

FLORIDA DEPARTMENT OF NATURAL RESOURCES

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St. Petersburg, Florida

FAUNA AND FLORA IN HYDRAULIC CLAM DREDGE COLLECTIONS
FROM FLORIDA WEST AND SOUTHEAST COASTS

Mark F. Godcharles and Walter C. Jaap

SPECIAL SCIENTIFIC REPORT NO. 40

December 1973

FLORIDA DEPARTMENT OF NATURAL RESOURCES

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ABSTRACT

Four hundred fifty-three taxa of marine flora and fauna were identified from 846 dredging stations in depth of 0.9 to 24.4 m. Specimens were collected during 1970 and 1971 in conjunction with an exploratory clam survey using a hydraulic Nantucket clam dredge and a Maryland soft-shell escalator clam dredge. The majority of reported taxa are mollusks and crustaceans. All are listed by locality, depth, and numbers collected.

INTRODUCTION

Increasing concern with environmental change has pointed out a greater need for information on the structure of marine communities. Basic information on community compositions and species distributions are indispensable in assessing and documenting community alterations. This information is not always available and must usually be gained through considerable expenditure of time and money. Publication of such information as a by-product of other programs performs a valuable service to environmentalists and further enhances the value of the original program.

From January 1968 to September 1971, the Florida Department of Natural Resources Marine Research Laboratory (FDNRMRL) sponsored two exploratory programs to locate commercial clam populations off west and southeast Florida. Previously, from February to June 1967, we made initial observations on the new sunray venus (*Macrocallista nimbosa*) clam fishery at Bell Shoal (Stokes et al., 1968). An adjunct to these endeavors was analysis of associated fauna and flora collected by two gear types: hydraulic Nantucket dredges and the R/V *Venus*, a Maryland escalator soft-shell clam dredge. As a result of 50 dredging trips to the Bell Shoal clam beds, Stokes et al. (1968) listed 47 species regularly harvested with a 27 inch hydraulic Nantucket dredge. Godcharles (1971) listed 128 taxa collected with the *Venus* from Florida Gulf coast exploratory stations in Tampa Bay (59 stations), in the Steinhatchee to Waccasassa Reef area (49 stations), and in the Intracoastal Waterway between Anclote Key and Clearwater (7 stations). He also listed 192 taxa from six experimental Tampa Bay stations, collected using the *Venus*, a 20 ft semi-balloon trynet, and a benthic plug sampler. Jolley (1972) listed 131 taxa collected by the R/V *Hernan Cortez* using a hydraulic Nantucket dredge at 178 Florida west coast stations from November 1969 to May 1970. Most of these stations (173) were located off northwest Florida between Perdido Pass near the Florida-Alabama border to Cedar Keys; and the remaining five were located between Gasparilla Island and Cape Romano. All were in depths of 3.1 to 20.8 m.

Flora (3 phyla) and fauna (10 phyla) in our paper result from continuation from May 1970 to September 1971 of the project initiated by Jolley. In January 1971, the survey was expanded under

Contribution No. 229, Florida Department of Natural Resources Marine Research Laboratory

This study was conducted in cooperation with the U.S. Department of Commerce, NOAA, National Marine Fisheries Service, under PL 88-309 (Project No. 2-134-R).

Commercial Fisheries Research and Development Act PL 88-309 to include exploration of the Florida east coast and to explore shallow estuarine west coast areas with the *Venus*. A total of 453 taxa, primarily mollusks (64 gastropods, 95 bivalves), crustaceans (111), fish (57), echinoderms (36), annelids (32), and cnidarians (30) are listed. Analyses of catches of *Mercenaria campechiensis*, *Macrocallista nimbosa*, and *Rangia cuneata* and their occurrence as related to selected ecological parameters have already been published (Godcharles and Jaap, 1973).

It is hoped that information contained herein will be of value to other researchers in elucidating distributions and ecology of some larger benthic biota inhabiting coastal waters of west and southeast Florida.

METHODS AND MATERIALS

Sampling Effort and Procedures

The R/V *Hernan Cortez* sampled 654 stations along the Gulf coast from Panama City to Cape Sable and along the Atlantic coast from Key West to Ft. Pierce. Effort by area, depth and gear type is summarized in Table 1. The 192 stations sampled by the *Venus* were restricted to depths of 0.9 to 4.6 m in the Tampa Bay area (38 stations), Charlotte Harbor and adjacent waters (72 stations), and the Ten Thousand Islands (82 stations).

Station coordinates are listed in Table 2. Figure 1 shows geographic extents of Areas I, II, III, and IV and U.S. Coast and Geodetic Survey (C&GS) chart localities 1263 through 1247, excluding 1252 and 1251. All stations are depicted on Figures 2 through 17 except Station 498 off Key West. Area I (Panama City to Tampa Bay) and Area II (south of Tampa Bay to Cape Sable) were separated at latitude 27°29'N. Area III extended north from the Atlantic side of Indian Key to Jupiter Inlet and was separated from Area IV at latitude 27°00'N. No stations were established north of Ft. Pierce.

Different transect sampling procedures were employed for each vessel. Prior to January 1971, east-west transects by the *Hernan Cortez* were spaced three nautical miles (4.8 km) apart, but were later extended to five nautical miles (8.0 km) apart in Area II south of Charlotte Harbor and in Areas III and IV. Along each transect stations were located at 5 ft (1.5 m) depth intervals from about 10 to 45 ft (3.1 to 13.7 m). Additional exploratory sampling was undertaken by the *Hernan Cortez* where prior sampling produced substantial clam yields. *Venus* stations were not selected by depth but were set at one nautical mile (1.6 km) intervals along each transect. These transects were set two nautical miles (3.2 km) apart and were generally aligned perpendicularly to the coast. An alternate transect system for the *Venus* was utilized in the Intracoastal Waterway and in the Manatee, Peace, and Myakka Rivers. In these localities a zigzag pattern was established, with stations sampled at approximately one nautical mile intervals. A standard ten minute station sampling period was used by both vessels.

Gear Description and Operation

The R/V *Venus* and the hydraulic Nantucket dredge of the *Hernan Cortez* utilized water pressure to dislodge clams and other material from the substrate. Descriptions of these two gear types and their modes of operation have been previously reported by Stokes et al. (1968), Godcharles (1971), Jolley (1972), and Godcharles and Jaap (1973). Chief distinctions between these two gear types were that the *Venus* operated in shallower depths (0.9 to 4.6 m) and that its conveyor belt system provided continuous harvesting and was more selective for smaller clams because of smaller mesh size (Godcharles and Jaap, 1973). The *Venus* conveyor belt had a trapezoidal mesh size of 24.4 high by 11.6 and 13.6 mm wide.

In contrast, operating depth of the Nantucket dredge was 3.1 to 14.6 m; draft of the *Hernan Cortez* prevented sampling at depths less than 3.1 m. The Nantucket dredge was raised to the deck and emptied after ten minutes of sampling. Apertures between adjacent steel flat bars on the cage and adjacent steel rods on the blade assembly were 31 and 20 mm.

Efficiency of both gear types was optimal on sandy substrates and greatly reduced on muddy bottoms (Godcharles, 1971; Jolley, 1972). Sampling on rocky substrates was inefficient and occasionally caused damage to the Nantucket dredge. To avoid such damage while insuring transect con-

TABLE 1. SAMPLING EFFORT OF THE R/V *HERNAN CORTEZ*

TB = Tampa Bay; CH = Charlotte Harbor; NCD = Nantucket Clam Dredge; BD = Box Dredge

Shallow = 0.9 - 4.6 m; Moderate = 4.7 - 9.2 m; Deep = 9.3 - 24.4 m

U. S. C&GS CHART NO.		NO. OF STATIONS BY GEAR AND DEPTH						Sampling Range (m)	
		SHALLOW		MODERATE		DEEP			
		NCD	BD	NCD	BD	NCD	BD	MIN.	MAX.
AREA I									
1263	2		5		2		4.3	14.0	
1262	1		18		6		3.1	12.8	
1261			15		6		4.9	12.2	
1260	1		9		13		3.7	14.6	
1259	3		25		9		3.7	14.0	
1258	4		15	3	3	2	4.3	14.3	
1257	10		38		23		3.7	14.0	
TB	2		12				4.3	6.7	
Total		23		137	3	62	2		
AREA II									
1256	9		41		45	3	4.6	14.0	
1255	17		37		23	6	3.1	13.7	
CH	26		3				3.1	7.0	
1254	25		31	2	11	12	3.1	13.7	
1253	13		19		4	5	3.1	12.2	
1251				1			6.1		
Total		90		131	3	83	26		
AREA III									
1250		3					4.0	4.6	
1249		8		2			3.1	5.2	
1248	2	1	18	7	17	8	4.6	24.4	
Total		2	12	18	9	17	8		
AREA IV									
1247	2		14	3	9		4.6	13.7	
Overall Total		117	12	300	18	171	36		

tinuity, a box dredge or scrape (33 cm high, 92 cm wide, 76 cm deep) previously described by Joyce and Williams (1969) was used on rocky bottom. Minimum and maximum depths (3.1 and 24.4 m) of box dredge sampling were in Area III, where it was used more frequently than was the Nantucket dredge (Table 1). It was the sole sampling device used in Hawk Channel from Indian Key to Fowey Rocks (C&GS charts 1250, 1249). Sampling was immediately discontinued by the *Venus* when rocky substrates were encountered.

Physical Measurements

Depth, water temperature, salinity, substrate type, and water clarity were recorded at each station (Table 2). Depths at *Hernan Cortez* stations were determined with a Bendix Model DR9 depth recorder and those of *Venus* stations with calibrated probes. Water temperature was measured with a Centigrade immersion thermometer, salinity with an American Optical refractometer, and clarity with a Secchi disk. Substrates at all stations were determined by dredged sediments. Dissolved oxygen data obtained from *Venus* stations in Charlotte Harbor and the Ten Thousand Islands have been previously discussed by Godcharles and Jaap (1973).

Faunal and Floral Analyses

An effort was made to collect, identify and count all live specimens. Rare, significant, and representative specimens were returned to the Laboratory for identification or to confirm shipboard determination; many were accessioned into our invertebrate and fish reference collections. In most cases, however, commonly reoccurring fauna and flora were released following shipboard identification. Some specimens identified only to higher taxa (Polychaeta, Holothuridea, and Ophiuroidea) are not included in this paper. In some instances well known species were recorded only to genus in shipboard determinations (e.g. *Dosinia* spp.). Such "spp." designations may embrace any of the several commonly collected species listed in that genus. Although frequently encountered, hydroids, sponges and most ascidians and bryozoans were not identified, as taxonomic difficulties prevented determinations.

ACKNOWLEDGMENTS

We thank Robert M. Ingle and Edwin A. Joyce, Jr. for making this program possible, William G. Lyons for his direction, and all Laboratory personnel who contributed to this program. Special thanks are conveyed to Capt. Earl Girard, crew members of the R/V *Hernan Cortez* and R/V *Venus* and to Linda Dwinell, Jennifer Sackett, Linda Lyons and James Crane for their assistance in final stages of manuscript preparation.

Identifications and confirmations were provided by Jack F. Van Breedveld and Karen A. Steidinger (algae), Thomas Savage (annelids), David K. Camp and Stephen P. Cobb (crustaceans), William G. Lyons (mollusks), Bonnie Eldred, Linda Dwinell, Dion Powell, and Robert W. Topp (fishes) (all FDNRMRL). In addition, our appreciation is extended to Drs. Mary E. Rice and Nathaniel J. Eiseman, Harbor Branch Foundation, and Harold H. Plough, Amherst College, for identifying sipunculans, benthic algae, and ascidians, respectively.

Finally, we thank Acting Superintendent Joe L. Kennedy for authorizing our vessels to sample within the boundaries of Everglades National Park and Chief Ranger Doug Bowen and his staff for their many kindnesses.

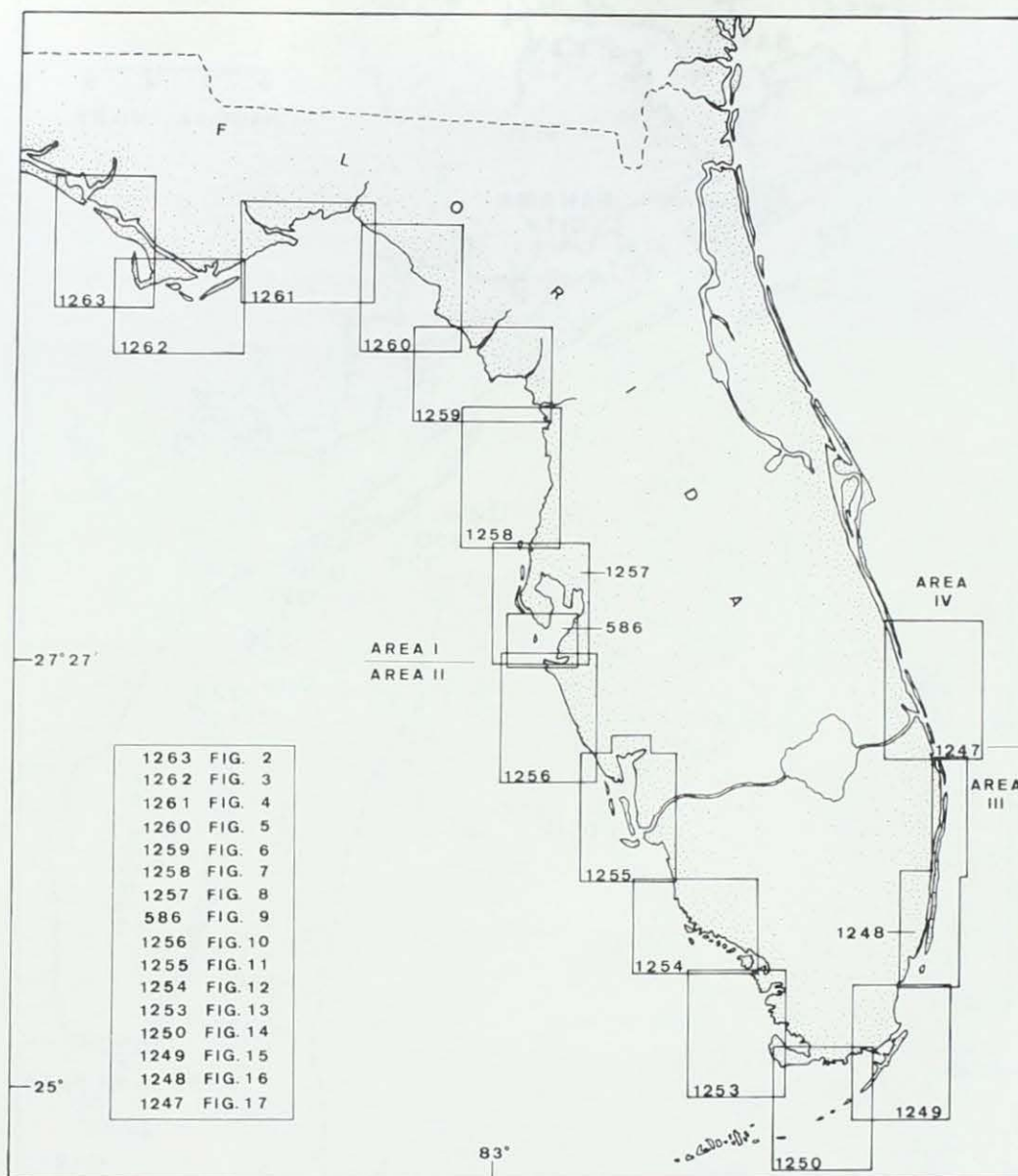


Figure 1. Map of Florida showing Areas I, II, III, and IV and U. S. Coast and Geodetic Survey Charts 1263 through 1247 (excluding 1251 and 1252) with corresponding figure numbers.

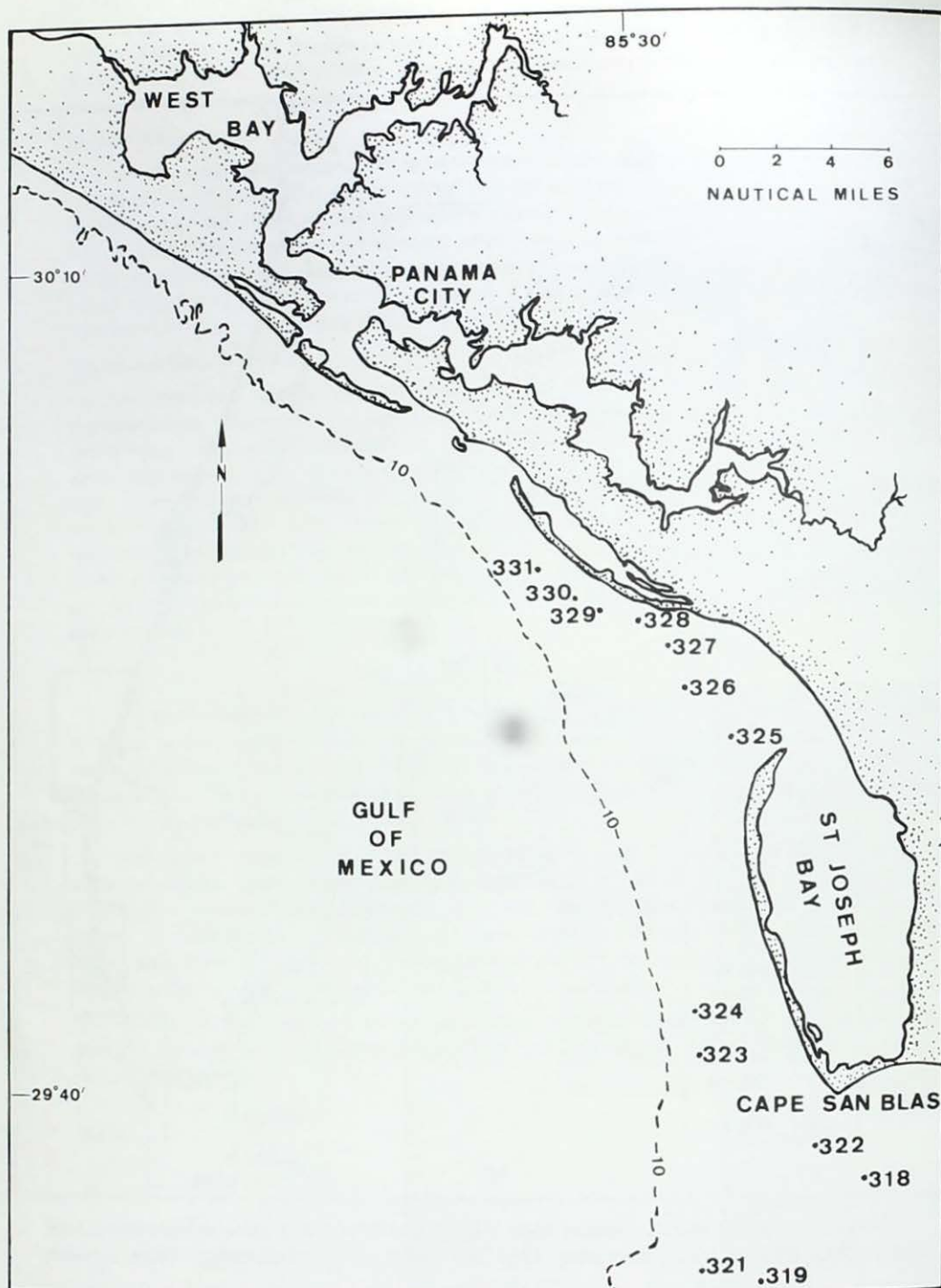


Figure 2. C&GS Chart 1263: St. Joseph and St. Andrew Bays.

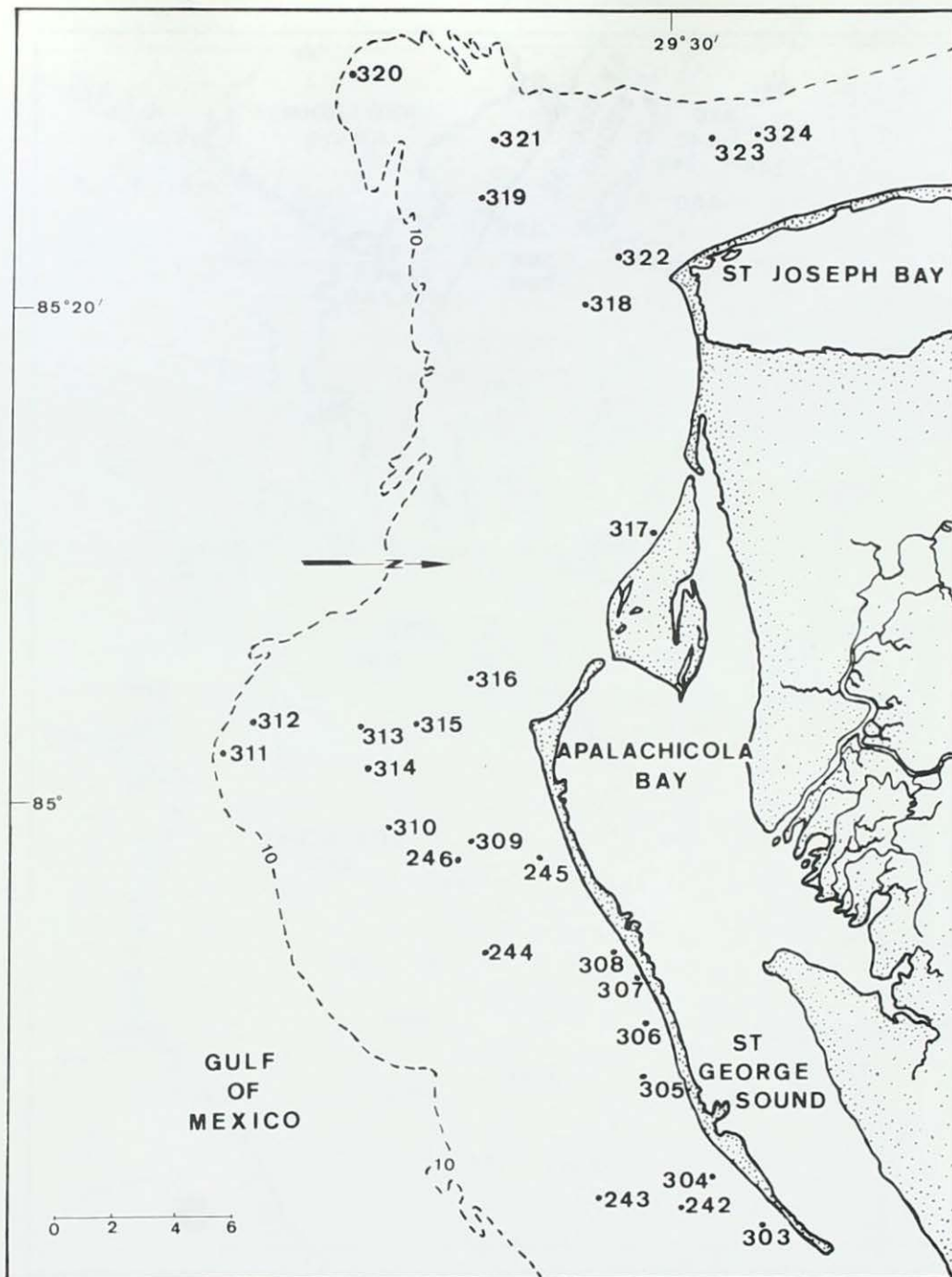


Figure 3. C&GS Chart 1262: Apalachicola Bay to Cape San Blas.

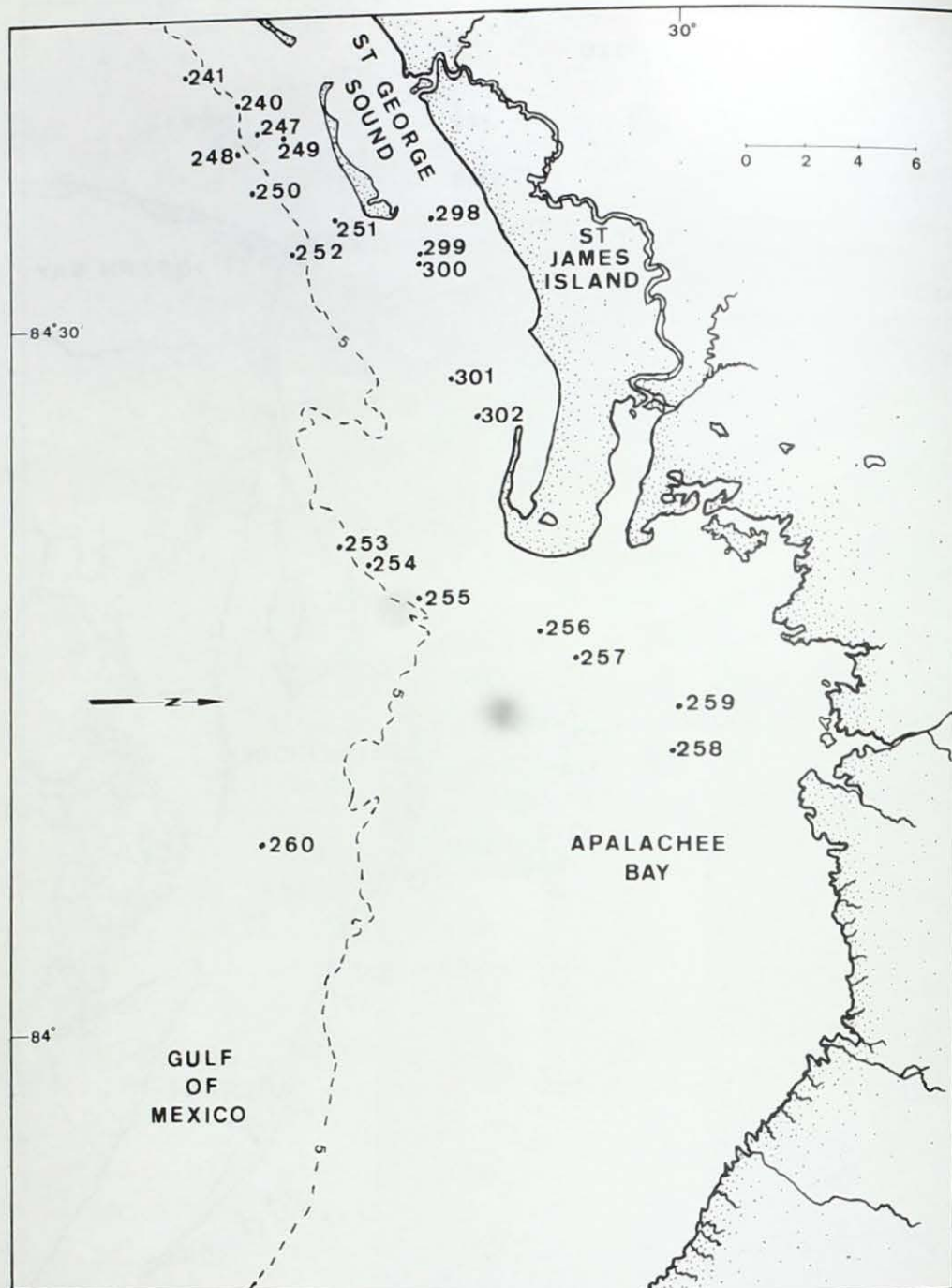


Figure 4. C&GS Chart 1261: Apalachee Bay.

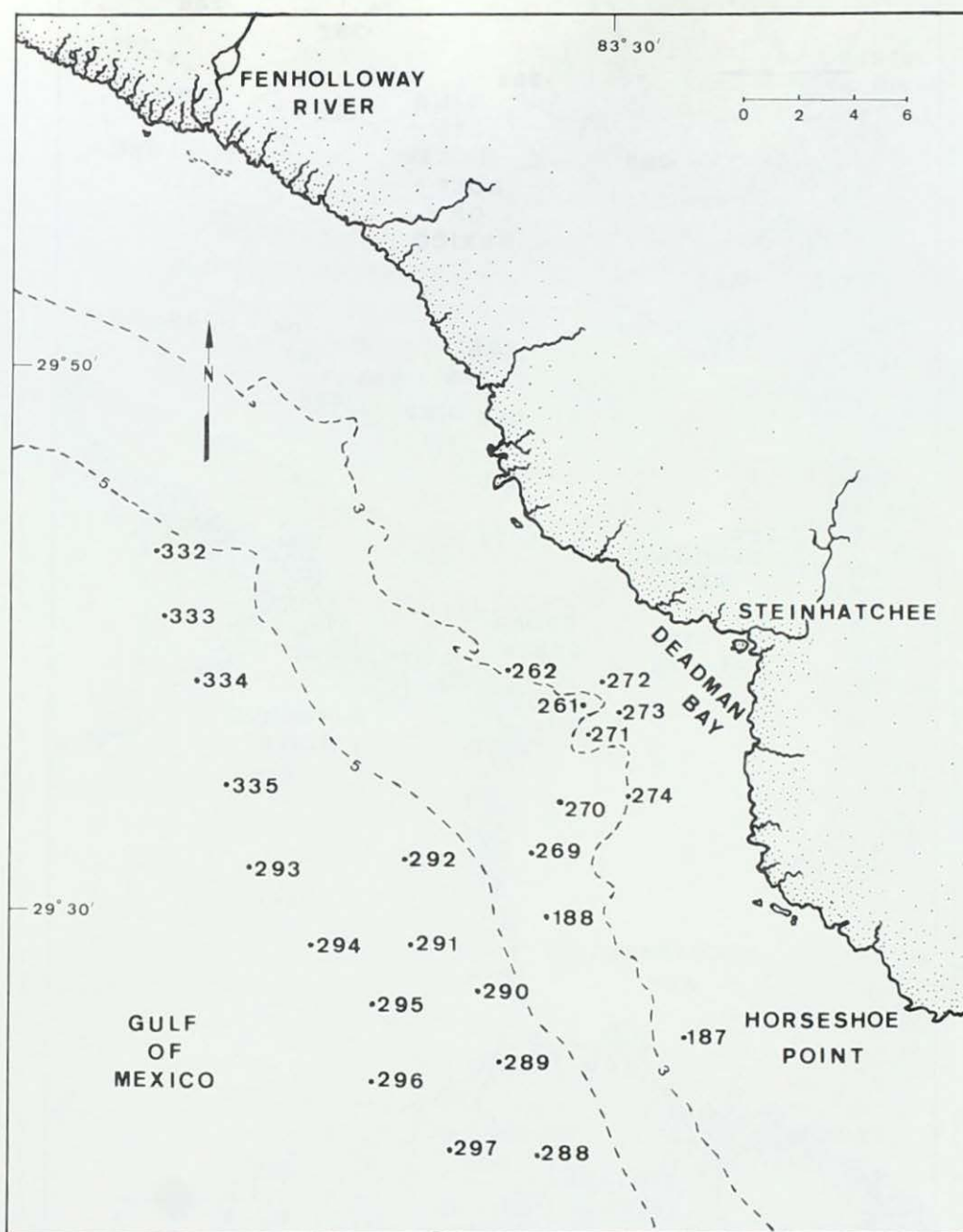


Figure 5. C&GS Chart 1260: Horseshoe Point to Rock Island.

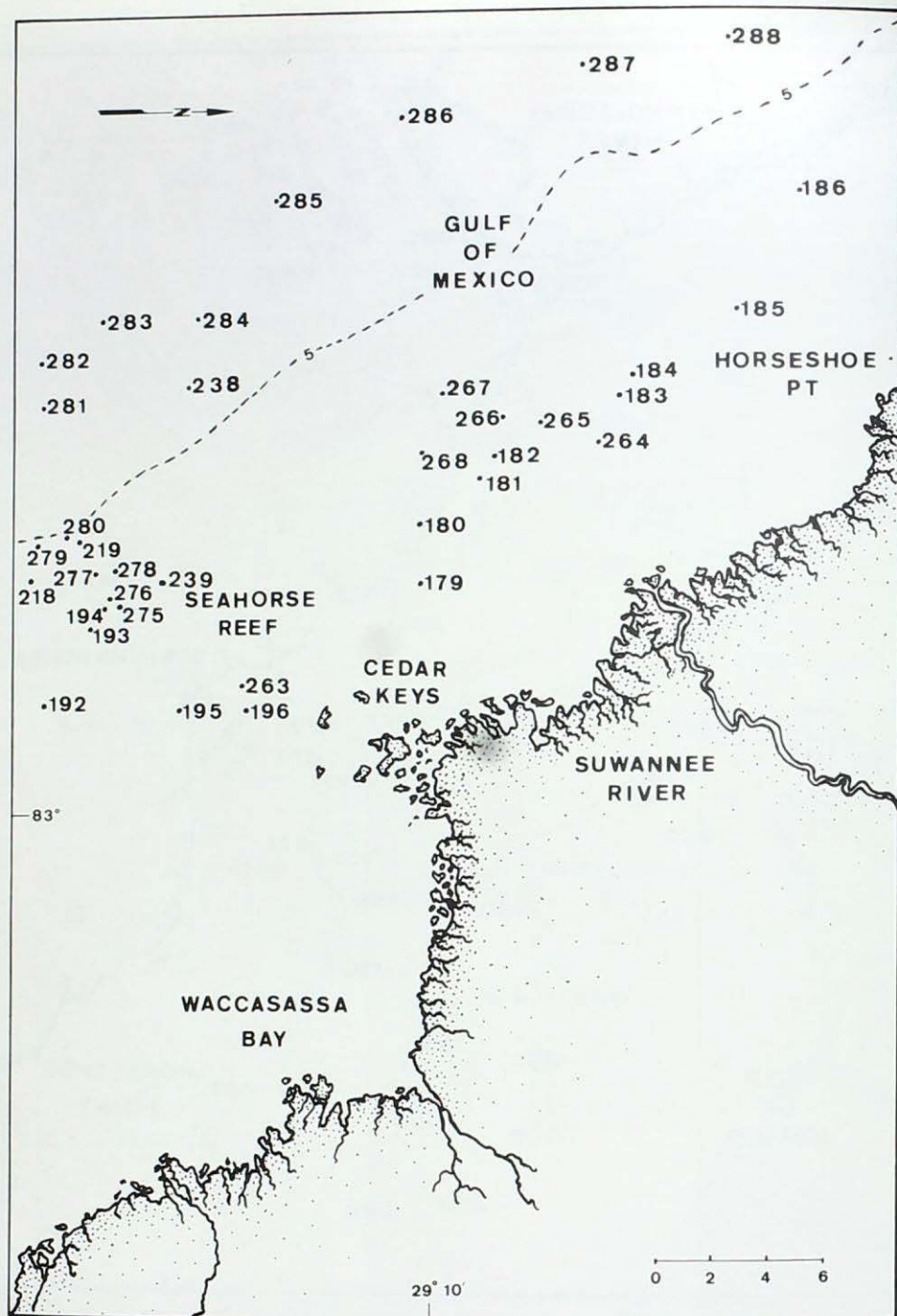


Figure 6. C&GS Chart 1259: Crystal River to Horseshoe Point.

