PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA—SOUTH ATLANTIC COAST OF THE UNITED STATES

Gill Cruise 4

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EXPLANATORY NOTE

The series embodies results of investigations, usually of restricted scope, intended to aid or direct management or utilization practices and as guides for administrative or legislative action. It is issued in limited quantities for official use of Federal, State or cooperating agencies and in processed form for economy and to avoid delay in publication.

United States Department of the Interior, Fred A. Seaton, Secretary
Fish and Wildlife Service, Arnie J. Suomela, Commissioner

PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES M/V THEODORE N. GILL CRUISE 4

by

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Physical Oceanographic, Biological, and Chemical Data
South Atlantic Coast of the United States
M/V Theodore N. Gill Cruise 4

This is the fourth in a series of reports presenting basic data from cruises of the Theodore N. Gill in waters off the South Atlantic coast of the United States.

Background of the investigations; objectives; procedures on station; and chemical, biological, and oceanographic methods and procedures were presented in the report for Cruise 1 (Anderson, Gehringer, and Cohen, 1956). Modifications to the biological methods and procedures were presented in the report for Cruise 3 (Anderson and Gehringer, 1957)--operations on Cruise 4 were the same as for Cruise 3. The basic station plan is shown in figure 1.

NARRATIVE ACCOUNT OF CRUISE 4

The vessel departed from Brunswick, Georgia, on October 1, 1953, on the southern leg of the cruise. Very rough seas prevented occupation of the series of special stations 5 through 8 and the standard station.

On October 5 special equipment was installed on the Gill in Nassau, B.W.I., and on October 7 and 8 special research in the "Tongue of the Ocean" south of New Providence Island was carried out by scientists from the Columbia University Physics Department. Sonic soundings were made to and from Nassau and between stations. Hurricane warnings caused a reduction in the number of stations planned for the special work.

Good weather prevailed after regular station work was begun and all but one of the 34 southern leg stations were occupied. The Gill returned to Brunswick on October 17, terminating the southern leg of the cruise.

Departure from Brunswick to begin the northern leg of the cruise was made on October 21. This leg was characterized by high winds and heavy seas, and the vessel was forced into Charleston, S. C., and Morehead City, N. C., a total of 3 times. Loss of the ship's rudder off Cape Fear, N. C., caused a week's delay. Despite the adverse weather conditions and breakdown, only 6 regular stations and the 4 special stations were omitted. The Gill returned to Brunswick on November 14, terminating the cruise. The cruise track is shown in figure 2.

Hydrographic casts were accomplished on each station together with meteorological observations. Only a few bathythermograph lowerings were made due to breakdown of the winch and to loss of instruments. Oxygen determinations were run aboard vessel for all stations and all levels (fig. 3). Water samples for analysis ashore on salinity were obtained for all stations, and on every other station for inorganic phosphate, carbohydrates, and proteins (a backlog of samples caused by absence of a chemist for several months resulted in lack of enough containers to sample completely). An oblique plankton tow with the Gulf III all-metal plankton sampler was made on 68 of the regular stations, and an oblique tow with the half-meter silk net was taken on 5 stations. The Gulf IA high-speed sampler and the continuous plankton sampler were operated over much of the cruise route. Trolling with feather and bone jigs between stations for larger fish (fig. 4), and dip-netting, both during the day and at night under spotlights, were conducted. Bottom sediment samples were obtained on many of the stations with the modified orange-peel dredge. Secchi disc readings were taken on station during daylight hours.

Scientific personnel participating in the cruise were:

I. Southern Leg

U. S. Fish and Wildlife Service and Cooperators:

Jack W. Gehringer	Chief Scientist
Frank T. Knapp	Biologist (Georgia Game and Fish Comm.)
J. E. Moore	Chemist (Georgia Game and Fish Comm.)
Clyde C. Bryant	Chemical Aid
Charles P. Goodwin	Chemical Aid

