B processed for community analysis.
010	B								
	C	27-Feb	0910	26.6	36.00	575.0	6109	North Equatorial Current	C and D processed for community analysis.
010	D								
	E	27-Feb	1053	26.6	36.89	577.3	6160	North Equatorial Current	E processed for community analysis.
016	A	4-Mar	1038	26.5	36.20	586.2	492	St. Kitts Shelf	A and B processed for community analysis.
016	B								
	C	4-Mar	1050	26.5	36.20	586.2	480	St. Kitts Shelf	C and D processed for community analysis.
019	D								
	A	7-Mar	1436	26.8	36.24	547.1	966	South of Montserrat	A and B processed for community analysis.
	B								

Station # (C257-)	Dip Net (A, B, C, etc)	Date (2015)	Local Time (+4 GMT)	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Water Depth (m)	General Locale	Notes
019	C	7-Mar	1436	26.8	36.24	547.1	966	South of Montserrat	C and D processed for community analysis.
026	D A	14-Mar	1730	27.0	35.50	991.0	425	St. Lucia - Les Pitons	A-C processed for community analysis.
029	B C A	15-Mar	1506	27.1	35.91	1082.5	2070	South East Caribbean	A and B processed for community analysis.
029	B C	15-Mar	1519	27.1	35.92	1083.2	1969	South East Caribbean	C and D processed for community analysis.
031	D A	22-Mar	1634	27.2	35.83	781.9	2970	South East Caribbean	A processed for community analysis.
033		23-Mar	0625	26.6	36.03	669.1	2963	South East Caribbean	Processed for molecular work. Processed 10 replicates of Sn8 - 5cm voucher sample in EtOH, and 5cm sample in silica gel.
036		24-Mar	1150	27.1	35.74	662.0	1595	South East Caribbean	Processed for molecular work. Processed 10 replicates of Sf - 5cm voucher sample in EtOH, and 5cm sample in silica gel.

Station # (C257-)	Dip Net (A, B, C, etc)	Date (2015)	Local Time (+4 GMT)	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	Water Depth (m)	General Locale	Notes
039		25-Mar	1014	26.6	36.45	659.1	460	North Equatorial Current	Processed for molecular work. Processed 10 replicates of ???? - 5cm voucher sample in EtOH, and 5cm sample in silica gel.
040		25-Mar	1730	26.7	36.51	682.5	695	North Equatorial Current	Processed for molecular work. Processed 10 replicates of Sn8 - 5cm voucher sample in EtOH, and 5cm sample in silica gel.
043	A	26-Mar	1405	26.6	36.50	673.0	5000+	North Equatorial Current	A,B,C,D processed for community analysis.
	B								
	C								
	D								
044	A	29-Mar	0623	26.5	36.32	641.5	25	Off Puerto Rico	A, B, C processed for community analysis.
	B								
	C								

Table 11 continued. Dip Net station data for C257.

Station # (C257-)	Dip Net (A, B, C, etc)	Collection Conditions	Aggregation Notes (windrows, fragments, etc)	Dip Net Collection
		Wind_Sea State (knots_direction_h eight m)		Collection Setting (windrow, isolated, etc)
002	A	19.5 knots from 082 deg, seas 2m from east.	Periodic narrow (<1m) windrows all day.	narrow windrow
006	B			isolated
	A	12 knots from 110 deg, seas 1.5m from ESE	Intermittent, narrow windrows	isolated
006	B			narrow windrow
	C	8 knots from 110 deg, seas 1m from ESE	Frequent narrow windrows	narrow windrow
010	D			narrow windrow
	A	18 knots from ESE, seas 3m from ESE	Frequent narrow windrows	narrow windrow
010	B			Isolated
	C	18 knots from ESE, seas 3m from ESE	Frequent narrow windrows	narrow windrow
010	D			narrow windrow
	E	18 knots from ESE, seas 3m from ESE	Frequent narrow windrows	Isolated
016	A	18 knots from ENE, seas, 1.5m in lee of St Kitts from E	Frequent narrow windrows of mixed seagrass and Sargassum	narrow windrow
016	B			narrow windrow
	C	18 knots from ENE, seas, 1.5m in lee of St Kitts from E	Frequent narrow windrows of mixed seagrass and Sargassum	Isolated
	D			Isolated

