



The scaphocerite is oval and, even in adult specimens, shows a distinct tooth below the middle of the outer margin.

The second legs, like those of *G. nobilis*, are unequal, the right being longer than the left. The right carpus consists of 24 to 26 articles, the left of 21 or 22 (in very young specimens slightly less, 22 and 19 respectively).

Size.—The smallest specimen examined had a carapace length of 10 mm. The largest male had cl. 31 mm. Ovigerous females ranged in cl. from 23 to 35 mm. The eggs measured 2 to $2\frac{1}{2}$ mm by $2\frac{1}{2}$ to 3 mm.

Colour.—The rostrum is whitish. In some specimens it has no red colour at all, in others the teeth (either the proximal only, or both the proximal and distal) may be red and even connected by a red marginal carina. Also, the tip may be red. On the whole, however, the rostrum gives a pale impression. On the carapace, the submedian and intermediate carinae are red or orange red. Also here is some variation, as part of the posterior submedian carinae (sometimes unilaterally) and part of the anterior and posterior intermediate may be uncoloured. The antennal and branchio-stegal spines are usually uncoloured, but in dark specimens may be pink or red, just like the tip of the posterior antennal carina.

The dorsal parts of the first to fifth abdominal tergites have the tubercles and ridges orange red, while furthermore every somite shows a very distinct transverse red band along the posterior margin. This band is widest in the middle, narrowing laterally towards both ends. The pleura are white, with the tips of the teeth white or (in dark specimens) orange. The sixth somite is whitish in the anterior part, with a broad transverse band of orange red along the posterior margin; the pleuron is white, usually with a red tip. The tailfan is white or pink, sometimes there is a pink or orange spot in the basal part of the telson. In this spot, the ridges are darker than the rest of the telson. The uropods usually are white or pink, sometimes the exopod has a red band along the outer margin, and the basal half of the endopod may be reddish.

The peduncle of the eye is pink, the cornea black with a golden brown sheen.

The antennular peduncle is orange red in the basal part, becoming paler distally, being very pale orange in the distal segment. The flagella are whitish, pink or red. The antennal peduncle has the last two segments, or only the penultimate, red. The scaphocerite is white, with a red spot or band on the outer margin. The flagellum is red or pink. The red of the antennular and antennal peduncles together forms a transverse red band before the carapace.

The mouthparts are dark red or orange red, as are also the first pereiopods. The second pereiopod is colourless or red. The following pereiopods

are uncoloured, for their far larger part. Their bases may be pink and the dactyli and distal parts of the propodi pale orange brown.

The pleopods are uncoloured or show some pink spots.

The eggs are greyish or bluish green, or orange yellowish.

The general impression is that of a pale animal, with longitudinal red stripes over the full length of the dorsum of the carapace and transverse red bands on the abdomen. The front and ventral parts are very pale or white, with the exception of the red anterior band formed by the bases of the antennulae, antennae, and the mouthparts. It is almost the opposite of the coloration of *G. nobilis*.

Horizontal Distribution.—The species is known from the entire Caribbean area, including the Gulf of Mexico, from the Florida Straits to British Guiana. The records in the literature are: Gulf of Mexico, off Texas, U. S. A., 27°38.2'N, 94°59.4'W (350-400 fm) and 26°58.5'N, 96°06.7'W (300-400 fm) (Springer & Bullis, 1956); Gulf of Mexico, off the mouth of the Mississippi River, 29°12.2'N, 87°49'W (370-450 fm) and 29°01'N, 88°24'W (355-475 fm) (Springer & Bullis, 1956), 29°11'N, 87°47'W (455 fm) (Bullis & Thompson, 1965); off northwestern Cuba, 24°16'N, 83°22'W (375 fm) (Springer & Bullis, 1956); north of Matanzas Province, Cuba, 23°24'N, 81°00.5'W (370-605 fm) (type-locality; Chace, 1939); north of Santa Clara Province, Cuba, 23°16'N, 80°11'W (415 fm) (Chace, 1939); off Frederiksted, St. Croix, Virgin Islands, 17°43'N, 64°55'10"W (541 fm) (Faxon, 1896; Schmitt, 1935); off Nicaragua, 12°44'N, 82°14'W (350 fm) and 12°35'N, 82°19'W (350 fm) (Bullis & Thompson, 1965). The present material extends the known range to the east and southeast.

Vertical Distribution.—The species has been taken at depths between 300 and 1020 fathoms (= 548 to 1865 m), the majority of specimens, however, were found between 300 and 500 fathoms (= 548 to 914 m). The bottom at the stations at which the present species was collected consisted of: gray ooze (BLAKE sta. 130), grey mud (ALBATROSS sta. 2395), green mud (ALBATROSS sta. 2394), very fine sticky mud with debris consisting of rotten wood (PILLSBURY sta. 337), slippery brown mud with numerous very old and broken dead bivalve shells (PILLSBURY sta. 391), clayey grey mud with bottom debris formed by terrestrial plant remains (PILLSBURY sta. 413), hard brown mud covered with siliceous sponges and branching Madreporaria (PILLSBURY sta. 689), very heavy brownish clay (PILLSBURY sta. 388), and hard clay (PILLSBURY sta. 919).

Type-Material.—The holotype is an ovigerous female with cl. 30 mm from ATLANTIS sta. 2995, off Bahia Cardenas, Matanzas Province, Cuba, 23°24' N, 81°00'30"W, in 370-605 fm, on 16 March 1938. It forms part of the collection of the Museum of Comparative Zoology, Harvard University,

Cambridge, Mass., under Reg. No. 10242. There is one paratype, likewise an ovigerous female, from ATLANTIS sta. 2990-A.