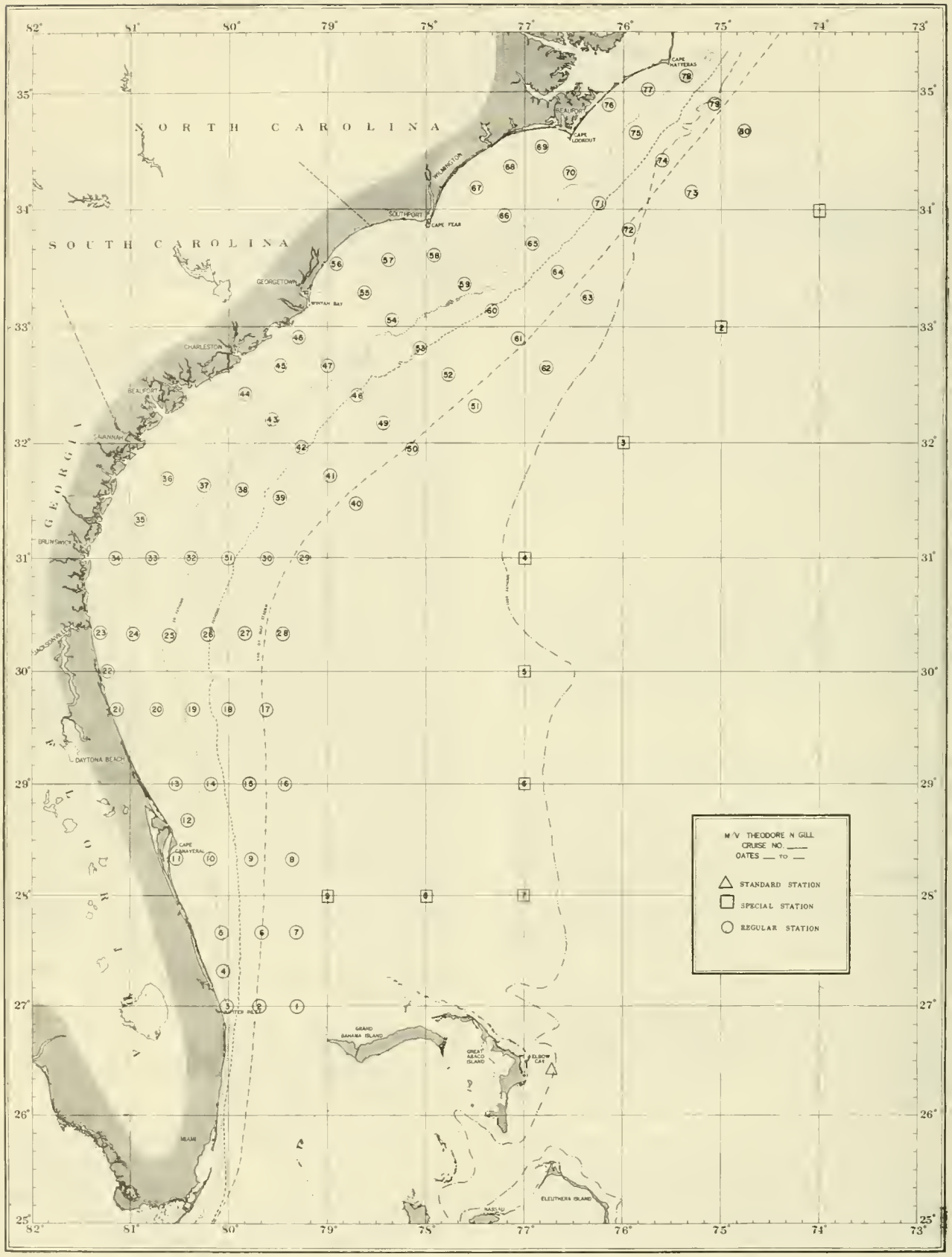

Figure 1.--Basic station plan.