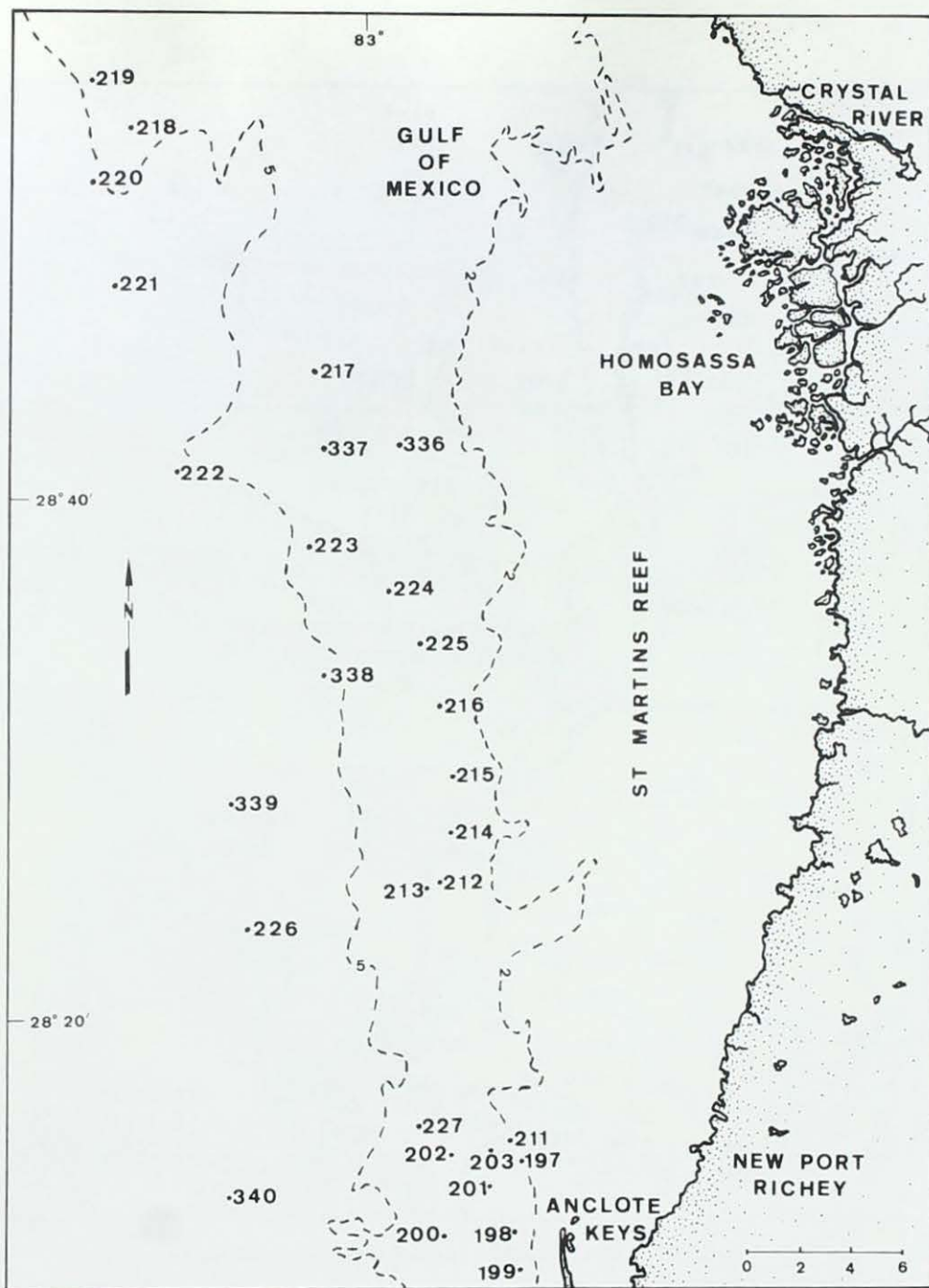


Figure 7. C&GS Chart 1258: Anclote Keys to Crystal River.

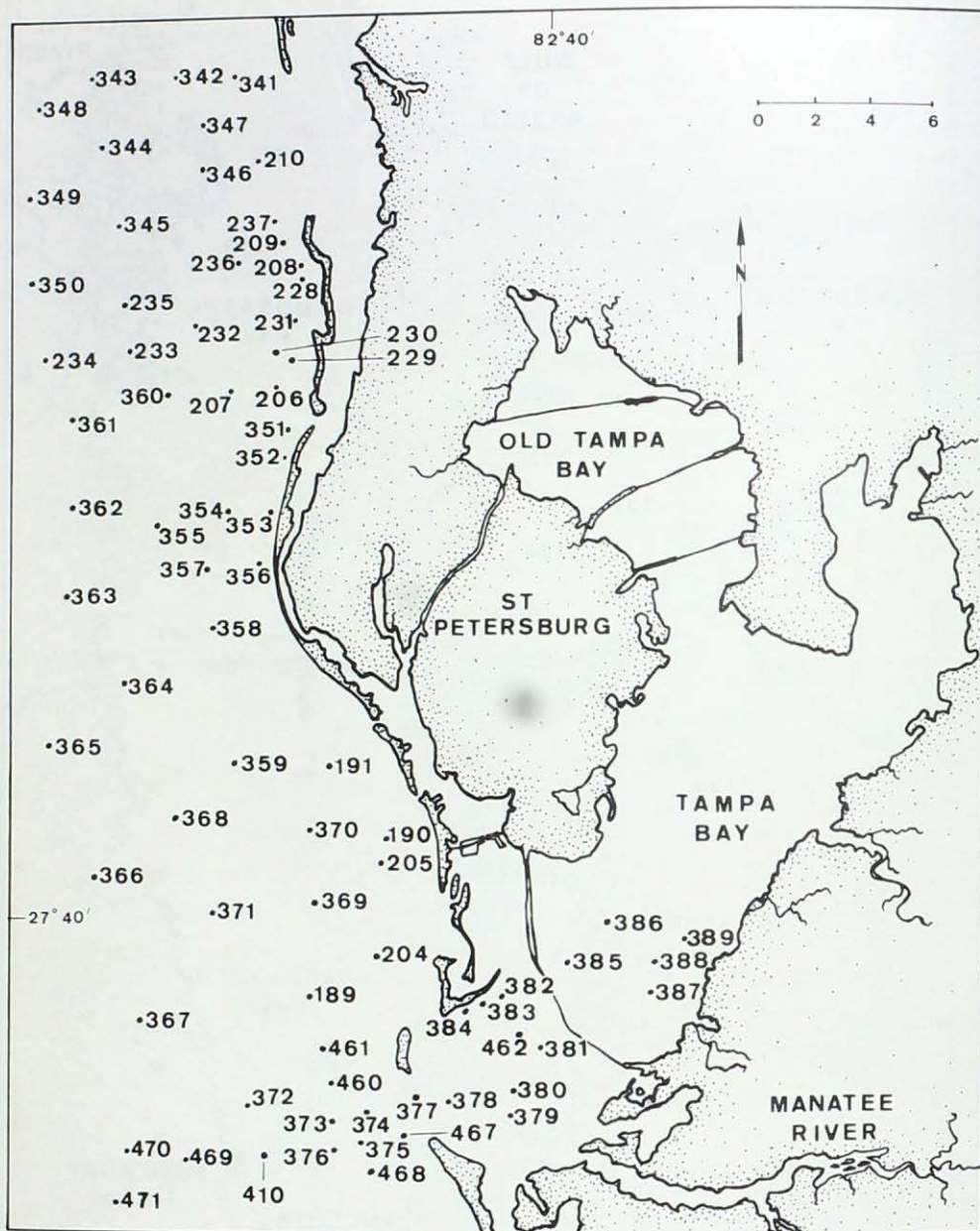


Figure 8. C&GS Chart 1257: Tampa Bay and St. Joseph Sound.

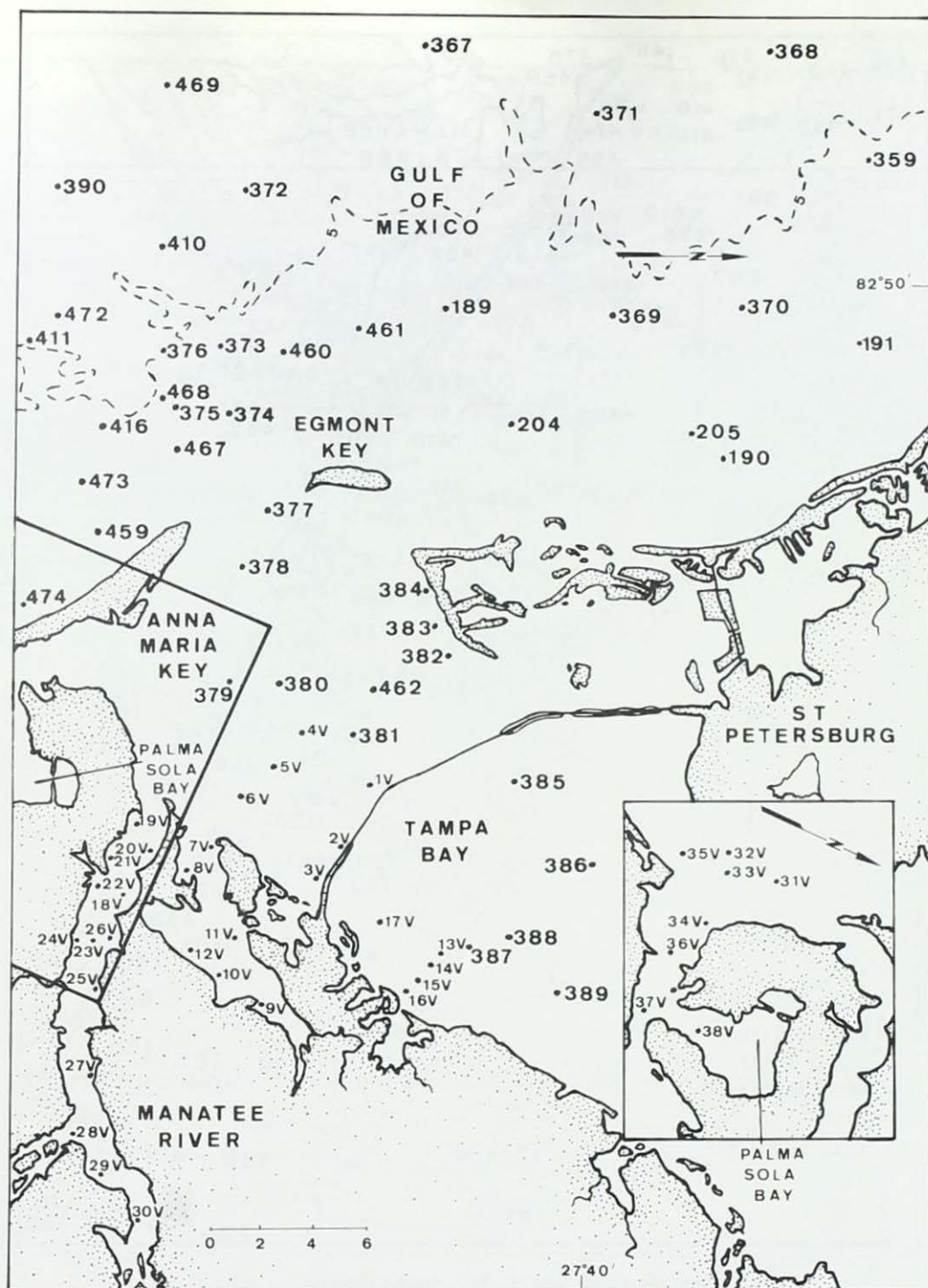


Figure 9. C&GS Chart 586: Tampa Bay, southern part.

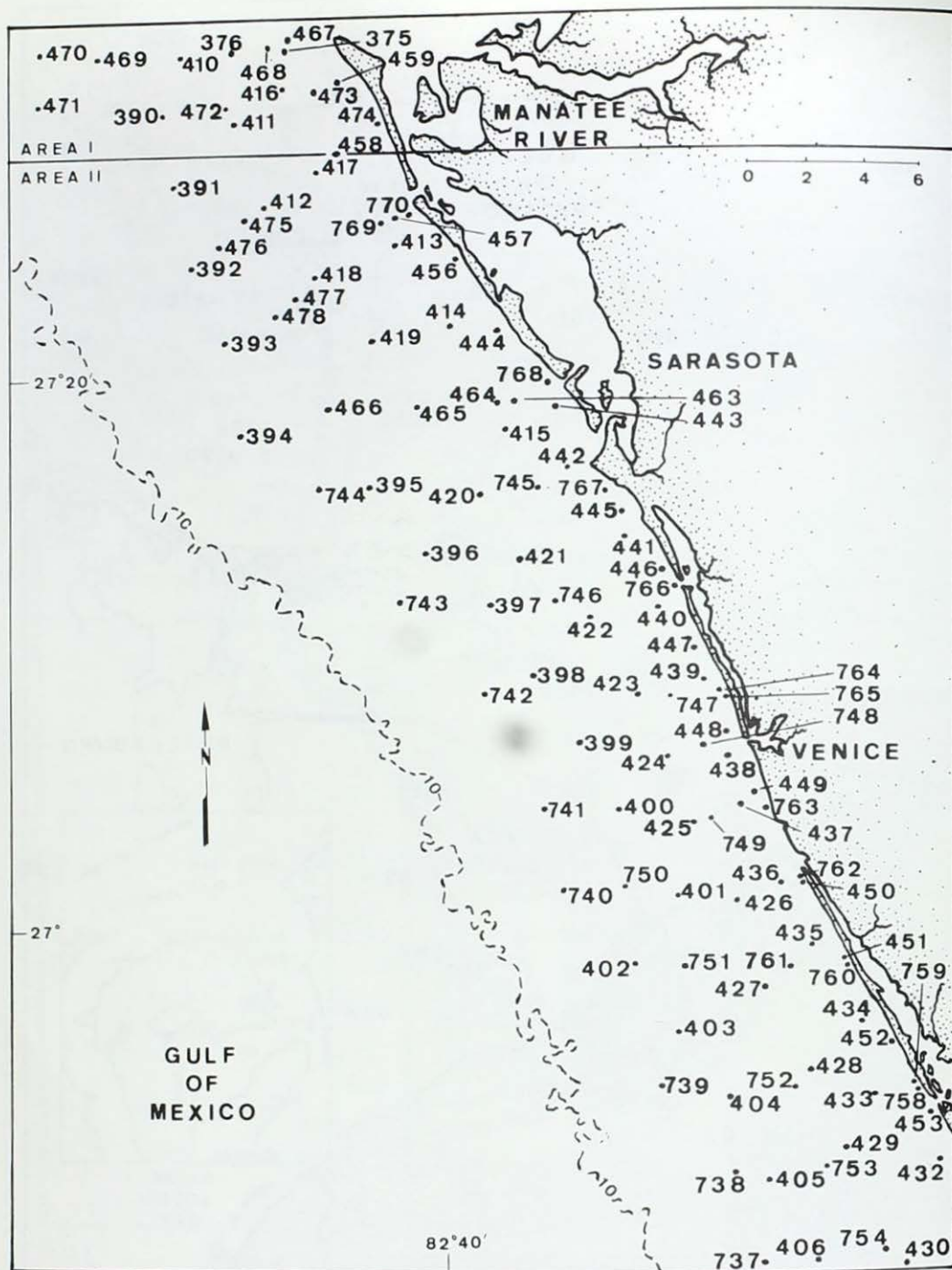


Figure 10. C&GS Chart 1256: Lemon Bay to Passage Key Inlet.

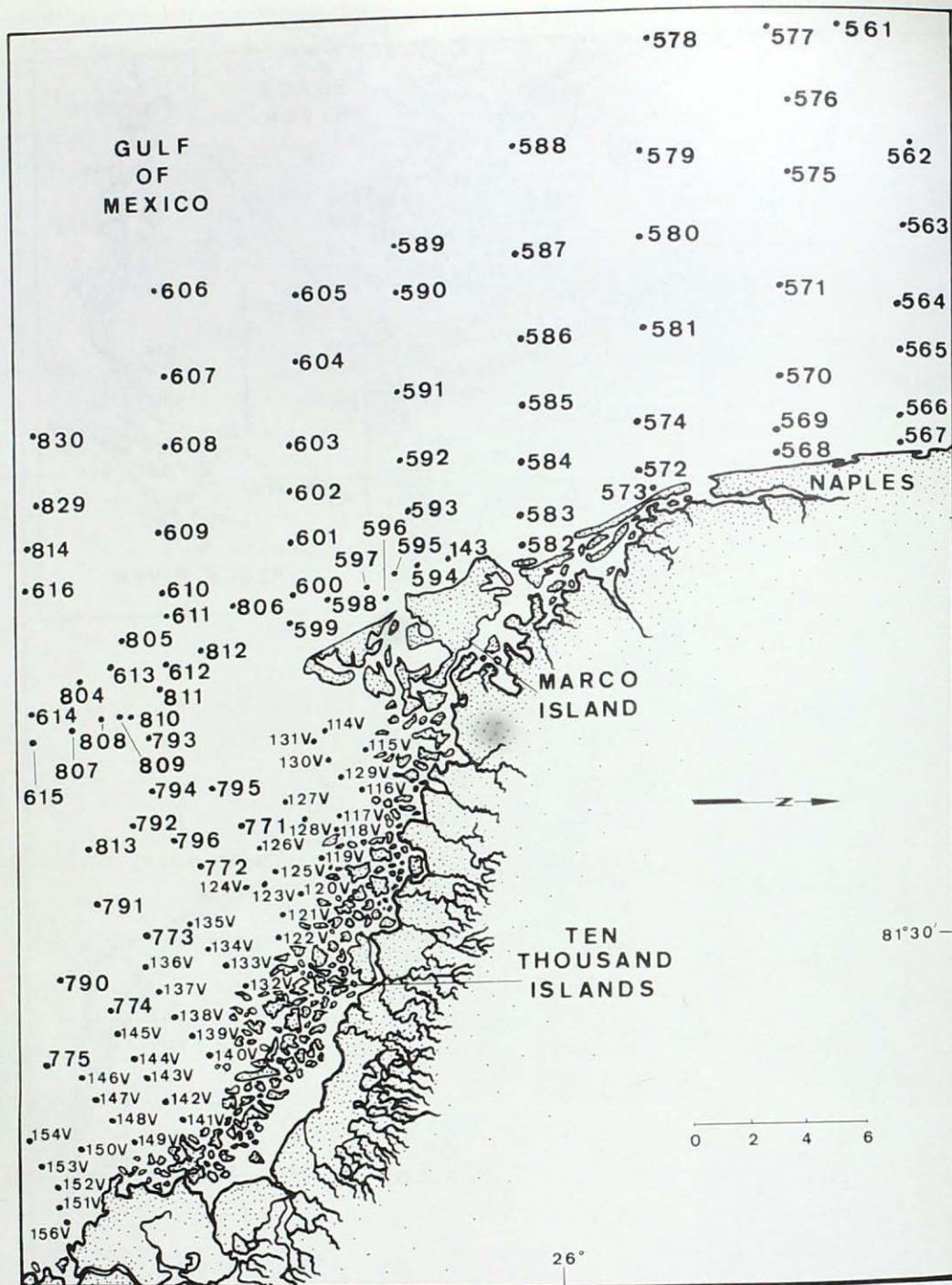


Figure 12. C&GS Chart 1254: Chatham River to Clam Pass.

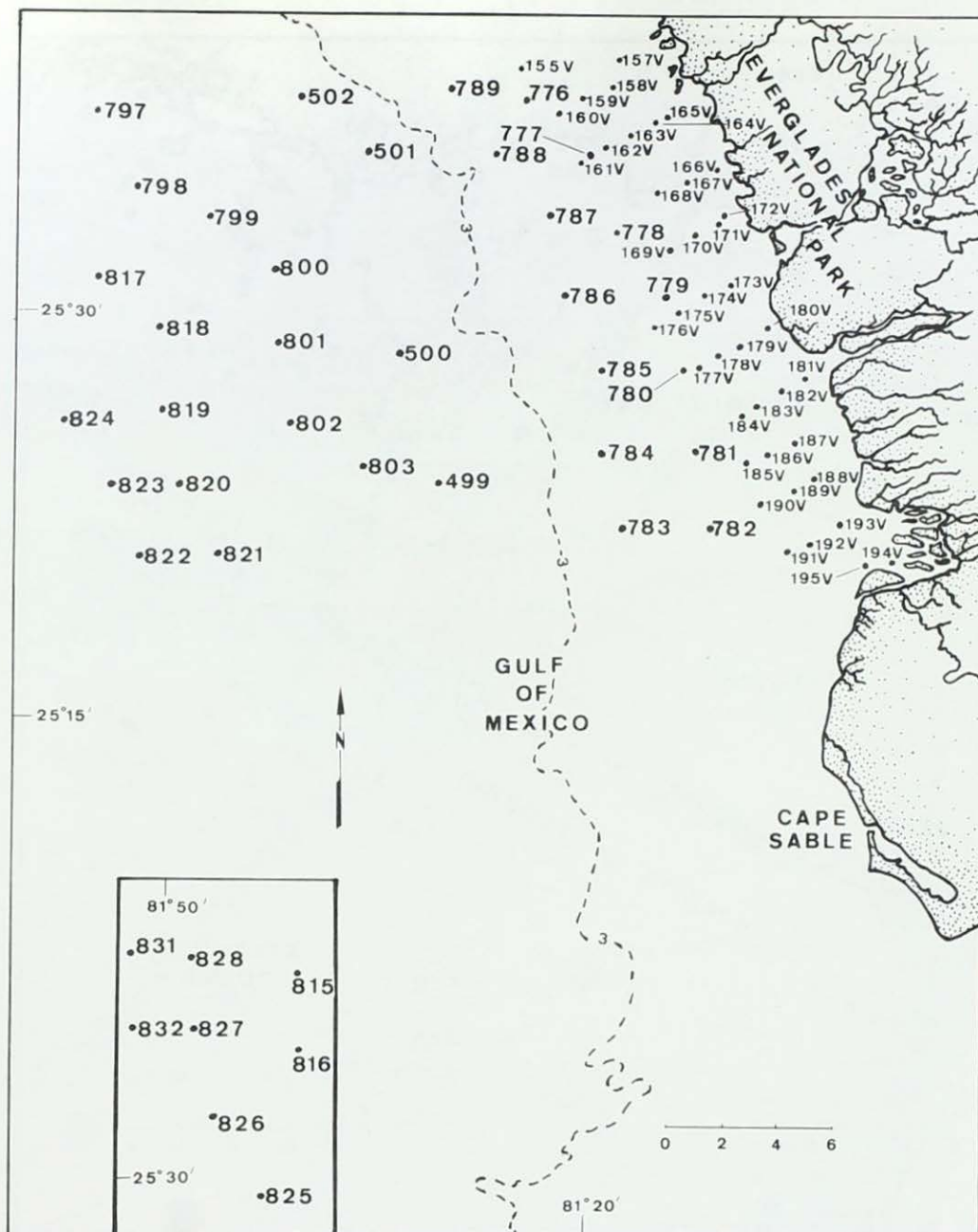


Figure 13. C&GS Chart 1253: East Cape to Mormon Key.

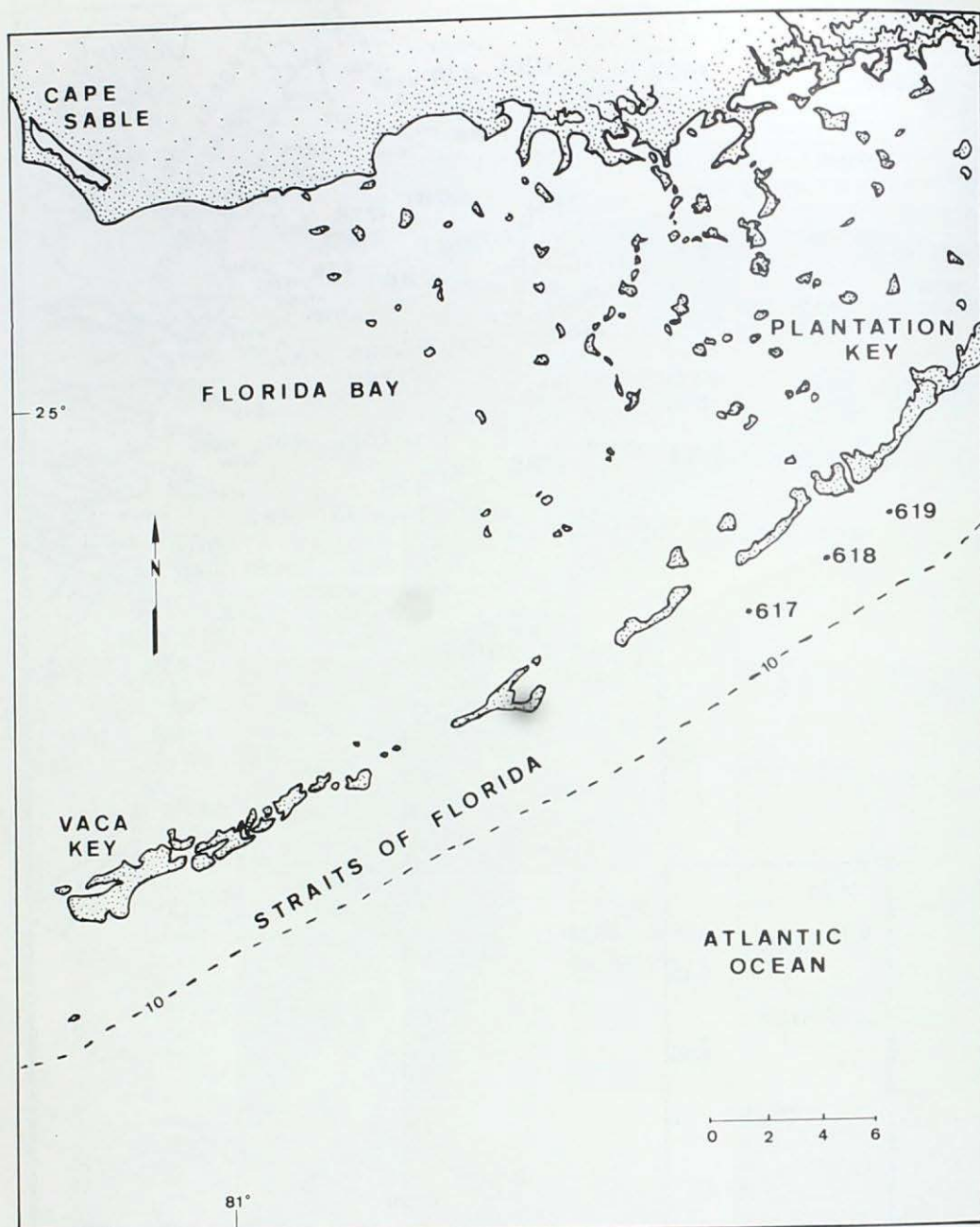


Figure 14. C&GS Chart 1250: Alligator Reef to Sombrero Key.

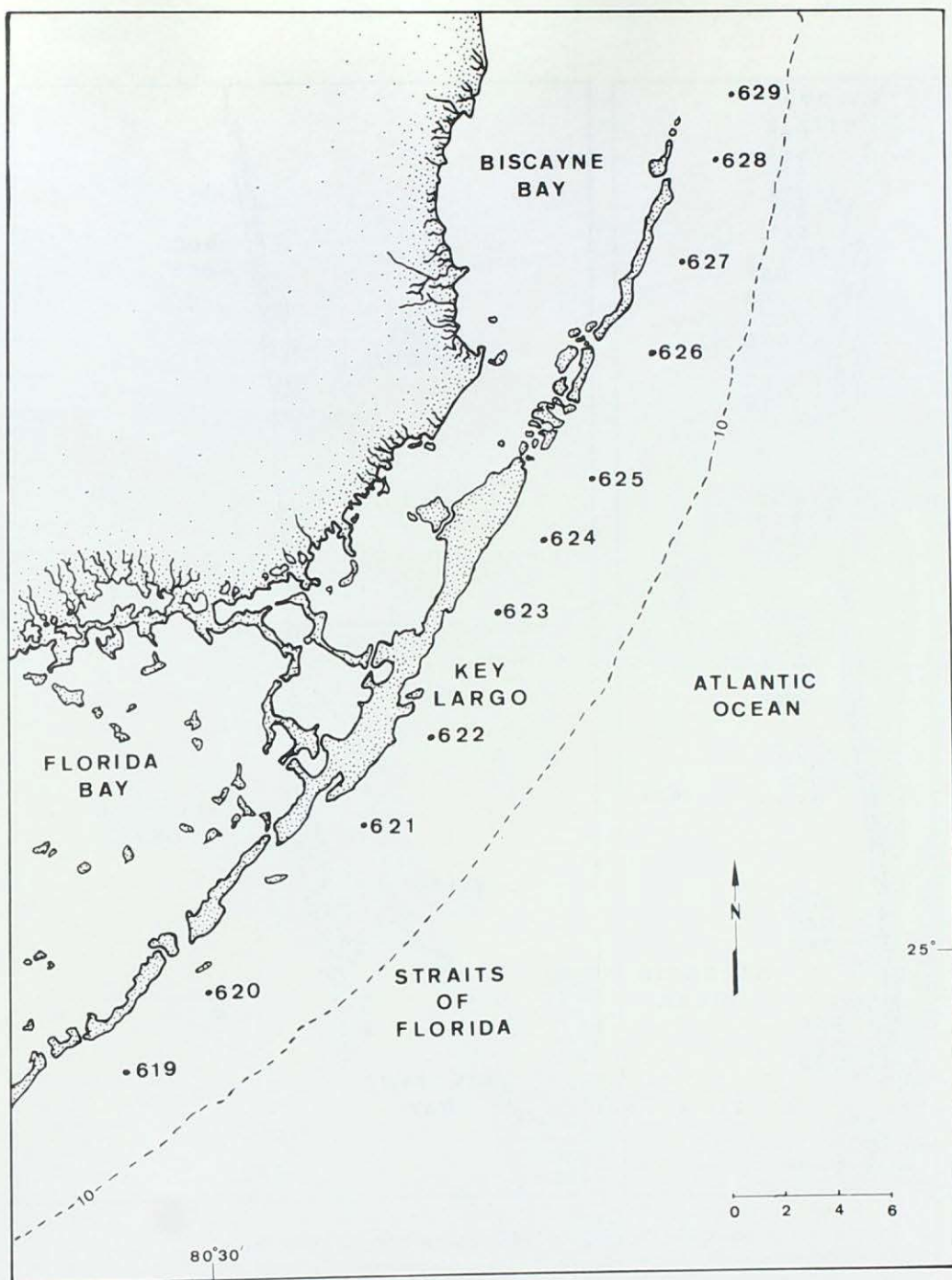


Figure 15. C&GS Chart 1249: Fowey Rocks to Alligator Reef.