Remarks.—The material reported upon by Faxon (1896) as *G. nobilis* is preserved in the Museum of Comparative Zoology, Harvard University, Cambridge, Mass., where I could examine it. In most instances (material from BLAKE stas. 41, 162, 174, 179, and 227) Faxon's identifications are correct; in three instances (stas. 176, 211, and 222) the material is too young, and moreover in too poor a condition, to make a certain identification possible. Of the two specimens reported by Faxon from BLAKE sta. 130, however, one (the ovigerous female) proved to belong to *G. alispina*, and the other specimen is a true *G. nobilis*.

SUMARIO

CAMARONES DEL ATLÁNTICO PERTENECIENTES AL GÉNERO DE AGUAS PROFUNDAS *Glyphocrangon* A. MILNE EDWARDS, 1881

Se enumeran las 12 especies conocidas del Atlántico pertenecientes al género *Glyphocrangon* (Crustacea, Decapoda, Caridea), con una clave para su identificación. Se describen dos especies como nuevas, a la vez que de otras se dan detalles adicionales. Se discute la distribución geográfica de cada especie.

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APPENDIX

The following list contains the data for the stations of the expeditions of the CHALLENGER, ALBATROSS, BLAKE, GERDA, PILLSBURY, ATLANTIS, OREGON, COMBAT, PELICAN, SILVER BAY, and SNELLIUS, and those of the Centre Océanologique de Bretagne (COB), mentioned in the present paper. As far as possible the number, position, depth, bottom, date, and the species of *Glyphocrangon* taken in it are mentioned for every station. The following abbreviations are used to indicate the bottom: bl., black; br., brown; brk., broken; bu., blue; cl., clay; co., coral; dd., dead; dk., dark; fne., fine; for., Foraminifera; frag., fragments; glob., *Globigerina*; gn., green; gy., gray; hrd., hard; lav., lava; lt., light; m., mud; oz., ooze; pter., pteropod; pum., pumice; r., rock; rd., red; s., sand; sh., shells; slp., slippery; sp., specks; st., stone; stk., sticky; wh., white; yl., yellow. In the column "Date" the day, month, and year are given in this order. In the last column, the species of *Glyphocrangon* represented in the samples are listed; they are indicated with the following abbreviations: ac., *Glyphocrangon aculeata*; al., *G. alispina*; at., *G. atlantica*; au., *G. aurantiaca*; h., *G. haematonotus*; lr., *G. longirostris*; ly., *G. longleyi*; ne., *G. neglecta*; no., *G. nobilis*; ri., *G. rimapes*; sc., *G. sculptus*; sp., *G. spinicauda*.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
CHALLENGER					
OFF RECIFE:					
120	08°37'00"S, 34°28'00"W	1235	rd. m.	9- 9-1873	ac.
ALBATROSS					
E OF NEW JERSEY:					
2035	39°26'16"N, 70°02'37"W	2491	glob. oz.	17- 7-1883	sc.
E OF MASSACHUSETTS:					
2077	41°09'40"N, 66°02'20"W	2295	bu. m.	4- 9-1883	lr.
E OF NEW JERSEY:					
2095	39°29'00"N, 70°58'40"W	2454	glob. oz.	30- 9-1883	sc.
2102	38°44'00"N, 72°38'00"W	2211	glob. oz.	5-11-1883	sc.
E OF VIRGINIA:					
2105	37°50'00"N, 73°03'50"W	2551	glob. oz.	6-11-1883	sc.
OFF AVES ISLAND:					
2117	15°24'40"N, 63°31'30"W	1249	yl. m. fne. s.	27- 1-1884	ac.
S OF JAMAICA:					
2140	17°36'10"N, 76°46'05"W	1767	s.	11- 3-1884	ac., no.
E OF NEW JERSEY:					
2196	39°35'00"N, 69°44'00"W	2250	gn. m.	6- 8-1884	sc.
2205	39°35'00"N, 71°18'45"W	1963	gy. oz.	20- 8-1884	lr.
2206	39°35'00"N, 71°24'30"W	1908	gn. m.	20- 8-1884	lr.
OFF YUCATAN, MEXICO:					
2358	20°19'00"N, 87°03'30"W	406	fne. wh. co.	29- 1-1885	sp.
2359	20°19'10"N, 87°03'30"W	422	wh. co.	29- 1-1885	sp.