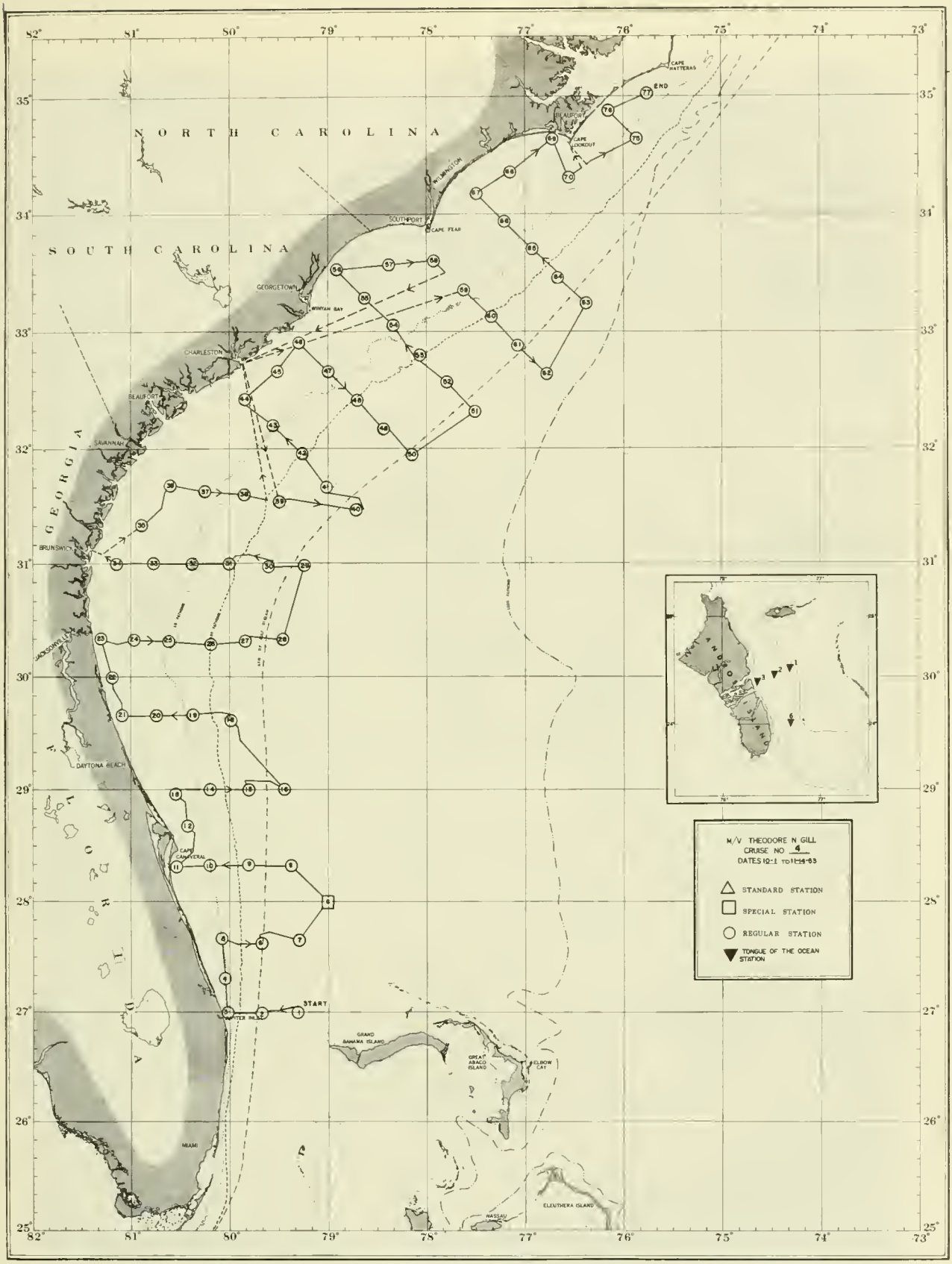

Figure 2.--Track chart.