Collection Conditions				Dip Net Collection	
Station # (C257-)	Dip Net (A, B, C, etc)	Wind_Sea State (knots_direction_height m)		Aggregation Notes (windrows, fragments, etc)	Collection Setting (windrow, isolated, etc)
019	A	18 knots from east, seas 2m from E x S		narrow windrow	
	B			narrow windrow	
019	C	18 knots from east, seas 2m from E x S		narrow windrow	
	D			narrow windrow	
026	A	Winds NE 6 knots, seas 0.5m variable, lee of St Lucia	Scattered clumps and weak, dispersed, narrow windrows	Isolated	
	B			Isolated	
	C			Isolated	
029	A	Winds 21 knots from 100 deg, seas 1.5m from east	Numerous windrows, narrow and wide (>0.5m width)	narrow windrow	
	B			Wide windrow	
029	C	Winds 16 knots from 100 deg, seas 1.5m from east	Numerous windrows, narrow and wide (>0.5m width)	Isolated	
	D			Wide windrow	
031	A	Winds 8 knots from N x E, seas less than 0.5m	Isolated clump of sargassum, no other visible sargassum for several nms.	Isolated	
033		Winds SE x E, 120 deg at 12 knots, seas 2m.	Massive windrows and mats observed. Largest close to 100m2. Predominantly Sn8, though 1 clump of Sn1 and a few clumps of Sf.		
036		Winds 12 knots from E x N, seas 2m	Many closely spaced (~50m apart) narrow, loosely packed windrows. Predominantly a patch of Sf that we were in during Morning Station, once we started sailing we lost all Sargassum.		
039		Winds 12 knots from ESE, seas 1.5m			

Station # (C257-)	Dip Net (A, B, C, etc)	Collection Conditions	Dip Net Collection	
		Wind_Sea State (knots_direction_height m)	Aggregation Notes (windrows, fragments, etc)	Collection Setting (windrow, isolated, etc)
040		Winds 12 knots from 1000 deg, seas 1.5m from 070 deg	Many isolated fragment, and several windrows of narrow to wide (~1m) sizes. Over 95% of the collection was small fragments of Sn8, a few fragments of Sn1 and Sf.	
043	A	Winds 18 knots from east, seas 3m from east.	Narrow windrows ~100m apart, predominantly Sn8 and the rare clumps of Sf and Sn1 that were targeted for analysis.	0.5m wide windrow
	B			0.5m wide windrow
	C			0.5m wide windrow
	D			0.5m wide windrow
044	A	Winds from east at 12 knots, seas, 1m from east.	Periodic narrow (<1m), loosely dispersed windrows and scattered, isolated clumps.	Isolated
	B			Isolated
	C			Isolated

Table 11 continued. Dip Net station data for C257.

Station # (C257-)	Dip Net (A, B, C, etc)	Sn1 (# clump)	Sn1 (# fragment)	Sn8 (# clump)	Sn8 (# fragment)	Sf (# clump)	Sf (# fragment)	Other (#)
002	A	0	0	0	4	0	0	0
	B	0	0	0	1	0	0	0
006	A	0	0	0	1	0	0	0
	B	0	0	0	35	0	4	0
006	C	1	0	0	0	0	0	0
	D	0	0	0	0	1	0	0
010	A	0	0	0	1	0	0	0
	B	0	0	0	0	0	1	0
010	C	0	0	0	0	0	1	0
	D	0	0	0	0	1	0	0
010	E	0	0	0	1	1	0	0
016	A	0	0	0	0	0	0	1
	B	0	0	0	0	1	0	0
016	C	0	0	0	0	1	0	0
	D	0	0	1	7	0	0	0
019	A	0	0	0	2	0	0	0
	B	0	0	1	0	0	0	0
019	C	0	0	0	0	1	0	0
	D	0	0	0	10	0	0	0
026	A	0	0	0	0	1	0	1
	B	0	0	0	0	1	0	1
	C	0	0	1	0	0	0	0
029	A	0	0	0	0	1	0	0
	B	0	0	1	0	0	0	0
029	C	0	0	0	0	1	0	0
	D	0	0	3	8	0	0	0
031	A	0	0	0	0	1	0	0
033								
036								