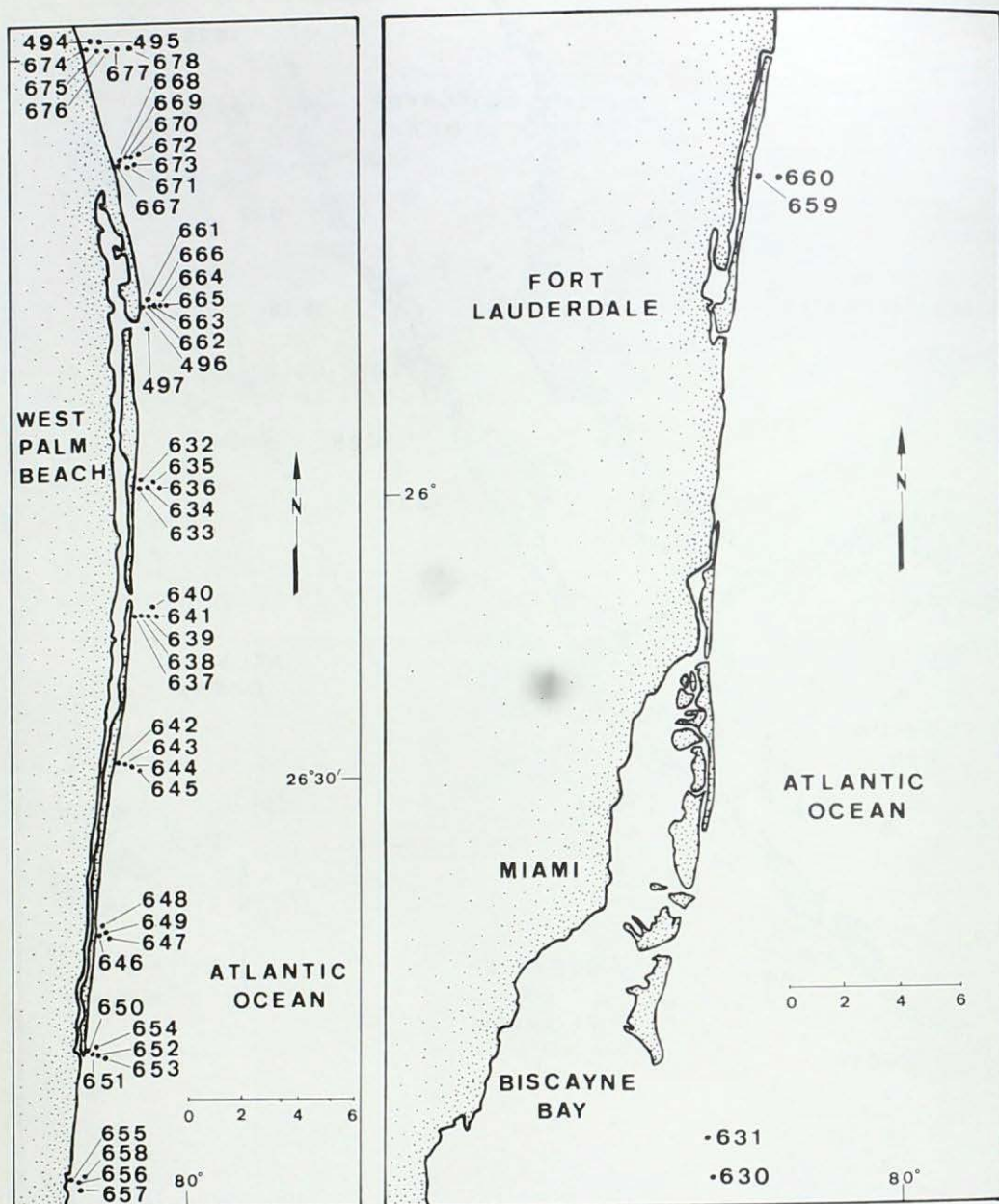


Figure 16. C&GS Chart 1248: Jupiter Inlet to Fowey Rocks.

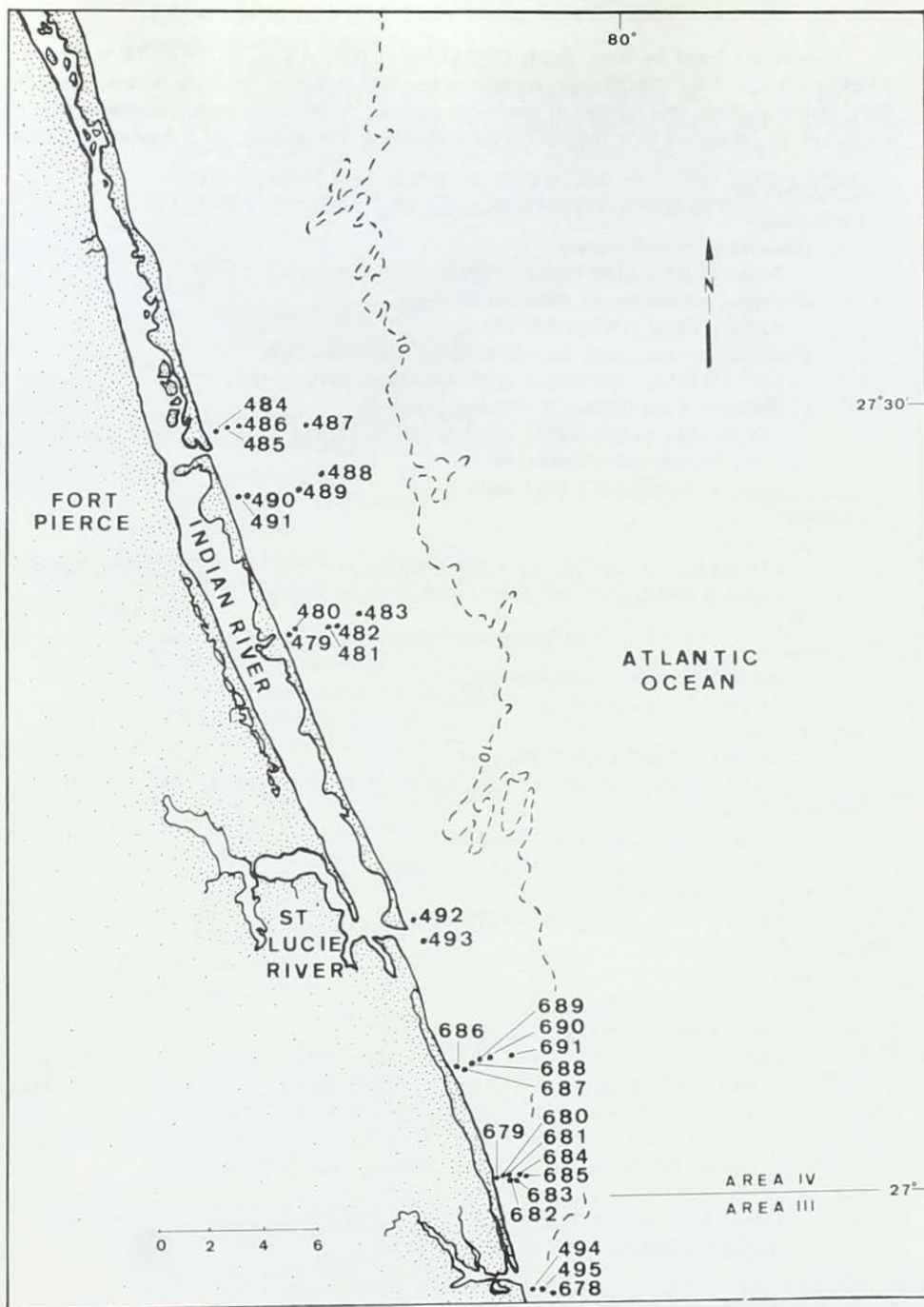


Figure 17. C&GS Chart 1247: Bethel Shoal to Jupiter Inlet.

FLORA AND FAUNA COLLECTED BY R/V *HERNAN CORTEZ* AND R/V *VENUS*
AT AREAS I, II, III AND IV.

Species are listed by area, depth (SHALLOW = 0.9 - 4.6 m, MODERATE = 4.7 - 9.2 m, DEEP = 9.3 - 24.4 m), C&GS chart number in brackets [] (CH = Charlotte Harbor, TB = Tampa Bay), station number, and number of specimens (italics). V following station number = R/V *Venus* collection; all others are R/V *Hernan Cortez* collections; + = present, bu = bushels, ^e = estimate.

CHLOROPHYTA

Caulerpaceae

Caulerpa ashmeadii Harvey

AREA II SHALLOW [1253] 178V:±.

Caulerpa cupressoides var. *flabellata* Børgesen

AREA II SHALLOW [1253] 781:±.

Caulerpa cupressoides var. *serrata* (Kützting) Weber-van Bosse

AREA II SHALLOW [1253] 162V:±, 178V:±, 184V:±, 185V:±, 190V:±.

Caulerpa mexicana (Sonder ex Kützting) J. Agardh

AREA II SHALLOW [1254] 151V:±; [1253] 179V:±, 183V:±, 184V:±, 191V:±

Caulerpa sertularioides (Gmelin) Howe

AREA II SHALLOW [1253] 180V:±.

Ulvaceae

Ulva sp.

AREA I SHALLOW [TB] 3V:±, 7V:±, 8V:±, 23V:±, 24V:±, 26V:±, 34V:±, 36V:±.

AREA II SHALLOW [CH] 60V:±, 61V:±, 73V:±, 98V:±.

RHODOPHYTA

Ceramiales

Spyridia filamentosa (Wulfen) Harvey

AREA II SHALLOW [1253] 180V:±.

Gracilariaceae

Gracilaria foliifera (Forsskål) Børgesen

AREA II SHALLOW [1254] 132V:±; [1253] 173V:±, 178V:±, 179V:±, 186V:±.

Rhodomelaceae

Acanthophora spicifera (Vahl) Børgesen

AREA II SHALLOW [1253] 179V:±, 180V:±.

Chondria floridana (Collins) Howe

AREA II SHALLOW [1253] 178V:±, 179V:±.

TRACHEOPHYTA

Cymodoceaceae

Halodule wrightii Ascherson

AREA I SHALLOW (TB) 35V:±, 38V:±.

AREA II SHALLOW (CH) 696:±, 41V:±, 47V:±, 59V:±, 60V:±, 61V:±, 62V:±, 63V:±, 64V:±, 65V:±, 66V:±, 67V:±, 68V:±, 69V:±, 70V:±, 71V:±, 72V:±, 74V:±, 75V:±, 76V:±, 78V:±, 79V:±, 88V:±, 89V:±, 94V:±, 95V:±, 97V:±, 98V:±, 99V:±, 100V:±, 101V:±, 104V:±. [1254] 117V:±, 119V:±, 121V:±, 130V:±, 141V:±, 151V:±. [1253] 167V:±, 173V:±, 179V:±, 180V:±, 181V:±, 193V:±.

[These data may include some specimens of *Halodule beaudetti* (den Hartog) den Hartog (see Phillips, 1967; den Hartog, 1970).]

Syringodium filiforme Kützting in Hohenacker

AREA I SHALLOW [TB] 8V:±, 34V:±, 35V:±, 36V:±.

AREA II SHALLOW [CH] 84V:±, 88V:±, 98V:±, 101V:±, 107V:±, 109V:±, 110V:±, 111V:±. [1253] 173V:±.

Hydrocharitaceae

Halophila englemanni Ascherson in Neumayer

AREA II SHALLOW [CH] 696:±, 64V:±, 102V:±; [1254] 114V:±.

Thalassia testudinum Koenig & Sims

AREA I SHALLOW [TB] 8V:±, 16V:±, 35V:±.

AREA II SHALLOW [CH] 61V:±, 63V:±, 64V:±, 65V:±, 66V:±, 67V:±, 68V:±, 69V:±,
70V:±, 71V:±, 72V:±, 73V:±, 75V:±, 88V:±, 92V:±, 95V:±, 96V:±, 97V:±, 98V:±,
99V:±, 100V:±, 101V:±, 102V:±, 104V:±, 106V:±, 107V:±, 109V:±, 110V:±, 111V:±,
112V:±; [1254] 119V:±, 121V:±, 141V:±, 151V:±; [1253] 167V:±, 173V:±.

AREA III SHALLOW [1249] 626:±; MODERATE [1249] 627:±.

CNIDARIA

Hydrozoa

Milleporidae

Millepora alcicornis Linné, 1758

AREA III SHALLOW [1250] 619:±.

Anthozoa

Briareidae

Diodogorgia nodulifera (Hargitt, 1901)

AREA III MODERATE [1248] 636:±.

Briareum asbestinum (Pallas, 1766)

AREA III DEEP [1248] 641:±.

Anthothelidae

Iciligorgia schrammi Duchassaing, 1870

AREA III MODERATE [1248] 647:1; DEEP [1248] 641:1.

Plexauridae

Eunicea (Euniceopsis) asperula Milne Edwards & Haime, 1857

AREA II DEEP [1254] 561:±.

Eunicea (Euniceopsis) knighti Bayer, 1961

AREA II DEEP [1254] 575:1.

Eunicea (Eunicea) succinea (Pallas, 1766) forma *plantaginea* Lamarck, 1815

AREA III MODERATE [1248] 642:1.

Eunicea (Euniceopsis) tourneforti Milne Edwards & Haime, 1857 forma *atra* Verrill, 1901

AREA III DEEP [1248] 636:1.

Eunicea (Euniceopsis) sp.

AREA III DEEP [1248] 636:1.

Muricea laxa Verrill, 1864

AREA II MODERATE [1254] 805:±.

Muricea elongata Lamouroux, 1821

AREA III DEEP [1248] 641:±.

Plexaurella fusifera Kunze, 1916

AREA II MODERATE [1251] 498:±; DEEP [1254] 561:±.

Plexaurella dichotoma (Esper, 1791)

AREA III SHALLOW [1250] 619:±.

Pseudoplexaura wagneri (Stiasny, 1941)

AREA II DEEP [1254] 561:±.

Gorgoniidae

Leptogorgia setacea (Pallas, 1766)

AREA II SHALLOW [1253] 185V:1.

Leptogorgia virgulata (Lamarck, 1815)

AREA II SHALLOW [1254] 796:±, 114V:±, 115V:±, 130V:±, 133V:±, 135V:±, 144V:1,
147V:±, 152V:±, 154V:±; [1253] 178V:2, 183V:±, 184V:2, 185V:3, 186V:±, 189V:±,
190V:±; DEEP [1254] 587:±.

Gorgonia ventalina Linné, 1758

AREA III SHALLOW [1250] 619:±; MODERATE [1248] 647:1; DEEP [1248] 636:±.

- Lophogorgia cardinalis* Bayer, 1961
 AREA II MODERATE [1253] 819:±.
- Lophogorgia hebes* (Verrill, 1869)
 AREA II MODERATE [1253] 799:±; DEEP [1254] 562:1.
- Pseudopterogorgia acerosa* (Pallas, 1766)
 AREA II SHALLOW [1253] 189V:±, 190V:±; DEEP [1254] 561:±, 575:1.
 AREA III MODERATE [1248] 659:±.
- Pseudopterogorgia americana* (Gmelin, 1791)
 AREA III MODERATE [1248] 659:1.
- Pseudopterogorgia bipinnata* (Verrill, 1864)
 AREA III DEEP [1248] 641:±.
- Pterogorgia anceps* (Pallas, 1766)
 AREA III SHALLOW [1250] 619:±.
- Pterogorgia guadalupensis* Duchassaing & Michelin, 1846
 AREA II DEEP [1254] 561:±, 575:1.
- Siderastreidae
Siderastrea siderea (Ellis & Solander, 1786)
 AREA II MODERATE [1255] 506:±.
 AREA III SHALLOW [1250] 617:±.
- Faviidae
Diplora clivosa (Ellis & Solander, 1786)
 AREA III MODERATE [1248] 651:±.
- Favia fragum* (Esper, 1795)
 AREA III SHALLOW [1250] 619:±.
- Manicina areolata* (Linné, 1758)
 AREA III SHALLOW [1250] 617:±; [1249] 626:±; DEEP [1248] 641:±.
- Montastrea cavernosa* (Linné, 1766)
 AREA III SHALLOW [1250] 619:±.
- Mussidae
Scolymia lacera (Pallas)
 AREA II DEEP [1254] 528:±.
- RHYNCHOCOELA
 AREA I SHALLOW [1257] 467:1; MODERATE [1262] 242:3; [1260] 273:±; [1259] 180:1, 193:2, 195:3, 239:8, 265:5, 276:1, 278:1; [1258] 201:1, 220:2.
 AREA II SHALLOW [CH] 696:1, 77V:1; [1255] 723:1, 725:1; MODERATE [1255] 533:1, 731:1.
- MOLLUSCA
 Gastropoda
 Fissurellidae
Diodora cayenensis (Lamarck, 1822)
 AREA II SHALLOW [1253] 189V:2.
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AREA III MODERATE [1248] 647:1, 656:1.

AREA IV MODERATE [1247] 479:4, 481:2, 490:3, 492:1, 493:1.

Jaspidella jaspidea (Gmelin, 1791)

AREA III SHALLOW [1250] 617:1.

Vasidae

Vasum muricatum Born, 1778

AREA III SHALLOW [1250] 619:1.

Volutidae

Scaphella junonia (Shaw, 1808)

AREA II DEEP [1255] 507:1.

Cancellariidae

Cancellaria reticulata (Linné, 1767)

AREA I MODERATE [1263] 325:2; [1262] 242:2; [1261] 249:1; [1259] 218:7,
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AREA II SHALLOW [1254] 136V:1; [1253] 155V:1.

Conidae

Conus floridanus Gabb, 1868

AREA I MODERATE [1258] 233:1.

AREA II SHALLOW [CH] 719:1; [1254] 568:1, 139V:1; [1253] 159V:1, 185V:1.

Conus spurius atlanticus Clench, 1942

AREA I DEEP [1257] 349:1.

AREA II SHALLOW [1254] 138V:1; [1253] 160V:2, 184V:1, 185V:1, 191V:3;

MODERATE [1254] 597:1, 610:1, 805:1; DEEP [1255] 507:1, 519:1.

AREA III SHALLOW [1250] 617:1.

Conus sp.

AREA II DEEP [1254] 608:1.

Terebridae

Terebra dislocata Say, 1822

AREA II MODERATE [1256] 745:1; [1254] 581:1, 616:1; DEEP [1256] 743:1;
[1254] 590:4.

Terebra sp.

AREA I MODERATE [1259] 219:1.

Bullidae

Bulla umbilicata Röding, 1798

AREA III SHALLOW [1249] 620:1, 623:1.

Aplysiidae

Bursatella leachi plei Rang, 1828

AREA II SHALLOW [CH] 45V:4, 46V:1, 75V:1, 91V:3, 94V:2; MODERATE [1255]
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Dorididae

Hypselodoris endenticula (White, 1953)

AREA II DEEP [1254] 578:1.

Ischnochitonidae

Acanthochitona pygmaea Pilsbry, 1891

AREA II SHALLOW [CH] 104V:1.

Bivalvia

Arcidae

Anadara brasiliiana (Lamarck, 1819)

AREA IV MODERATE [1247] 479:1, 481:1, 491:1; DEEP [1247] 486:1.

Anadara lienosa floridana (Conrad, 1869)

AREA I SHALLOW [1258] 212:2, 228:3; MODERATE [TB] 462:4; DEEP [1257] 344:3.

AREA II SHALLOW [1253] 191V:1; MODERATE [1256] 748:2; [1255] 539:2; [1254]

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[1254] 561:45, 575:4.

Anadara notabilis (Röding, 1798)

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AREA II MODERATE [1254] 813:1; [1253] 803:1, 819:1; DEEP [1255] 508:3;

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- Anadara transversa* (Say, 1822)
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- Arca imbricata* Bruguiere, 1789
- AREA II DEEP [1254] 578:1.
- AREA III SHALLOW [1248] 630:1.
- Arca zebra* (Swainson, 1833)
- AREA I SHALLOW [1257] 237:4; MODERATE [1258] 223:9; [1257] 347:2 bu, 356:1; DEEP [1258] 339:45, 340:15; [1257] 344:1.5 bu, 364:7, 471:35.
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- AREA III SHALLOW [1250] 617:1.
- AREA IV MODERATE [1247] 479:1.
- Arcopsis adamsi* (Dall, 1889)
- AREA III DEEP [1248] 658:1.
- Barbatia candida* (Helbling, 1779)
- AREA III MODERATE [1248] 651:±; DEEP [1248] 640:1.
- Barbatia domingensis* (Lamarck, 1819)
- AREA III SHALLOW [1250] 619:2; DEEP [1248] 640:1, 641:1, 658:1.
- Noetia ponderosa* (Say, 1822)
- AREA I SHALLOW [1259] 185:2, 263:2; [1257] 208:9, 209:2, 228:18, 229:4, 237:2; [TB] 384:22, 385:24, 1V:4, 2V:3, 4V:94, 6V:4; MODERATE [1262] 305:1, 309:3; [1261] 257:7, 299:66, 300:17, 302:22; [1259] 179:9, 183:2, 184:2, 193:1, 265:1; [1257] 190:400^e, 191:70, 204:4, 205:23, 206:33, 230:9, 351:7, 359:2, 369:76, 370:1, 371:2, 373:8, 376:9, 410:24^e, 459:36^e, 460:4, 468:6; [TB] 377:2, 378:36^e, 379:48^e, 380:72^e, 381:22, 382:25, 383:48^e, 388:48^e, 389:36^e, 462:45; DEEP [1262] 244:1; [1257] 232:4, 233:1, 350:2.
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- Glycymeridae
- Glycymeris pectinata* (Gmelin, 1791)
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- AREA III SHALLOW [1250] 617:4, 618:1; [1249] 620:4, 621:1, 624:1, 626:2, 628:2, 629:2; MODERATE [1249] 625:1, 627:1.
- Glycymeris decussata* (Linné, 1758)
- AREA III MODERATE [1248] 631:1.
- Mytilidae
- Brachidontes citrinus* (Röding, 1798)
- AREA III DEEP [1248] 636:1.
- Brachidontes exustus* (Linné, 1758)
- AREA II SHALLOW [CH] 68V:±, 79V:13, 82V:1, 83V:1, 707:1; [1254] 142V:1,

- Brachidontes exustus* (cont.)
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- Lioberus castaneus* (Say, 1822)
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- Lithophaga bisulcata* (d'Orbigny, 1842)
AREA II MODERATE [1254] 610:1; [1251] 498:2.
- Lithophaga nigra* (d'Orbigny, 1842)
AREA III MODERATE [1248] 658:1; DEEP [1248] 641:1.
- Modiolus americanus* Leach, 1815
AREA II SHALLOW [CH] 111V:1; DEEP [1256] 741:3.
AREA III SHALLOW [1250] 619:1; [1249] 626:1, 628:1; MODERATE [1249] 627:1.
- Modiolus demissus granosissimus* (Sowerby, 1914)
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- Atrina rigida* (Lightfoot, 1786)
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- Atrina serrata* (Sowerby, 1825)
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- Pinna carnea* (Gmelin, 1791)
AREA III DEEP [1248] 636:1.
- Pteriidae
- Pinctada imbricata* Röding, 1798
AREA III DEEP [1248] 654:1.
- Pteria colymbus* (Röding, 1798)
AREA I MODERATE [1258] 223:1.
AREA II SHALLOW [1253] 184V:2, 185V:1; MODERATE [1256] 761:1; [1255] 722:1; [1254] 593:2; DEEP [1256] 426:6; [1255] 508:1, 509:1, 526:3.
AREA III DEEP [1248] 636:2.
- Isognomonidae
- Isognomon radiatus* (Anton, 1839)
AREA III DEEP [1248] 636:1.

Malleidae

Parimallus candeanus (d'Orbigny, 1842)

AREA III DEEP [1248] 636:1.

Pectinidae

Aequipecten muscosus (Wood, 1828)

AREA I MODERATE [1258] 223:1; DEEP [1257] 350:1.

AREA II DEEP [1254] 591:1.

Argopecten gibbus (Linné, 1758)

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AREA III SHALLOW [1250] 617:1.

Argopecten irradians concentricus (Say, 1822)

AREA II SHALLOW [CH] 70V:1, 101V:1.

Argopecten nucleus (Born, 1778)

AREA III SHALLOW [1249] 623:4, 626:2, 628:1; MODERATE [1249] 627:1.

Chlamys sentis (Reeve, 1853)

AREA III DEEP [1248] 641:3, 653:1.

Lyropecten nodosus (Linné, 1758)

AREA II DEEP [1255] 507:1.

AREA III DEEP [1248] 644:1.

Pecten raveneli Dall, 1898

AREA III MODERATE [1248] 659:1.

Pecten ziczac (Linné, 1758)

AREA II MODERATE [1253] 816:1.

AREA III SHALLOW [1249] 620:1; MODERATE [1248] 654:1.

Plicatulidae

Plicatula gibbosa Lamarck, 1801

AREA II DEEP [1254] 561:1.

AREA III DEEP [1248] 635:1.

Spondyliidae

Spondylus americanus Hermann, 1781

AREA II DEEP [1253] 825:1.

AREA III DEEP [1248] 660:1, 653:1.

Anomiidae

Anomia simplex (d'Orbigny, 1842)

AREA II MODERATE [1255] 722:1.

Limidae

Lima lima (Linné, 1758)

AREA II MODERATE [1251] 498:15.

AREA III SHALLOW [1250] 619:1; [1249] 620:1; MODERATE [1249] 625:1; [1248] 659:1; DEEP [1248] 636:1, 640:3.

Ostreidae

Crassostrea virginica (Gmelin, 1791)

AREA II SHALLOW [CH] 83V:3.

Ostrea frons (Linné, 1758)

AREA II DEEP [1254] 578:1.

AREA III MODERATE [1248] 651:2; DEEP [1248] 640:3.

Chamidae

Arcinella cornuta Conrad, 1866

AREA I SHALLOW [TB] 4V:3; MODERATE [1258] 227:61; [1257] 190:9, 191:1, 369:5, 371:3, 376:1, 410:7, 460:3; [TB] 378:8, 379:24^e, 380:20, 381:17, 386:17, 388:60^e, 389:24^e; DEEP [1261] 241:1; [1260] 289:2, 292:13; [1259] 283:1, 286:4, 287:1; [1257] 235:2, 350:1, 368:1.

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518:1, 559:2, 517:1; [1254] 562:15, 586:1, 589:2, 591:1.
- AREA III DEEP [1248] 634:1, 654:1.
- Chama congregata* Conrad, 1833
AREA II MODERATE [1253] 819:1; DEEP [1254] 561:1, 578:8.
AREA III SHALLOW [1249] 620:2.
- Chama macerophylla* Gmelin, 1791
AREA II MODERATE [1256] 498:1; [1253] 799:3, 819:20, 821:1; DEEP [1254] 578:6.
AREA III MODERATE [1248] 659:2; DEEP [1248] 636:3.
- Chama* spp.
AREA II DEEP [1254] 591:1.
- Pseudochama radians* (Lamarck, 1819)
AREA III SHALLOW [1250] 619:1; [1249] 620:1.
- Lucinidae
- Anodontia alba* (Link, 1807)
AREA I SHALLOW [TB] 6V:1, 7V:2, 9V:4; MODERATE [1257] 190:14, 191:1,
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AREA II SHALLOW [1255] 548:1, 554:1; [1254] 771:1, 124V:1, 134V:1; [1253]
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- Codakia orbicularis* (Linné, 1758)
AREA III SHALLOW [1250] 619:2; [1249] 620:4, 621:5, 623:16, 624:3, 626:3;
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- Lucina floridana* Conrad, 1833
AREA II SHALLOW [CH] 61V:3, 63V:3, 71V:75^e, 73V:1, 99V:1.
- Lucina pensylvanica* (Linné, 1758)
AREA I SHALLOW [1260] 272:1; [1259] 185:4; [1257] 228:1; MODERATE [1262]
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AREA III SHALLOW [1249] 620:1, 621:1, 623:1, 629:1; MODERATE [1249] 627:2.
- Phacoides pectinatus* (Gmelin, 1791)
AREA I SHALLOW [TB] 22V:1.
AREA II MODERATE [1255] 722:1.
- Carditidae
- Cardita floridana* (Conrad, 1838)
AREA II SHALLOW [1254] 790:1, 793:2, 149V:1; [CH] 68V:1, 96V:1, 107V:2,
110V:3; [1253] 157V:1, 186V:1, 190V:3; MODERATE [1254] 813:1.
- Cardiidae
- Dinocardium robustum* (Lightfoot, 1786)
AREA I SHALLOW [1263] 328:1; MODERATE [1263] 325:43, 326:7, 329:2, 330:2,
331:4; DEEP [1263] 323:1.

AREA III SHALLOW [1249] 674:1; MODERATE [1248] 638:1, 668:1; DEEP [1248] 634:1, 666:1.

AREA IV MODERATE [1247] 479:16, 480:2, 481:19, 482:1, 485:2, 491:9, 687:3, 688:2; DEEP [1247] 483:1, 486:1, 487:1, 689:1.

[No *Dinocardium robustum* collected in the northeastern Gulf of Mexico during this survey were retained for subspecific determination, but *Dinocardium* from previous studies in this area (Stokes et al., 1968; Godcharles, 1971; Jolley, 1972) have been accessioned into our invertebrate reference collection. Examination of these specimens show that *Dinocardium robustum* Lightfoot and *D. robustum vanhyningi* Clench and L. C. Smith were taken within the same area from Bell Shoal (Chart 1263) south to the Gulf side of Eagle Harbor along St. Joe Spit, the eastern and southernmost points from which *D. robustum* was identified. In view of these findings and that of other researchers in this area (Menzel, 1956), we assigned all *Dinocardium* collected west of Mexico Beach to *D. robustum* and all from east of Mexico Beach to *D. robustum vanhyningi*.]

Dinocardium robustum vanhyningi Clench & L. C. Smith, 1944

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[1254] 593:1, 597:1, 598:3, 610:1; DEEP [1254] 580:1, 590:1.
AREA III SHALLOW [1250] 617:1; [1249] 620:1.

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Anatina plicatella (Lamarck, 1818)

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Mactra fragilis Gmelin, 1791

AREA I SHALLOW [1258] 212:2; [TB] 38V:1.
AREA II SHALLOW [CH] 66V:1, 70V:1, 101V:1, 104V:2, 107V:2, 112V:1.

Rangia cuneata (Gray, 1831)

AREA II SHALLOW [CH] 51V:37, 52V:266, 53V:1500^e, 54V:4500^e, 55V:3500^e,
56V:1200^e, 82V:23, 83V:3320^e.

Spisula raveneli Conrad

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Solenidae

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Tellinidae

Macoma constricta (Bruguere, 1792)

AREA II SHALLOW [CH] 43V:1, 47V:1; DEEP [1254] 606:1.

Tellina alternata Say, 1822

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Tellina lineata Turton, 1819

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- Tellina magna* Spengler, 1798
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 AREA III MODERATE [1248] 648:2; DEEP [1248] 649:1.
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- Sanguinolariidae
Tagelus plebeius (Lightfoot, 1786)
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- Semelidae
Semele bellastriata (Conrad, 1837)
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Semele purpurascens (Gmelin, 1791)
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- Trapeziidae
Coralliophaga coralliophaga (Gmelin, 1791)
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- Dreissenidae
Congeria leucophaeta (Conrad, 1831)
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Chione grus (Holmes, 1858)
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Chione intapurplea Conrad, 1849
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 AREA II SHALLOW [1256] 767:6, 768:2; [CH] 714:1, 44V:1, 47V:1, 60V:1, 61V:1, 62V:1, 71V:13, 72V:6, 75V:3, 76V:3, 87V:2, 89V:1, 91V:9, 94V:1, 97V:2, 98V:6, 99V:4; [1254] 775:2, 796:1, 136V:5, 137V:1; MODERATE [1254] 806:3; DEEP [1255] 407:1.
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Dosinia elegans Conrad, 1846

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Macrocallista maculata (Linné, 1758)

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462:4; DEEP [1262] 311:2; [1261] 241:3; [1260] 292:2; [1259] 283:2; [1257]
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Macrocallista nimbose (Lightfoot, 1786)

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Mercenaria campechiensis (Gmelin, 1790)

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AREA IV MODERATE [1247] 480:1, 491:1, 688:1; DEEP [1247] 483:2, 489:1.

Petricolidae

Rupellaria typica (Jonas, 1844)

AREA II SHALLOW [1256] 760:1; MODERATE [1253] 498:2.

Corbulidae

Corbula contracta Say, 1822

AREA II MODERATE [1255] 722:1.

Gastrochaenidae

Rocellaria hians (Gmelin, 1791)

AREA II DEEP [1254] 578:1.

Spengleria rostrata (Spengler, 1793)

AREA III DEEP [1248] 658:1.

Pholadidae

Cyrtopleura costata (Linné, 1758)

AREA I SHALLOW [1257] 208:1; [TB] 18V:1.

AREA II SHALLOW [CH] 44V:2, 51V:1; [1255] 94V:±.

Cephalopoda

Octopus spp.

AREA I MODERATE [1261] 302:1; [1258] 214:1, 215:1, 223:1; [1257] 347:8, 370:2; DEEP [1258] 339:2; [1257] 363:1, 472:1.

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AREA III SHALLOW [1249] 629:1; DEEP [1248] 644:1.

SIPUNCULOIDEA

Siphonosoma cumense Keferstein

AREA II SHALLOW [CH] 719:19, 91V:3, 100V:2; [1254] 790:2, 793:2; [1253] 785:1; MODERATE [1255] 730:1; [1254] 616:2, 805:9, 806:3, 810:1, 813:±; [1253] 501:±, 502:2, 798:7; DEEP [1256] 746:1; [1255] 515:2.

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Siphonomecus multinctus Fisher, 1947

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Sipunculus nudus Linné, 1766

AREA II SHALLOW [1254] 774:2, 808:1, 811:8, 138V:2, 142V:2, 145V:1, 146V:2, 153V:1; [CH] 100V:1; [1253] 789:1, 155V:2, 161V:1, 163V:1; MODERATE [1254] 601:1, 616:2, 812:1; [1253] 501:2, 797:1.

Sipunculus polymyotus Fisher, 1947

AREA II MODERATE [1253] 501:1.

AREA III DEEP [1248] 671:1.

AREA IV DEEP [1247] 684:1.

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Squilla empusa Say, 1818

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Squilla neglecta Gibbes, 1850

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Gonodactylus bredini Manning, 1969

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Gonodactylus oerstedii Hansen, 1895

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Pseudosquilla ciliata (Fabricius, 1787)

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Penaeus duorarum duorarum Burkenroad, 1939

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Sicyonia brevirostris Stimpson, 1871

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Sicyonia typica (Boeck, 1864)

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AREA II MODERATE [1254] 610:1.