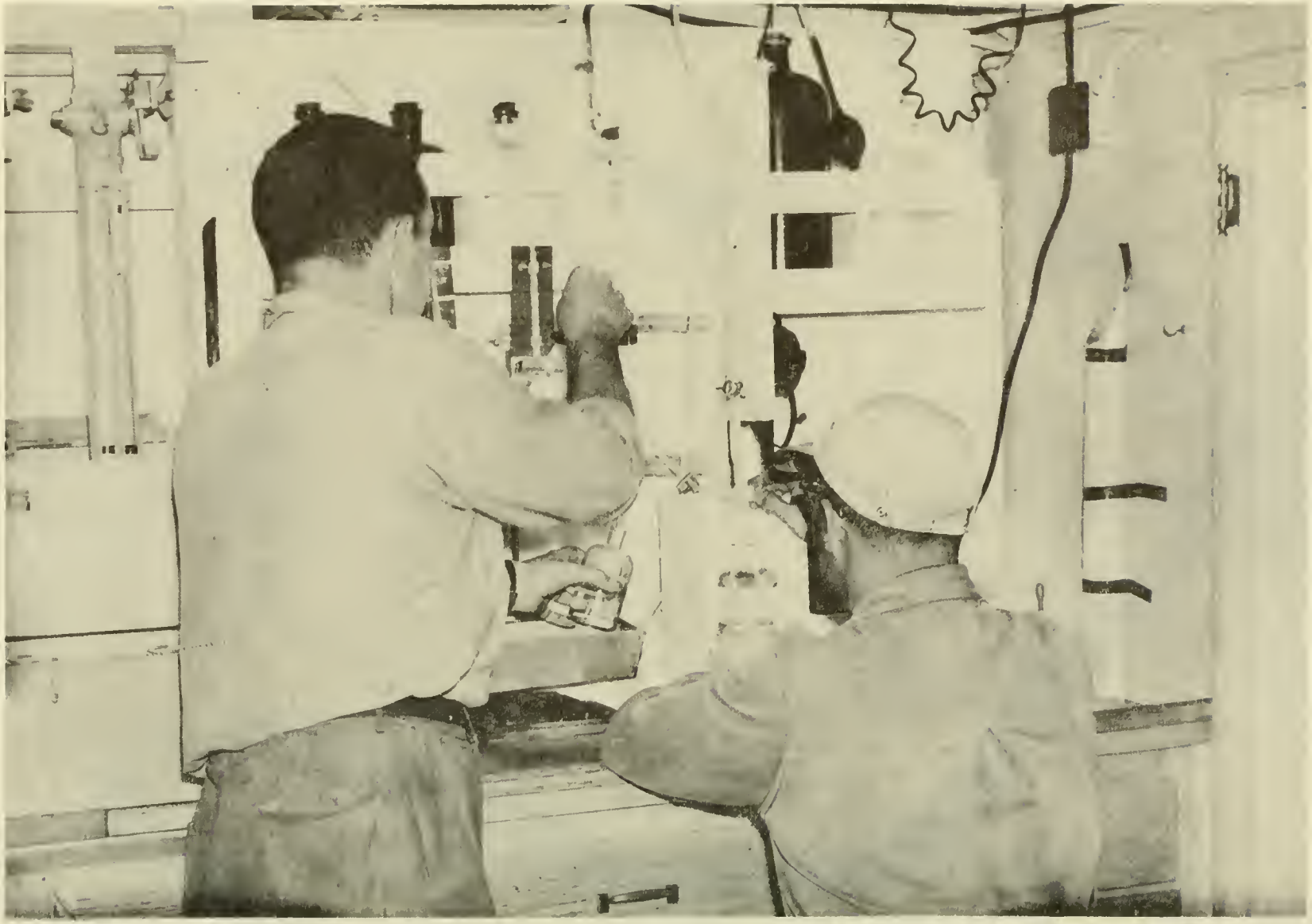

Figure 3.--Oxygen determinations aboard vessel.

Figure 4.--Observations on troll-caught fish.

Navy Hydrographic Office:

Melvin Light	Senior Oceanographer
Richard Williams	Oceanographer
C. W. Backus	Technician

Office of Naval Research:

Lt. James Lesch	Observer

II. Northern Leg

U. S. Fish and Wildlife Service and Cooperators:

W. W. Anderson	Chief Scientist
Frank T. Knapp (first half)	Biologist (Georgia Game and Fish Comm.)
Jack W. Gehringer (second half)	Fishery Biologist
Clyde C. Bryant	Chemical Aid
Charles P. Goodwin	Chemical Aid

Navy Hydrographic Office:

Melvin Light	Senior Oceanographer
Richard Williams	Oceanographer
William Boisvert	Oceanographer
C. W. Backus	Technician

EXPLANATION OF DATA SHEETS AND TABLES

Oceanographic and Chemical

Each of the items appearing on the station data pages is explained below. All doubtful data are indicated and were not used in the construction of the curves from which the interpolated values (standard depth values) were derived. Observed values which were obviously false were omitted entirely. A dash in a table means that no value was available. Interpolations for standard depth values for temperature, salinity, sigma-t, and oxygen were IBM calculations; those for the chemical constituents were derived from straight lines between observed values.