EASTERN GULF OF MEXICO:					
2381	28°05'00"N, 87°56'15"W	2432	lt. br. m.	2- 3-1885	lr.
2383	28°32'00"N, 88°06'00"W	2160	br. gn. m.	3- 3-1885	lr., no.
2384	28°45'00"N, 88°15'30"W	1719	br. gy. m.	3- 3-1885	no.
2385	28°51'00"N, 88°18'00"W	1335	gy. m.	3- 3-1885	no.
2392	28°47'30"N, 87°27'00"W	1324	br. gy. m.	13- 3-1885	no.
2394	28°38'30"N, 87°02'00"W	768	gn. m.	13- 3-1885	al.
2395	28°36'15"N, 86°50'00"W	635	gy. m.	13- 3-1885	al.
E OF NEW YORK:					
2530	40°53'30"N, 66°24'00"W	1748	gy. oz.	14- 7-1885	lr.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
E OF NEW JERSEY:					
2534	40°01'00"N, 67°29'15"W	2257	gy. oz.	15-	7-1885 sc.
2550	39°44'30"N, 70°30'45"W	1877	br. m.	9-	8-1885 lr.
2571	40°09'30"N, 67°09'00"W	2480	gy. glob. oz.	1-	9-1885 sc.
OFF SOUTH CAROLINA:					
2628	32°24'00"N, 76°55'30"W	965	yl. m.	21-10-1885	h.
BAHAMA ISLANDS:					
2629	23°48'40"N, 75°10'40"W	2138	co. s.	8-	3-1886 sc.
N OF BAHAMA ISLANDS:					
2654	27°57'30"N, 77°27'30"W	1207	yl. oz. bk. sp.	2-	5-1886 ac.
2656	27°58'30"N, 78°24'00"W	1046	for.	3-	5-1886 ac.
EAST COAST OF FLORIDA:					
2664	29°41'00"N, 79°55'00"W	682	co. s.	4-	5-1886 h.
OFF GEORGIA:					
2668	30°58'30"N, 79°38'30"W	538	gy. s. dd. co.	5-	5-1886 h.
OFF SOUTH CAROLINA:					
2676	32°39'00"N, 77°01'00"W	745	gn. oz. gy. s.	6-	5-1886 h.
2677	32°39'00"N, 76°50'30"W	874	gn. m.	6-	5-1886 ac.
E OF MASSACHUSETTS:					
2706	41°28'30"N, 65°35'30"W	2173	gy. oz. for.	27-	8-1886 lr.
E OF NORTH CAROLINA:					
2725	36°34'00"N, 73°48'00"W	2512	gy. oz. for.	24-10-1886	sc.
OFF ST. KITTS:					
2751	16°54'00"N, 63°12'00"W	1257	bu. glob. oz.	28-11-1887	ac., no.
BLAKE					
W OF TORTUGAS:					
29	24°36'00"N, 84°05'00"W	1747			ac.
NW OF CUBA:					
41	23°42'00"N, 83°13'00"W	1573			no.
OFF ST. CROIX, VIRGIN Is.:					
130	17°43'00"N, 64°55'10"W	825	gy. oz.	4-	1-1879 no., al.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
OFF ST. KITTS:					
147	17°19'27"N, 62°50'30"W	457	fne. gy. s. oz.	14- 1-1879	sp.
148	17°17'12"N, 62°46'43"W	380	fne. gy. s. bk. sp.	14- 1-1879	sp.
OFF GUADELOUPE:					
162	16°02'40"N, 61°50'28"W	1342	lav. s.	19- 1-1879	no.
163	16°03'10"N, 61°52'20"W— 16°04'10"N, 61°55'45"W	1406–1605	oz. s.	20- 1-1879	ac. ac., no.
174		1605			
OFF DOMINICA:					
176	15°32'18"N, 61°30'55"W	715	dk. br. oz. s.	24- 1-1879	no.
179	15°30'50"N, 61°32'55"W	1507	s. br. oz.	25- 1-1879	no.
185	15°24'55"N, 61°27'10"W	609	fne. s. m.	27- 1-1879	no.
OFF MARTINIQUE:					
195	14°42'35"N, 61°13'15"W	917	fne. s. oz. bk. sp.	5- 2-1879	ac.
211	14°28'40"N, 61°06'08"W	653	fne. s.	12- 2-1879	no.
OFF ST. LUCIA:					
222	13°58'37"N, 61°04'45"W	772	s. oz.	16- 2-1879	no.
OFF ST. VINCENT:					
227	13°10'10"N, 61°18'15"W	1046	s. oz.	19- 2-1879	no., ac.
OFF GRENADA:					
261		622	s. oz.		ne.
265	12°03'55"N, 61°49'40"W	1053	gy. oz.	2- 3-1879	ne., ac.
OFF BARBADOS:					
274	13°00'50"N, 59°36'20"W	382	fne. s.	5- 3-1879	sp.
275	12°58'33"N, 59°36'45"W	399	fne. br. s.	5- 3-1879	sp.
281	12°54'48"N, 59°36'30"W	527	brk. sh.	6- 3-1879	sp.
E OF SOUTH CAROLINA:					
315	32°18'20"N, 78°43'00"W	412	gn. s. bk. sp. brk. sh.	12- 7-1880	no.
OFF CAPE HATTERAS:					
330	35°41'03"N, 74°31'00"W	1915	glob. oz. co.	16- 7-1880	lr.
OFF DELAWARE:					
339	38°16'45"N, 73°10'30"W	2171	glob. oz.	18- 7-1880	sc.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
ATLANTIS					
S OF SANTA CLARA PROVINCE:					
2966	20°47'30"N, 80°24'30"W	3886		26- 2-1938	at.
STRAITS OF FLORIDA:					
2995	23°24'00"N, 81°00'30"W	677-1107		16- 3-1938	al.
OREGON					