Station # (C257-)	Dip Net (A, B, C, etc)	Sn1 (# clump)	Sn1 (# fragment)	Sn8 (# clump)	Sn8 (# fragment)	Sf (# clump)	Sf (# fragment)	Other (#)
039								
040								
043	A	0	0	1	23	0	0	0
	B	0	0	1	2	0	0	0
	C	0	0	0	20	1	4	1
	D	0	0	0	11	1	0	0
044	A	0	0	1	0	0	0	0
	B	0	0	0	0	1	0	0
	C	0	0	0	0	0	0	1

Table 11 continued. Dip Net station data for C257.

Station # (C257-)	Dip Net (A, B, C, etc)	Sn1 (g clump)	Sn1 (g fragment)	Sn8 (g clump)	Sn8 (g fragment)	Sf (g clump)	Sf (g fragment)	Other (g)	Total mass (g)
002	A	0	0	0	12	0	0	0	12
	B	0	0	0	0.5	0	0	0	0.5
006	A	0	0	0	2	0	0	0	2
	B	0	0	0	86	0	5	0	91
006	C	16	0	0	0	0	0	0	16
	D	0	0	0	0	6	0	0	6
010	A	0	0	0	5	0	0	0	5
	B	0	0	0	0	0	2	0	2
010	C	0	0	0	0	0	6	0	6
	D	0	0	0	0	23	0	0	23
010	E	0	0	0	1	73	0	0	74
016	A	0	0	0	0	0	0	127	127
	B	0	0	0	0	21	0	0	21
016	C	0	0	0	0	26	0	0	26

Station # (C257-)	Dip Net (A, B, C, etc)	Sn1 (g clump)	Sn1 (g fragment)	Sn8 (g clump)	Sn8 (g fragment)	Sf (g clump)	Sf (g fragment)	Other (g)	Total mass (g)
019	D	0	0	10	5	0	0	0	15
	A	0	0	0	6	0	0	0	6
	B	0	0	37	0	0	0	0	37
019	C	0	0	0	0	37	0	0	37
	D	0	0	0	35	0	0	0	35
	A	0	0	0	0	80	0	10	90
026	B	0	0	0	0	68	0	5	73
	C	0	0	58	0	0	0	0	58
	A	0	0	0	0	41	0	0	41
029	B	0	0	28	0	0	0	0	28
	C	0	0	0	0	70	0	0	70
	D	0	0	75	43	0	0	0	118
031	A	0	0	0	0	60	0	0	60
033									
036									
039									
040									
043	A	0	0	20	65	0	0	0	85
	B	0	0	52	5	0	0		57
	C	0	0	0	140	12	28	20	200
	D	0	0	0	10	28	0	0	38
044	A	0	0	24	0	0	0	0	24
	B	0	0	0	0	24	0	0	24
	C	0	0	0	0	0	0	102	102

Table 11 continued. Dip Net station data for C257.