The profiles of salinity, temperature, and density were prepared from these data, and appear as figures 5-19.

1. Cruise Number. The first cruise over the established station pattern (fig. 1) was numbered Gill 1, and subsequent cruises, Gill 2 through Gill 9 (only Gill 4 is covered by the present report).

2. Station Number. Stations are numbered consecutively, starting with one, at the beginning of each cruise. The station pattern and numbers as shown in figure 1 were maintained on each cruise. if a station or series of stations was not occupied, these station numbers are omitted. Regular stations have numbers only; standard and special stations are specifically indicated.

3. Date. Month, day, and year are given.

4. Latitude and Longitude. The position of the station is given in degrees and minutes.

5. Time. Given in Greenwich Mean Time and is that hour nearest to the start of the first cast.

6. Depth. Is the observed uncorrected sonic sounding for the station, recorded in meters.

7. Wind. Wind speed is given in meters per second. Direction from which the wind blows is coded in degrees true to the nearest ten degrees. The last zero is omitted. North is 36 on this scale and calm is 00. Sea table 1, "Compass Direction Conversion Table for Wind, Sea, and Swell Directions."

8. Barometer. The barometric pressure is coded in millibars, neglecting the 900 or 1000. Thus 996 millibars is coded as 96 and 1008 millibars is coded as 08.

9. Air Temperature. Dry bulb and wet bulb temperatures are entered to the nearest tenth of a degree (centigrade).

10. Humidity. The percent of humidity is coded directly.

11. Weather. Weather is coded as indicated in table 2, "Numerical Weather Codes-Present Weather."

12. Clouds. Cloud type and amount are

coded as indicated in table 3, "Cloud Type"; and table 4, "Cloud Amount".

13. Sea. Sea direction and amount are coded as indicated in table 5, "Sea Amount"; and table 1.

14. Swell. Swell directions and amount are coded as indicated in table 6, "Swell Amount"; and table 1.

15. Visibility. Visibility is coded as indicated in table 7, "Visibility".

16. Water Transparency. Given as meters to which a Secchi disc is visible.

Subsurface Observations

1. Sample Depth. Observed (actual) depth of each sample is given in meters. Interpolated values at standard depths are also given. The standard depths in meters are: 0, 10, 20, 30, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500, 2000, 2500, 3000, and thence every 1000 meters.

2. Temperature. The centigrade temperature is given in degrees and hundredths.

3. Salinity. Salinity is given in parts per thousand to two decimal places.

4. Sigma-t. To convert to density divide by 1000 and add 1. Thus, a sigma-t value of 22.35 converts to a density of 1.02235.

5. Dissolved Oxygen. These values are given in milliliters per liter to two decimal places.

6. Total Phosphorus. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

7. Inorganic Phosphate. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

8. Nitrate-nitrite. These values are given in microgram atoms per liter to the nearest 0.5 of a unit.

9. Carbohydrates (Arabinose). These values are given in terms of milligrams per liter to the nearest 0.1 of a unit. Collier et al. (1953) presented a technique for estimating certain elements of the organic materials in sea water which react to the test for carbohydrates. The carbohydrate values are given as arabinose equivalents, and are not necessarily the actual concentrations of carbohydrate substances.

10. Proteins (Tyrosine). These values are given to the nearest 0.1 of a unit as milligrams per liter of protein material in sea water, which reacts to the test for tyrosine.