EASTERN GULF OF MEXICO:					
489	27°44'N, 85°09'W	465	bu. m.	29- 9-1951	ly.
WESTERN GULF OF MEXICO:					
532	27°34.3'N, 93°10.2'W	402-549	m. s.	11- 4-1952	ly.
534	27°32'N, 93°01.6'W	732-823	gy. m.	11- 4-1952	ac.
542	27°41'N, 94°59'W	457-549	gy. m.	16- 4-1952	ly.
549	26°58.5'N, 96°06.7'W	549-732	gy. m. sh.	18- 4-1952	ly.
OFF DRY TORTUGAS:					
1015	24°20'N, 83°20'W	274-640	co. m.	16- 4-1954	ly.
GULF OF MEXICO:					
1302	28°53'N, 87°58'W	1628	gy. m.	26- 5-1955	no.
W OF KEY WEST, FLORIDA:					
1321	24°49'N, 84°06'W	311-366	—	7- 7-1955	sp.
N OF CUBA:					
1324	24°23'N, 83°22'W	366	gy. m. s.	8- 7-1955	ly.
OFF DRY TORTUGAS:					
1334	24°13'N, 82°35'W	549-558	—	10- 7-1955	ly.
N OF CUBA:					
1342	23°10'N, 79°33'W	512	—	16- 7-1955	sp.
STRAITS OF FLORIDA:					
1351	24°47'N, 80°10'W	457-476	r.	18- 7-1955	ly.
1354	25°20'N, 80°00'W	439	—	23- 7-1955	ly., h.
OFF LOUISIANA:					
1407	28°07'N, 89°59'W	470	m.	20- 9-1955	ly.
EASTERN GULF OF MEXICO:					
1426	29°07'N, 87°54'W	1097	m.	24- 9-1955	ac., no.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
OFF DRY TORTUGAS:					
1539	24°28'N, 83°30'W	402	lt. gy. m.	16- 6-1956	ly.
BETWEEN JAMAICA AND HONDURAS:					
1885	16°54'N, 81°18'W	457	co.	23- 8-1957	sp.
OFF NICARAGUA:					
1906	12°19'N, 82°27'W	594	—	11- 9-1957	ly.
1908	12°33'N, 82°20'W	640	—	11- 9-1957	ly.
1915	13°13'N, 82°13'W	640	yl. m.	12- 9-1957	ly.
1916	13°18'N, 82°12'W	640	co.	12- 9-1957	ly., sp.
1919	13°30'N, 82°00'W	503-549	—	12- 9-1957	sp., ly.
1921	13°33'N, 81°55'W	503	—	13- 9-1957	sp.
1923	13°39'N, 81°52'W	503	—	13- 9-1957	ly.
1929	13°22'N, 82°04'W	549	—	13- 9-1957	ly.
1931	13°56'N, 81°56'W	503	—	14- 9-1957	ly.
1933	14°08'N, 81°49'W	549	—	14- 9-1957	sp., ly.
OFF VENEZUELA:					
1982	10°00'N, 59°59'W	457	—	3-11-1957	ne.
OFF SURINAM:					
2007	07°34'N, 54°49'W	412	bu. m.	7-11-1957	au., ne.
2009	07°40'N, 54°47'W	549	bu. m.	7-11-1957	au.
OFF MOUTH OF AMAZON RIVER:					
2081	01°52'N, 46°54'W	320	r.	17-11-1957	sp.
OFF VENEZUELA:					
2353	11°35'N, 62°41'W	388-457	m.	23- 9-1958	ne.
OFF FRENCH GUIANA:					
4293	7°14'N, 52°55'W	732	—	21- 3-1963	au.
4294	7°21'N, 53°15'W	549	—	21- 3-1963	au.
OFF SURINAM:					
4300	7°44'N, 54°19'W	549	s. m. c. sh.	23- 3-1963	au.
4301	7°34'N, 54°13'W	366	s. m. c. sh. frag.	24- 3-1963	ne.
COMBAT					
OFF EASTERN FLORIDA:					
84	29°56'N, 80°10'W	348	—	1- 9-1956	ly.
120	29°44'N, 80°13'W	329	gn. m.	17- 9-1956	ly.
186	29°44'N, 80°09'W	402	gn. m.	5-12-1956	ly.
193	29°47'N, 80°12'W	338-348	gy. m.	9- 1-1957	ly.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
OFF DRY TORTUGAS:					
281	24°17'N, 82°47'W	393	—	14- 3-1957	ly.
OFF EASTERN FLORIDA:					
329	29°15'N, 80°05'W	384	gn. m.	31- 5-1957	ly.
Straits of Florida:					
445	25°15'N, 79°13'W	366	co. m.	23- 7-1957	h.
447	25°07'N, 79°15'W	549	co. s.	23- 7-1957	sp.
450	23°59'N, 79°43'W	640	—	24- 7-1957	sp.
PELICAN					
OFF EAST COAST OF FLORIDA:					
11	27°52'N, 79°45'W	430	wh. m.	11- 3-1956	h.
13	28°22'N, 79°53'W	329	bu. m.	11- 3-1956	ly.
Straits of Florida:					
17	26°18'N, 79°51'W	263-366	gy. m.	29- 3-1956	sp., ly., h.
18	26°31'N, 79°46'W	430	gy. s.	29- 3-1956	ly.
OFF EAST COAST OF FLORIDA:					
20	28°17'N, 79°48'W	329	bu. m.	5- 4-1956	ly.
27	28°28'N, 79°49'W	366-388	gy. m.	9- 4-1956	ly., h.
31	29°36'N, 80°06'W	384-329	gy. m.	10- 4-1956	ly.
46	29°54'N, 80°10'W	316-329	gy. m.	2- 5-1956	ly.
54	29°47'N, 80°11'W	284-315	gy. m.	8- 6-1956	ly.
SILVER BAY					
Straits of Florida:					
441	27°39'N, 79°15'W	503-549	co. s.	9- 6-1958	sp.
GERDA					