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Trachypenaeus similis (Smith, 1885)

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Pontonia domestica Gibbes, 1850

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Alpheus armillatus H. Milne Edwards, 1837

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Alpheus formosus Gibbes, 1850

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Alpheus normanni Kingsley, 1878

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Synalpheus fritzmuelleri Coutiere, 1909

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Synalpheus minus (Say, 1818)

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Callianassa latispina Dawson, 1967
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Callianassa trilobata Biffar, 1970
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Paguristes hummi Wass, 1955
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Paguristes lymani A. Milne Edwards & Bouvier, 1893
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Paguristes puncticeps Benedict, 1901
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Porcellanidae

Petrolisthes armatus (Gibbes, 1850)

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Petrolisthes galathinus (Bosc, 1801)

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Polyonyx gibbesi Haig, 1956

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Porcellana sayana (Leach, 1820)

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Albuneidae

Albunea gibbesii Stimpson, 1859

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AREA IV MODERATE [1247] 479:3, 480:1, 490:2.

Albunea paretii Guérin-Meneville, 1853

AREA IV MODERATE [1247] 479:4.

Lepidopa websteri Benedict, 1903

AREA I SHALLOW [1257] 189:1; MODERATE [1259] 195:1, 218:2; [1258] 220:2.

Dromiidae

Dromidia antillensis Stimpson, 1858

AREA II MODERATE [1254] 581:2, 593:2, 610:7; [1253] 799:1, 800:1, 816:1; DEEP [1255] 508:1, 737:1; [1254] 561:2, 578:1, 580:1, 587:3, 589:2, 590:1, 591:9, 603:3, 606:2, 607:5; [1253] 824:1, 831:1, 832:1.

- AREA III SHALLOW [1248] 630:1.
Hypoconcha sabulosa (Herbst, 1776)
 AREA II MODERATE [1256] 761:1; DEEP [1256] 739:1; [1255] 507:2; [1254] 590:1.
- Calappidae*
Calappa angusta A. Milne Edwards, 1880
 AREA II DEEP [1256] 739:1; [1255] 736:7; [1254] 561:1.
 AREA III MODERATE [1248] 659:1.
Calappa flammea (Herbst, 1743)
 AREA I SHALLOW [1258] 197:1; [1257] 467:1; MODERATE [1262] 308:1, 319:3, 321:1; [1259] 180:1, 184:1, 218:2, 275:2, 278:2; [TB] 462:1; [1257] 342:1, 375:1, 459:1; DEEP [1262] 311:3, 320:3; [1257] 368:1.
 AREA II SHALLOW [1256] 760:2; [1255] 728:1; [1254] 596:1, 793:1, 811:1; MODERATE [1256] 414:1, 434:2, 436:1, 440:1, 457:1, 749:1; [1255] 532:1, 757:1; [1254] 566:1, 597:1, 601:2, 611:2, 812:1; [1253] 802:1, 815:1; DEEP [1256] 396:1, 398:1, 399:1, 419:2, 424:1, 427:1, 429:2, 738:6; [1255] 408:1, 409:2, 507:2, 513:1, 520:1, 521:2, 527:1, 736:3.
 AREA III MODERATE [1248] 648:1, 656:1; DEEP [1248] 677:1.
 AREA IV MODERATE [1247] 431:1; DEEP [1247] 487:1.
Calappa gallus (Herbst, 1803)
 AREA II MODERATE [1254] 581:1.
 AREA III SHALLOW [1250] 618:1; [1249] 628:1; MODERATE [1249] 625:2.
Calappa ocellata Holthuis, 1958
 AREA III MODERATE [1248] 650:1, 652:1.
Calappa sulcata Rathbun, 1898
 AREA II DEEP [1254] 590:1.
Cycloes bairdii Stimpson, 1860
 AREA III SHALLOW [1248] 630:1; MODERATE [1248] 631:1, 659:4; DEEP [1248] 497:1, 644:6, 654:1.
Hepatus epheliticus (Linné, 1763)
 AREA I SHALLOW [1257] 208:1; [TB] 385:1, 6V:1, 35V:1; MODERATE [1262] 308:1, 310:1, 318:1, 321:1; [1261] 299:1, 300:1; [1259] 183:3; [1258] 220:1; [1257] 190:2, 205:1, 371:1, 375:1, 459:1, 460:3, 468:1, 490:1; DEEP [1261] 241:1; [1260] 289:1; [1259] 282:1, 287:1; [1257] 235:1, 366:1, 472:1.
 AREA II SHALLOW [CH] 719:1, 87V:1, 100V:1; [1255] 728:1; [1254] 771:1, 148V:1, 150V:2, 153V:1; [1253] 161V:3, 162V:1, 163V:1, 171V:1, 176V:1; MODERATE [1256] 435:1, 447:1, 748:1; [1255] 506:1, 533:1, 729:1; [1254] 611:1, 805:1; [1253] 797:1, 816:1, 820:1; DEEP [1256] 400:1, 424:1, 737:1; [1254] 605:2.
 AREA IV DEEP [1247] 691:1.
- Leucosiidae*
Persephona aquilonaris (Rathbun, 1859)
 AREA I SHALLOW [1260] 272:1; [1257] 189:1; [TB] 2V:1, 7V:1, 16V:1; MODERATE [1263] 329:1; [1261] 302:2; [1258] 215:1; [1257] 189:1, 204:1, 346:1; DEEP [1257] 232:1, 233:1, 235:1.
 AREA II SHALLOW [CH] 707:1, 708:1, 62V:1, 101V:1, 102V:2, 108V:1; [1254] 790:1, 115V:1, 148V:1, 150V:1, 152V:1, 154V:3; [1253] 159V:1, 161V:1, 174V:2, 175V:1, 183V:±, 185V:1, 190V:1, 191V:2; MODERATE [1256] 748:1; [1255] 756:1; [1253] 501:1, 798:1; DEEP [1255] 515:1, 520:1; [1254] 577:1; [1253] 831:1.
 AREA IV MODERATE [1247] 480:1; DEEP [1247] 486:1.
- Raninidae*
Ranilia muricata H. Milne Edwards, 1837
 AREA I MODERATE [1263] 324:1; [1261] 240:1; DEEP [1263] 324:1; [1262] 244:1; [1260] 289:±; [1259] 283:1, 284:±.
 AREA II SHALLOW [1254] 808:1; MODERATE [1254] 601:3, 610:1, 614:1, 616:3,

Ranilia muricata (cont.)

805:1; [1253] 797:1, 798:2, 820:2; DEEP [1256] 739:1, 741:1, 743:8; [1255] 507:5, 508:2, 525:5.

AREA IV MODERATE [1247] 480:1.

Majidae

Libinia dubia Milne Edwards, 1834

AREA I SHALLOW [TB] 1V:3, 34V:2, 35V:11, 37V:1, 38V:14.

AREA II SHALLOW [1256] 770:2; [1255] 721:1, 117V:±; [CH] 696:1, 710:1, 711:1, 712:1, 719:3, 48V:1, 63V:1, 65V:2, 70V:1, 74V:1, 77V:1, 84V:1, 89V:1, 95V:1, 97V:1, 98V:1, 99V:2, 101V:5, 103V:3, 106V:1, 108V:1, 109V:3, 111V:1, 112V:1; [1254] 809:1, 116V:1, 117V:±, 131V:±, 132V:3, 136V:1, 138V:2, 139V:1, 140V:1, 141V:2, 142V:1, 144V:1, 145V:1, 147V:2, 150V:6, 151V:1, 152V:1, 156V:1; [1253] 781:1, 782:1, 786:1, 157V:2, 158V:1, 163V:1, 167V:2, 172V:3, 173V:2, 179V:1, 185V:1; MODERATE [1255] 539:1, 730:1; [1254] 564:1, 600:1.

Libinia emarginata Leach, 1815

AREA II SHALLOW [1254] 120V:1, 140V:1; MODERATE [1254] 601:1, 602:1.

Libinia spp.

AREA I SHALLOW [1260] 272:2; [1259] 185:3; [1258] 199:1; [1257] 208:1, 210:2; MODERATE [1263] 325:±, 331:1; [1262] 242:4, 305:1; [1261] 240:3, 247:1, 257:1, 300:2; [1260] 271:3, 273:1; [1259] 179:2, 193:2, 218:4, 275:1, 276:2, 277:1, 278:8; [1258] 198:1, 203:1, 215:2, 220:5, 336:1; [TB] 462:3; [1257] 204:1; DEEP [1262] 244:1, 311:1, 312:1; [1260] 292:2; [1258] 339:2.

AREA II SHALLOW [CH] 708:1, 93V:1; [1253] 169V:2, 188V:1; MODERATE [1256] 439:1, 440:1; [1254] 430:3; DEEP [1256] 428:1, 429:1; [1255] 515:1.

AREA IV MODERATE [1247] 481:1.

Macrocoeloma camptocera (Stimpson, 1871)

AREA II MODERATE [1253] 800:1, 803:1, 819:1; DEEP [1255] 736:5; [1254] 588:1; [1253] 822:1, 824:2, 825:1.

AREA III SHALLOW [1249] 620:1, 628:1; MODERATE [1249] 627:1.

Macrocoeloma trispinosum (Latreille, 1825)

AREA II MODERATE [1254] 593:9; [1253] 799:1, 800:2, 819:2; DEEP [1256] 737:1; [1255] 507:1, 508:1; [1254] 578:1, 591:4, 603:3, 606:1, 607:4; [1253] 824:4, 825:3, 832:4.

AREA III SHALLOW [1250] 618:1; [1249] 620:2; MODERATE [1249] 625:1, 627:1.

Macrocoeloma sp.

AREA II DEEP [1253] 831:1.

Mithrax forceps (A. Milne Edwards, 1875)

AREA II DEEP [1254] 561:1.

AREA III SHALLOW [1249] 629:9.

Mithrax hispidus (Herbst, 1790)

AREA II MODERATE [1253] 800:2, 819:6; DEEP [1256] 739:1; [1253] 822:1, 823:2, 824:3, 825:2, 832:2.

AREA III MODERATE [1248] 630:1.

Mithrax holderi Stimpson, 1871

AREA III DEEP [1248] 636:1.

Mithrax pleuracanthus Stimpson, 1871

AREA II SHALLOW [1253] 180V:1; MODERATE [1255] 800:1; [1254] 581:3; [1253] 498:3; DEEP [1256] 741:5; [1255] 507:11, 508:2; [1254] 561:1, 570:±, 578:8, 580:3, 587:1, 588:1, 589:4, 591:12, 603:4, 605:1, 607:12; [1253] 822:1, 824:7, 832:1.

AREA III SHALLOW [1249] 629:4; DEEP [1248] 641:1.

Mithrax spinosissimus (Lamarck, 1818)

AREA III SHALLOW [1250] 617:1.

Mithrax sp.

AREA II DEEP [1254] 608:2.

- Pitho anisodon* (von Martens, 1872)
 AREA I SHALLOW [TB] 8V:1, 35V:1.
 AREA II SHALLOW [CH] 62V:1, 63V:1, 64V:2, 65V:9, 66V:1, 67V:11, 68V:8, 70V:1, 88V:1, 92V:1, 94V:1, 106V:2, 107V:12, 113V:1; [1254] 140V:3, 141V:1; [1253] 189V:1, 191V:1.
 AREA III SHALLOW [1249] 623:1, 629:2; MODERATE [1248] 631:1.
- Pitho mirabilis* (Herbst, 1794)
 AREA III SHALLOW [1248] 630:1; DEEP [1248] 644:1.
- Podocheila riisei* Stimpson, 1860
 AREA II DEEP [1256] 737:1; [1255] 507:1; [1254] 591:1.
- Podocheila sidneyi* Rathbun, 1879
 AREA III SHALLOW [1249] 629:1.
- Stenocionops furcata coelata* (A. Milne Edwards, 1878)
 AREA II DEEP [1256] 739:1.
- Stenorynchus seticornis* (Herbst, 1788)
 AREA II DEEP [1255] 508:1; [1254] 587:1, 591:1; [1253] 822:1.
 AREA III DEEP [1248] 649:1.
- Stenorynchus* sp.
 AREA II MODERATE [1254] 593:1.
- Tyche emarginata* White, 1847
 AREA II DEEP [1254] 580:1.
- Parthenopidae
Parthenope serrata (Milne Edwards, 1834)
 AREA II SHALLOW [1253] 184V:2, 190V:1; MODERATE [1253] 799:1; DEEP [1253] 831:1, 832:2.
- Portunidae
Arenaeus cribrarius (Lamarck, 1818)
 AREA I SHALLOW [1257] 210:1; DEEP [1262] 320:1.
 AREA IV MODERATE [1247] 479:2, 481:1.
- Callinectes ornatus* Ordway, 1863
 AREA I SHALLOW [TB] 8V:1.
 AREA II SHALLOW [CH] 101V:1; [1255] 114V:1.
- Callinectes sapidus* Rathbun, 1896
 AREA I SHALLOW [1258] 197:2, 212:1; [TB] 16V:1, 38V:4; MODERATE [1262] 307:1, 310:1, 315:1, 316:1, 318:1, 322:1; [1261] 251:1; [1259] 181:1, 239:1, 278:1; [1258] 198:1; [1257] 190:1, 206:1, 460:1; DEEP [1262] 312:2; [1260] 290:1.
 AREA II SHALLOW [CH] 719:1, 54V:1; MODERATE [1256] 434:1, 435:1.
- Ovalipes guadalupensis* (de Saussure, 1858)
 AREA I SHALLOW [1258] 199:1, 211:1; MODERATE [1263] 325:2, 326:2, 330:6, 331:1; [1262] 242:1, 303:1, 304:2, 305:1, 318:1, 321:3; [1261] 249:2; [1259] 179:2, 180:3, 183:1, 193:1, 218:6, 239:1, 265:1, 266:1, 275:1, 276:2, 278:1; [1258] 211:3, 220:1; DEEP [1262] 311:4, 320:1; [1261] 241:1; [1260] 290:1, 292:2, 333:2; [1259] 284:1.
 AREA II DEEP [1256] 743:1; [1255] 515:1; [1254] 580:1.
 AREA III MODERATE [1248] 662:1.
- Portunus anceps* (de Saussure, 1858)
 AREA II DEEP [1254] 603:±.
 AREA III MODERATE [1248] 496:1, 631:3, 642:2, 651:1, 659:1; DEEP [1248] 654:1.
- Portunus depressifrons* (Stimpson, 1858)
 AREA III MODERATE [1249] 625:1; [1248] 642:1.
- Portunus gibbesii* (Stimpson, 1859)
 AREA I SHALLOW [TB] 33V:1, 36V:1, 37V:1, 38V:1.
 AREA II SHALLOW [1256] 762:2; [1255] 727:1; [CH] 713:2, 714:1, 719:2, 45V:6,

Portunus gibbesii (cont.)

62V:1, 64V:1, 65V:1, 67V:14, 72V:1, 75V:1, 78V:1, 85V:3, 87V:1, 90V:1, 91V:1, 92V:2, 93V:3, 95V:2, 98V:6, 100V:1, 104V:1; [1254] 790:1, 808:1, 811:1, 114V:6, 115V:4, 116V:6, 117V:1, 119V:1, 129V:3, 130V:5, 136V:2, 138V:1, 141V:1, 143V:1, 144V:1, 150V:2, 152V:1, 153V:1, 154V:1, 156V:2; [1253] 160V:1, 161V:1, 162V:1, 172V:2, 183V:1, 185V:1, 188V:1, 189V:1, 190V:1, 191V:6, 193V:1; MODERATE [1255] 729:3; [1254] 601:1; [1253] 798:2; DEEP [1256] 737:3, 738:7, 739:1, 743:2; [1255] 510:1, 514:1, 735:9, 736:10; [1254] 579:2, 580:1, 589:2, 590:1, 605:1; [1253] 826:7.

AREA III MODERATE [1248] 642:6, 651:1; DEEP [1248] 666:2.

AREA IV MODERATE [1247] 680:1, 686:3.

Portunus ordwayi (Stimpson, 1860)

AREA II DEEP [1256] 739:1; [1255] 736:2.

AREA III MODERATE [1248] 652:1, 662:1; DEEP [1248] 644:5, 654:1, 666:1.

Portunus sayi (Gibbes, 1798)

AREA II SHALLOW [CH] 99V:2, 109V:1, 110V:1.

Portunus spinimanus Latreille, 1793

AREA II SHALLOW [CH] 719:1; [1253] 155V:1, 161V:1; DEEP [1256] 737:1; [1255] 736:4; [1254] 608:1.

AREA III MODERATE [1248] 668:1; DEEP [1247] 654:1.

Portunus spp.

AREA I SHALLOW [TB] 15V:1, 35V:1; MODERATE [1263] 330:1; [1262] 321:1; [1259] 218:3; [1258] 220:3; DEEP [1263] 324:1; [1262] 320:1; [1260] 292:3.

AREA II SHALLOW [1255] 99V:3; [CH] 68V:3, 92V:3, 95V:1, 101V:2, 110V:1; [1254] 141V:1, 152V:4; MODERATE [1253] 502:1; [1254] 611:1; DEEP [1255] 525:1; [1254] 590:1, 608:1; [1253] 826:2.

AREA III DEEP [1248] 497:1.

AREA IV MODERATE [1247] 479:1, 481:1.

Xanthidae

Actaea acantha (Milne Edwards, 1834)

AREA III DEEP [1248] 641:1.

Actaea rufopunctata nodosa Stimpson, 1860

AREA III DEEP [1248] 636:1.

Eurypanopeus depressus (Smith, 1869)

AREA II SHALLOW [1256] 760:2.

Hexapanopeus angustifrons (Benedict & Rathbun, 1891)

AREA II SHALLOW [CH] 70V:5, 73V:3, 74V:2, 92V:1; DEEP [1254] 578:2.

Menippe mercenaria (Say, 1818)

AREA I SHALLOW [TB] 3V:1, 17V:3, 31V:1, 35V:2, 38V:2; MODERATE [TB] 383:1, 462:1; [1259] 181:1, 193:1, 239:1, 265:1, 277:1.

AREA II SHALLOW [1256] 760:1; [CH] 68V:1, 73V:4, 74V:3, 92V:3, 104V:3; [1254] 793:1, 794:1, 116V:1, 118V:1, 120V:2, 131V:2, 137V:1, 138V:2, 143V:1, 144V:1, 152V:2, 153V:1; [1253] 783:1, 155V:1, 159V:1, 163V:1, 167V:1, 169V:1, 171V:1, 173V:4, 183V:1, 184V:1, 186V:1, 191V:1, 195V:1; MODERATE [1255] 532:2, 539:1, 722:2, 732:1; [1253] 499:1, 803:1; DEEP [1255] 527:1; [1253] 822:1.

Neopanope texana texana (Stimpson, 1859)

AREA I SHALLOW [TB] 8V:1, 26V:1, 35V:1, 38V:1.

AREA II SHALLOW [1256] 760:1; [CH] 696:1, 705:1, 44V:1, 48V:1, 66V:1, 70V:1, 74V:1, 102V:1; MODERATE [1253] 499:3.

Neopanope sp.

AREA II SHALLOW [1253] 190V:1.

Pilumnus dasypodus Kingsley, 1879

AREA II SHALLOW [1254] 145V:1, 148V:1; [1253] 777:1, 155V:1, 183V:1, 191V:1; MODERATE [1255] 722:1; [1254] 593:2, 610:1; [1253] 797:1, 801:1; DEEP

Pilumnus dasypodus (cont.)

[1255] 507:2; [1254] 587:2.

AREA III DEEP [1248] 641:1.

Pilumnus lacteus Stimpson, 1871

AREA II SHALLOW [1253] 189V:3.

Pilumnus sayi Rathbun, 1818

AREA I MODERATE [1258] 336:4, 337:1; DEEP [1258] 339:2, 340:1.

AREA II SHALLOW [1256] 760:1; [1254] 793:1, 794:1, 811:1, 144V:1; [1253]

788:1, 172V:1, 175V:1, 186V:2, 189V:1; MODERATE [1255] 532:1, 722:5;

[1254] 570:1, 581:3, 593:10, 616:1; [1253] 498:4, 803:1, 819:7; DEEP [1255]

507:8, 508:1, 515:1; [1254] 561:9, 562:1, 563:1, 580:1, 587:2, 589:5, 590:2,

591:1, 605:6, 606:±, 607:3, 829:1; [1253] 824:6, 825:2, 831:1, 832:1.

AREA III SHALLOW [1248] 630:1; DEEP [1248] 640:1, 653:1.

Pilumnus spp.

AREA II DEEP [1253] 823:1, 831:1.

AREA III SHALLOW [1249] 629:9.

Pinnotheridae

Fabia sp.

AREA I MODERATE [1259] 182:1.

Pinnixa chaetoptera Stimpson, 1859

AREA II SHALLOW [CH] 694:4, 698:9, 699:5, 702:1, 703:1; [1254] 115V:1; [1253]

786:2, 183V:3, 185V:2; DEEP [1255] 515:1.

Pinnixa spp.

AREA II SHALLOW [1254] 145V:1; MODERATE [1254] 813:2.

Pinnotheres maculatus Say, 1818

AREA II SHALLOW [1255] 503:2.

Pinnotheres moseri (Rathbun, 1918)

AREA II SHALLOW [1254] 114V:1; MODERATE [1254] 813:1.

Pinnotheres spp.

AREA II SHALLOW [1254] 796:1; [1255] 114V:1; MODERATE [1254] 566:1.

ECTOPROCTA

Gymnolaemata

Faviciminariidae

Nellia tenella (Lamarck)

AREA I SHALLOW [1254] 116V:±; [1253] 183V:±, 195V:±.

BRACHIOPODA

Inarticulata

Lingulidae

Glottidia pyramidata (Stimpson, 1860)

AREA II SHALLOW [CH] 693:1, 696:500^e, 698:500^e, 699:50^e, 702:500^e, 705:50^e,

707:50^e, 710:5, 42V:5, 43V:±, 44V:±, 45V:±, 47V:±, 58V:±, 60V:±, 62V:±;

MODERATE [CH] 697:100^e.

ECHINODERMATA

Holothuroidea

Cucumariidae

Pentacta pygmaea (Theel, 1886)

AREA II SHALLOW [1254] 116V:10, 119V:2, 125V:2, 129V:3, 130V:1, 133V:1,

138V:1, 139V:1, 143V:1, 144V:1, 147V:2, 150V:1, 153V:1.

AREA III MODERATE [1248] 652:2; DEEP [1248] 649:1.

Thyone briareus (LeSueur, 1824)

AREA I SHALLOW [TB] 3V:±, 36V:1, 37V:3, 38V:±.

AREA II SHALLOW [1254] 793:1, 795:1, 796:1, 116V:3, 126V:1, 130V:1, 139V:2,

141V:1, 144V:1, 148V:1, 152V:1, 153V:2, 154V:1; [CH] 61V:1, 62V:2, 63V:1,

64V:1, 65V:5, 66V:2, 67V:2, 68V:1, 69V:2, 70V:±, 73V:2, 74V:2, 76V:1, 86V:1,

Thyone briareus (cont.)

92V:1, 99V:2, 100V:2, 101V:6, 103V:1; [1253] 172V:2, 189V:3.

Thyonella gemmata (Pourtales, 1851)

AREA II SHALLOW [1253] 785:1, 163V:2; [1254] 130V:1, 132V:1, 138V:1, 153V:1;
MODERATE [1254] 806:1; [1253] 798:1.

Holothuriidae

Theelothuria princeps (Selenka, 1867)

AREA I SHALLOW [1258] 211:1; MODERATE [1263] 325:17, 326:6, 329:1, 330:4,
331:6; [1262] 321:52, 322:1; [1259] 180:124, 181:33, 183:15, 184:7, 265:90,
266:30; [1258] 198:1, 202:1, 203:2, 227:2; [1257] 342:1, 347:1, 348:2, 359:7,
410:2, 411:4; [TB] 378:2; DEEP [1262] 320:50; [1258] 340:1; [1257] 232:1,
350:1, 362:3, 363:1, 367:1.

AREA II MODERATE [1256] 414:2, 434:1; [1255] 757:1; [1254] 601:1, 609:2,
806:1; [1253] 797:1, 798:1; DEEP [1256] 396:1, 399:3, 401:1, 419:2, 740:1,
743:8; [1254] 605:1.

AREA III MODERATE [1248] 648:1, 652:8, 657:2, 670:1; DEEP [1248] 649:8,
654:1.

AREA IV DEEP [1247] 685:1.

Echinoidea

Cidaridae

Eucidaris tribuloides (Lamarck, 1816)

AREA III SHALLOW [1250] 617:1, 618:2; [1249] 620:1, 626:1, 628:1, 629:1;
MODERATE [1249] 625:3; [1248] 651:1; DEEP [1248] 636:1, 641:1, 658:1.

Diadematidae

Diadema antillarum Philippi, 1845

AREA III SHALLOW [1249] 620:1; MODERATE [1248] 651:1, 659:1.

Arbaciidae

Arbacia punctulata (Lamarck, 1816)

AREA I SHALLOW [1258] 212:7; MODERATE [1261] 257:44; [1260] 270:2; [1259]
195:1, 265:±; [1258] 202:2, 203:1, 214:±, 215:12, 227:3, 336:1, 337:17, 338:7;
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Toxopneustidae

Lytechinus variegatus (Lamarck, 1816)

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Clypeastridae

Clypeaster rosaceus (Linné, 1758)

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Clypeaster subdepressus (Gray, 1825)

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AREA III DEEP [1248] 495:1, 649:20, 654:18.

Clypeaster spp.

AREA I MODERATE [1262] 242:36^e; [1259] 219:1; [1258] 220:3, 223:2, 337:1; DEEP [1261] 241:8; [1258] 340:1.

Mellitidae

Encope aberrans Martens, 1867

AREA II DEEP [1255] 517:2.

AREA III DEEP [1248] 634:2.

Encope michelini L. Agassiz, 1841

AREA II MODERATE [1253] 502:1.

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Encope spp.

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690:1, 691:12.

[Phelan's recent (1972) taxonomic comments on *Encope* were not published until almost a year after our field sampling. Thus, all specimens of this genus were initially identified as *E. michelini*. Accurate identification of *E. aberrans* and *E. michelini* could only be accomplished for specimens returned to the laboratory and accessioned into our invertebrate reference collection; the remaining are listed as *Encope* spp., but almost certainly belong to the above species.]

Leodia sexiesperforata (Leske, 1778)

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AREA IV DEEP [1247] 683:1.

[Apparently *Leodia sexiesperforata* 10 miles due west of Sanibel Island in 12.2 m (Station 520) constitutes a new northern record for this species in the eastern Gulf of Mexico.]

Mellita quinquiesperforata (Leske, 1778)

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Schizasteridae

Moiria atropos (Lamarck, 1816)

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Brissidae

Meomia ventricosa (Lamarck, 1816)

AREA III DEEP [1248] 660:1.

Plagiobrissus grandis (Gmelin, 1788)

AREA I MODERATE [1262] 242:1, 303:1, 308:10, 309:2, 310:1; [1260] 270:1; [1259] 218:1, 219:1, 239:8, 276:3; [1258] 220:60^e; DEEP [1263] 324:5; [1262] 244:48^e; [1261] 241:2; [1260] 289:3; [1259] 283:2, 284:1, 286:2; [1257] 472:2.

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AREA III DEEP [1248] 649:1, 653:1.

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Asteroidea

Luidiidae

Luidia alternata (Say, 1825)

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AREA IV DEEP [1247] 483:4.

Ludia clathrata (Say, 1825)

AREA I SHALLOW [1263] 328:4; [1259] 263:2; [1258] 197:12, 199:30, 211:6; [1257] 208:1, 210:1, 229:1, 231:21, 237:2, 467:6; [TB] 384:13, 385:5; [TB] 14V:1, 19V:1; MODERATE [1263] 325:3, 326:15, 329:1; [1262] 242:7, 303:69, 304:1, 305:1, 306:13, 307:10, 308:21, 309:13, 310:42, 314:26, 315:3, 316:9, 318:20, 322:8; [1261] 240:2, 251:2, 257:6; [1260] 220:1, 270:1, 271:4, 273:5, 302:1; [1259] 179:2, 180:12, 181:13, 183:16, 184:4, 195:3, 265:25, 266:15, 275:3, 278:1; [1258] 198:12, 201:5, 202:15, 203:28, 227:4, 336:3, 338:1; [1257] 190:14, 204:5, 206:32, 230:16, 342:17, 346:3, 351:5, 356:12, 359:4, 369:14, 370:10, 371:22, 373:3, 374:1, 375:8, 376:5, 410:3, 411:3, 459:7, 460:6, 461:1, 473:3; [TB] 377:3, 378:1, 381:5, 382:26, 383:22, 386:36^e, 389:3; DEEP [1263] 323:22, 324:1; [1262] 244:1; [1260] 289:2, 290:7, 292:9; [1259] 283:18, 284:3, 286:2; [1258] 339:1, 340:1; [1257] 232:17, 233:9, 235:9, 350:1, 362:2, 363:3, 366:1.

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AREA III DEEP [1248] 495:2, 640:1.

AREA IV MODERATE [1247] 479:1, 480:1, 481:1, 482:2, 493:2; DEEP [1247] 483:3, 486:9, 487:3, 691:1.

Luidia senegalensis (Lamarck, 1816)

AREA II SHALLOW [1255] 503:2, 548:2, 549:3, 725:7; [1254] 568:3, 582:2, 596:1, 599:4, 612:2, 773:1, 774:3, 796:11, 808:1, 809:3, 115V:1, 133V:1, 134V:1, 137V:3, 142V:1, 144V:1, 145V:1, 149V:1; [1253] 776:1, 777:5, 782:3, 786:4, 789:17, 155V:4, 158V:1, 159V:1, 163V:1, 169V:2, 178V:1, 191V:1; MODERATE [1255] 538:1, 547:1, 555:2; [1254] 565:9, 566:2, 583:10, 597:1, 600:2.

Astropectinidae

Astropecten spp.

AREA I SHALLOW [1263] 328:3; [1258] 197:3, 199:1, 211:4; [1257] 189:2, 208:1, 229:3, 231:1, 384:1, 467:1; [TB] 1V:1, 10V:1, 11V:7, 32V:1; MODERATE [1263] 325:7, 326:10, 329:1, 330:10, 331:6; [1262] 242:23, 303:10, 304:7, 305:4, 308:3, 309:3, 310:7, 313:1, 318:1, 321:17, 322:1; [1261] 240:1, 249:1, 257:1, 300:2, 302:8; [1259] 179:1, 180:6, 181:3, 193:1, 218:1, 219:2, 265:5, 266:2, 275:1, 276:3, 277:1; [1258] 198:2, 201:1, 202:12, 203:6, 220:1, 224:1, 227:5, 337:1, 338:2; [1257] 190:2, 191:3, 206:4, 230:4, 342:2, 346:1, 351:2, 369:3, 370:1, 371:7, 373:1, 374:2, 375:4, 411:2, 459:1, 473:3; [TB] 377:2, 378:1, 379:3, 381:3, 382:27, 383:31, 386:2; DEEP [1263] 323:3, 324:6; [1262] 244:13, 311:35, 312:42, 320:66; [1261] 241:8; [1259] 284:1; [1258] 339:1, 340:3; [1257] 232:2, 233:2, 342:1, 350:1, 362:3, 363:3, 366:1, 367:8, 368:2, 472:5.

AREA II SHALLOW [1256] 767:1, 770:3; [CH] 712:1; [1255] 531:1, 548:2; [1254] 568:1, 595:1, 809:1, 115V:1, 116V:2, 119V:1, 120V:1, 124V:1, 125V:2, 127V:2, 129V:4, 130V:2, 132V:2, 133V:1, 134V:1, 135V:4, 136V:8, 137V:11, 138V:1, 139V:12, 140V:1, 142V:4, 143V:12, 144V:1, 145V:5, 146V:3, 147V:8, 148V:3, 150V:2, 153V:3, 154V:3, 156V:1; [1253] 778:1, 781:1, 789:4, 155V:2, 157V:6, 158V:4, 159V:3, 160V:11, 161V:1, 162V:2, 163V:2, 176V:1, 179V:2; MODERATE [1256]

Astropecten (cont.)

414:8, 415:4, 417:2, 421:2, 422:2, 432:1, 433:1, 435:2, 439:1, 444:1, 447:1, 448:1, 458:5, 463:1, 745:5, 747:2, 748:4, 769:2; [1255] 506:3, 529:1, 542:3, 546:1, 551:1, 730:3, 731:4, 732:7, 755:1; [1254] 566:1, 583:1, 597:2, 598:3, 600:2, 609:1, 610:1, 611:2, 810:1, 814:2; [1253] 501:1, 502:2, 784:1, 797:19, 799:1, 803:1, 816:1; DEEP [1256] 393:3, 395:1, 396:11, 398:1, 399:28, 401:6, 402:1, 404:1, 406:3, 419:11, 423:2, 424:10, 426:1, 427:1, 737:3, 738:18, 739:6, 741:2, 743:19, 744:1, 746:2, 750:1, 753:±; [1255] 407:4, 409:1, 507:3, 508:1, 509:1, 512:13, 513:7, 514:7, 515:3, 517:±, 518:7, 519:4, 520:6, 521:2, 524:2, 525:7, 527:1, 559:1, 735:7; [1254] 575:1, 576:3, 579:3, 580:6, 588:3, 589:4, 590:2, 591:1, 605:7, 606:1, 607:1, 608:5, 830:4; [1253] 826:8, 827:2, 831:2.
AREA III SHALLOW [1249] 624:1; MODERATE [1248] 631:3, 642:1, 648:2, 652:1, 656:3, 657:2; DEEP [1248] 649:1, 654:10.
AREA IV MODERATE [1247] 481:1, 482:3, 490:1; DEEP [1247] 487:2.

[Miss Maureen Downey (National Museum of Natural History, Department of Echinoderms) examined a number of our *Astropecten* and informed us that taxonomic problems were present in the material. Thus, none were identified to species.]