Biological

1. Plankton volumes (Gulf III and silk half-meter nets), table 8. The position given is that at beginning of the tow. The depth of the haul is given from 0 to the greatest depth reached. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for Cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

2. Plankton volumes (Gulf IA High-speed sampler), table 9. The position given is that at the center of the tow. All tows were made at the surface. The volume as given are "wet volumes" (procedures for determination were given under methods in report for Cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

3. Numbers of plankton organisms per cubic meter of water (half-meter net), table 10. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods in report for Cruise 1. Counts are given for major groups as indicated.

4. Numbers of plankton organisms per cubic meter of water (high-speed

sampler), table 11. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods for Cruise 3. Counts are given for major groups as indicated.

5. Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), table 12. Description of this sampler, its use, and methods of calculating numbers of organisms were given under methods in report for Cruise 1. Counts are given by compartment for major groups as indicated.

6. List of the species of fish in dip-net, trolling, stomach contents, and larval fish net collections (D-dip net; T-trolling; S-stomach contents; L-larval fish net), table 13. The species are listed in alphabetical order, followed by symbols indicating method of capture.

7. Numbers and species of fish taken by trolling, table 14. The stage of gonad development is based on International Council classifications of gonad maturity for the herring (International Councils Rapports et Proces-Verbaux des Reunions, Vol. LXXIV, p. 117, March 1931). The scale is only a guide to general classifications and must be treated as such.

This scale follows:

Stage I. Virgin individuals. Very small sexual organs close under vertebral column. Wine-coloured torpedo-shaped ovaries about 2-3 cm. long and 2-3 mm. thick. Eggs invisible to naked eye. Whitish or grayish brown knife-shaped testes 2-3 cm. long and 2-3 mm. broad.

Stage II. Maturing virgins or recovering spents. Ovaries somewhat longer than half the length of ventral cavity, about 1 cm. diameter. Eggs small but visible to naked eye. Milt whitish, somewhat bloodshot, same size as ovaries, but still thin and knife-shaped.

Stage III. Sexual organs more swollen, occupying about half of ventral cavity.

Stage IV. Ovaries and testes nearly filling 2/3 of ventral cavity. Eggs not transparent, milt whitish, swollen.

Stage V. Sexual organs filling ventral cavity. Ovaries with some large transparent eggs. Milt white, not yet running.

Stage VI. Roe and milt running (spawning).

Stage VII. Spents. Ovaries slack with residual eggs. Testes baggy, bloodshot. Doubtful cases are indicated by quoting two stages e.g. "St. I-II, St. VII-II," etc.

8. Numbers and species of fish taken by dip net, table 15. There is shown, by family, the genera and species taken. Numbers of specimens from each station are given in parentheses, followed by the approximate size or size range of standard length, in millimeters.

9. Numbers and species of fish taken by larval fish net, table 16. At irregular times (as conditions warranted) surface tows were made with a meter net of 1/8" mesh. Towing speeds same as for 1/2 meter nets.

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Wildlife Service staff). To the Florida State Board of Conservation (through the Marine Laboratory of the University of Miami) for their cooperation in the biological studies, through George F. Arata, Jr., biologist. To Dean F. Bumpus of the Woods Hole Oceanographic Institution for preparation of the salinity, temperature, and density profiles which appear as figures 5-19.

From our own staff special recognition is due: Frederick H. Berry for identification of dip-net and stomach content material and assistance in plankton organism counts; Hugh M. Fields and Donald Moore for most of the plankton organism identifications and counts; Edward Cohen (formerly chemist) for chemical determinations; and Joseph E. Moore for assistance in assembling the physical and chemical data. We also appreciate the assistance of other members of the staff who aided in one way or another: Charles P. Goodwin, Clyde C. Bryant, Herbert R. Gordy, Melba C. Wilson, Carolyn V. Martin, Elizabeth H. Swindell, and Charlie B. Casper. Acknowledgement is made of the excellent cooperation of crew members of the M/V Theodore N. Gill and Captain Mauritz C. Fredricksen in particular.

LITERATURE CITED

Anderson, William W., Jack W. Gehringer, and Edward Cohen.
1956. Physical oceanographic, biological, and chemical data, South Atlantic Coast of the United States, M/V Theodore N. Gill Cruise 1. U. S. Department of the Interior, Fish and Wildlife Service, Special Scientific Report--Fisheries No. 178, pp. 1-160, figs. 1-15.