Straits of Florida:					
15	25°45'N, 80°00'W	275-302		30- 5-1962	ly.
61	25°14'N, 80°02'W	256		29- 8-1962	h.
62	25°30.5'N, 80°00'W	403-384		29- 8-1962	h., ly.
66	25°25.5'N, 79°59'W-				
	25°31'N, 79°57'W	366		26- 9-1962	h., ly.
67	25°31'N, 79°57'W-				
	25°30'N, 79°56'W	351		26- 9-1962	h., ly.
76	25°28'N, 80°00'W-				
	25°31'N, 79°57'W	344-348		28- 9-1962	h., ly.
77	25°29'N, 79°54.5'W-				
	25°33'N, 80°02'W	329-339		28- 9-1962	h., ly.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
93	25°03'N, 79°45'W— 25°08'N, 79°44'W	733		19-	4-1963 h.
112	24°14'N, 82°57'W— 24°14'N, 82°56'W	686—641		18-	6-1963 al.
121	23°52'N, 82°05'W	1281		19-	6-1963 ac.
122	24°02.5'N, 82°03.5'W— 24°11'N, 81°57'W	715—686		19-	6-1963 ac., al.
125	24°09'N, 81°47'W	695—677		19-	6-1963 al.
126	24°03'N, 81°49'W— 24°06'N, 81°33'W	805—742		20-	6-1963 ac.
128	23°49'N, 81°37'W— 23°50'N, 81°30'W	1464—1391		20-	6-1963 ac., no.
129	23°46'N, 81°15'W	1281		20-	6-1963 ac.
131	24°11'N, 80°57'W— 24°16'N, 80°48'W	787—733		21-	6-1963 h., ac., al.
136	24°17'N, 80°42'W— 24°21'N, 80°36'W	751—715		21/22-	6-1963 al.
142	24°15'N, 80°05'W— 24°16'N, 79°59'W	540—549		22-	6-1963 sp., al.
144	24°38'N, 80°15'W— 24°37'N, 80°09'W	751		23-	6-1963 h., ac., al.
146	24°45'N, 80°09'W	659—686		23-	6-1963 al.
154	26°18'N, 79°22'W— 26°29'N, 79°20'W	549		25-	6-1963 sp.
158	26°27'N, 79°21'W— 26°36'N, 79°24'W	540—531		25-	6-1963 sp.
160	26°33'N, 79°42'W— 26°37'N, 79°42'W	586		26-	6-1963 h.
161	26°37'N, 79°50'W— 26°44'N, 79°45'W	412—421		26-	6-1963 sp., h.
164	26°53'N, 79°40'W— 26°56.5'N, 79°40'W	531		26-	6-1963 h., ly.
169	27°01'N, 79°21.5'W— 27°04'N, 79°21'W	567—522		29-	6-1963 sp.
170	27°06'N, 79°32'W— 27°11'N, 79°30'W	677—659		29-	6-1963 h., sp.
171	27°12'N, 79°44'W— 27°15'N, 79°43'W	439—448		29-	6-1963 h., ly.
NW OF BAHAMA ISLANDS:					
175	27°19'N, 79°44'W— 27°27'N, 79°43'W	430—421		30-	6-1963 h., sp.
179	27°41'N, 79°11'W— 27°51'N, 79°14'W	549—567		1-	7-1963 sp.
180	27°51'N, 79°14'W— 27°36.5'N, 79°13'W	613—631		1-	7-1963 sp.
181	27°57'N, 78°56'W— 27°55'N, 78°59'W	779		2-	7-1963 h.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
N OF BAHAMA ISLANDS:					
182	27°55'N, 78°40'W— 27°57'N, 78°40'W	860—897		2- 7-1963	h., ac.
BAHAMA ISLANDS:					
190	25°57'N, 78°07'W	733—897		4- 7-1963	ly.
STRAITS OF FLORIDA:					
197	25°30'N, 79°58'W— 25°45'N, 79°51.5'W	329		10- 9-1963	h., ly.
221	24°21'N, 80°35'W— 24°23'N, 80°30'W	604—586		22- 1-1964	h., al.
222	24°23'N, 80°28'W— 24°29'N, 80°18'W	824		22- 1-1964	h.
223	24°18'N, 80°29'W— 24°21'N, 80°23'W	897—915		23- 1-1964	ac.
228	25°04'N, 80°03'W— 25°08'N, 79°59'W	320		24- 1-1964	h., ly.
230	25°12.5'N, 80°02'W	549—458		24- 1-1964	ly.
247	27°07'N, 79°21'W— 27°10'N, 79°20'W	567		5- 2-1964	sp.
288	24°10'N, 81°42'W— 24°13'N, 81°36'W	595—540		3- 4-1964	ly.
289	24°11'N, 81°36'W— 24°15'N, 81°20'W	604—597		3- 4-1964	ly., al.
299	26°12'N, 79°31'W— 26°16'N, 79°30'W	641		5- 4-1964	h., sp.
300	26°16'N, 79°30'W— 26°28'N, 79°26'W	640		5- 4-1964	h., sp.
301	26°28'N, 79°26'W— 26°38'N, 79°21'W	648—622		5- 4-1964	sp.
302	26°38.5'N, 79°21'W— 26°49'N, 79°25'W	690		5- 4-1964	h., sp.
362	24°10'N, 81°42'W— 24°11'N, 81°37'W	631		15- 9-1964	ly., al.
365	24°11'N, 81°37'W— 24°12'N, 81°17'W	672		15- 9-1964	al., no.
366	24°12'N, 81°17'W— 24°13'N, 81°08'W	679—709		15- 9-1964	ac., al.
368	24°03'N, 81°10'W— 24°08'N, 80°59'W	961—1016		15- 9-1964	ac.
370	23°54'N, 81°19'W— 23°53'N, 81°16'W	1281		16- 9-1964	ac., no.
374	23°50'N, 81°37'W— 23°54'N, 81°27'W	1208—1241		17- 9-1964	ac., no.