Oreasteridae

Oreaster reticulatus (Linné, 1758)

AREA II SHALLOW [1249] 629:1; MODERATE [1249] 625:1, 657:1.

Echinasteridae

Echinaster spp.

AREA I SHALLOW [TB] 384:2; MODERATE [1261] 240:3, 257:3, 300:1; [1259] 183:3, 184:1, 193:1, 265:1; [TB] 378:3, 379:3, 386:1; [1257] 411:1; DEEP [1262] 244:3; [1260] 292:1; [1259] 284:2, 286:1, 287:1; [1257] 350:1, 368:1, 471:2.
AREA II SHALLOW [1256] 760:1; [1255] 721:2; [CH] 713:1, 96V:1, 97V:1, 98V:1; [1254] 568:1, 612:1, 615:1, 793:1, 796:1, 117V:2, 132V:1, 154V:1; [1253] 160V:1, 163V:3, 173V:1, 184V:2, 186V:1, 189V:1, 190V:3, 193V:1; MODERATE [1256] 413:1, 433:1, 456:1, 745:1, 747:1, 769:1; [1255] 506:1, 713:1, 721:2; [1254] 571:1, 581:3, 592:1, 593:2, 600:1, 610:2, 805:1, 807:1, 813:2; [1253] 499:3, 500:1, 797:1, 799:2; DEEP [1256] 404:1, 419:1, 425:1, 428:1, 478:12, 737:4, 738:2, 739:1; [1255] 507:4, 508:3, 509:3, 515:1, 517:1, 736:2; [1254] 578:1, 589:2, 590:3, 603:7, 605:2, 830:1; [1253] 825:1, 826:5, 831:1, 832:2.

Ophiuroidea

Gorgonocephalidae

Astrophyton muricatum (Lamarck, 1816)

AREA II MODERATE [1254] 581:10; [1253] 800:1, 801:1, 803:3; DEEP [1256] 426:1, 741:2; [1255] 507:1, 508:3, 509:4, 512:1, 519:1; [1254] 561:3, 562:1, 563:2, 575:3, 578:7, 580:3, 581:10, 587:2, 589:6, 590:2, 591:±, 603:4, 607:3, 829:1; [1253] 823:3, 824:3, 825:2, 832:1.
AREA III SHALLOW [1249] 621:1; MODERATE [1248] 651:1, 659:1; DEEP [1248] 636:1.

Ophiuridae

Ophiolepis elegans Lütken, 1859

AREA II SHALLOW [CH] 717:1, 719:1; [1254] 595:1, 130V:1, 132V:1, 153V:3; [1253] 184V:3; MODERATE [1256] 745:1; DEEP [1256] 737:1, 738:1, 739:1, 754:1; [1255] 735:3.

AREA III DEEP [1248] 644:1.

Ophiolepis sp.

AREA II DEEP [1254] 561:1.

- Ophionereididae
Ophionereis reticulata (Say, 1825)
 AREA II SHALLOW [1253] 189V:1.
- Ophiidermatidae
Ophioderma brevispinum (Say, 1825)
 AREA I SHALLOW [TB] 4V:1.
 AREA II SHALLOW [CH] 719:2; [1254] 568:±, 790:1, 793:4, 132V:2, 149V:1;
 [1253] 163V:1, 191V:3; MODERATE [1254] 813:2; DEEP [1254] 507:3.
Ophioderma cinereum Müller & Troschel, 1842
 AREA II SHALLOW [1254] 578:1.
Ophioderma squamosissimum Lütken, 1856
 AREA III SHALLOW [1249] 629:3.
Ophioderma spp.
 AREA II SHALLOW [1254] 596:4, 599:3, 790:1, 793:4; [1253] 786:1, 186V:1, 189V:3;
 MODERATE [1255] 533:1; [1254] 600:2; [1253] 800:7; DEEP [1254] 591:1,
 603:2; [1253] 831:1.
- Amphiuridae
Ophiophragmus wurdemanni (Lyman, 1860)
 AREA I SHALLOW [TB] 4V:8, 37V:±.
 AREA II SHALLOW [CH] 696:±, 42V:±, 44V:10, 47V:±, 60V:1, 84V:4, 86V:1, 91V:7,
 105V:7; [1254] 132V:1, 138V:3, 143V:5; [1253] 155V:1; MODERATE [CH]
 697:2; DEEP [1256] 743:25.
- Ophiotrichidae
Ophiothrix angulata (Say, 1825)
 AREA II DEEP [1256] 741:12; [1254] 578:3.
 AREA III DEEP [1248] 641:2.
Ophiothrix spp.
 AREA II SHALLOW [1254] 123V:±; MODERATE [1254] 570:±, 581:34, 593:2;
 [1253] 803:1; DEEP [1256] 741:25; [1255] 507:25; [1254] 562:5, 578:±, 587:1,
 607:500^e; [1253] 825:1.
 AREA III DEEP [1248] 636:1.
- CHORDATA
 Urochordata
 Ascidiacea
 Styelidae
Styela sp.
 AREA II SHALLOW [CH] 94V:±, 98V:±, 99V:±; [1254] 147:±.
- Molgulidae
Bostrichobranhis pilularis (Verrill, 1871)
 AREA I SHALLOW [1257] 6V:28, 8V:±, 9V:218.
- Cephalochordata
 Leptocardii
 Branchiostomidae
Branchiostoma caribaeum Sunderall, 1893
 AREA I SHALLOW [1258] 211:1, 212:1; MODERATE [1262] 242:1; [1261] 302:3;
 [1260] 271:6; [1259] 179:10, 180:5, 181:5, 195:12, 265:24, 276:20; [1258] 198:12,
 [TB] 377:36, 462:72^e; DEEP [1262] 244:5; [1257] 367:48, 472:12.
 AREA II SHALLOW [CH] 696:1, 710:1, 713:2, 67V:1; [1255] 531:5, 727:200^e;
 [1254] 774:50^e, 775:50^e, 811:100^e; [1253] 789:4; MODERATE [1256] 433:24^e,
 435:24^e, 456:10; [1254] 610:12, 611:20; DEEP [1256] 738:1, 739:1; [1255]
 512:3, 515:8, 523:25, 524:10, 525:20, 735:5.
- Vertebrata
 Chondrichthyes
 Torpedinidae
Torpedo nobiliana Bonaparte
 AREA I MODERATE [1262] 314:1.

Osteichthyes

Muraenidae

- Gymnothorax moringa* (Cuvier)
AREA III SHALLOW [1249] 620:1.

Ophichthidae

- Bascanichthys teres* (Goode & Bean)
AREA I SHALLOW [TB] 35V:1.
AREA II SHALLOW [CH] 41V:1, 67V:2; [1254] 117V:1, 132V:1; [1253] 161V:1,
180V:1, 184V:1; MODERATE [CH] 700:1; [1254] 616:2; [1253] 803:1.
Ophichthus gomesi (Castelnau)
AREA II SHALLOW [CH] 102V:1; [1254] 130V:1.

Synodontidae

- Synodus foetens* (Linné)
AREA I SHALLOW [TB] 38V:1.
AREA II SHALLOW [CH] 112V:1.

Batrachoididae

- Opsanus beta* (Goode & Bean)
AREA I SHALLOW [TB] 10V:1, 17V:2.
AREA II SHALLOW [1254] 793:1, 794:1, 152V:1; [1253] 788:1, 173V:1, 184V:1,
189V:1, 190V:1; MODERATE [1254] 583:1, 610:1; DEEP [1255] 507:1.
AREA III SHALLOW [1249] 624:1.
Porichthys porosissimus (Valenciennes)
AREA II SHALLOW [1255] 548:1, 549:1; [1253] 189V:1; MODERATE [1253] 537:1.

Ogcocephalidae

- Ogcocephalus radiatus* (Mitchell)
AREA II MODERATE [1254] 614:1; DEEP [1255] 519:1, 521:1; [1254] 580:2.
Ogcocephalus nasutus (Valenciennes)
AREA II DEEP [1254] 830:1.

Exocoetidae

- Hyporhamphus unifasciatus* (Ranzani)
AREA II SHALLOW [CH] 79V:1.

Syngnathidae

- Corythoichthys brachycephalus* (Poey)
AREA III SHALLOW [1249] 625:1.
Hippocampus erectus Perry
AREA II SHALLOW [1253] 173V:1, 183V:1; DEEP [1254] 587:1, 590:1, 603:1, 605:1.
AREA III SHALLOW [1249] 622:1, 624:1; MODERATE [1249] 627:1.
Syngnathus floridae mckayi (Swain & Meek, 1884)
AREA III SHALLOW [1249] 628:1.
Syngnathus louisianae (Günther, 1870)
AREA II SHALLOW [1253] 163V:1.

Serranidae

- Diplectrum formosum* (Linné)
AREA II SHALLOW [1254] 137V:1.
Serranus subligarius (Cope)
AREA II DEEP [1254] 578:1.

Grammistidae

- Rypticus saponaceus* (Bloch & Schneider)
AREA II MODERATE [1253] 800:1.

Apogonidae

- Astrapogon puncticulatus* (Poey)
AREA III SHALLOW [1250] 617:1.

Gerridae

- Eucinostomus gula* (Quoy & Gaimard)
AREA II SHALLOW [1253] 180V:1.

- Pomadasyidae
Orthopristis chrysoptera (Linné)
 AREA II SHALLOW [CH] 74V:1, 75V:1.
- Sparidae
Lagodon rhomboides (Linné)
 AREA II SHALLOW [CH] 107V:3, 110V:3; [1253] 182V:1.
- Sciaenidae
Sciaenops ocellata (Linné)
 AREA II SHALLOW [1254] 118V:1.
- Labridae
Lachnolaimus maximus (Walbaum)
 AREA III SHALLOW [1249] 620:1.
- Scaridae
Nicholsina usta (Valenciennes)
 AREA III DEEP [1248] 644:1.
Sparisoma aurofrenatum (Valenciennes)
 AREA III SHALLOW [1250] 619:1.
Sparisoma radians (Valenciennes)
 AREA III SHALLOW [1249] 624:1, 629:1.
- Dactyloscopidae
Gillellus greyae Kanazawa
 AREA III SHALLOW [1249] 629:1; MODERATE [1249] 625:1.
- Clinidae
Acanthemblemaria aspera (Longley)
 AREA III DEEP [1248] 653:1.
Chaenopsis limbaughii Robins & Randall
 AREA III MODERATE [1248] 659:1.
Emblemaria pandionis (Evermann & Marsh)
 AREA III MODERATE [1248] 651:1.
Paraclinus fasciatus (Steindachner)
 AREA III SHALLOW [1249] 619:1, 620:1, 629:1.
Starksia ocellata (Steindachner)
 AREA II MODERATE [1254] 593:1.
- Blennidae
Hypsoblennius hentzi (LeSueur)
 AREA II SHALLOW [1254] 115V:1.
- Callionymidae
Callionymus agassizi Goode & Bean
 AREA III SHALLOW [1250] 619:1; DEEP [1248] 644:2.
- Gobiidae
Gobiosoma robustum Ginsburg
 AREA II SHALLOW [CH] 711:1; MODERATE [1256] 745:1.
- Scombridae
Auxis sp.
 AREA III SHALLOW [1248] 630:1.
- Scorpaenidae
Scorpaena brasiliensis Cuvier
 AREA II DEEP [1255] 507:1.
Scorpaena caribbaeus Meek & Hildebrand
 AREA III DEEP [1248] 641:1.
- Triglidae
Prionotus salmonicolor Fowler
 AREA II SHALLOW [1253] 785:1.
Prionotus scitulus latifrons Ginsburg
 AREA II SHALLOW [CH] 75V:1, 90V:1; MODERATE [1254] 569:1.

Bothidae

Ancylosetta quadrocellata Gill

AREA I MODERATE [1262] 304:1.

Bothus ocellatus (Agassiz)

AREA III SHALLOW [1249] 629:1.

Bothus spp.

AREA II DEEP [1254] 590:1.

AREA III SHALLOW [1248] 630:2; MODERATE [1248] 631:2; DEEP [1248] 640:4.

Citharichthys macrops Dresel

AREA III MODERATE [1248] 662:1.

Cyclopsetta fimbriata (Goode & Bean)

AREA II DEEP [1254] 603:2.

Etropus crossotus Jordan & Gilbert

AREA II DEEP [1255] 527:1.

Paralichthys albigutta Jordan & Gilbert

AREA III MODERATE [1248] 661:3.

Soleidae

Achirus lineatus (Linné)

AREA II SHALLOW [1254] 794:1; DEEP [1253] 832:1.

Trinectes maculatus (Bloch & Schneider)

AREA I SHALLOW [TB] 22V:1, 35V:1.

AREA II SHALLOW [1254] 793:1; [CH] 48V:1, 57V:1, 73V:±, 99V:1.

Trinectes sp.

AREA IV MODERATE [1247] 493:1.

Cynoglossidae

Symphurus plagiusa (Linné)

AREA II SHALLOW [CH] 112V:1; DEEP [1255] 736:2.

Symphurus urospilus Ginsburg

AREA II DEEP [1254] 590:1.

Balistidae

Cantherhines pullus (Ranzani)

AREA III DEEP [1248] 636:1.

Monocanthus ciliatus (Mitchell)

AREA II DEEP [1255] 508:1; [1254] 587:1, 605:1.

AREA III SHALLOW [1249] 620:5, 621:1, 624:2; MODERATE [1249] 625:3, 627:1.

Monocanthus hispidus (Linné)

AREA II SHALLOW [CH] 101V:1; MODERATE [1253] 799:1.

AREA III SHALLOW [1249] 629:2; [1248] 630:3.

Ostraciidae

Lactophrys quadricornis (Linné)

AREA III MODERATE [1249] 625:1.

Tetradontidae

Sphoeroides spengleri (Bloch)

AREA II DEEP [1254] 561:1.

AREA III SHALLOW [1249] 626:1; DEEP [1248] 644:1.

Diodontidae

Chilomycterus schoepfi (Walbaum)

AREA I SHALLOW [TB] 14V:1, 32V:1, 36V:1.

AREA II SHALLOW [1254] 796:1, 141V:1; [CH] 64V:2, 67V:1, 73V:1, 99V:1;

MODERATE [1254] 583:1; [1253] 815:1.

TABLE 2. CLAM SAMPLING STATIONS PHYSICAL DATA FOR R/V *HERNAN CORTEZ*
USING HYDRAULIC NANTUCKET CLAM DREDGE (NCD), BOX DREDGE, AND R/V *VENUS*

TB = Tampa Bay; CH = Charlotte Harbor

Station No.	C&GS Chart No.	Date	Location	Depth (m)	Temperature °C		Salinity ‰		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
AREA I											
323	1263/1262	8-17-70	29°41.5'N;85°27.0'W	14.0	29.5	29.0		32.31	12.2	Mud & shell	NCD
324	1263/1262	8-17-70	29°43.0'N;85°27.3'W	14.0	29.5	29.0		32.31	12.2	Sand & shell	"
325	1263	8-18-70	29°53.0'N;85°25.8'W	6.7	29.2	29.2		30.69	6.1	Sand & shell	"
326	1263	8-18-70	29°54.6'N;85°27.5'W	4.9	29.2	29.0		31.23	4.9	Sand & shell	"
327	1263	8-18-70	29°56.2'N;85°28.3'W	4.3	29.5	29.5		31.23	2.1	Sand & shell	"
328	1263	8-18-70	29°57.4'N;85°29.5'W	4.3	30.0	29.5		31.23	2.1	Sand	"
329	1263	8-18-70	29°57.5'N;85°31.0'W	5.5	30.0	29.5		31.23	2.4	Sand	"
330	1263	8-18-70	29°58.0'N;85°32.0'W	7.0	30.0	29.5		31.77	2.8	Sand	"
331	1263	8-18-70	29°59.0'N;85°33.5'W	8.5	30.0	29.5		31.77	3.1	Sand	"
242	1262	7- 3-70	29°40.5'N;84°43.7'W	9.2	28.2	27.3		35.00	8.2	Mud & sand	"
243	1262	7- 3-70	29°37.6'N;84°44.2'W	12.8	28.2	27.0		35.00	7.6	Mud & rock	"
244	1262	7- 3-70	29°33.6'N;84°54.0'W	11.0	29.1	28.0		34.47	3.7	Shell, gravel, mud	"
245	1262	7- 3-70	29°35.5'N;84°57.8'W	6.1	28.8	28.0		33.93	1.8	Shell	"
246	1262	7- 3-70	29°32.3'N;84°57.8'W	9.8	29.0	28.0		34.47	1.8	Limestone	"
303	1262	8-16-70	29°43.3'N;84°43.0'W	6.7	28.0	28.5		31.23	4.3	Sand	"
304	1262	8-16-70	29°41.5'N;84°45.0'W	5.5	28.0	28.2		31.77	5.5	Sand	"
305	1262	8-16-70	29°39.0'N;84°49.5'W	7.9	28.5	28.5		32.31	3.7	Mud & sand	"
306	1262	8-16-70	29°39.0'N;84°51.0'W	7.3	28.5	28.5		32.31	5.5	Mud & shell	"
307	1262	8-16-70	29°39.0'N;84°53.0'W	6.7	29.0	28.5		31.77	3.7	Mud & shell	"
308	1262	8-16-70	29°38.0'N;84°54.0'W	6.7	29.8	28.8		31.77	3.1	Mud & sand	"
309	1262	8-16-70	29°33.1'N;84°58.5'W	5.5	31.0	29.0		32.31	3.4	Sand	"
310	1262	8-16-70	29°30.0'N;84°59.0'W	7.9	30.0	28.5		32.31	2.4	Sand	"
311	1262	8-16-70	29°24.3'N;85°02.0'W	9.8	29.0	28.8		32.85	9.2	Sand	"
312	1262	8-16-70	29°25.4'N;85°03.3'W	10.4	29.8	28.8		32.85	3.7	Sand	"
313	1262	8-16-70	29°29.0'N;85°02.1'W	6.1	30.0	29.0		32.31	3.7	Sand	"
314	1262	8-17-70	29°29.4'N;85°01.5'W	6.1	28.0	28.5		32.31	4.3	Sand	"
315	1262	8-17-70	29°31.0'N;85°03.2'W	5.5	29.0	29.0		31.23	4.0	Shell	"
316	1262	8-17-70	29°33.1'N;85°05.0'W	6.7	29.0	29.0		31.77	3.7	Mud & shell	"
317	1262	8-17-70	29°34.3'N;85°11.0'W	3.1	30.0	29.5		30.69	1.2	Mud	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
318	1262/1263	8-17-70	29°37.0'N;85°20.3'W	4.9	29.5	29.5		31.77	1.8	Sand	NCD
319	1262/1263	8-17-70	29°33.3'N;85°24.5'W	7.9	29.5	29.5		32.31	7.9	Sand & shell	"
320	1262	8-17-70	29°28.7'N;85°29.7'W	12.2	30.0	30.0		32.31	12.2	Sand	"
321	1262/1263	8-17-70	29°33.7'N;85°26.9'W	8.5	29.5	29.3		32.31	8.5	Sand	"
322	1262/1263	8-17-70	29°38.2'N;85°22.2'W	5.5	30.0	29.5		31.77	2.4	Gravel, sand & shell	"
240	1261	7- 3-70	29°43.6'N;84°39.5'W	9.2	27.7	27.2		34.47	7.3	Shell, rock & sand	"
241	1261	7- 3-70	29°41.6'N;84°40.8'W	12.2	28.2	26.9		35.00	8.2	Sand & shell	"
247	1261	7- 4-70	29°44.3'N;84°38.2'W	7.9	28.2	27.0		34.47	3.7	Shell, rock & sand	"
248	1261	7- 4-70	29°43.6'N;84°37.4'W	11.0	27.6	27.1		35.00	7.6	Shell & rock	"
249	1261	7- 4-70	29°45.3'N;84°38.0'W	7.3	28.0	27.2		34.47	4.9	Rock, sand, mud & shell	"
250	1261	7- 4-70	29°44.2'N;84°35.7'W	11.0	27.8	27.3		34.47	6.7	Rock, shell	"
251	1261	7- 4-70	29°47.3'N;84°34.4'W	6.1	27.5	27.2		34.47	4.0	Sand, shell	"
252	1261	7- 4-70	29°45.6'N;84°33.0'W	11.0	27.8	27.0		34.47	4.9	Rock, shell	"
253	1261	7- 5-70	29°47.5'N;84°20.6'W	11.0	27.5	27.4		34.47	6.4	Coral, shell	"
254	1261	7- 5-70	29°48.7'N;84°19.8'W	8.2	28.0	27.5		34.47	3.7	Rock, shell	"
255	1261	7- 5-70	29°50.5'N;84°18.4'W	7.3	29.0	28.0		33.93	5.5	Rock, shell	"
256	1261	7- 5-70	29°55.0'N;84°16.9'W	6.7	28.5	28.5		32.85	4.3	Sand, rock	"
257	1261	7- 5-70	29°56.3'N;84°15.8'W	4.9	28.8	28.7		32.85	4.3	Sand	"
258	1261	7- 5-70	29°59.8'N;84°11.9'W	6.1	28.6	28.3		31.23	2.8	Rock	"
259	1261	7- 5-70	30°00.0'N;84°13.8'W	6.1	28.8	28.6		31.23	2.8	Sand, rock	"
260	1261	7- 6-70	29°45.4'N;84°08.2'W	11.0	28.0	28.0		33.39	9.2	Rock	"
298	1261	8-15-70	29°51.0'N;84°34.5'W	6.1	28.0	28.7			1.2	Rock	"
299	1261	8-15-70	29°50.5'N;84°33.0'W	6.1	28.5	28.0		29.08	1.8	Mud	"
300	1261	8-15-70	29°50.5'N;84°32.5'W	6.1	28.7	28.4		29.62	1.8	Sand, mud, shell	"
301	1261	8-15-70	29°52.0'N;84°28.0'W	6.7	29.0	28.5		30.69	1.8	Mud	"
302	1261	8-15-70	29°52.5'N;84°26.0'W	5.5	29.5	28.7		31.23	3.7	Sand, rock	"
187	1260	5-23-70	29°25.2'N;83°26.1'W	4.9	26.7	26.4		33.77	4.0	Rock	"
188	1260	5-23-70	29°29.8'N;83°32.7'W	7.3				32.31		Rock	"
261	1260	7-13-70	29°37.4'N;83°31.2'W	6.1	29.0	29.0		31.23	4.3	Rock	"
262	1260	7-13-70	29°38.7'N;83°34.4'W	5.8	29.1	29.1		31.23	5.8	Sand, rock	"
269	1260	7-29-70	29°32.0'N;83°33.4'W	7.6						Sand, rock	"
270	1260	7-29-70	29°33.9'N;83°32.2'W	6.4	30.5	29.5		30.15	5.2	Sand, rock	"
271	1260	7-29-70	29°36.3'N;83°31.0'W	5.2	30.1	29.7		29.62	5.2	Sand	"
272	1260	7-29-70	29°38.3'N;83°30.4'W	3.7	30.0	28.8		29.08	3.7	Sand, seagrass	"
273	1260	7-29-70	29°37.2'N;83°29.7'W	4.9	30.0	29.7		30.15	4.3	Sand	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
274	1260	7-29-70	29°34.1'N;83°29.3'W	6.1	30.5	29.5		31.77	3.7	Sand, rock	NCD
289	1260	8- 4-70	29°24.4'N;83°34.7'W	12.2	31.0	30.7		33.93	6.1	Coral, sand, rock	"
290	1260	8- 4-70	29°26.9'N;83°35.6'W	10.4	31.0	30.7		33.39	6.1	Coral, rock, sand	"
291	1260	8- 4-70	29°28.6'N;83°38.6'W	11.9	31.5	30.8		33.39	5.5	Coral, rock	"
292	1260	8- 4-70	29°31.7'N;83°38.7'W	11.0	31.0	31.0		33.39	6.1	Sand	"
293	1260	8- 5-70	29°31.5'N;83°45.2'W	13.4	30.5	30.5		32.85	4.6	Rock	"
294	1260	8- 5-70	29°28.7'N;83°42.6'W	13.1	30.5	30.5		33.39	4.6	Rock	"
295	1260	8- 5-70	29°26.4'N;83°40.0'W	12.8	30.5	30.2		33.93	6.1	Rock	"
296	1260	8- 5-70	29°23.6'N;83°40.0'W	14.6	30.5	31.0		33.93	6.4	Rock	"
297	1260	8- 5-70	29°21.0'N;83°36.8'W	12.2	30.7	30.5		33.93	8.5	Rock	"
332	1260	8-20-70	29°43.2'N;83°49.1'W	11.0	29.0	28.7		32.31	6.1	Rock	"
333	1260	8-20-70	29°40.7'N;83°48.9'W	12.2	29.1	28.8		32.31	5.5	Rock & sand	"
334	1260	8-20-70	29°38.3'N;83°47.4'W	11.9	29.1	28.5		33.39	5.8	Rock	"
335	1260	8-20-70	29°34.6'N;83°46.1'W	14.0	29.0	28.9		33.39		Rock, sand	"
179	1259	5-22-70	29°09.6'N;83°09.8'W	4.9	27.5	27.2		32.31	4.9	Sand, shell	"
180	1259	5-22-70	29°09.6'N;83°12.4'W	5.5	28.0	27.2		33.39	4.0	Sand	"
181	1259	5-22-70	29°11.8'N;83°14.2'W	5.5	28.0	27.2		33.39	4.0	Sand	"
182	1259	5-22-70	29°12.4'N;83°15.2'W	4.6-6.1	28.0	27.0		33.39	4.3	Rock	"
183	1259	5-22-70	29°16.7'N;83°16.7'W	4.9	27.9	26.8		31.77	4.6	Sand, shell	"
184	1259	5-22-70	29°17.4'N;83°18.6'W	4.9	27.0	26.5		31.77	4.6	Sand, shell	"
185	1259	5-23-70	29°21.5'N;83°21.4'W	4.3	25.8	25.8		30.69	4.3	Sand, shell	"
186	1259	5-23-70	29°23.4'N;83°26.4'W	5.5	25.9	25.9		33.39	5.2	Rock	"
192	1259	6- 5-70	28°55.1'N;83°04.6'W	7.3	26.3	26.1		33.85	3.7		"
193	1259	6- 5-70	28°56.9'N;83°07.9'W	6.1	26.3	26.2		32.31	4.6	Sand	"
194	1259	6- 5-70	28°57.5'N;83°08.8'W	7.3	26.8	26.5		33.93	4.3	Rock	"
195	1259	6- 5-70	29°00.5'N;83°04.5'W	4.9	27.0	26.5		33.93	3.1	Sand, rock	"
196	1259	6- 5-70	29°03.0'N;83°04.5'W	5.2	26.3	26.2		32.85	3.1	Rock	"
218	1259/1258	6-12-70	28°54.6'N;83°10.0'W	6.7	29.5	28.0		33.93	6.7	Sand	"
219	1259/1258	6-12-70	28°56.5'N;83°11.9'W	7.3	30.0	28.0		33.93	6.7	Rock	"
238	1259	6-19-70	29°00.7'N;83°18.3'W	11.0	29.5	29.5		33.93	10.4	Rock	"
239	1259	6-19-70	28°58.4'N;83°09.8'W	4.9	29.2	29.2		33.93	4.9	Sand	"
263	1259	7-24-70	29°02.8'N;83°05.5'W	3.7	30.0	29.4		30.15	1.8	Sand, mud	"
264	1259	7-26-70	29°16.2'N;83°15.7'W	4.6	28.9	29.5		30.15	2.1	Sand, shell	"
265	1259	7-26-70	29°14.0'N;83°16.4'W	4.9	29.4	29.2		31.77	2.4	Sand	"
266	1259	7-26-70	29°12.6'N;83°16.9'W	5.2	29.4	29.6			5.2	Sand	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
267	1259	7-26-70	29°10.4'N, 83°17.9'W	5.8	29.8	29.8		32.85	5.8	Shell, rock	NCD
268	1259	7-26-70	29°09.6'N, 83°15.2'W	5.8	29.8	29.7		32.85	5.8	Rock	"
275	1259	7-31-70	28°58.1'N, 83°08.9'W	6.1	30.5	30.5		31.23	6.1	Sand	"
276	1259	7-31-70	28°57.7'N, 83°09.2'W	6.4	30.8	30.5		31.77	4.9	Sand	"
277	1259	7-31-70	28°57.3'N, 83°10.0'W	6.1	31.0	30.5		32.85	5.5	Sand	"
278	1259	7-31-70	28°57.9'N, 83°10.5'W	7.3	31.0	30.5		32.85	5.2	Sand	"
279	1259	7-31-70	28°54.9'N, 83°11.5'W	9.2	31.0	30.0		33.39	5.5	Rock	"
280	1259	7-31-70	28°56.0'N, 83°11.8'W	7.6	31.5	30.5		32.85	6.7	Rock	"
281	1259	8- 3-70	28°55.1'N, 83°17.4'W	12.2	30.0	30.5		34.47	5.5	Rock	"
282	1259	8- 3-70	28°55.0'N, 83°19.4'W	12.2	31.0	30.5		33.93	6.1	Rock	"
283	1259	8- 3-70	28°57.5'N, 83°21.1'W	14.0	31.0	30.5		33.93	5.5	Sand, rock	"
284	1259	8- 3-70	29°01.1'N, 83°21.1'W	12.2	31.5	31.0		33.93	4.3	Sand, rock	"
285	1259	8- 4-70	29°04.3'N, 83°26.1'W	12.8	30.5	30.5		33.93	8.2	Rock	"
286	1259	8- 4-70	29°08.8'N, 83°29.6'W	12.8	30.5	30.5		33.93	9.2	Sand, rock	"
287	1259	8- 4-70	29°15.5'N, 83°31.7'W	12.8	31.0	31.5		33.93	9.2	Sand	"
288	1259/1260	8- 4-70	29°20.8'N, 83°32.9'W	12.8	31.0	30.7		33.93	9.2	Rock	"
197	1258	6- 8-70	28°14.8'N, 82°52.9'W	4.3	27.2	27.1		33.93	2.8	Mud	"
198	1258	6- 8-70	28°12.0'N, 82°53.1'W	4.9	27.5	27.1		32.85	2.1	Sand, shell	"
199	1258	6- 8-70	28°10.6'N, 82°52.8'W	4.3	27.5	27.1		32.85	2.1	Sand	"
200	1258	6- 8-70	28°11.9'N, 82°56.1'W	6.7	27.5	27.1		32.85	2.4	Rock	"
201	1258	6- 8-70	28°13.8'N, 82°54.2'W	5.5	27.2	27.2		32.85	2.1	Sand, mud	"
202	1258	6- 9-70	28°15.0'N, 82°55.8'W	7.3	26.5	26.5		32.85	5.5	Sand, rock	"
203	1258	6- 9-70	28°15.2'N, 82°54.1'W	4.9	27.0	27.0		32.85	3.7	Sand, rock	"
211	1258	6-11-70	28°15.6'N, 82°53.3'W	4.6	28.5	28.5		32.85	2.1	Sand	"
212	1258	6-11-70	28°25.5'N, 82°56.4'W	4.3	28.2	28.2		32.85	2.8	Sand	"
213	1258	6-12-70	28°25.3'N, 82°57.0'W	6.1	27.0	27.3		33.39	5.2	Sand, rock	"
214	1258	6-12-70	28°27.4'N, 82°55.9'W	5.5	27.2	27.2		33.93	5.2	Rock	"
215	1258	6-12-70	28°29.5'N, 82°55.9'W	5.5	27.5	27.5		34.47	5.2	Sand, rock	"
216	1258	6-12-70	28°32.3'N, 82°56.4'W	5.5	27.8	27.7		33.39	4.9	Rock	"
217	1258	6-12-70	28°45.2'N, 83°02.0'W	7.6	28.8	27.0		33.39	7.6	Sand, rock	"
220	1258	6-16-70	28°52.5'N, 83°11.1'W	8.5	29.0	27.6		33.93	8.5	Sand, mud	"
221	1258	6-16-70	28°48.5'N, 83°10.5'W	9.8	29.2	28.0		34.47	9.2	Rock	"
222	1258	6-16-70	28°41.3'N, 83°07.9'W	10.4	28.5	28.0		35.00	5.5	Rock	"
223	1258	6-17-70	28°38.5'N, 83°02.1'W	8.5	28.0	28.0		33.93	8.5	Rock	"
224	1258	6-17-70	28°36.7'N, 82°58.7'W	7.3	28.2	28.2		33.93	5.2	Rock	"