Mobile Fauna Abundance

Station # (C257-)	Dip Net (A, B, C, etc)	Fish Abundance (#)	Crab Abundance (#)	Shrimp Abundance (#)	Snail Abundance (#)	Nudibranch Abundance (#)	Flatworm Abundance (#)	Amphipod Abundance (#)	Isopod Abundance (#)	Crab megalopae (#)
002	A	0	0	5	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0	0
006	A	0	0	0	5	0	0	0	0	0
	B	0	1	9	11	0	0	0	0	0
006	C	0	0	19	6	0	1	0	0	0
	D	0	1	5	56	0	1	0	0	0
010	A	0	0	0	3	0	0	0	0	0
	B	0	0	1	0	0	0	0	0	0
010	C	0	0	3	9	0	0	0	0	0
	D	0	0	9	75	0	2	0	0	0
010	E	0	0	17	80	0	3	0	0	0
016	A	0	0	2	0	0	0	0	0	0
	B	0	0	36	3	0	0	1	0	0
016	C	0	0	70	1	0	0	0	0	0
	D	0	0	5	0	0	0	1	0	0
019	A	0	0	1	0	0	0	0	0	0
	B	0	0	11	0	0	0	0	0	0
019	C	0	2	12	1	0	0	0	0	0
	D	0	0	19	0	0	0	0	0	0
026	A	0	5	140	3	0	0	7	1	0
	B	0	3	74	0	0	0	14	0	0
	C	0	0	55	2	0	0	0	0	0
029	A	0	1	33	8	0	0	0	0	0
	B	0	0	8	2	0	1	0	0	0
029	C	0	1	33	14	0	5	0	0	0
	D	0	0	92	2	0	2	0	0	0
031	A	0	4	107	4	0	0	5	4	0
033										
036										
039										

Station # (C257-)	Dip Net (A, B, C, etc)	Fish Abundance (#)	Crab Abundance (#)	Shrimp Abundance (#)	Snail Abundance (#)	Nudibranch Abundance (#)	Flatworm Abundance (#)	Amphipod Abundance (#)	Isopod Abundance (#)	Crab megalopae (#)
040										
043	A	0	0	10	14	0	3	0	0	0
	B	0	0	16	1	0	0	0	0	0
	C	0	3	12	3	0	0	0	0	0
	D	0	1	20	1	0	0	0	0	0
044	A	0	0	7	1	0	1	0	0	0
	B	0	0	14	12	0	0	0	0	0
	C	1	0	41	2	0	0	0	0	1

Table 11 continued. Dip Net station data for C257.

Sessile Fauna

Station # (C257-)	Dip Net (A, B, C, etc)	sub-sample	Hydroids coverage (%)	Bryozoan coverage (%)	Algae coverage (%)	Worm Tube (#)	Barnacle (#)	Anemones (#)	Bivalves (#)
002	A	Largest fragment	30	5	0	219	0	0	0
	B	Entire	30	0	0	28	0	0	0
006	A	Entire	40	25	0	110	0	0	0
	B	Largest fragments	75	10	0	32	0	0	0
006	C	Entire	80	4	0	80	0	0	0
	D	Entire	20	85	0	60	0	0	0
010	A	Entire	40	1	0	28	0	0	0
	B	Entire	35	10	0	5	0	0	0
010	C	Entire	0	30	0	20	0	0	0
	D	Entire	50	10	0	20	0	0	0
010	E	Clump only	5	65	0	72	0	0	0
016	A	1/3 sample of seagrass ball	0	10	0	0	0	0	0
	B	1/2 clump	35	80	0	33	0	0	0
016	C	1/2 clump	80	65	0	77	0	0	0

Station # (C257-)	Dip Net (A, B, C, etc)	sub-sample	Hydroids coverage (%)	Bryozoan coverage (%)	Algae coverage (%)	Worm Tube (#)	Barnacle (#)	Anemones (#)	Bivalves (#)
019	D	Clump only	90	20	0	172	0	0	0
	A	Largest fragment	85	25	0	117	0	0	0
	B	Entire	95	20	0	92	0	0	0
019	C	Entire	70	25	0	84	0	0	0
	D	Largest fragment	50	30	0	144	0	0	0
026	A	Clump only	85	0	0	57	0	0	0
	B	Clump only	90	0	0	37	0	0	0
	C	Entire	85	60	0	74	0	0	0
029	A	Entire	25	30	35	12	0	0	0
	B	Entire	95	30	0	267	0	0	0
029	C	Entire	5	65	25	129	0	0	0
	D	Largest clump	95	60	0	362	0	0	0
031	A	Entire	95	25	60	0	0	0	0
033									
036									
039									
040									
043	A	Clump only	5	50	0	28	0	0	0
	B	Clump only	35	0	0	92	0	0	0
	C	Sf clump only	0	20	5	33	0	0	0
	D	Sf clump only	0	25	0	24	0	0	0
044	A	Entire	35	40	0	93	0	0	0
	B	Entire	10	20	20	3	0	0	0
	C	Entire	50	30	5	95	0	0	2

Table 11 continued. Dip Net station data for C257.