375	23°54'N, 81°27'W— 23°56'N, 81°04'W	1153—1190		17- 9-1964	ac., no.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
382	26°10'N, 79°37'W– 26°24'N, 79°39'W	686–699		18-	9-1964 h.
386	27°09'N, 79°18'W	604		19-	9-1964 sp.
NW OF BAHAMA ISLANDS:					
403	27°49'N, 78°50'W– 27°48'N, 78°40'W	824		20-	9-1964 h.
406	27°39'N, 79°37'W– 27°45'N, 79°38'W	467		21-	9-1964 h.
STRAITS OF FLORIDA:					
439	24°14'N, 82°29'W– 24°14'N, 82°23'W	584–566		29-11-1964	al., ly.
440	24°14'N, 82°21'W– 24°13'N, 82°25'W	549–567		29-11-1964	al., ly.
442	24°05'N, 82°33'W– 24°05'N, 82°25'W	742–753		29-11-1964	ac., al.
443	24°05'N, 82°21'W– 24°03'N, 82°18'W	792–829		29-11-1964	ac., al.
448	23°54'N, 82°21'W– 23°53'N, 82°17'W	1135–1184		1-12-1964	ac.
449	23°55'N, 82°05'W– 23°55'N, 81°58'W	1373–1428		1-12-1964	ac., no.
465	24°18'N, 82°56'W– 24°17'N, 82°51'W	403		25-	1-1965 ly.
467	24°18'N, 82°56'W– 24°17'N, 82°48'W	370–348		25-	1-1965 ly.
469	24°17'N, 82°48'W– 24°16'N, 82°44'W	384–357		25-	1-1965 ly.
472	24°17'N, 83°00'W– 24°14'N, 82°56'W	549–567		25-	1-1965 ly.
474	24°14'N, 82°56'W– 24°15'N, 82°52'W	576		25-	1-1965 ly.
475	24°14'N, 82°39'W– 24°14'N, 82°35'W	550		26-	1-1965 ly., al.
483	24°30'N, 80°28'W– 24°32'N, 80°24'W	443		27-	1-1965 h., ly.
646	25°49'N, 79°21'W– 25°53'N, 79°22'W	439–531		1-	7-1965 sp.
649	26°34'N, 79°43'W	494		15-	7-1965 h.
652	27°07'N, 79°46'W– 27°09'N, 79°45'W	403–393		16-	7-1965 h.
654	27°16'N, 79°49'W– 27°20'N, 79°50'W	324		16-	7-1965 h.
658	27°15'N, 79°44'W– 27°18'N, 79°44'W	320–310		16-	7-1965 h.
659	27°20'N, 79°40'W– 27°25'N, 79°40'W	366		16-	7-1965 h.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
GULF STREAM OFF FLORIDA:					
666	27°48'N, 79°15'W— 27°52'N, 79°15'W	522		17-	7-1965 sp.
671	27°52'N, 79°08'W— 27°53'N, 79°08'W	662-702		18-	7-1965 sp.
BAHAMA ISLANDS:					
679	25°56'N, 78°09'W— 25°56'N, 78°05'W	595-711		20-	7-1965 ly.
Straits of Florida:					
715	26°04'N, 79°24'W— 26°05'N, 79°24'W	549-512		2-	8-1965 sp.
716	26°08'N, 79°24'W— 26°11'N, 79°25'W	544		3-	8-1965 sp.
766	25°39'N, 80°00'W— 25°41'N, 80°01'W	309-297		16-	9-1965 ly.
806	26°23'N, 79°23'W	549		13-	9-1966 sp.
Santaren Channel:					
815	24°08'N, 79°48'W	618		22-	6-1967 sp.
816	24°04'N, 79°42'W	558-540		22-	6-1967 sp.
817	23°50'N, 79°30'W	508		22-	6-1967 sp.
818	23°42'N, 79°09'W	530		22-	6-1967 sp.
834	25°15'N, 80°10'W	86-79		10-	7-1967 ly.
845	25°36'N, 80°01'W	296-318		12-	7-1967 ly.
855	25°21'N, 80°01'W— 25°25'N, 80°02'W	207-247		25-	8-1967 h.
859	23°54'N, 81°57'W— 24°01'N, 81°53'W	1161-1199		29-	8-1967 no., ac.
860	24°05'N, 81°46'W— 24°06'N, 81°43'W	754-722		29-	8-1967 al.
861	24°08'N, 81°36'W	558-514		29-	8-1967 ly., al.
Straits of Florida:					
867	24°05'N, 80°50'W	805-732		30-	8-1967 ac., al.
870	24°10'N, 81°07'W— 24°17'N, 80°42'W	807-754		30-	8-1967 ac., al.
Northwest Providence Channel:					
917	25°59'N, 78°12'W	658-704		26-	9-1967 ly.
BAHAMA ISLANDS:					
923	24°02'N, 77°34'W— 24°30'N, 77°35'W	1554-1573		28-	9-1967 no.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
STRAITS OF FLORIDA:					
960	23°30'N, 82°26'W	1697-1692		31-	1-1968 no.
963	23°41'N, 82°16'W-				
	23°47'N, 83°10'W	1454-1441		1-	2-1968 ac., no.
964	23°46'N, 81°51'W	1390-1440		1-	2-1968 no.
965	23°45'N, 81°49'W	1399-1394		1-	2-1968 no.
966	24°10'N, 82°22'W	553-558		2-	2-1968 al.
967	24°15'N, 82°26'W	499-503		2-	2-1968 ly.
968	24°17'N, 82°34'W	437-320		2-	2-1968 ly.
969	24°18'N, 82°33'W	402-269		2-	2-1968 ly.
970	24°24'N, 82°08'W	512		2-	2-1968 ly.