Station	Chart No.	Date	Location	Depth	Temperature		Salinity		Secchi	Substrate	Gear
				(m)	Sur.	Bot.	Sur.	Bot.	(m)		
225	1258	6-17-70	28°34.7'N;82°57.3'W	7.3	28.6	28.5		34.47	5.5	Rock	NCD
226	1258	6-17-70	28°23.7'N;83°04.8'W	12.2	29.0	28.0		33.93	12.2	Rock	"
227	1258	6-17-70	28°16.1'N;82°57.3'W	7.9	29.7	29.2		35.00	5.5	Mud, sand	"
336	1258	10-25-70	28°42.4'N;82°58.3'W	5.8	25.0	25.0	33.93	33.93	2.8	Rock	Box dredge
337	1258	10-25-70	28°42.2'N;83°01.5'W	7.3	25.0	25.0	33.93	34.47	3.1	Rock, sand	" "
338	1258	10-25-70	28°33.5'N;83°01.4'W	8.2	26.0	26.0	36.09	35.55	4.9	Rock	" "
339	1258	10-25-70	28°28.4'N;83°05.5'W	11.0	26.0	26.0	36.09	37.17	5.8	Rock	" "
340	1258	10-25-70	28°13.4'N;83°05.4'W	14.3	26.0	26.0	36.09	35.55	5.5	Rock	" "
189	1257/586	5-29-70	27°37.3'N;82°49.6'W	4.6	27.5	27.0		33.39	4.6	Sand	NCD
190	1257/586	5-29-70	27°42.7'N;82°46.3'W	5.8	28.0	27.0		34.47	2.1	Sand, mud, shell	"
191	1257/586	5-29-70	27°45.4'N;82°48.8'W	6.7	27.5	27.0		33.93	3.7	Sand, shell	"
204	1257/586	6-11-70	27°38.6'N;82°47.0'W	5.5	27.2	27.2		32.85	2.1	Sand, mud	"
205	1257/586	6-11-70	27°42.1'N;82°46.8'W	6.7	27.2	27.2		32.85	3.7	Shell, mud, sand	"
206	1257	6-11-70	27°58.7'N;82°51.1'W	5.5	28.0	27.2		32.85	1.8	Sand, mud	"
207	1257	6-11-70	27°58.8'N;82°53.0'W	7.3	27.5	27.2		32.85	4.0	Rock	"
208	1257	6-11-70	28°03.3'N;82°50.4'W	4.3	28.5	27.2		32.85	1.2		"
209	1257	6-11-70	28°04.0'N;82°50.9'W	3.7	28.8	28.5		32.85	1.5	Sand, mud	"
210	1257	6-11-70	28°07.1'N;82°51.9'W	4.3	28.7	28.5		32.85	2.0	Sand, mud	"
228	1257	6-17-70	28°03.0'N;82°50.2'W	3.7	29.0	28.5		34.47	0.9	Sand	"
229	1257	6-18-70	28°00.0'N;82°50.4'W	4.3	28.2	28.2		33.93	1.8	Mud, sand	"
230	1257	6-18-70	28°00.0'N;82°50.9'W	5.5	28.5	28.2		34.47	2.1	Mud, sand	"
231	1257	6-18-70	28°01.4'N;82°50.4'W	4.3	28.7	28.5		34.47	1.8	Sand, shell	"
232	1257	6-18-70	28°01.0'N;82°54.3'W	9.8	29.0	28.5		34.47	5.5	Sand, mud	"
233	1257	6-18-70	28°00.2'N;82°57.2'W	11.3	29.0	28.5		35.54	7.3	Sand, shell	"
234	1257	6-18-70	28°00.0'N;83°00.7'W	12.8	29.7	28.5		34.47	10.4	Rock	"
235	1257	6-18-70	28°01.8'N;82°57.5'W	10.4	29.7	29.0		35.00	5.5	Mud, shell	"
236	1257	6-18-70	28°03.3'N;82°52.6'W	7.6	29.2	28.0		34.47	3.7	Rock	"
237	1257	6-18-70	28°04.8'N;82°51.3'W	3.7	30.0	30.0		33.93	0.4	Mud, sand	"
341	1257	10-28-70	28°10.0'N;82°52.9'W	5.5	25.0	25.0		34.47	4.3	Rock	"
342	1257	10-28-70	28°10.0'N;82°55.3'W	7.0	25.0	25.0		35.00	3.7	Sand	"
343	1257	10-28-70	28°10.0'N;82°58.8'W	8.5	25.0	25.0		36.08	4.3	Rock	"
344	1257	10-28-70	28°07.4'N;82°58.4'W	10.4	25.5	25.0		36.08	3.7	Rock	"
345	1257	10-28-70	28°04.7'N;82°57.7'W	10.4	26.0	26.0		38.23	4.0	Rock	"
346	1257	10-28-70	28°06.7'N;82°54.2'W	7.0	24.5	25.0		34.47	3.7	Rock, sand	"
347	1257	10-28-70	28°08.3'N;82°54.2'W	7.0	25.0	25.0		34.47	3.1	Rock	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
348	1257	10-29-70	28°09.0'N;83°01.0'W	12.2	25.5	25.0		34.47	7.6	Rock	NCD
349	1257	10-29-70	28°05.8'N;83°01.4'W	13.4	25.5	25.5		35.00	5.2	Rock	"
350	1257	10-29-70	28°02.7'N;83°01.3'W	14.0	25.5	26.0		36.08	7.0	Rock	"
351	1257	10-29-70	27°57.3'N;82°50.7'W	5.8	26.0	25.0		35.54	1.8	Mud	"
352	1257	10-29-70	27°56.3'N;82°50.8'W	5.5	25.0	25.0		37.16	1.5	Mud	"
353	1257	10-29-70	27°54.4'N;82°51.4'W	5.5	26.0	25.0		37.16	1.5	Rock	"
354	1257	10-29-70	27°54.3'N;82°53.3'W	5.5	26.0	25.0		33.93	1.8	Rock	"
355	1257	10-29-70	27°54.0'N;82°56.0'W	5.8	26.0	25.0		35.00	3.4	Rock	"
356	1257	10-30-70	27°52.6'N;82°51.8'W	4.9	25.0	25.0		33.93	1.5	Mud	"
357	1257	10-30-70	27°52.4'N;82°54.0'W	4.9	25.0	25.0		34.47	2.1	Rock	"
358	1257	10-30-70	27°50.3'N;82°53.6'W	6.7	26.0	25.0		35.00	3.4	Rock	"
359	1257/586	10-30-70	27°45.5'N;82°52.8'W	7.3	25.5	25.0		35.00	7.3	Sand	"
360	1257	11- 2-70	27°58.6'N;82°55.7'W	8.9	25.5	25.0		35.00	6.7	Rock	"
361	1257	11- 2-70	27°57.8'N;82°59.6'W	12.2	25.0	25.5		35.54	6.1	Rock	"
362	1257	11- 2-70	27°54.7'N;82°59.6'W	10.4	25.5	25.0		37.69	4.9	Sand	"
363	1257	11- 2-70	27°51.5'N;82°59.8'W	10.7	25.0	25.0		32.85	4.3	Rock	"
364	1257	11- 3-70	27°48.4'N;82°57.4'W	10.7	25.5	25.0		33.93	7.3	Rock	"
365	1257	11- 3-70	27°46.2'N;83°00.5'W	14.0	25.5	25.0		34.47	6.1	Rock	"
366	1257	11- 3-70	27°41.5'N;82°58.6'W	12.8	26.0	25.5		36.08	8.5	Sand	"
367	1257/586	11- 3-70	27°36.4'N;82°56.5'W	12.8	25.5	25.0		35.54	6.7	Rock	"
368	1257/586	11- 3-70	27°43.6'N;82°55.2'W	9.8	25.0	25.5		34.47	6.1	Sand	"
369	1257/586	11-11-70	27°40.6'N;82°49.4'W	8.2	21.0	21.5		35.54	1.8	Sand	"
370	1257/586	11-11-70	27°43.1'N;82°49.6'W	8.5	21.5	21.5		37.16	1.8	Mud, sand	"
371	1257/586	11-11-70	27°40.2'N;82°53.7'W	6.1	22.0	22.0		36.62	2.8	Mud, sand	"
372	1257/586	11-11-70	27°33.4'N;82°52.1'W	10.4	22.5	22.5		38.23	5.5	Rock	"
373	1257/586	11-11-70	27°32.9'N;82°48.7'W	7.3	22.0	22.0		35.00	3.1	Sand	"
374	1257/586	11-11-70	27°33.1'N;82°47.2'W	6.1	22.0	22.0		36.62	2.4	Sand	"
375	1257/586/1256	11-12-70	27°32.1'N;82°47.3'W	5.2	21.5	22.0		36.08	2.4	Sand	"
376	1257/586/1256	11-12-70	27°31.8'N;82°48.6'W	9.2	22.0	22.0		33.93	2.4	Sand	"
390	586/1256	11-18-70	27°29.7'N;82°51.8'W	12.2	20.5	20.0		37.69	5.5	Rock	"
410	1257/586/1256	11-23-70	27°31.6'N;82°50.8'W	9.2	21.5	21.5		34.47	3.4	Sand, shell	"
411	586/1256	11-23-70	27°29.0'N;82°48.7'W	8.5	20.5	20.5		35.00	4.6	Sand	"
416	586/1256	11-30-70	27°30.4'N;82°46.8'W	9.2	19.5	18.5		35.00	3.7	Rock	"
459	586/1256	12- 4-70	27°30.6'N;82°44.5'W	5.5	19.0	19.5		35.00	2.8	Mud, rock	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
460	1257/586	12- 4-70	27°34.2'N;82°48.6'W	6.7	19.0	19.0		37.16	1.8	Sand	NCD
461	1257/586	12- 4-70	27°35.6'N;82°48.9'W	6.1	19.0	19.0		37.16	3.1	Sand, shell	"
467	1257/586/1256	1-29-71	27°32.1'N;82°46.4'W	4.6	15.5	15.5		33.39	2.4	Sand	"
468	1257/586/1256	1-29-71	27°31.8'N;82°47.5'W	7.6	16.0	16.0		35.00	2.8	Mud	"
469	1257/586/1256	1-29-71	27°31.7'N;82°54.4'W	12.2	17.0	16.5		33.93	3.7	Rock	"
470	1257/1256	1-29-71	27°31.9'N;82°56.8'W	13.7	17.0	17.0		35.54	5.5	Rock	"
471	1257/1256	1-29-71	27°30.0'N;82°56.9'W	13.7	17.0	17.0		34.47	8.2	Rock	"
472	586/1256	1-29-71	27°29.8'N;82°49.1'W	10.7	18.0	17.0		35.54	6.1	Rock	"
473	586/1256	1-29-71	27°30.3'N;82°45.5'W	6.1	16.5	15.5		33.93	3.4	Mud	"
474	586/1256	1-30-71	27°29.2'N;82°42.8'W	4.6	16.0	16.0		33.39	2.4	Rock	"
377	1257/586TB	11-12-70	27°33.9'N;82°45.1'W	5.8	22.0	21.5		36.08	1.5	Sand	"
378	1257/586TB	11-12-70	27°33.4'N;82°43.8'W	5.5	21.5	21.5		36.62	1.2	Sand, mud	"
379	1257/586TB	11-12-70	27°33.1'N;82°41.4'W	5.5	21.5	21.0		36.08	1.5	Sand	"
380	1257/586TB	11-12-70	27°34.1'N;82°41.3'W	6.7	21.5	21.0		36.08	1.8	Sand, mud	"
381	1257/586TB	11-12-70	27°35.6'N;82°40.2'W	6.1	22.5	21.5		37.16	1.2	Mud	"
382	1257/586TB	11-12-70	27°37.3'N;82°41.8'W	6.1	21.5	21.5		37.16	1.5	Mud, sand	"
383	1257/586TB	11-12-70	27°37.1'N;82°42.6'W	4.9	22.0	21.5		35.54	1.8	Mud, sand	"
384	1257/586TB	11-12-70	27°37.0'N;82°43.3'W	4.3	21.5	22.0		35.00	1.2	Rock, mud	"
385	1257/586TB	11-13-70	27°38.6'N;82°39.2'W	4.3	21.5	21.5		32.31	2.4	Mud	"
386	1257/586TB	11-13-70	27°40.2'N;82°37.4'W	5.5	21.5	21.5		35.54	1.2	Sand	"
387	1257/586TB	11-13-70	27°37.8'N;82°35.6'W	4.9	21.5	21.5		33.39	1.2	Rock	"
388	1257/586TB	11-13-70	27°38.6'N;82°35.8'W	6.7	22.0	21.5		32.31	1.8	Sand	"
389	1257/586TB	11-13-70	27°39.6'N;82°34.6'W	6.4	22.0	21.5		33.39	1.2	Sand	"
462	1257/586TB	12-14-70	27°35.9'N;82°41.2'W	6.4	19.5	19.5		33.39	1.8	Sand, shell	"
1V	586TB	1-15-71	27°35.9'N;82°39.1'W	4.3	21.0	20.5		31.23	1.5	Sand	R/V Venus
2V	586TB	1-15-71	27°35.2'N;82°38.1'W	3.4	21.0	20.5		31.23	1.5	Sand	" "
3V	586TB	1-15-71	27°34.9'N;82°37.2'W	3.7	21.0	21.0		29.62	1.5	Sand	" "
4V	586TB	1-26-71	27°34.5'N;82°40.5'W	4.3	16.5	16.5		32.31	2.1	Sand, mud	" "
5V	586TB	1-26-71	27°33.9'N;82°39.6'W	4.3	17.0	17.0		32.31	2.8	Sand, mud	" "
6V	586TB	1-27-71	27°33.4'N;82°38.7'W	3.7	15.0	16.0	33.39	32.85	3.7	Mud, shell	" "
7V	586TB	1-27-71	27°32.8'N;82°37.8'W	2.1	16.0	16.0		30.69	1.5	Shell, rock	" "
8V	586TB	1-27-71	27°32.2'N;82°37.2'W	1.5	16.0	16.5		30.15	1.5	Mud, sand	" "
9V	586TB	1-27-71	27°33.8'N;82°34.4'W	1.5	16.0	16.0		31.77	1.5	Mud	" "
10V	586TB	2-18-71	27°33.0'N;82°35.0'W	1.8	16.0	16.0		28.54	0.9	Mud	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
11V	586TB	2-18-71	27°33.3'N, 82°35.8'W	2.1	15.5	16.5		28.00	1.2	Mud	R/V <i>Venus</i>
12V	586TB	2-17-71	27°32.2'N, 82°35.8'W	2.4-2.8	15.5	15.5		29.08	1.5	Mud, sand	" "
13V	586TB	2-16-71	27°37.2'N, 82°35.4'W	3.1	14.5	15.0		28.54	1.0	Mud	" "
14V	586TB	2-16-71	27°37.0'N, 82°35.2'W	2.1	14.5	15.0		29.08	1.0	Mud	" "
15V	586TB	2-16-71	27°36.8'N, 82°34.9'W	1.5	14.5	14.5		27.46	1.2	Mud	" "
16V	586TB	2-16-71	27°36.7'N, 82°34.6'W	0.9	14.5	14.5		28.00	0.9	Mud	" "
17V	586TB	2-16-71	27°35.9'N, 82°36.0'W	1.5	15.0	15.0		28.00	1.0	Rock	" "
18V	586TB	2-18-71	27°31.1'N, 82°36.5'W	1.8	16.0	15.5		28.00	0.9	Mud	" "
19V	586TB	2-18-71	27°31.3'N, 82°38.4'W	3.1	16.5	16.0		29.08	0.9	Mud	" "
20V	586TB	2-18-71	27°31.4'N, 82°37.8'W	2.8	16.5	16.0		29.62	1.8	Mud	" "
21V	586TB	2-19-71	27°30.9'N, 82°37.5'W	1.5-2.1	17.0	16.5		28.54	0.7	Mud	" "
22V	586TB	2-19-71	27°30.6'N, 82°36.9'W	0.9	17.0	17.0		23.16	0.9	Sand, shell	" "
23V	586TB	2-19-71	27°30.6'N, 82°35.8'W	4.0	17.0	16.0		25.85	2.1	Mud	" "
24V	586TB	2-18-71	27°30.3'N, 82°35.8'W	1.5	17.0	17.0		27.46	0.9	Mud	" "
25V	586TB	2-18-71	27°30.7'N, 82°55.0'W	1.5	17.0	17.0		26.38	0.7	Mud	" "
26V	586TB	2-18-71	27°30.9'N, 82°35.8'W	1.5	17.0	17.0		26.92	1.0	Sand, mud	" "
27V	586TB	2-25-71	27°30.5'N, 82°32.9'W	1.5	22.0	22.0		24.23	0.6	Mud	" "
28V	586TB	2-25-71	27°30.1'N, 82°31.7'W	2.1	22.0	22.0		22.62	0.5	Mud	" "
29V	586TB	2-25-71	27°30.6'N, 82°30.8'W	2.8	22.0	22.0		21.54	0.6	Mud	" "
30V	586TB	2-25-71	27°31.5'N, 82°29.8'W	1.5	22.5	22.0		18.31	0.3	Mud	" "
31V	586TB	3-29-71	27°32.1'N, 82°40.3'W	3.1	20.0	20.0				Sand, shell	" "
32V	586TB	3-29-71	27°32.2'N, 82°40.6'W	3.1	20.5	20.0				Sand, shell	" "
33V	586TB	3-29-71	27°31.9'N, 82°41.3'W	1.2-1.5	20.0	20.0				Sand, shell	" "
34V	586TB	4- 8-71	27°30.8'N, 82°41.4'W	1.2-1.5	18.0	18.0	23.00	30.15		Sand, mud	" "
35V	586TB	4- 8-71	27°31.8'N, 82°42.5'W	1.5	18.2	18.0	31.23	31.23		Sand, shell	" "
36V	586TB	4- 9-71	27°30.0'N, 82°41.8'W	1.8	18.0	18.2	31.77	31.77		Mud, shell	" "
37V	586TB	4- 9-71	27°28.8'N, 82°41.7'W	2.1	18.0	19.0	31.77	31.23	1.2	Sand	" "
38V	586TB	4- 9-71	27°28.8'N, 82°40.5'W	0.9	18.5	18.5	31.23	31.23		Sand	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
AREA II											
391	1256	11-18-70	27°27.0'N;82°51.1'W	12.2	20.5	21.0		37.16	4.9	Rock	NCD
392	1256	11-18-70	27°24.2'N;82°50.4'W	12.2	21.0	20.5		37.16	4.6	Rock	"
393	1256	11-18-70	27°21.3'N;82°49.1'W	12.8	21.0	21.0		37.16	5.5	Mud, sand	"
394	1256	11-18-70	27°18.0'N;82°48.4'W	13.4	21.0	21.0		37.69	4.3	Rock	"
395	1256	11-18-70	27°16.0'N;82°43.2'W	12.5	20.5	20.5		37.16	4.9	Sand, rock	"
396	1256	11-18-70	27°13.6'N;82°40.8'W	12.5	21.0	20.5		36.62	4.3	Sand	"
397	1256	11-18-70	27°11.7'N;82°38.2'W	12.8	21.5	20.5		36.62	4.3	Rock	"
398	1256	11-19-70	27°09.1'N;82°36.5'W	12.8	21.0	21.0		34.47	4.3	Rock	"
399	1256	11-19-70	27°06.7'N;82°34.6'W	12.2	21.0	20.5		35.54	4.9	Sand	"
400	1256	11-19-70	27°04.3'N;82°33.0'W	12.2	21.0	20.5		36.62	5.5	Sand	"
401	1256	11-19-70	27°01.3'N;82°30.8'W	10.7	21.5	21.5		37.16	5.5	Mud, sand	"
402	1256	11-19-70	26°58.9'N;82°32.5'W	14.0	21.0	21.0		37.16	5.5	Rock, mud	"
403	1256	11-19-70	26°56.5'N;82°30.8'W	12.8	22.0	21.0		37.16	5.5	Mud	"
404	1256	11-19-70	26°54.2'N;82°28.7'W	12.8	21.5	21.5		37.69	6.1	Sand	"
405	1256	11-19-70	26°51.3'N;82°27.1'W	12.5	22.0	21.0		38.23	5.5	Rock, sand	"
406	1256	11-19-70	26°48.4'N;82°25.4'W	12.5	21.5	21.0		38.77	4.9	Sand	"
412	1256	11-23-70	27°26.2'N;82°47.5'W	9.5	20.5	20.5		37.16	4.9	Hard mud	"
413	1256	11-23-70	27°24.8'N;82°42.1'W	8.5	22.0	20.5		37.16	4.9	Sand	"
414	1256	11-23-70	27°21.8'N;82°39.9'W	9.2	22.0	20.5		36.08	4.9	Sand	"
415	1256	11-23-70	27°18.0'N;82°37.5'W	8.5	21.0	20.0		36.62	4.9	Sand, rock	"
417	1256	11-30-70	27°27.7'N;82°45.1'W	7.3	19.5	18.5		36.08	3.7	Sand, shell	"
418	1256	11-30-70	27°23.6'N;82°45.3'W	10.4	19.5	19.0		37.16	5.5	Rock	"
419	1256	11-30-70	27°21.3'N;82°43.0'W	11.0	19.0	18.5		36.08	4.3	Sand	"
420	1256	11-30-70	27°15.7'N;82°38.7'W	10.1	19.0	18.5		35.00	5.5	Rock	"
421	1256	12- 1-70	27°13.3'N;82°37.0'W	9.2	18.0	18.0		35.00	4.3	Sand, shell	"
422	1256	12- 1-70	27°11.1'N;82°34.3'W	9.2	18.5	18.0		36.08	4.3	Sand, shell	"
423	1256	12- 1-70	27°08.4'N;82°32.4'W	10.4	19.0	18.5		34.47	4.9	Mud	"
424	1256	12- 1-70	27°06.2'N;82°31.2'W	10.7	19.0	19.0		35.54	6.7	Mud	"
425	1256	12- 1-70	27°03.8'N;82°30.3'W	10.4	20.0	19.0		37.69	6.7	Rock	"
426	1256	12- 1-70	27°01.1'N;82°28.5'W	10.4	20.0	19.0		36.62	6.7	Sand	"
427	1256	12- 1-70	26°58.1'N;82°27.5'W	11.0	21.0	19.0		37.16	6.7	Mud	"
428	1256	12- 1-70	26°55.1'N;82°25.6'W	9.5	20.0	19.0		37.16	6.1	Mud	"
429	1256	12- 1-70	26°24.2'N;82°52.3'W	9.8	21.0	19.0		37.69	5.8	Sand, shell	"
430	1256	12- 1-70	26°48.2'N;82°20.8'W	9.8	22.0	20.5		37.69	5.5	Sand, shell	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
432	1256	12- 1-70	26°51.8'N;82°20.5'W	7.3	20.0	19.0		36.62	1.8	Mud	NCD
433	1256	12- 2-70	26°54.2'N;82°22.2'W	7.3	18.5	18.0		35.54	2.4	Mud	"
434	1256	12- 2-70	26°56.8'N;82°23.6'W	8.2	18.0	18.5		36.08	3.7	Sand	"
435	1256	12- 2-70	26°59.2'N;82°25.5'W	7.9	19.0	18.0		35.00	4.6	Sand, shell	"
436	1256	12- 2-70	27°01.7'N;82°26.8'W	7.9	19.0	18.5		36.08	5.5	Sand, shell	"
437	1256	12- 2-70	27°04.6'N;82°28.5'W	7.6	19.0	18.5		35.00	4.3	Rock	"
438	1256	12- 2-70	27°06.5'N;82°28.8'W	7.3	20.0	19.0		36.62	4.6	Rock	"
439	1256	12- 2-70	27°08.9'N;82°29.8'W	7.6	19.5	19.0		37.69	4.3	Sand	"
440	1256	12- 2-70	27°11.6'N;82°30.5'W	7.6	19.5	19.0		37.69	3.1	Sand, shell	"
441	1256	12- 2-70	27°14.2'N;82°32.9'W	8.2	18.0	18.5		37.69	3.1	Rock	"
442	1256	12- 2-70	27°16.6'N;82°35.1'W	8.5	19.0	18.5		37.69	3.4	Mud	"
443	1256	12- 2-70	27°19.3'N;82°35.9'W	6.1	19.5	19.0		36.08	3.1	Sand	"
444	1256	12- 2-70	27°21.6'N;82°38.0'W	5.8	20.0	19.0		34.47	2.4	Sand	"
445	1256	12- 3-70	27°15.2'N;82°33.1'W	6.1	18.0	18.5		35.54	2.4	Mud	"
446	1256	12- 3-70	27°12.9'N;82°31.5'W	5.8	19.0	18.5		34.47	1.8	Rock	"
447	1256	12- 3-70	27°10.1'N;82°30.2'W	6.4	18.5	19.5		36.62	3.1	Sand, shell, rock	"
448	1256	12- 3-70	27°07.1'N;82°28.8'W	6.4	19.0	18.5		36.08	1.8	Sand, shell, rock	"
449	1256	12- 3-70	27°04.6'N;82°27.7'W	5.5	19.0	18.5		37.16	3.1	Sand, shell	"
450	1256	12- 3-70	27°01.8'N;82°25.8'W	5.5	19.0	18.0		36.62	1.8	Rock	"
451	1256	12- 3-70	26°59.0'N;82°24.4'W	5.8	19.0	18.5		37.69	2.4	Rock, mud	"
452	1256	12- 3-70	26°56.0'N;82°22.4'W	6.1	19.0	18.5		37.16	2.4	Rock	"
453	1256	12- 3-70	26°53.5'N;82°20.8'W	5.8	19.0	18.5		37.16	1.8	Mud	"
456	1256	12- 4-70	27°24.2'N;82°39.6'W	6.1	19.0	18.5		35.00	3.1	Sand, shell	"
457	1256	12- 4-70	27°26.0'N;82°42.1'W	6.7	18.5	18.0		35.00	1.8	Mud	"
458	1256	12- 4-70	27°28.9'N;82°43.6'W	6.4	19.0	19.0		36.62	4.3	Mud	"
463	1256	1-26-71	27°19.0'N;82°37.2'W	7.6	17.0	16.0		33.93	2.4	Sand, shell	"
464	1256	1-26-71	27°18.9'N;82°38.1'W	9.2	17.0	17.0		35.00	4.3	Rock	"
465	1256	1-26-71	27°18.9'N;82°41.2'W	10.7	18.0	18.0		33.93	6.4	Rock	"
466	1256	1-26-71	27°18.7'N;82°44.8'W	12.2	18.0	18.0		34.47	7.9	Rock	"
475	1256	1-30-71	27°25.7'N;82°48.2'W	10.7	17.0	16.0		33.93	7.0	Rock	"
476	1256	1-30-71	27°24.8'N;82°49.3'W	12.2	17.0	17.0		33.93	6.7	Rock	"
477	1256	1-30-71	27°22.8'N;82°46.1'W	10.7	17.0	17.0		35.00	6.7	Sand	"
478	1256	1-30-71	27°22.3'N;82°47.0'W	12.2	17.0	17.0		34.47	6.1	Rock	"
737	1256	7-19-71	26°48.4'N;82°27.1'W	13.7	31.5	32.0	36.08	36.62	8.2	Rock	Box dredge