Age/Color Description								
Station # (C257-)	Dip Net (A, B, C, etc)	sub_sample	Growth (%)	Successio n (%)	Decline (%)	Growth Color	Succession Color	Decline Color
002	A	Largest fragment	15	35	50	2.5Y 7/6	2.5Y 7/8	5YR 5/8
	B	Only fragment	30	30	40	2.5Y 8/4	7.5YR 5/8	5YR 4/8
006	A	Entire	10	20	70	2.5Y 8/6	7.5YR 7/8	5YR 4/8
	B	Largest fragment	10	45	35	2.5Y 7/6	2.5YR 5/8	2.5YR 4/8
006	C	Entire	20	65	15	5Y 5/6	2.5Y 5/6	2.5YR 4/4
	D	Entire	5	20	75	5Y 7/8	2.5Y 6/8	5YR 3/2
010	A	Entire	10	50	40	5Y 6/8	2.5Y 6/8	2.5YR 4/8
	B	Entire	5	90	5	2.5Y 6/6	7.5YR 5/8	2.5YR 3/6
010	C	Entire	35	40	25	2.5Y 6/6	2.5Y 5/6	5YR 4/6
	D	Entire	20	65	15	2.5Y 6/6	2.5Y 6/8	2.5YR 3/6
010	E	Clump only	15	40	45	5Y 8/8	5Y 8/6	2.5Y 5/4
016	A	1/3 sample of seagrass ball	85	0	15	Green	NA	Brown
	B	1/2 clump	20	65	15	2.5Y 6/8	5Y 6/6	5YR 3/4
016	C	1/2 clump	15	75	10	2.5Y 6/8	7.5YR 4/4	5YR 3/4
	D	Clump only	10	65	25	2.5Y 6/8	5Y 6/6	7.5YR 5/6
019	A	Largest fragment	10	70	20	2.5Y 6/8	5YR 5/8	5YR 4/8
	B	Entire	15	50	35	2.5Y 6/6	7.5YR 5/8	5YR 3/4
019	C	Entire	10	75	15	2.5Y 5/6	2.5Y 5/7	7.5YR 5/4
	D	Largest fragment	5	60	35	2.5Y 5/6	7.5YR 5/4	5YR 4/8
026	A	Clump only	15	55	30	2.5Y8/6	5Y 8/8	2.5Y 7/11
	B	Clump only	35	45	20	2.5Y 6/8	2.5Y 7/8	7.5YR 7/8
	C	Entire	10	25	65	2.5Y 8/8	5Y 7/8	5YR 4/8
029	A	Entire	20	45	35	2.5Y 5/5	2.5Y 5/4	5YR 3/4
	B	Entire	10	20	70	5Y 5/6	2.5Y 5/6	5YR 3/4
029	C	Entire	25	50	25	5Y 5/6	7.5YR 4/4	5YR 4/4
	D	Largest clump	15	55	30	2.5Y 5/4	2.5Y 5/6	5YR 4/6
031	A	Entire	10	85	5	5Y 7/8	2.5Y 6/6	2.5YR 3/4
033								
036								
039								
040								
043	A	Clump only	5	35	60	5Y 6/6	2.5Y 7/6	7.5YR 5/8

Age/Color Description

Station # (C257-)	Dip Net (A, B, C, etc)	sub_sample	Growth (%)	Successio n (%)	Decline (%)	Growth Color	Succession Color	Decline Color
044	B	Clump only	10	50	40	5Y 8/8	2.5Y 7/6	2.5YR 4/8
	C	Sf clump only	30	50	20	2.5Y 8/6	2.5Y 7/6	7.5YR 6/6
	D	Sf clump only	20	70	10	2.5Y 8/6	2.5Y 7/4	2.5YR 5/8
	A	Entire	10	30	60	5Y 6/8	2.5Y 7/6	5YR 3/4
	B	Entire	10	50	40	2.5Y 6/6	7.5YR 6/8	5YR 3/4
	C	Entire	20	60	20	2.5Y 7/6	7.5YR 6/8	5YR 5/6

Table 12. Secchi disc station data for C257.