998	27°10'N, 79°43'W	366-375		21-	5-1968 h.
999	27°18'N, 79°39'W	530-551		21-	5-1968 h.
SANTAREN CHANNEL:					
1012	23°35'N, 79°33'W-				
	23°37'N, 79°32'W	508-530		14-	6-1968 sp.
1016	23°34'N, 79°12'W-				
	23°51.2'N, 79°37'W	529-543		15-	6-1968 sp.
1017	23°58'N, 79°17'W-				
	24°00'N, 79°20'W	555		15-	6-1968 sp.
STRAITS OF FLORIDA:					
1018	24°07'N, 79°28'W-				
	24°00'N, 79°26'W	556		15-	6-1968 sp., ly.
1098	24°15.5'N, 82°50'W	459-494		28-	4-1969 ly.
1101	24°10'N, 82°51.5'W	686-787		28-	4-1969 ac., al.
1106	24°02'N, 81°30'W	933-942		29-	4-1969 ac.
1107	24°05'N, 81°20'W	851-933		29-	4-1969 ac.
PILLSBURY					
OFF LIBERIA:					
76	04°32.0'N, 09°42.0'W-				
	04°40.0'N, 09°49.0'W	1556-1464		4-	6-1964 lr.
OFF EASTERN FLORIDA:					
89	28°25'N, 79°50'W	403		25-	7-1964 ly., h.
OFF NIGERIA:					
233	05°19'N, 04°14'E-				
	05°15'N, 04°02'E	2000-1500		12-	5-1965 lr.
309	04°15'N, 04°27'E-				
	04°12'N, 04°28'E	1280-1320		26-	5-1965 lr.
314	04°58'N, 03°48'E-				
	04°52'N, 03°48'E	2270-2334		27-	5-1965 lr., sc.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
OFF ATLANTIC COAST OF PANAMA:					
325	09°52'N, 79°35.5'W— 09°52'N, 79°37'W	1774–1656		7- 7-1966	al., ac.
337	09°50.5'N, 78°39.3'W— 09°52.2'N, 79°39.5'W	1846	very fne. stk. m., debris	8/9-7-1966	al.
OFF ATLANTIC COAST OF COLOMBIA:					
374	09°57.0'N, 76°10.6'W	434–373		14- 7-1966	ly., h., ne.
381	10°17.0'N, 75°59.9'W— 10°15.2'N, 75°59.9'W	724–597	m.	14- 7-1966	ly., ne., al.
388	10°16'N, 76°03'W— 10°10.4'N, 76°08.8'W	814–1050	heavy br. cl.	15- 7-1966	ac., al.
391	10°03.0'N, 76°27.0'W— 10°07.0'N, 76°29.0'W	1222–1748	slp. br. m., old brk. dd. bivalve sh.		
394	09°28.6'N, 76°26.3'W— 09°27.4'N, 76°29.0'W	416–634		16- 7-1966	ac., al.
407	09°00.2'N, 77°25.3'W— 09°02.0'N, 77°28.8'W	1158–1225	gn. m.	18- 7-1966	ac., al.
413	09°01.5'N, 76°53'W— 08°58.4'N, 76°56.3'W	1267–952	cl. gy. m., debris	18- 7-1966	ac., al.
OFF ATLANTIC COAST OF PANAMA:					
447	09°07.4'N, 81°11.8'W— 09°04.0'N, 81°13.8'W	657–673		21- 7-1966	ne., al.
448	09°10.1'N, 80°55.6'W— 09°07.9'N, 80°56.0'W	952–869		21- 7-1966	ac., al.
NW OF SWAN ISLAND:					
575	17°43'N, 84°20'W— 17°48'N, 84°25'W	6373–6364	cl.	20/21-5-1967	at.
NW OF CUBA:					
584	21°02'N, 86°24'W	353–347		23- 5-1967	sp.
OFF YUCATAN, MEXICO:					
585	21°02'N, 86°29'W	567–570		23- 5-1967	ly.
600	20°29'N, 87°06'W	439–463		16- 3-1968	ly., sp.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
601	20°27'N, 87°06'W	457-466		16-	3-1968 sp.
602	20°22.5'N, 87°11.5'W	412-450		16-	3-1968 sp., ly.
605	18°50.1'N, 87°31.5'W	695-772		17-	3-1968 al.
607	18°30'N, 87°37'W	713-786		17/18-3	-1968 al.
STRAITS OF FLORIDA:					
634	23°33'N, 82°47'W- 23°30.7'N, 82°32'W	1637-1756		25-	3-1968 ac., no.
OFF SURINAM:					
672	07°37'N, 55°22'W- 07°37'N, 55°27'W	1335-1220		11-	7-1968 ac., no.
673	07°56.5'N, 54°39'W- 08°08'N, 54°36'W	1042-1070		11-	7-1968 no.
675	08°26'N, 54°17'W- 08°41'N, 54°19'W	1234-1271		12-	7-1968 ac., no.
682	07°33.5'N, 56°25'W- 07°38'N, 56°18'W	1317-1344		14-	7-1968 ac., no.
OFF BRITISH GUIANA:					
689	08°14.0'N, 57°38'W	1372-1445	hrd. br. m. covered by siliceous sponges, branching Madrepo- aria	15-	7-1968 ac., al.
OFF VENEZUELA:					
741	11°47.8'N, 66°06.8'W- 11°52.4'N, 66°14.0'W	1051-1066		23-	7-1968 ac.
747	11°46'N, 67°05.7'W- 11°54.7'N, 67°05'W	1174-1108		24-	7-1968 ac.
748	11°24.8'N, 67°10.1'W- 11°36'N, 67°06'W	1866-1784		25-	7-1968 no.
753	11°18.8'N, 68°22.0'W- 11°31.9'N, 68°25'W	384-607	sh., co. rubble	26-	7-1968 ne.
754	11°36.9'N, 68°42.0'W			26-	7-1968 ac.