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
738	1256	7-19-71	26°51.4'N;82°28.3'W	13.7	31.0	30.5	37.16	37.16	7.6	Rock, sand	Box dredge
739	1256	7-19-71	26°54.6'N;82°31.5'W	13.7	31.0	30.0	34.47	33.93	7.3	Rock, sand	" "
740	1256	7-19-71	27°01.4'N;82°35.2'W	13.7	31.0	30.0	33.93	34.47	4.0	Rock	NCD
741	1256	7-19-71	27°04.4'N;82°36.1'W	13.7	31.0	30.0	34.47	35.54	7.9	Rock	"
742	1256	7-20-71	27°08.6'N;82°38.4'W	13.7	30.0	30.0	33.93	34.47	9.2	Sand	"
743	1256	7-20-71	27°11.8'N;82°41.8'W	13.7	31.0	30.5	33.93	34.47	9.2	Sand	"
744	1256	7-20-71	27°15.9'N;82°45.3'W	13.7	31.0	31.0	34.47	34.47	9.2	Sand, shell	"
745	1256	7-20-71	27°15.9'N;82°36.6'W	9.2	31.0	31.0	33.93	34.47	4.3	Rock	"
746	1256	7-20-71	27°11.8'N;82°35.6'W	10.7	31.0	31.0	33.93	33.93	5.5	Rock, mud	"
747	1256	7-20-71	27°08.4'N;82°31.2'W	9.2	31.0	30.5	33.93	33.93	4.3	Rock, shell, mud	"
748	1256	7-20-71	27°06.6'N;82°29.8'W	9.2	31.0	31.0	33.93	33.93	3.7	Mud, sand, rock	"
749	1256	7-20-71	27°04.1'N;82°29.5'W	9.2	31.0	31.0	33.39	33.39	5.5		"
750	1256	7-21-71	27°01.7'N;82°32.8'W	12.2	31.0	31.0	34.47	34.47	5.5	Sand, shell	"
751	1256	7-21-71	26°58.8'N;82°30.6'W	12.2	31.0	31.0	33.39	33.39	6.4	Sand	"
752	1256	7-21-71	26°54.4'N;82°26.3'W	10.7	31.0	31.0	33.93	33.93	6.4	Rock, shell	"
753	1256	7-21-71	26°51.7'N;82°24.9'W	10.7	31.0	31.0	34.47	34.47	8.2	Shell, mud	"
754	1256	7-21-71	26°48.7'N;82°22.7'W	10.7	31.0	31.0	34.47	34.47	6.1	Rock	"
758	1256	7-21-71	26°54.4'N;82°21.5'W	6.1	32.0	32.0	35.00	35.00	3.4	Rock	"
759	1256	7-21-71	26°54.6'N;82°21.3'W	4.6	32.0	32.0	36.62	36.62	2.8	Sand, shell	"
760	1256	7-21-71	26°59.1'N;82°24.2'W	4.6	32.5	32.0	33.93	34.47	2.4	Rock	"
761	1256	7-22-71	26°58.9'N;82°26.5'W	9.2	32.0	32.0	33.93	34.47	4.3	Rock	"
762	1256	7-22-71	27°01.8'N;82°25.7'W	4.6	32.0	33.0	33.39	33.39	2.1	Mud, shell	"
763	1256	7-22-71	27°04.6'N;82°27.4'W	4.6	32.0	33.0	33.93	33.93	3.7	Rock	"
764	1256	7-22-71	27°08.5'N;82°29.1'W	6.1	32.0	32.0	33.93	34.47	2.8	Rock, mud	"
765	1256	7-22-71	27°08.6'N;82°28.8'W	4.6	34.0	32.0	33.93	34.47	3.4	Rock	"
766	1256	7-22-71	27°12.3'N;82°31.0'W	4.6	32.0	32.0	33.93	33.93	3.1	Shell	"
767	1256	7-22-71	27°15.7'N;82°33.8'W	4.6	32.0	32.0	33.39	32.85	2.4	Sand, shell	"
768	1256	7-22-71	27°19.7'N;82°35.8'W	4.6	31.0	31.0	32.85	32.85	2.4	Sand	"
769	1256	7-22-71	27°25.4'N;82°42.7'W	7.6	32.0	32.0	32.85	32.85	1.8	Mud	"
770	1256	7-22-71	27°25.8'N;82°41.6'W	4.6	32.0	32.0	32.85	32.85	2.1		"
692	1255CH	7-12-71	26°54.0'N;82°07.4'W	3.1	29.0	29.0	28.00	30.15	2.1	Mud	"
693	1255CH	7-12-71	26°53.4'N;82°06.6'W	3.1	29.0	29.0	29.08	30.69	3.1	Mud	"
694	1255CH	7-12-71	26°52.9'N;82°08.5'W	4.0	30.0	29.0	29.62	32.31	1.8	Mud	"
695	1255CH	7-12-71	26°52.9'N;82°07.4'W	4.6	31.0	30.0	29.62	29.08	3.1	Mud, shell	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
696	1255CH	7-12-71	26°51.9'N;82°06.3'W	3.1	30.0	30.0	32.31	33.93	3.1	Mud, sand	NCD
697	1255CH	7-12-71	26°51.8'N;82°07.5'W	7.0	30.0	29.0	28.54	32.31	2.1	Mud, shell	"
698	1255CH	7-12-71	26°51.6'N;82°08.3'W	3.1	30.0	29.0	28.00	31.23	1.8	Mud, sand, shell	"
699	1255CH	7-13-71	26°50.6'N;82°08.3'W	3.1	29.0	29.0	29.08	32.85	2.1	Mud, sand	"
700	1255CH	7-13-71	26°50.6'N;82°06.9'W	5.2	29.0	29.0	29.62	32.31	3.1	Mud, shell	"
701	1255CH	7-13-71	26°50.6'N;82°04.9'W	3.1	30.0	29.0	31.23	32.85	3.1	Rock	"
702	1255CH	7-13-71	26°49.4'N;82°05.4'W	3.1	30.0	29.0	33.39	33.39	3.1	Sand, mud	"
703	1255CH	7-13-71	26°49.2'N;82°06.9'W	4.3	30.0	29.0	30.69	32.85	2.8	Mud, shell	"
704	1255CH	7-14-71	26°48.9'N;82°08.0'W	3.4	29.5	29.5	29.62	32.85	3.2	Mud, sand	"
705	1255CH	7-14-71	26°47.7'N;82°08.0'W	3.1	30.0	30.0	29.62	32.31	2.8	Shell, mud	"
706	1255CH	7-14-71	26°47.5'N;82°06.1'W	5.8	30.0	29.5	31.23	32.85	3.7	Mud	"
707	1255CH	7-14-71	26°47.3'N;82°04.9'W	3.4	30.0	30.0	32.31	33.93	2.1	Sand, shell	"
708	1255CH	7-14-71	26°46.5'N;82°04.7'W	3.4	30.0	31.0	33.39	33.39	2.8	Sand, shell	"
709	1255CH	7-14-71	26°46.3'N;82°06.2'W	4.3	32.0	30.0	32.85	33.93	3.4	Mud, shell	"
710	1255CH	7-14-71	26°46.3'N;82°07.5'W	3.4	32.0	30.0	32.31	33.93	3.4	Mud, shell	"
711	1255CH	7-14-71	26°45.0'N;82°04.7'W	3.4	32.0	30.5	33.93	35.54	2.8	Sand	"
712	1255CH	7-14-71	26°44.8'N;82°06.7'W	3.7	31.0	30.0	33.39	33.93	3.4	Shell	"
713	1255CH	7-14-71	26°44.9'N;82°08.2'W	4.0	31.0	30.0	32.31	33.39	3.7	Shell	"
714	1255CH	7-15-71	26°44.0'N;82°10.6'W	3.7	30.0	30.0	33.93	33.93	3.2	Shell	"
715	1255CH	7-15-71	26°45.5'N;82°11.1'W	3.4	30.5	30.5	33.39	33.39	3.4	Sand, shell	"
716	1255CH	7-15-71	26°45.3'N;82°12.6'W	3.7	31.0	31.0	33.39	33.93	3.4	Sand, shell	"
717	1255CH	7-15-71	26°44.1'N;82°12.6'W	4.6	31.0	30.0	34.47	35.00	2.8	Shell, sand	"
718	1255CH	7-15-71	26°43.2'N;82°12.5'W	3.7	31.0	31.0	35.00	35.00	2.8	Sand, shell	"
719	1255CH	7-15-71	26°42.4'N;82°13.9'W	3.7	31.0	31.0	36.08	36.08	2.8	Sand, shell	"
720	1255CH	7-15-71	26°44.4'N;82°14.3'W	4.0	31.0	31.0	35.00	35.00	3.1	Mud, sand, shell	"
41V	1255CH	7-12-71	26°55.2'N;82°09.6'W	1.3	30.5	29.0	26.92	26.92	1.3	Mud	R/V Venus
42V	1255CH	7-12-71	26°55.4'N;82°10.5'W	2.4	30.5	30.0	28.00	28.00	1.2	Mud	" "
43V	1255CH	7-12-71	26°55.5'N;82°10.7'W	1.9	31.0	31.0	29.08	29.08	0.9	Mud	" "
44V	1255CH	7-13-71	26°53.1'N;82°09.4'W	3.1	29.0	29.0	29.08	29.62	1.4	Mud, sand	" "
45V	1255CH	7-13-71	26°54.0'N;82°10.1'W	1.2	30.0	30.0	29.08	29.08	1.2	Mud, sand	" "
46V	1255CH	7-13-71	26°57.5'N;82°12.4'W	1.2	30.0	30.0	26.92	26.92	0.9	Sand, mud	" "
47V	1255CH	7-13-71	26°56.1'N;82°07.3'W	1.8	31.0	31.0	26.38	26.92	1.2	Sand, mud	" "
48V	1255CH	7-13-71	26°57.0'N;82°06.7'W	1.2	32.5	31.5	25.31	25.31	0.9	Sand, mud	" "
49V	1255CH	7-14-71	26°57.5'N;82°02.7'W	1.3	32.0	31.0	17.23	22.62	0.4	Mud, sand	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
50V	1255CH	7-14-71	26°57.3'N;82°01.5'W	2.4	32.0	31.0	09.69	18.35	0.4	Mud	R/V <i>Venus</i>
51V	1255CH	7-14-71	26°57.8'N;81°59.8'W	1.5	32.0	32.0	06.46	08.45	0.4	Mud	" "
52V	1255CH	7-17-71	26°59.1'N;81°59.5'W	1.5	32.0	32.5	09.69	09.15	0.9	Sand	" "
53V	1255CH	7-17-71	27°00.2'N;81°59.2'W	1.8	32.0	31.0	04.31	07.00	0.6	Mud, sand	" "
54V	1255CH	7-17-71	27°01.5'N;81°59.3'W	1.8	31.5	31.0	02.16	01.08	1.0	Mud	" "
55V	1255CH	7-17-71	27°02.5'N;81°59.4'W	1.7	30.0	30.0	00.54	00.54	0.7	Sand	" "
56V	1255CH	7-17-71	27°03.6'N;81°59.9'W	1.5	30.0	31.0	00.00	00.00	0.7	Sand, mud	" "
57V	1255CH	7-17-71	27°04.8'N;82°00.4'W	1.5	31.0	31.0	00.00	00.00	0.7	Sand, mud	" "
58V	1255CH	7-19-71	26°53.9'N;82°06.2'W	1.8	33.0	33.0	30.69	30.69	0.9	Mud	" "
59V	1255CH	7-19-71	26°53.0'N;82°05.3'W	1.2	32.0	31.0	33.39	31.77	1.2	Mud	" "
60V	1255CH	7-19-71	26°52.3'N;82°04.0'W	1.8	33.0	33.0	31.77	31.77	0.9	Mud	" "
61V	1255CH	7-19-71	26°51.3'N;82°04.2'W	1.2	33.0	33.0	31.77	31.77	1.2	Sand, mud	" "
62V	1255CH	7-20-71	26°50.5'N;82°04.5'W	1.5	31.0	31.0	32.85	32.85	1.5	Sand	" "
63V	1255CH	7-20-71	26°49.4'N;82°04.5'W	1.2	31.0	31.0	33.39	33.93	1.2	Sand	" "
64V	1255CH	7-20-71	26°48.5'N;82°04.6'W	1.8	31.0	31.0	33.93	33.93	1.5	Sand	" "
65V	1255CH	7-20-71	26°47.4'N;82°04.2'W	0.9-1.2	31.0	31.0	33.93	33.93	1.2	Sand	" "
66V	1255CH	7-20-71	26°46.4'N;82°04.4'W	1.5-1.8	32.0	31.0	33.93	33.93	1.5	Sand, rock	" "
67V	1255CH	7-20-71	26°45.2'N;82°04.4'W	1.5	32.0	31.5	33.93	33.93	0.7	Sand	" "
68V	1255CH	7-20-71	26°43.2'N;82°05.4'W	1.5	32.0	32.0	33.93	33.93	1.2	Sand	" "
69V	1255CH	7-20-71	26°41.9'N;82°05.6'W	1.8	32.0	32.0	34.47	33.93	1.2	Sand	" "
70V	1255CH	7-20-71	26°40.9'N;82°05.6'W	0.9	32.0	32.0	32.31	33.39	0.9	Sand	" "
71V	1255CH	7-20-71	26°39.9'N;82°05.5'W	1.8	32.5	32.5	31.77	32.31	0.9	Sand, mud	" "
72V	1255CH	7-22-71	26°41.6'N;82°06.5'W	1.8	31.0	30.5	32.85	32.85	0.9	Sand	" "
73V	1255CH	7-22-71	26°41.8'N;82°07.0'W	0.9	30.0	29.5	33.39	33.39	0.9	Sand	" "
74V	1255CH	7-22-71	26°46.9'N;82°08.4'W	1.2-1.5	32.0	32.0	33.39	33.39	1.2	Sand, shell	" "
75V	1255CH	7-22-71	26°48.7'N;82°08.6'W	1.5-1.8	31.0	30.5	33.39	32.31	1.2	Sand, mud	" "
76V	1255CH	7-22-71	26°49.8'N;82°08.7'W	1.2	31.0	31.0	32.31	32.31	1.2	Sand, mud	" "
77V	1255CH	7-22-71	26°50.6'N;82°08.9'W	1.8	31.0	31.0	32.31	32.31	1.8	Sand, mud	" "
78V	1255CH	7-22-71	26°51.3'N;82°08.9'W	1.2	31.0	31.0	31.77	32.31	1.2	Sand	" "
79V	1255CH	7-22-71	26°52.2'N;82°09.2'W	1.7	31.0	31.0	30.15	30.15	1.2	Sand	" "
81V	1255CH	7-27-71	26°58.8'N;82°14.1'W	1.2	32.0	32.0	21.00	20.46	1.2	Sand, shell, mud	" "
82V	1255CH	7-27-71	26°59.8'N;82°14.4'W	1.0	31.5	31.5	16.15	16.69	1.0	Mud, shell	" "
83V	1255CH	7-27-71	27°00.5'N;82°16.0'W	1.0	32.0	32.0	16.15	15.62	1.0	Sand, mud	" "
84V	1255CH	7-28-71	26°46.4'N;82°12.6'W	1.8	32.5	33.0	33.93	33.93	0.7	Sand	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature Sur. Bot.		Salinity Sur. Bot.		Secchi (m)	Substrate	Gear
85V	1255CH	7-28-71	26°46.0'N;82°11.8'W	2.4	32.0	32.0	33.39	33.39	1.5	Mud	R/V <i>Venus</i>
86V	1255CH	7-29-71	26°49.2'N;82°15.4'W	2.1	30.5	31.0	35.00	35.54	0.6	Sand, mud	" "
87V	1255CH	7-29-71	26°47.4'N;82°15.5'W	2.1	30.5	30.5	34.47	35.00	0.7	Mud, shell	" "
88V	1255CH	7-29-71	26°47.4'N;82°15.9'W	1.0	31.0	30.5	34.47	35.00	0.9	Mud	" "
89V	1255CH	7-29-71	26°47.1'N;82°14.7'W	1.8	31.0	30.5	33.93	34.47	0.8	Mud	" "
90V	1255CH	7-29-71	26°46.1'N;82°14.8'W	1.8	31.5	31.0	33.93	33.39	0.9	Shell, mud	" "
91V	1255CH	7-31-71	26°49.9'N;82°16.2'W	0.9-1.5	29.5	30.0	33.93	33.93	0.9	Mud, sand	" "
92V	1255CH	7-31-71	26°49.3'N;82°16.8'W	0.9	30.0	30.0	35.00	35.00	0.9	Sand	" "
93V	1255CH	7-31-71	26°48.1'N;82°17.2'W	1.8	31.0	31.0	35.00	35.54	1.8	Shell	" "
94V	1255CH	8- 1-71	26°50.2'N;82°16.6'W	1.2-1.5	29.5	29.0	34.47	34.47	1.5	Mud, shell	" "
95V	1255CH	8- 1-71	26°47.3'N;82°14.5'W	1.2	29.5	29.5	34.47	34.47	1.2	Sand	" "
96V	1255CH	8- 1-71	26°46.9'N;82°15.2'W	1.5	30.0	30.0	33.39	34.47	1.5	Mud, shell	" "
97V	1255CH	8- 1-71	26°45.8'N;82°15.1'W	1.5	30.0	30.0	33.93	33.39	0.9	Mud	" "
98V	1255CH	8- 1-71	26°46.1'N;82°13.7'W	1.5	30.0	30.0	33.39	33.39	0.9	Mud, shell	" "
99V	1255CH	8- 1-71	26°45.9'N;82°12.8'W	1.8	29.5	30.0	32.85	33.39	0.9	Mud, shell	" "
100V	1255CH	8- 1-71	26°45.0'N;82°15.2'W	2.1	31.0	31.0	33.39	33.39	1.6	Sand	" "
101V	1255CH	8- 2-71	26°47.3'N;82°10.3'W	1.2	29.0	30.0	35.54	36.08	0.6	Sand	" "
102V	1255CH	8- 2-71	26°46.9'N;82°10.5'W	1.8	29.0	29.0	31.23	31.23	0.6	Mud	" "
103V	1255CH	8- 2-71	26°46.4'N;82°08.9'W	1.5	30.0	30.0	31.77	31.77	1.5	Oyster shell	" "
104V	1255CH	8- 2-71	26°42.6'N;82°08.2'W	1.8	30.0	30.0	32.31	32.31	1.5	Mud, shell	" "
105V	1255CH	8- 2-71	26°42.4'N;82°09.2'W	1.8	30.5	30.0	31.23	32.31	1.3	Shell, mud	" "
106V	1255CH	8- 2-71	26°42.6'N;82°10.3'W	0.9	29.0	29.0	33.39	33.39	0.9	Sand	" "
107V	1255CH	8- 5-71	26°40.4'N;82°13.7'W	0.9-1.5	29.5	29.5	33.39	33.39	1.5	Sand	" "
108V	1255CH	8- 5-71	26°39.2'N;82°12.9'W	2.4	30.0	30.0	33.93	33.39	2.0	Mud, shell	" "
109V	1255CH	8- 5-71	26°38.1'N;82°12.8'W	1.8-2.1	29.5	30.0	35.00	35.00	1.8	Sand, shell	" "
110V	1255CH	8- 5-71	26°37.7'N;82°11.5'W	1.3	30.0	30.0	37.16	37.16	1.3	Sand	" "
111V	1255CH	8- 5-71	26°41.7'N;82°14.4'W	1.8-3.1	31.0	31.0	35.00	35.00	2.0	Sand, shell	" "
112V	1255CH	8- 5-71	26°41.7'N;82°14.7'W	1.8	31.0	30.0	35.54	36.08	1.2	Sand	" "
113V	1255CH	8- 5-71	26°41.7'N;82°12.2'W	2.1	31.0	31.0	33.93	34.47	2.0	Sand	" "
407	1255	11-19-70	26°45.5'N;82°23.9'W	12.8	22.5	21.0		37.69	4.9	Mud	NCD
408	1255	11-19-70	26°42.6'N;82°21.8'W	12.8	23.0	22.0		37.16	6.1	Mud	"
409	1255	11-19-70	26°44.5'N;82°18.3'W	9.5	22.0	21.0		38.23	4.3	Mud	"
431	1255	12- 1-70	26°48.1'N;82°19.1'W	7.6	20.5	19.0		36.62	5.5	Mud	"
454	1255	12- 3-70	26°50.4'N;82°18.8'W	6.1	19.0	18.5		35.54	1.8	Mud	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
455	1255	12- 3-70	26°47.9'N;82°17.4'W	4.3	19.0	19.0		36.08	1.8	Mud	NCD
503	1255	4-13-71	26°24.9'N;81°58.5'W	4.6	21.5	21.0	36.62	37.16	1.5	Mud, shell	"
504	1255	4-13-71	26°23.9'N;81°58.6'W	6.1	21.5	21.0	36.62	36.62	1.5	Mud	"
505	1255	4-13-71	26°22.7'N;82°05.3'W	7.6	21.0	21.0	34.47	34.47	1.8	Mud	"
506	1255	4-13-71	26°22.3'N;82°08.7'W	9.2	20.0	20.0	34.47	33.93	2.1	Rock	"
507	1255	4-14-71	26°21.9'N;82°13.1'W	10.7	21.0	21.0		33.93	5.5	Shell, sand	"
508	1255	4-14-71	26°21.7'N;82°16.3'W	12.2	21.5	21.5		33.39	6.1	Shell	Box dredge
509	1255	4-14-71	26°21.3'N;82°19.2'W	13.7	21.0	21.5	36.08	35.54	6.1	Rock, shell	" "
510	1255	4-14-71	26°24.4'N;82°20.2'W	13.7	20.0	20.5	37.16	36.62	5.2	Rock, shell	" "
511	1255	4-14-71	26°27.1'N;82°21.9'W	13.7	21.0	21.0	36.08	36.62	4.9	Rock	" "
512	1255	4-14-71	26°30.4'N;82°21.5'W	13.7	21.0	20.5	36.08	36.62	6.7	Rock	NCD
513	1255	4-14-71	26°33.3'N;82°21.7'W	13.7	21.0	21.0	37.16	37.16	7.3	Rock	"
514	1255	4-14-71	26°36.2'N;82°21.9'W	13.7	21.0	20.5	37.16	37.16	6.1	Mud, shell	"
515	1255	4-14-71	26°39.7'N;82°24.5'W	13.7	21.0	20.0	36.62	35.00	6.7	Shell	"
516	1255	4-15-71	26°39.5'N;82°22.1'W	12.2	20.5	20.0	33.93	33.93	9.2	Rock	"
517	1255	4-15-71	26°36.3'N;82°20.8'W	12.2	21.0	20.0	33.93	33.93	5.5	Rock, mud	"
518	1255	4-15-71	26°33.3'N;82°20.2'W	12.2	21.0	20.0	36.62	36.62	6.1	Sand, shell	"
519	1255	4-15-71	26°30.4'N;82°20.0'W	12.2	21.0	20.5	33.93	33.93	6.7	Rock, shell	"
520	1255	4-15-71	26°27.3'N;82°19.4'W	12.2	21.0	21.0		33.62	7.0	Rock	"
521	1255	4-15-71	26°24.6'N;82°17.0'W	12.2	21.0	21.0	37.16	37.69	5.2	Rock	"
522	1255	4-15-71	26°24.4'N;82°14.5'W	10.7	21.0	21.5	37.69	36.62	5.5	Mud	"
523	1255	4-15-71	26°27.3'N;82°17.0'W	10.7	21.0	21.0	35.00	35.00	5.5	Sand, shell	"
524	1255	4-15-71	26°30.4'N;82°18.3'W	10.7	21.0	21.0	35.54	35.54	5.5	Mud, shell	"
525	1255	4-15-71	26°33.2'N;82°18.6'W	10.7	20.5	20.5	34.47	34.47	5.5	Shell, sand	"
526	1255	4-16-71	26°36.2'N;82°19.0'W	10.7	21.0	20.5	35.00	35.00	4.9	Rock	"
527	1255	4-16-71	26°39.6'N;82°19.2'W	10.7	22.0	21.5		35.54	5.5	Rock, mud	"
528	1255	4-16-71	26°39.7'N;82°18.5'W	9.2	22.0	22.0		36.08	5.5	Mud	"
529	1255	4-16-71	26°38.6'N;82°16.8'W	7.6	22.0	21.0	36.08	36.08	4.6	Sand, shell	"
530	1255	4-16-71	26°37.7'N;82°16.0'W	6.1	22.0	21.0	36.62	37.69	4.9	Rock, sand, mud	"
531	1255	4-16-71	26°37.8'N;82°15.6'W	4.6	22.0	21.0	36.08	36.08	3.1	Sand, shell	"
532	1255	4-16-71	26°36.2'N;82°15.8'W	7.6	22.5	22.0		36.62	4.9	Rock	"
533	1255	4-16-71	26°38.1'N;82°16.7'W	7.6	22.5	22.0	35.54	36.62	4.0	Mud	"
534	1255	4-16-71	26°33.3'N;82°14.2'W	7.6	22.0	21.0	37.69	37.16	3.7	Rock	"
535	1255	4-16-71	26°33.4'N;82°13.1'W	6.1	22.0	21.0	35.54	36.62	3.4	Rock	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
536	1255	4-16-71	26°33.5'N;82°12.6'W	4.6	22.0	21.0	37.69	36.62	2.1	Sand, shell	NCD
537	1255	4-26-71	26°25.5'N;82°08.6'W	6.1	21.5	21.0	33.93	36.08	1.5	Sand, shell, mud	"
538	1255	4-26-71	26°25.6'N;82°10.0'W	7.6	22.0	20.0	35.00	35.00	2.4	Rock	"
539	1255	4-26-71	26°25.1'N;82°12.5'W	9.2	25.0	25.0	36.08	33.93	3.7	Sand, shell	"
540	1255	4-26-71	26°27.8'N;82°13.3'W	9.2	25.5	25.0	34.47	35.54	4.0	Rock	"
541	1255	4-26-71	26°30.8'N;82°16.2'W	9.2	25.0	20.0	33.93	33.93	5.2	Rock	"
542	1255	4-26-71	26°33.5'N;82°16.8'W	9.2	22.0	19.5	33.93	33.93	4.6	Mud, sand	"
543	1255	4-26-71	26°36.6'N;82°17.5'W	9.2	21.0	20.0	33.93	33.93	2.1	Rock	"
544	1255	4-27-71	26°36.9'N;82°14.3'W	4.6	22.0	21.0	33.93	33.93	2.4	Sand	"
545	1255	4-27-71	26°36.1'N;82°15.0'W	6.1	26.0	26.0	33.39	33.39	3.7	Sand, mud	"
546	1255	4-27-71	26°30.3'N;82°12.5'W	6.1	26.5	26.5	33.93	33.93	1.8	Sand, shell	"
547	1255	4-27-71	26°30.5'N;82°13.6'W	7.6	26.0	26.0	33.93	33.93	3.4	Mud, sand, shell	"
548	1255	4-27-71	26°30.5'N;82°12.0'W	4.6	27.5	28.0	37.16	36.08	2.1	Mud	"
549	1255	4-27-71	26°27.8'N;82°10.7'W	4.6	27.0	26.5		35.54	2.1	Mud	"
550	1255	4-27-71	26°27.8'N;82°11.3'W	6.1	27.0	26.5	35.00	35.00	2.4	Mud	"
551	1255	4-27-71	26°27.8'N;82°12.0'W	7.6	27.0	26.0	37.16	36.08	4.9	Mud	"
552	1255	4-28-71	26°25.3'N;81°57.2'W	4.6	27.0	27.0	33.93	33.93	1.5	Mud	"
553	1255	4-28-71	26°23.1'N;81°54.0'W	4.6	27.5	27.0	34.47	35.54	0.9	Mud	"
554	1255	4-28-71	26°17.3'N;81°50.5'W	4.6	27.5	27.5	36.62	36.62	1.8	Mud, rock	"
555	1255	4-28-71	26°17.2'N;81°51.2'W	6.1	27.5	27.5	36.62	35.54	3.4	Mud, rock	"
556	1255	4-28-71	26°17.1'N;81°52.9'W	7.6	28.0	27.0	36.62	36.62	2.4	Mud, rock	"
557	1255	4-28-71	26°17.1'N;81°55.8'W	9.2	27.5	26.5	35.00	35.00	3.4	Mud	"
558	1255	4-28-71	26°17.1'N;82°00.5'W	10.7	27.0	26.0	35.00	35.00	3.7	Mud	"
559	1255	4-28-71	26°17.7'N;82°13.1'W	12.2	26.5	25.5	35.00	35.00	5.5	Rock	"
560	1255	4-29-71	26°17.9'N;82°16.1'W	13.7	26.0	19.0	33.39	33.93	5.5	Rock	"
721	1255	7-18-71	26°36.0'N;82°14.3'W	3.1	31.0	31.0	34.47	34.47	3.1	Shell, mud	"
722	1255	7-18-71	26°36.0'N;82°14.4'W	5.5	31.0	31.0	34.47	34.47	4.0	Rock	"
723	1255	7-18-71	26°35.4'N;82°14.2'W	4.0	31.0	31.0	34.47	34.47	3.1	Shell, mud	"
724	1255	7-18-71	26°34.7'N;82°13.7'W	3.1	31.0	31.0	35.00	35.00	3.1	Sand	"
725	1255	7-18-71	26°32.7'N;82°12.6'W	3.1	31.5	31.5	35.54	35.54	2.8	Sand, shell	"
726	1255	7-18-71	26°33.0'N;82°13.0'W	5.5	32.0	31.0	35.00	35.00	2.8	Mud, shell	"
727	1255	7-18-71	26°42.0'N;82°16.4'W	3.7	31.5	31.5	36.08	36.08	3.1	Sand, shell	"
728	1255	7-18-71	26°41.5'N;82°17.1'W	4.3	31.5	31.5	36.08	36.08	2.8	Sand, shell	"
729	1255	7-18-71	26°40.9'N;82°18.0'W	5.5	31.0	31.5	36.08	35.54	3.4	Mud	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
730	1255	7-18-71	26°41.0'N;82°19.1'W	5.5	31.0	31.0	35.54	35.54	3.1	Sand	NCD
731	1255	7-18-71	26°41.9'N;82°18.8'W	4.9	31.5	31.5	36.08	36.08	2.8	Sand, mud	"
732	1255	7-18-71	26°42.4'N;82°17.9'W	4.9	31.5	31.5	33.93	33.93	2.8		"
733	1255	7-19-71	26°45.8'N;82°16.3'W	4.6	31.0	31.0	35.00	35.00	2.8	Sand, shell	"
734	1255	7-19-71	26°45.7'N;82°17.7'W	7.6	31.0	31.0	34.47	35.00	3.1	Rock, shell	"
735	1255	7-19-71	26°45.5'N;82°20.7'W	10.7	32.0	32.0	35.54	35.54	7.9	Rock	Box dredge
736	1255	7-19-71	26°45.4'N;82°25.0'W	13.7	31.0	30.0	36.08	36.08	9.2	Rock, sand	" "
755	1255	7-21-71	26°48.8'N;82°17.6'W	6.1	32.0	32.0	37.69	37.16	2.4	Mud, sand	NCD
756	1255	7-21-71	26°51.8'N;82°19.6'W	6.1	32.0	32.0	37.16	37.16	2.8	Mud, shell	"
757	1255	7-21-71	26°52.0'N;82°19.5'W	4.6	32.0	32.0	36.08	36.62	2.1	Sand, shell	"
561	1254	4-29-71	26°10.0'N;82°06.1'W	13.7	26.0	24.0	33.93	33.93	6.7	Rock	"
562	1254	4-29-71	26°12.5'N;82°02.4'W	12.2	27.0	25.0	33.39	35.00	7.3	Sand, shell	"
563	1254	4-29-71	26°12.4'N;81°58.0'W	10.7	27.0	26.5	33.93	35.00	6.7	Rock	"
564	1254	4-29-71	26°12.6'N;81°55.1'W	9.2	27.0	26.5	35.54	35.54	4.6	Mud, shell	"
565	1254	4-29-71	26°12.3'N;81°53.3'W	7.6	28.0	26.0	36.08	35.00	2.4	Sand, shell	"
566	1254	4-29-71	26°12.3'N;81°50.5'W	6.1	28.0	27.5	37.69	37.69	4.6	Sand, shell	"
567	1254	4-29-71	26°12.4'N;81°49.4'W	4.6	28.5	28.0	34.47	35.00	2.1	Mud, rock	"
568	1254	5- 5-71	26°08.0'N;81°49.2'W	4.6	26.5	26.0	35.54	36.62	0.6	Rock	"
569	1254	5- 5-71	26°07.9'N;81°49.8'W	6.1	26.0	26.0	37.69	37.69	0.6	Rock, shell, mud	"
570	1254	5- 5-71	26°07.9'N;81°52.2'W	7.6	26.5	26.5	36.08	37.16	1.5	Rock	"
571	1254	5- 5-71	26°08.1'N;81°55.8'W	9.2	25.5	25.5	37.16	37.16	2.4	Rock	"
572	1254	5- 6-71	26°03.1'N;81°48.5'W	6.1	25.5	25.5	35.00	35.00	2.1	Rock	"
573	1254	5- 6-71	26°03.2'N;81°47.7'W	4.6	26.0	25.5	34.47	35.00	0.9	Mud, shell	"
574	1254	5- 6-71	26°03.0'N;81°50.4'W	7.6	26.0	26.0	36.62	37.16	1.8		"
575	1254	5-18-71	26°08.3'N;82°00.1'W	10.7	28.0	27.0	36.62	37.16	8.5	Rock	"
576	1254	5-18-71	26°08.4'N;82°03.1'W	12.2	27.5	26.5	35.00	35.00	9.2	Rock	"
577	1254	5-18-71	26°07.6'N;82°06.0'W	13.7	27.5	26.0	35.00	35.00	9.2	Rock	"
578	1254	5-19-71	26°03.4'N;82°05.5'W	13.7	26.0	26.0	34.47	34.47		Rock	Box dredge
579	1254	5-19-71	26°03.1'N;82°02.2'W	12.2	26.5	27.0	34.47	34.47		Rock	" "
580	1254	5-19-71	26°03.1'N;81°57.7'W	10.7	27.0	27.0	35.00	36.08	9.2	Rock	" "
581	1254	5-19-71	26°03.2'N;81°54.1'W	9.2	27.5	27.0	35.00	37.16	9.2	Sand, shell	" "
582	1254	5-19-71	25°58.8'N;81°45.6'W	4.6	28.0	28.0	37.16	37.69	3.7	Sand, shell	NCD
583	1254	5-19-71	25°58.8'N;81°46.8'W	6.1	29.0	28.0	37.16	36.62	3.1	Sand, shell	"
584	1254	5-19-71	25°58.8'N;81°49.0'W	7.6	28.5	28.0	36.62	37.16	2.4	Rock	"
585	1254	5-19-71	25°58.8'N;81°51.2'W	9.2	29.0	28.0	34.47	35.00	1.8	Rock	"