Station # (C257-)	Date (2015)	Local Time (+4 GMT)	General Locale	Temp (°C)	Salinity (ppt)	chl-a Fluor (volts x30)	CDOM Fluor (volts)	Xmiss (volts)	Water Depth (m)	Cloud Cover (%)	Wave ht (ft)	Wind Sp (BF)	Secchi Depth (m)	Calculated 1% Depth (m)
001	22-Feb	1104	St. Thomas Shelf	27.0	35.73	849	95	14563	30	35%	4	3.0	19.0	51.0
002	23-Feb	0936	North East Caribbean	26.9	35.82	582	83	13638	1388	95%	5	4.0	25.0	67.1
004	24-Feb	1106	St. John Shelf	26.9	35.83	724	91	14410	7150	30%	3	3.0	24.0	64.4
006	25-Feb	0939	North Equatorial Current	26.6	35.91	529	81	14461	3119	20%	3	3.0	33.0	88.6
008	26-Feb	0924	Sargasso Sea	26.1	36.45	521	78	14568	5000	27%	3	3.0	28.5	76.5
010	27-Feb	0932	North Equatorial Current	26.6	35.97	570	83	14556	5949	90%	10	6.0	19.5	52.4
013	3-Mar	1024	St. Kitts Shelf	26.6	36.00	536	83	15200	713	35%	3	4.0	27.5	73.8
016	4-Mar	0930	St. Kitts Shelf	26.5	36.19	613	86	15091	456	5%	4	6.0	24.0	64.4
021	8-Mar	0925	North East Caribbean	26.7	36.22	512	84	15192	1586	4%	4-5	4.0	29.0	77.9
025	14-Mar	0926	North East Caribbean	26.9	35.70	775	100	14691	765	5%	1	2.0	22.0	59.1
028	15-Mar	1055	South East Caribbean	26.9	36.04	811	9	14779	1263	2%	5-6	4.0	22.0	59.1
030	16-Mar	0920	South East Caribbean	26.5	36.08	955	98	14921	1527	10%	5	5.0	19.5	52.4

Table 13. Student research topics for C257.

Oceanography Project	Student Author
Nutrients and Primary Production in relation to Island Proximity	Samuel Beard
Where Along Our Cruise Track is Plastic most Densely Found?	Kathleen Brickner
Bathymetry and Island Age, Slope steepness and distances from slopes to Islands	Katherine Brill
Factors that determine the Fish Community	Julio Ciani
Sea Floor Composition of The Lesser Antilles	James Conley
Sargassum Community	Molly Disbrow
Marine Mammal Patterns in Relation to Proximity to Land	Robert Foley
Productivity Parties in the Caribbean Sea	Antonia Hall
Physical Influences on Seafloor Sediment Grain Size in the Lesser Antilles	Thomas Hiura
Nutrient Concentrations due to Depth & General Locale	Annie Reardon
Diel vertical migration and diversity of zooplankton	Nicole Reasonda
Seabird Sightings in the Lesser Antilles	Harmony Richman
Currents of the Lesser Antilles	Lillian Robinson
The Ups and Downs in the Life of Zooplankton	Emily Rubinstein
Reef Development as an Indication of the Geologic Age of Islands	Colin Terry
<i>Sargassum</i> Species Distribution Project	Sarah Tyrrell
<i>Sargassum</i> Mobile Fauna	Samuel Wooster
<i>Sargassum</i> morphology	Corey Wrinn