OFF ATLANTIC COAST OF COLOMBIA:					
770	12°55.0'N, 71°46.5'W- 13°04'N, 71°42'W	1317-1298		28-	7-1968 no.
776	12°13.3'N, 72°50.0'W- 12°18'N, 72°42.5'W	408-576		29-	7-1968 ne.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
781	11°30.1'N, 73°26.5'W— 11°34.5'N, 73°20.0'W	567—530	m., pter. sh.	30- 7-1968	ne.
784	11°26.5'N, 74°10'W— 11°26.7'N, 73°57.9'W	567—713		31- 7-1968	ne.
	OFF TOBAGO:				
844	11°30'N, 60°14.5'W— 11°44'N, 60°11.2'W	1464—1848		1- 7-1969	sc., ac., no.
846	11°37.8'N, 60°37.4'W— 11°38.8'N, 60°37.5'W	659—1126		2- 7-1969	al.
847	11°37.3'N, 60°59.4'W— 11°41'N, 61°01.3'W	733—1281		2- 7-1969	au., no., al., ac.
	OFF ST. VINCENT:				
881	13°20.8'N, 61°02.5'W	576—842		6- 7-1969	al., h.
	OFF ST. LUCIA:				
889	14°04.4'N, 60°50.8'W— 14°06.3'N, 60°51'W	371—403		7- 7-1969	sp.
	OFF MARTINIQUE:				
892	14°17'N, 60°45.2'W— 14°19.7'N, 60°44.5'W	1116—1354		7- 7-1969	no., ac.
	OFF ST. LUCIA:				
904	13°45.5'N, 61°05.7'W	701—589		9- 7-1969	ly.
	OFF GUADELOUPE:				
918	16°04.1'N, 61°25.7'W— 16°04.7'N, 61°25.5'W	399—497		11- 7-1969	sp.
919	16°05.3'N, 61°19.3'W— 16°05.6'N, 61°19.0'W	683—733	hrd. cl.	12- 7-1969	al.
923	16°05'N, 61°24'W— 16°06.2'N, 61°22.7'W	476—686		14- 7-1969	sp., ly.
929	15°29.5'N, 61°11.5'W— 15°30.5'N, 61°11.6'W	458—503	very clean pum. st. rubble	15- 7-1969	sp.
936	16°02.5'N, 61°23.1'W— 16°04.2'N, 61°22.6'W	430—641		16- 7-1969	sp.
946	16°43.5'N, 61°57.0'W— 16°45.1'N, 61°56.5'W	733—833		17- 7-1969	al.
	OFF ST. KITTS AND NEVIS:				
954	16°55.0'N, 62°43.0'W— 16°58.6'N, 62°46.5'W	686—1043		18- 7-1969	ac., al.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
NW OF ANGUILLA:					
989	18°30'N, 63°23.7'W— 18°34'N, 63°21.5'W	664–706		23- 7-1969	ly., h.
N OF HISPANIOLA:					
1160	20°01'N, 68°59'W	201–842		17- 1-1970	sp.
SANTAREN CHANNEL:					
1171	23°35'N, 79°24'W— 23°34'N, 79°20'W	512–527	fne. m. brk. sh., dd. co., brk. sea- urchin tests	27- 6-1970	sp.
GONAVE BAY, HAITI:					
1178	19°14'N, 73°14'W— 19°25'N, 73°09'W	1765–1902	y. cl. m., much log debris	30- 6-1970	ac., no.
W OF HAITI:					
1187	18°17'N, 75°07'W	1033–1042		2- 7-1970	ac.
S OF JAMAICA:					
1197	17°33.5'N, 76°08.5'W— 17°35'N, 75°58'W	1481–1503		3- 7-1970	ac., no.
1124	17°31.2'N, 77°49.2'W— 17°32.3'N, 77°47.4'W	878–907		6- 7-1970	ac., al.
1225	17°42.5'N, 77°58.0'W— 17°47'N, 77°55.8'W	530–558		6- 7-1970	sp.
1235	17°54'N, 78°25.3'W— 17°54'N, 78°15'W	1362–1586		7- 7-1970	ac., no., al.
W OF JAMAICA:					
1238	18°16.0'N, 78°31.1'W	1591–1829	<i>Thalassia</i> debris, terres- trial plant remains	8- 7-1970	ac.
S OF JAMAICA:					
1255	17°18'N, 78°32'W	722–820		14- 7-1970	al.
1256	17°27'N, 78°10'W	603–655		14- 7-1970	ne.

STATION DATA

Sta.	Position	Depth (m)	Bottom	Date	Species
1261	17°13'N, 77°50'W— 17°18'N, 77°45'W	722–768		15- 7-1970	al.
1262	17°21.4'N, 77°34.8'W	914–1064		15- 7-1970	ac., al.
ST. CROIX BASIN, VIRGIN IS.:					
1304	17°44.5'N, 64°59'W	3475–3969		23- 7-1970	sc., ac., lr., no.

SNELLIUS

OFF SURINAM:

B 24	07°04.4'N, 55°25.0'W	66	s. m. cl. many sh. frag.	27- 4-1966	ne.
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COB CHO4

BAY OF BISCAY, OFF SANTANDER:

B015	Put 109	44°06.6'N, 04°06.9'W	1856	26-10-1969	sc.
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BAY OF BISCAY, FRANCE:

B017	Put 115	45°13'N, 05°30'W	4665	29-10-1969	at.
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OFF BRITTANY, FRANCE:

B019	Put 124	47°29.6'N, 08°22.6'W	2110	31-10-1969	lr.
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