Station	Chart No.	Date	Location	Depth	Temperature		Salinity		Secchi	Substrate	Gear
				(m)	Sur.	Bot.	Sur.	Bot.	(m)		
586	1254	5-19-71	25°58.9'N;81°53.8'W	10.7	28.5	28.0	36.08	36.08	7.3	Rock	NCD
587	1254	5-19-71	25°58.8'N;81°57.2'W	12.2	28.5	27.5	36.08	35.54	7.3	Rock	Box dredge
588	1254	5-19-71	25°58.6'N;82°02.6'W	13.7	28.0	27.0	35.54	34.47	9.2	Rock	" "
589	1254	5-20-71	25°54.3'N;81°57.7'W	13.7	27.0	27.0	37.16	36.08	7.9	Rock	" "
590	1254	5-20-71	25°54.3'N;81°55.8'W	12.2	27.5	27.0	37.16	35.54	8.9	Rock, sand	" "
591	1254	5-20-71	25°54.3'N;81°51.9'W	10.7	28.0	28.0	36.62	35.00	8.5	Rock	" "
592	1254	5-20-71	25°54.3'N;81°49.0'W	9.2	28.0	28.0	37.16	37.16	5.5	Rock	NCD
593	1254	5-20-71	25°54.6'N;81°47.1'W	7.6	29.0	28.5	37.16	35.54	3.7	Rock	Box dredge
594	1254	5-20-71	25°54.9'N;81°44.9'W	6.1	29.0	28.5	37.69	38.23	3.7	Mud	NCD
595	1254	5-20-71	25°54.1'N;81°44.7'W	4.6	28.5	28.5	37.69	37.69	2.8	Mud, shell	"
596	1254	5-20-71	25°53.7'N;81°43.7'W	3.4	29.0	28.5	37.69	37.69	0.9	Mud	"
597	1254	5-20-71	25°53.0'N;81°44.1'W	6.1	28.5	28.5	36.62	37.16	0.9	Mud	"
598	1254	5-20-71	25°51.6'N;81°43.6'W	5.5	28.5	28.0	36.62	36.62	1.2	Mud, shell	"
599	1254	5-21-71	25°50.3'N;81°42.9'W	4.6	28.0	28.5	36.62	37.16	2.1	Sand	"
600	1254	5-21-71	25°50.3'N;81°43.9'W	6.1	28.0	28.0	36.08	36.62	4.9	Sand	"
601	1254	5-21-71	25°50.3'N;81°46.0'W	7.6	28.5	28.5	37.16	36.62	5.5	Sand	"
602	1254	5-21-71	25°50.2'N;81°48.1'W	9.2	28.0	28.0	36.62	36.62	5.5	Sand	"
603	1254	5-21-71	25°50.3'N;81°49.9'W	10.7	28.0	28.0	37.69	36.62	6.4	Sand	Box dredge
604	1254	5-21-71	25°50.2'N;81°53.2'W	12.2	28.5	27.5	37.16	37.69	7.6	Rock	NCD
605	1254	5-21-71	25°50.5'N;81°55.9'W	13.7	28.5	27.0	35.00	36.62	6.7	Rock	Box dredge
606	1254	5-21-71	25°45.4'N;81°56.4'W	13.7	27.0	27.0	36.62	35.54	4.6	Rock	NCD
607	1254	5-21-71	25°45.7'N;81°52.7'W	12.2	28.5	28.0	37.16	37.16	4.6	Rock	Box dredge
608	1254	5-21-71	25°45.6'N;81°50.0'W	10.7	28.0	28.0	35.54	35.54	7.6	Sand	" "
609	1254	5-22-71	25°45.5'N;81°46.6'W	9.2	28.0	28.0	35.00	35.00	4.9	Sand	NCD
610	1254	5-22-71	25°45.4'N;81°44.1'W	7.6	28.5	28.0	36.62	36.08	4.9	Rock	"
611	1254	5-22-71	25°45.5'N;81°43.2'W	6.1	28.5	28.0	36.62	37.16	4.6	Sand, shell	"
612	1254	5-22-71	25°45.4'N;81°41.3'W	4.6	29.0	28.5	37.69	37.16	4.0	Sand	"
613	1254	5-22-71	25°43.7'N;81°41.2'W	3.7	29.0	29.0	37.69	37.69	3.7	Sand	"
614	1254	5-22-71	25°40.5'N;81°39.5'W	6.1	29.0	29.0	37.69	37.69	3.7	Sand	"
615	1254	5-22-71	25°40.5'N;81°38.2'W	4.6	28.0	28.0	37.69	36.62	4.6	Sand	"
616	1254	5-22-71	25°40.2'N;81°44.6'W	7.6	28.5	28.0	36.62	37.16	3.7	Sand	"
771	1254	8-14-71	25°48.3'N;81°34.8'W	3.4	27.5	27.5	36.08	36.08	0.3	Mud, shell	"
772	1254	8-14-71	25°46.8'N;81°33.2'W	3.4	27.5	27.5	33.93	34.47	0.6	Mud, shell	"
773	1254	8-19-71	26°44.9'N;81°30.5'W	3.1	29.0	29.0	32.85	33.39	1.5	Shell, sand	"
774	1254	8-19-71	26°43.3'N;81°27.6'W	3.1	29.0	29.0	33.39	34.47	1.5	Sand	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
775	1254	8-19-71	26°40.9'N;81°25.5'W	3.1	29.5	29.5	33.93	33.93	1.3	Sand	NCD
790	1254	8-20-71	25°41.4'N;81°28.7'W	4.6	31.5	30.0	36.08	36.62	1.2	Mud	"
791	1254	8-20-71	25°42.8'N;81°31.7'W	4.6	31.0	30.0	35.54	36.08	1.5	Mud	"
792	1254	8-20-71	25°44.2'N;81°34.7'W	4.6	31.0	30.0	35.54	35.00	1.2	Rock	"
793	1254	8-21-71	25°44.9'N;81°38.4'W	4.0	32.0	30.0			1.5	Mud	"
794	1254	8-21-71	25°45.0'N;81°36.2'W	4.3	31.0	30.0			1.8	Mud	"
795	1254	8-21-71	25°47.2'N;81°36.3'W	3.7	30.0	29.0			1.5	Mud	"
796	1254	8-21-71	25°45.7'N;81°34.3'W	3.4	30.0	29.5			1.2		"
804	1254	8-23-71	25°42.3'N;81°40.6'W	5.8	30.0	30.0			2.1	Shell	"
805	1254	8-23-71	25°43.9'N;81°42.2'W	6.1	30.0	29.5			1.8	Sand	"
806	1254	8-23-71	25°48.2'N;81°43.6'W	6.1	30.5	30.0			2.1	Sand, shell	"
807	1254	8-24-71	25°42.0'N;81°39.1'W	5.5	29.5	29.5			2.8	Sand, shell	"
808	1254	8-24-71	25°43.0'N;81°39.1'W	3.7	30.0	30.0			1.8	Sand, shell	"
809	1254	8-24-71	25°43.7'N;81°39.4'W	3.4	30.0	30.0			1.8	Sand	"
810	1254	8-24-71	25°44.2'N;81°39.1'W	4.9	30.0	30.0			1.8		"
811	1254	8-24-71	25°45.2'N;81°40.2'W	4.3	30.5	30.0			1.3		"
812	1254	8-24-71	25°46.9'N;81°41.8'W	4.9	31.0	30.0			1.8	Rock	"
813	1254	8-24-71	25°42.5'N;81°34.0'W	5.2	30.5	30.5			1.8	Sand	"
814	1254	9- 3-71	25°40.3'N;81°46.0'W	9.2	30.5	30.0	35.00	35.00	7.3	Mud	"
829	1254	9- 6-71	25°40.6'N;81°47.8'W	10.7	30.0	30.0	33.93	33.93	5.5	Rock	"
830	1254	9- 6-71	25°40.5'N;81°50.6'W	12.2	30.0	30.0	33.93	34.47	4.9	Rock	"
114V	1254	8-11-71	25°51.4'N;81°38.5'W	1.5	29.0	29.0	35.54	35.54	1.0	Shell, mud	R/V Venus
115V	1254	8-11-71	25°52.9'N;81°37.7'W	1.5	29.0	29.0	34.47	33.93	0.6	Shell, mud	" "
116V	1254	8-11-71	25°52.8'N;81°36.2'W	1.8	30.0	29.5	34.47	33.93	0.4	Shell, mud	" "
117V	1254	8-11-71	25°51.9'N;81°35.1'W	1.8	30.0	30.0	33.93	33.39	0.4	Mud, shell	" "
118V	1254	8-14-71	25°51.8'N;81°34.6'W	1.5	27.0	27.0	32.31	32.85	0.4	Oyster shell	" "
119V	1254	8-14-71	25°51.3'N;81°33.5'W	1.6	27.0	27.0	32.31	32.85	0.3	Mud, oyster shell	" "
120V	1254	8-14-71	25°50.4'N;81°32.0'W	2.1	27.0	27.0	30.15	30.15	0.4	Sand, rock	" "
121V	1254	8-14-71	25°49.7'N;81°31.2'W	1.2-2.1	26.5	27.0	32.85	32.85	0.4	Shell, rock	" "
122V	1254	8-21-71	25°49.6'N;81°30.4'W	3.4	31.0	30.5	26.92	28.00	1.0	Sand, shell	" "
123V	1254	8-21-71	25°49.0'N;81°32.4'W	2.3	30.0	29.0	29.62	30.69	0.6	Shell	" "
124V	1254	8-21-71	25°48.4'N;81°32.3'W	3.7	30.2	29.8	28.00	31.23	0.6	Mud, shell	" "
125V	1254	8-22-71	25°49.5'N;81°32.9'W	3.4	30.0	30.0	28.00	28.00	0.4	Shell	" "
126V	1254	8-22-71	25°48.9'N;81°33.9'W	3.8	29.5	30.0	28.00	28.00	0.4	Shell	" "
127V	1254	8-22-71	25°50.0'N;81°35.7'W	4.0	30.0	29.5	28.54	28.54	0.7	Shell, mud	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
128V	1254	8-22-71	25°50.7'N;81°34.9'W	3.4	30.0	29.5	28.54	28.00	0.6	Hard mud	R/V <i>Venus</i>
129V	1254	8-22-71	25°52.0'N;81°36.7'W	3.1	30.0	29.5	28.00	28.54	0.3	Mud, shell	" "
130V	1254	8-22-71	25°51.6'N;81°37.4'W	2.8	29.0	29.0	28.54	28.00	0.3	Mud, shell	" "
131V	1254	8-22-71	25°51.0'N;81°38.1'W	2.4	29.0	29.0	31.23	31.23	0.9	Shell, mud	" "
132V	1254	8-23-71	25°48.4'N;81°28.4'W	2.5	30.5	30.0	26.92	26.92	0.4	Shell, mud	" "
133V	1254	8-23-71	25°47.7'N;81°29.3'W	3.4	30.0	29.5	27.46	27.46	0.3	Shell, mud	" "
134V	1254	8-23-71	25°47.0'N;81°29.9'W	3.4	30.0	29.5	28.00	28.54	0.3	Shell	" "
135V	1254	8-23-71	25°46.4'N;81°30.8'W	4.0	30.0	30.0	29.08	28.54	0.4	Shell, mud	" "
136V	1254	8-23-71	25°44.7'N;81°29.2'W	4.6	30.0	30.0	31.23	29.62	0.6	Mud, shell	" "
137V	1254	8-23-71	25°45.3'N;81°28.3'W	4.3	30.0	30.0	30.69	29.08	0.4	Mud, shell	" "
138V	1254	8-23-71	25°45.8'N;81°27.3'W	4.3	30.0	29.5	28.54	28.54	0.4	Mud, shell	" "
139V	1254	8-23-71	25°46.5'N;81°26.5'W	3.4	30.0	30.0	27.46	27.46	0.6	Mud, shell	" "
140V	1254	8-23-71	25°47.1'N;81°25.8'W	2.6	30.0	30.0	25.85	25.85	0.6	Shell, mud	" "
141V	1254	8-24-71	25°46.0'N;81°23.2'W	1.2	31.0	30.0	17.77	21.54	0.3	Mud	" "
142V	1254	8-24-71	25°45.4'N;81°23.9'W	2.1	31.0	31.0	25.85	31.23	0.6	Shell, mud	" "
143V	1254	8-24-71	25°44.8'N;81°24.8'W	3.2	31.0	30.0	23.69	28.00	0.9	Shell, mud	" "
144V	1254	8-24-71	25°44.2'N;81°25.7'W	3.1	31.0	30.0	25.85	28.54	1.0	Shell, mud	" "
145V	1254	8-24-71	25°43.6'N;81°26.6'W	3.4-3.7	31.0	30.0	26.92	30.15	0.9	Shell, mud	" "
146V	1254	8-24-71	25°42.3'N;81°24.9'W	3.1	31.5	29.5	25.85	30.69	1.0	Mud, shell	" "
147V	1254	8-24-71	25°42.9'N;81°23.9'W	2.8	32.5	30.0	23.69	30.69	1.0	Mud, shell	" "
148V	1254	8-24-71	25°43.4'N;81°23.1'W	2.4	32.0	31.0	22.08	25.85	0.7	Mud, sand	" "
149V	1254	8-24-71	25°44.2'N;81°22.2'W	2.4	31.5	31.0	23.16	25.31	0.6	Mud, shell	" "
150V	1254	8-24-71	25°42.2'N;81°22.1'W	2.2	33.5	30.5	25.85	30.15	1.2	Mud, shell	" "
151V	1254	8-24-71	25°41.6'N;81°20.0'W	1.8	31.0	30.0	27.46	32.31	0.9	Mud	" "
152V	1254	8-25-71	25°41.3'N;81°20.5'W	2.1	32.0	30.5	25.31	30.15	0.6	Mud, shell	" "
153V	1254	8-25-71	25°40.7'N;81°21.4'W	2.8-3.1	32.0	30.0	28.54	33.39	0.7	Mud, shell	" "
154V	1254	8-25-71	25°40.1'N;81°22.3'W	3.5	33.0	30.5	28.00	33.39	1.2	Shell, mud	" "
156V	1254	8-31-71	25°41.4'N;81°19.2'W	2.4	30.5	30.0	29.08	32.31	1.2	Mud, shell	" "
499	1253	3-13-71	25°23.7'N;81°26.0'W	6.1	22.5	22.0		36.62	2.8	Rock	NCD
500	1253	3-13-71	25°28.6'N;81°27.6'W	6.1	22.0	22.0		36.62	1.8	Shell	"
501	1253	3-13-71	25°36.1'N;81°29.1'W	6.1	21.5	21.5		36.62	4.0	Sand, shell	"
502	1253	3-13-71	25°38.0'N;81°31.8'W	6.1	21.0	21.0		35.00	3.7	Sand	"
776	1253	8-19-71	25°37.9'N;81°22.5'W	3.2	29.0	29.0	36.62	35.54	1.3	Sand	"
777	1253	8-19-71	25°35.8'N;81°20.1'W	3.2	29.5	29.5	35.54	36.08	1.3	Mud, sand	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
778	1253	8-19-71	25°33.1'N;81°18.8'W	3.4	29.5	29.0	35.54	36.08	1.5	Mud, sand	NCD
779	1253	8-19-71	25°30.8'N;81°16.9'W	3.1	29.5	29.5	35.54	36.62	1.5	Shell, mud	"
780	1253	8-19-71	25°27.9'N;81°16.2'W	3.1	29.5	29.5	37.69	38.23	0.9	Rock	"
781	1253	8-19-71	25°25.1'N;81°15.6'W	3.1	30.0	29.5	37.69	37.69	1.2	Mud	"
782	1253	8-19-71	25°22.1'N;81°14.9'W	3.1	30.0	30.0	40.38	40.38	1.2	Mud, shell	"
783	1253	8-20-71	25°22.0'N;81°18.4'W	4.6	29.5	29.5	37.16	37.69	1.8	Rock	"
784	1253	8-20-71	25°24.9'N;81°19.4'W	4.9	29.5	29.5	37.69	38.77	1.8	Rock, mud, shell	"
785	1253	8-20-71	25°27.9'N;81°19.4'W	4.6	29.5	29.5	38.23	38.77	1.8	Mud, shell	"
786	1253	8-20-71	25°30.7'N;81°20.9'W	4.6	30.0	29.5	38.77	39.31	1.8	Mud	"
787	1253	8-20-71	25°33.6'N;81°21.5'W	4.6	30.0	30.0	38.23	40.92	1.7	Mud, rock	"
788	1253	8-20-71	25°35.9'N;81°23.7'W	4.6	30.5	30.0	38.23	38.77	1.5	Mud	"
789	1253	8-20-71	25°38.3'N;81°25.6'W	4.6	31.0	30.0	35.54	37.69	1.5		"
797	1253	8-22-71	25°37.4'N;81°40.0'W	7.6	30.0	29.0			2.3	Shell, sand	"
798	1253	8-22-71	25°34.8'N;81°38.3'W	7.6	30.0	29.0			2.1	Shell	"
799	1253	8-22-71	25°33.5'N;81°35.4'W	7.6	30.0	30.0			4.3	Rock, shell, sand	"
800	1253	8-22-71	25°31.6'N;81°32.7'W	7.6	30.0	29.5			3.1	Rock	"
801	1253	8-22-71	25°28.7'N;81°31.5'W	7.6	30.5	29.5			3.1	Rock	"
802	1253	8-22-71	25°25.8'N;81°32.0'W	7.6	30.0	30.0			3.1	Shell, rock	"
803	1253	8-22-71	25°24.3'N;81°29.0'W	7.6	30.0	30.0			3.1	Rock	"
815	1253	9- 3-71	25°37.4'N;81°44.6'W	9.2	30.5	30.5	35.54	35.54	6.4	Shell	"
816	1253	9- 3-71	25°34.5'N;81°44.6'W	9.2	30.5	30.0	36.62	36.62	3.7	Sand	"
817	1253	9- 3-71	25°31.3'N;81°39.8'W	9.2	30.5	30.5	36.62	38.77	4.9	Rock	"
818	1253	9- 3-71	25°28.3'N;81°37.2'W	9.2	31.0	31.0	35.54	35.54	5.5	Rock	"
819	1253	9- 3-71	25°26.5'N;81°37.3'W	9.2	30.0	30.0	35.00	35.00	3.7	Rock	"
820	1253	9- 3-71	25°23.5'N;81°36.4'W	9.2	30.0	29.5	35.54	35.54	4.9	Rock, shell	"
821	1253	9- 4-71	25°21.1'N;81°34.8'W	9.2	30.0	29.5	35.00	35.00	5.5	Sand	"
822	1253	9- 4-71	25°21.0'N;81°38.1'W	10.7	30.0	29.5	35.00	35.00	5.8	Sand	"
823	1253	9- 6-71	25°23.6'N;81°39.1'W	10.7	30.0	30.0	34.47	34.47	5.5	Coral rock	"
824	1253	9- 6-71	25°26.1'N;81°41.3'W	10.7	29.0	29.5	32.31	34.47	4.9	Sand	Box dredge
825	1253	9- 6-71	25°29.2'N;81°46.1'W	10.7	29.0	29.5	33.39	34.47	4.9	Sand	" "
826	1253	9- 6-71	25°32.0'N;81°48.2'W	10.7	29.5	30.0	33.39	34.47	5.2	Sand	" "
827	1253	9- 6-71	25°35.4'N;81°49.0'W	10.7	29.0	30.0	33.39	34.47	5.2	Sand	NCD
828	1253	9- 6-71	25°38.0'N;81°49.0'W	10.7	29.5	29.5	34.47	34.47	5.5	Rock, sand	"
831	1253	9- 6-71	25°38.2'N;81°51.5'W	12.2	29.0	30.0	33.39	34.47	9.2	Sand	Box dredge
832	1253	9- 6-71	25°35.2'N;81°51.2'W	12.2	29.5	30.0	33.39	34.47	8.5	Sand	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
155V	1253	8-25-71	25°39.6'N, 81°23.3'W	4.3	32.5	30.5	28.00	36.08	1.0	Mud, shell	R/V <i>Venus</i>
157V	1253	8-25-71	25°39.4'N, 81°18.8'W	1.8	29.5	29.5	32.31	32.31	0.9	Sand	" "
158V	1253	9- 1-71	25°38.4'N, 81°19.3'W	3.4	28.0	28.5	30.69	32.85	1.5	Shell, mud	" "
159V	1253	9- 1-71	25°38.0'N, 81°20.3'W	4.0	29.0	29.0	33.39	33.93	1.5	Shell, mud	" "
160V	1253	9- 1-71	25°37.5'N, 81°21.2'W	4.6	29.0	29.0	34.47	34.47	1.8	Shell, mud	" "
161V	1253	9- 1-71	25°35.7'N, 81°20.3'W	4.6	29.5	29.5	34.47	35.00	1.2	Shell, mud	" "
162V	1253	9- 1-71	25°36.2'N, 81°19.3'W	4.6	29.0	29.0	35.54	35.54	1.3	Shell, mud	" "
163V	1253	9- 4-71	25°36.7'N, 81°18.3'W	2.8	28.0	28.0	33.93	33.93	0.9	Shell, mud	" "
164V	1253	9- 4-71	25°37.2'N, 81°17.3'W	3.1	28.0	28.0	33.93	33.39	0.6	Shell, mud	" "
165V	1253	9- 4-71	25°37.4'N, 81°16.7'W	2.4	28.0	28.0	32.31	32.31	0.9	Shell, mud	" "
166V	1253	9- 4-71	25°35.4'N, 81°15.0'W	2.2	28.5	28.0	31.77	31.77	0.7	Shell, mud	" "
167V	1253	9- 4-71	25°35.0'N, 81°16.0'W	3.1	29.0	29.0	32.31	32.85	0.9	Mud, shell	" "
168V	1253	9- 4-71	25°34.6'N, 81°17.2'W	4.3	29.0	28.0	33.93	33.93	0.9	Shell, mud	" "
169V	1253	9- 4-71	25°32.5'N, 81°16.8'W	4.6	28.5	28.5	35.00	35.00	1.0	Shell, mud	" "
170V	1253	9- 4-71	25°32.9'N, 81°15.8'W	3.4	28.5	28.0	33.93	34.47	1.0	Shell, mud	" "
171V	1253	9- 4-71	25°33.4'N, 81°14.8'W	2.8	28.5	28.5	32.85	32.85	0.9	Shell, mud	" "
172V	1253	9- 4-71	25°33.7'N, 81°14.1'W	1.9	28.5	28.0	32.31	32.31	0.3	Shell, mud	" "
173V	1253	9- 5-71	25°31.1'N, 81°14.2'W	1.0	28.0	28.0	30.15	30.15	1.0	Shell, mud	" "
174V	1253	9- 5-71	25°30.7'N, 81°15.1'W	2.8	28.0	28.0	32.85	33.39	1.0	Shell, mud	" "
175V	1253	9- 5-71	25°30.1'N, 81°16.1'W	4.0	28.0	28.5	33.39	34.47	0.9	Shell, mud	" "
176V	1253	9- 5-71	25°29.6'N, 81°17.1'W	4.3	28.5	28.5	35.00	35.00	0.9	Shell, mud	" "
177V	1253	9- 5-71	25°28.0'N, 81°15.7'W	4.0	28.5	28.5	34.47	34.47	1.0	Shell, mud, rock	" "
178V	1253	9- 5-71	25°28.5'N, 81°14.7'W	3.7	28.5	28.5	33.39	33.39	1.2	Shell, mud	" "
179V	1253	9- 5-71	25°28.9'N, 81°13.7'W	2.8	28.5	28.5	31.77	32.31	1.2	Shell, mud	" "
180V	1253	9- 5-71	25°29.5'N, 81°12.7'W	1.8	29.0	29.0	30.69	30.69	1.5	Hard sand	" "
181V	1253	9- 5-71	25°27.7'N, 81°11.2'W	1.2	29.0	29.0	30.15	30.15	1.2	Sandy mud	" "
182V	1253	9- 5-71	25°27.3'N, 81°12.1'W	2.8	29.0	28.5	32.31	32.31	1.5	Shell, mud	" "
183V	1253	9- 6-71	25°26.7'N, 81°13.1'W	2.8	28.5	28.5	28.00	30.15	0.6	Mud, shell	" "
184V	1253	9- 8-71	25°26.2'N, 81°14.0'W	2.4	27.0	27.5	30.15	30.69	0.6	Mud, shell	" "
185V	1253	9- 8-71	25°24.5'N, 81°13.5'W	2.2	27.5	27.5	31.23	31.23	0.6	Mud, shell	" "
186V	1253	9- 8-71	25°24.9'N, 81°12.5'W	2.1	28.0	28.0	30.69	30.69	0.4	Mud, shell	" "
187V	1253	9- 8-71	25°25.3'N, 81°11.5'W	1.2	28.0	28.0	26.38	26.38	0.3	Mud, shell	" "
188V	1253	9- 8-71	25°24.0'N, 81°10.6'W	1.6	29.0	28.5	26.92	26.38	0.3	Mud, shell	" "
189V	1253	9- 8-71	25°23.6'N, 81°11.6'W	2.0	28.0	28.0	29.62	30.15	0.3	Mud, shell	" "
190V	1253	9- 8-71	25°23.1'N, 81°12.7'W	4.0	28.0	28.0	33.39	33.39	0.4	Shell, mud	" "

Station	Chart No.	Date	Location	Depth (m)	Temperature Sur.	Bot.	Salinity Sur.	Bot.	Secchi (m)	Substrate	Gear
191V	1253	9- 8-71	25°21.2'N;81°11.8'W	2.8	28.0	28.0	32.31	32.31	0.3	Shell	R/V Venus
192V	1253	9- 8-71	25°21.6'N;81°10.8'W	2.8	28.0	28.0	31.23	30.15	0.3	Shell, mud	" "
193V	1253	9- 8-71	25°22.2'N;81°09.7'W	2.1	28.0	28.0	29.08	29.08	0.3	Mud	" "
194V	1253	9- 9-71	25°20.9'N;81°07.6'W	2.8	28.0	28.0	28.00	28.00	1.2	Mangrove detritus	" "
195V	1253	9- 9-71	25°20.6'N;81°08.7'W	3.7	28.0	28.0	30.15	30.15	1.0	Hard shell	" "
498	1251	3-13-71	24°40.3'N;81°48.7'W	6.1	22.0	22.0	36.62	36.62	4.3	Rock	Box dredge
AREA III											
617	1250	5-30-71	24°52.0'N;80°39.1'W	4.3	28.0	28.0	36.08	36.08	4.3	Rock, sand	Box dredge
618	1250	5-30-71	24°54.1'N;80°36.1'W	4.0	28.0	28.0		36.08	4.0	Rock	" "
619	1250/1249	5-30-71	24°55.8'N;80°33.4'W	4.6	28.0	28.0		35.54	4.6	Rock	" "
620	1249	5-30-71	24°58.9'N;80°29.8'W	4.0	28.5	28.0		37.69	4.0	Rock, sand	" "
621	1249	5-30-71	25°05.0'N;80°23.6'W	4.0	28.5	28.0		37.69	4.0	White sand	" "
622	1249	5-30-71	25°08.3'N;80°20.7'W	4.0	28.5	28.5		37.69	4.0	White mud	" "
623	1249	5-30-71	25°13.2'N;80°17.8'W	3.1	28.5	28.5		37.69	3.1	White mud	" "
624	1249	5-30-71	25°15.9'N;80°15.9'W	3.7	28.0	28.0		37.69	3.7	White mud	" "
625	1249	5-30-71	25°18.2'N;80°14.8'W	5.2	27.5	27.0		36.62	5.2	White mud	" "
626	1249	5-30-71	25°23.1'N;80°11.3'W	4.3	28.0	28.0		36.62	3.1	White mud	" "
627	1249	5-31-71	25°26.5'N;80°10.0'W	4.9	27.0	27.0		35.00	4.9	Mud	" "
628	1249	5-31-71	25°30.5'N;80°08.6'W	4.3	27.0	27.5		35.00	4.3	Sand, rock	" "
629	1249	5-31-71	25°33.1'N;80°07.8'W	4.6	27.0	27.0		35.54	4.6	Sand	" "
494	1248/1247	3- 9-71	26°56.5'N;80°03.8'W	6.1	22.0	22.5		37.69	5.5	Sand	" "
495	1248/1247	3- 9-71	26°56.3'N;80°03.5'W	11.6-19.5	22.5	22.0		37.69	5.8	Sand, rock	" "
496	1248	3- 9-71	26°47.0'N;80°01.7'W	6.1	22.5	23.0		36.62	5.5	Rock	" "
497	1248	3- 9-71	26°46.2'N;80°01.5'W	13.7	22.5	23.0		36.62	4.9	Rock	" "
630	1248	5-31-71	25°36.1'N;80°07.2'W	4.6	27.0	27.0		36.62	4.6	Sand	" "
631	1248	5-31-71	25°37.4'N;80°07.4'W	4.9	27.0	27.0		36.08	4.9	Sand	" "
632	1248	6- 8-71	26°40.7'N;80°01.7'W	4.6-7.3	25.0	24.5		36.08	6.8	Sand	NCD
633	1248	6- 8-71	26°40.5'N;80°01.8'W	7.6-10.1	26.0	24.0	36.08	36.62	10.1	Sand	" "
634	1248	6- 8-71	26°40.7'N;80°01.5'W	11.5	26.5	25.0	36.08	35.54	10.7	Rock, sand	" "
635	1248	6- 8-71	26°40.7'N;80°01.3'W	13.0	26.0	24.0	35.54	36.08	11.0	Rock, sand	" "
636	1248	6- 8-71	26°40.5'N;80°01.1'W	13.7	26.5	24.0	36.62	36.08	10.7	Rock	Box dredge
637	1248	6- 8-71	26°36.0'N;80°02.0'W	4.6	26.5	26.5	36.08	36.62	4.6	Sand	NCD
638	1248	6- 8-71	26°36.0'N;80°01.9'W	7.6	26.5	26.5	37.69	37.69	7.6	Sand	" "
639	1248	6- 8-71	26°36.0'N;80°01.8'W	7.6	26.0	26.0	36.08	36.08	7.6	Rock, sand	" "
640	1248	6- 8-71	26°36.1'N;80°01.6'W	9.2-12.2	26.5	26.0	35.54	35.54	9.2	Rock	Box dredge

Station	Chart No.	Date	Location	Depth		Temperature		Salinity		Secchi (m)	Substrate	Gear
				(m)		Sur.	Bot.	Sur.	Bot.			
641	1248	6- 8-71	26°35.8'N;80°01.4'W	12.2-24.4	26.5	26.0			35.00	10.7	Rock	Box dredge
642	1248	6- 8-71	26°30.8'N;80°02.9'W	4.6-6.1	26.0	25.0		35.54	35.54	6.1	Hard sand	" "
643	1248	6- 8-71	26°30.8'N;80°02.6'W	7.3	26.5	26.5		35.00	36.08	7.3	Sand	NCD
644	1248	6- 9-71	26°30.7'N;80°02.5'W	13.7-16.8	26.5	26.5		35.00	35.00	6.1	Sand	Box dredge
645	1248	6- 9-71	26°30.5'N;80°02.2'W	10.7	26.5	26.5		34.47	35.08	6.1	Sand	NCD
646	1248	6- 9-71	26°24.7'N;80°03.7'W	5.5	27.0	27.0		35.00	35.00	5.5	Sand	"
647	1248	6- 9-71	26°24.6'N;80°03.5'W	6.4	27.5	27.0		35.00	36.08	6.4	Sand	"
648	1248	6- 9-71	26°24.7'N;80°03.4'W	7.6-9.2	27.0	27.0		35.54	35.54	7.3	Sand	"
649	1248	6- 9-71	26°24.5'N;80°03.3'W	10.7-13.7	27.5	27.0		37.16	36.62	9.5	Sand	"
650	1248	6- 9-71	26°20.5'N;80°04.1'W	5.5	28.5	27.5		37.69	37.69	5.5	Sand	"
651	1248	6- 9-71	26°20.4'N;80°04.0'W	7.3-8.9	28.5	27.5		35.00	37.69	7.3	Rock	"
652	1248	6- 9-71	26°20.4'N;80°04.0'W	7.6	28.0	27.5		37.69	37.69	7.3	Rock, sand	"
653	1248	6- 9-71	26°20.4'N;80°03.9'W	10.4-11.9	28.0	27.0		35.00	37.69	7.3	Rock	"
654	1248	6- 9-71	26°20.5'N;80°03.7'W	12.2-13.7	28.5	27.5		37.69	36.62	8.5	Rock	"
655	1248	6- 9-71	26°15.9'N;80°04.6'W	5.5	28.5	28.0		37.69	37.69	5.5	Rock	"
656	1248	6- 9-71	26°15.9'N;80°04.5'W	6.1-7.6	28.5	28.0		35.54	35.54	3.7	Rock	"
657	1248	6-10-71	26°15.6'N;80°04.5'W	7.6-9.2	27.0	27.0		35.00	35.00	9.2	Sand	"
658	1248	6-10-71	26°15.9'N;80°04.3'W	10.7-13.7	27.0	27.0		34.47	35.00	9.2	Rock	Box dredge
659	1248	6-10-71	26°11.0'N;80°05.2'W	4.6-10.7	27.5	27.0		36.08	36.08	10.7	Rock	" "
660	1248	6-10-71	26°11.0'N;80°05.1'W	10.7-13.7	27.0	27.0		35.54	35.54	10.7	Rock, sand	" "
661	1248	6-11-71	26°47.1'N;80°01.6'W	6.1	26.5	26.5		37.16	37.16	5.5	Rock	" "
662	1248	6-11-71	26°46.9'N;80°01.5'W	7.6	27.0	26.5		37.16	37.16	6.1	Sand	" "
663	1248	6-11-71	26°46.9'N;80°01.4'W	9.2	26.5	26.0		36.08	36.08	9.2	Sand	NCD
664	1248	6-11-71	26°46.9'N;80°01.5'W	10.7	26.5	26.0		36.08	35.54	10.7	Sand	"
665	1248	6-11-71	26°46.9'N;80°01.2'W	12.2	27.0	26.0		37.16	36.08	11.0	Sand, rock	"
666	1248	6-11-71	26°47.3'N;80°01.1'W	13.7	26.5	26.0		35.54	35.54	10.7	Rock	"
667	1248	6-11-71	26°52.2'N;80°02.7'W	5.5	26.0	26.5		35.54	35.00	5.5	Sand	"
668	1248	6-11-71	26°52.3'N;80°02.8'W	7.3	26.5	26.0		36.62	35.54	7.3	Sand	"
669	1248	6-11-71	26°52.3'N;80°02.4'W	7.6	26.0	26.0		35.54	35.54	7.6	Sand	"
670	1248	6-11-71	26°52.3'N;80°02.4'W	9.8	26.5	26.0		35.00	34.47	9.8	Mud	"
671	1248	6-11-71	26°52.1'N;80°02.5'W	10.7	26.0	26.0		35.54	35.00	9.2	Mud	"
672	1248	6-11-71	26°52.4'N;80°02.2'W	12.2	26.5	26.5		35.54	34.47	9.2	Mud, rock	"
673	1248	6-11-71	26°52.2'N;80°02.1'W	13.7	26.0	26.0		35.54	35.00	9.2	Sand	"
674	1248	6-12-71	26°56.1'N;80°04.1'W	4.6	26.0	26.0		34.47	35.00	1.8	Sand	"
675	1248/1247	6-12-71	26°56.3'N;80°03.7'W	7.6	26.0	26.0		34.47	34.47	7.3	Mud	"

Station	Chart No.	Date	Location	Depth (m)	Temperature		Salinity		Secchi (m)	Substrate	Gear
					Sur.	Bot.	Sur.	Bot.			
676	1248/1247	6-12-71	26°56.1'N;80°03.4'W	11.0	26.0	26.0	34.47	34.47	11.0	Mud	NCD
677	1248/1247	6-12-71	26°56.1'N;80°03.3'W	12.2	26.5	26.5	34.47	33.93	11.0	Mud	"
678	1248/1247	6-12-71	26°56.2'N;80°03.1'W	13.7	26.0	26.0	35.00	34.47	7.0	Mud	"
AREA IV											
479	1247	3- 3-71	27°21.5'N;80°14.3'W	6.1	20.0	21.0		35.00	5.5	Sand	NCD
480	1247	3- 3-71	27°21.5'N;80°14.2'W	9.2	20.0	20.0		35.54	5.5	Mud, shell	"
481	1247	3- 3-71	27°21.7'N;80°12.3'W	6.1	20.5	20.0		36.62	6.1	Sand	"
482	1247	3- 3-71	27°21.7'N;80°12.2'W	7.3	20.0	20.5		36.62	5.5	Sand	"
483	1247	3- 3-71	27°22.1'N;80°11.2'W	13.7	22.0	21.0		37.69	5.5	Sand, shell	"
484	1247	3- 6-71	27°29.0'N;80°17.1'W	4.6	19.0	19.0		35.54	4.0	Rock	"
485	1247	3- 6-71	27°29.2'N;80°17.0'W	6.4	19.0	19.0		36.62	3.1	Sand	"
486	1247	3- 6-71	27°29.2'N;80°16.1'W	9.2	19.0	19.5		36.62	3.7	Sand, mud	"
487	1247	3- 6-71	27°29.3'N;80°13.4'W	13.7	19.0	19.5		36.62	3.7	Sand, rock	"
488	1247	3- 6-71	27°27.5'N;80°12.8'W	13.7	19.5	19.0		36.62	7.3	Rock	"
489	1247	3- 6-71	27°26.8'N;80°13.6'W	9.2	19.5	18.5		36.62	6.1	Shell	"
490	1247	3- 6-71	27°26.6'N;80°16.0'W	9.2	19.5	19.0		36.62	4.0	Sand	"
491	1247	3- 6-71	27°26.7'N;80°15.9'W	7.3	20.0	19.5		36.62	3.1	Rock, sand	"
492	1247	3- 9-71	27°10.3'N;80°08.9'W	6.1	21.5	21.5		36.62	3.7	Rock, sand	Box dredge
493	1247	3- 9-71	27°09.7'N;80°08.4'W	9.2	21.5	21.5		35.00	4.3	Rock	" "
679	1247	6-12-71	27°00.5'N;80°05.3'W	4.6	27.5	27.0	37.69	36.62	3.7	Mud	NCD
680	1247	6-12-71	27°00.7'N;80°05.2'W	6.1	27.0	27.0	34.47	34.47	4.6	Mud	"
681	1247	6-12-71	27°00.7'N;80°04.9'W	7.6	27.0	27.0	35.59	35.00	5.2	Mud	"
682	1247	6-12-71	27°00.7'N;80°04.8'W	9.2	27.0	27.0	36.08	34.47	5.5	Mud	"
683	1247	6-12-71	27°00.7'N;80°04.6'W	10.7	27.0	27.0	36.62	35.54	7.3	Sand, mud	"
684	1247	6-12-71	27°00.7'N;80°04.4'W	12.2	27.0	27.0	36.08	35.54	11.0	Sand, mud	"
685	1247	6-12-71	27°00.7'N;80°04.2'W	13.7	27.0	26.5	37.69	36.08	10.7	Sand, mud	"
686	1247	6-13-71	27°04.8'N;80°06.9'W	6.1	27.0	26.5	35.00	35.00	5.5	Rock, sand	Box dredge
687	1247	6-13-71	27°04.8'N;80°06.7'W	7.6	27.0	27.0	34.47	34.47	7.6	Mud, sand	NCD
688	1247	6-13-71	27°04.9'N;80°06.4'W	9.2	27.0	27.0	36.62	36.08	5.5	Sand	"
689	1247	6-13-71	27°05.1'N;80°06.1'W	10.7	27.0	27.0	36.08	35.54	9.2	Sand	"
690	1247	6-13-71	27°05.2'N;80°05.7'W	12.2	27.5	26.0	35.54	36.08	8.5	Sand	"
691	1247	6-13-71	27°05.2'N;80°04.7'W	13.7	27.5	26.0	35.54	35.00	6.1	Sand	"

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