Anderson, William W. and Jack W. Gehringer
1957. Physical oceanographic, biological, and chemical data, South Atlantic Coast of the United States, M/V Theodore N. Gill Cruise 3. U. S. Department of the Interior, Fish and Wildlife Service, Special Scientific Report--Fisheries No. 210, pp. 1-208, figs. 1-19.

Collier, Albert, S. M. Ray, A. W. Magnitzky, and Joe O. Bell
1953. Effect of dissolved organic substances on oysters. Fish. Bull. Fish and Wildlife Service, 54(84): 167-185, figs. 1-14.

Table 1.--Compass direction conversion table for wind, sea, and swell directions

Code	Direction
00	Calm
01	5° to 14°
02	15° to 24° NNE
03	25° to 34°
04	35° to 44°
05	45° to 54° NE
06	55° to 64°
07	65° to 74° ENE
08	75° to 84°
09	85° to 94° E
10	95° to 104°
11	105° to 114° ESE
12	115° to 124°
13	125° to 134°
14	135° to 144° SE
15	145° to 154°
16	155° to 164° SSE
17	165° to 174°
18	175° to 184° S
19	185° to 194°
20	195° to 204° SSW
21	205° to 214°
22	215° to 224°
23	225° to 234° SW
24	235° to 244°
25	245° to 254° WSW
26	255° to 264°
27	265° to 274° W
28	275° to 284°
29	285° to 294° WNW
30	295° to 304°
31	305° to 314°
32	315° to 324° NW
33	325° to 334°
34	335° to 344° NNW
35	345° to 354°
36	355° to 4° N

TABLE II NUMERICAL WEATHER CODES—PRESENT WEATHER

00 Cloud development NOT observed or NOT observable during past hour.	01 Clouds generally dissolving or becoming less developed during past hour	02 State of sky on the whole unchanged during past hour.	03 Clouds generally forming or developing during past hour	04 Visibility reduced by smoke	05 Haze	06 Widespread dust in suspension in the air, NOT raised by wind, at time of observation.	07 Dust or sand raised by wind, at time of observation	08 Well developed dust devil(s) within past hour	09 Duststorm or sand storm within sight of or at station during past hour
10 Light fog	11 Patches of shallow fog at station, NOT deeper than 6 feet on land.	12 More or less continuous shallow fog at station, NOT deeper than 6 feet on land	13 Lightning visible, no thunder heard.	14 Precipitation within sight, but NOT reaching the ground	15 Precipitation within sight, reaching the ground, but distant from station.	16 Precipitation within sight, reaching the ground, near to but NOT at station.	17 Thunder heard, but no precipitation at the station.	18 Squall(s) within sight during past hour	19 Funnel cloud(s) within sight during past hour
20 Drizzle (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	21 Rain (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	22 Snow (NOT falling as showers) during past hour, but NOT at time of observation	23 Rain and snow (NOT falling as showers) during past hour, but NOT at time of observation.	24 Freezing drizzle or freezing rain (NOT falling as showers) during past hour, but NOT at time of observation.	25 Showers of rain during past hour, but NOT at time of observation.	26 Showers of snow, or of rain and snow, during past hour, but NOT at time of observation.	27 Showers of hail, or of hail and rain, during past hour, but NOT at time of observation	28 Fog during past hour, but NOT at time of observation	29 Thunderstorm (with or without precipitation) during past hour, but NOT at time of observation
30 Slight or moderate duststorm or sandstorm has decreased during past hour.	31 Slight or moderate duststorm or sandstorm no appreciable change during past hour.	32 Slight or moderate duststorm or sandstorm has increased during past hour	33 Severe duststorm or sandstorm, has decreased during past hour.	34 Severe duststorm or sandstorm, no appreciable change during past hour.	35 Severe duststorm or sandstorm, has increasad during past hour	36 Slight or moderate drifting snow, generally low.	37 Heavy drifting snow generally low	38 Slight or moderate drifting snow, generally high	39 Heavy drifting snow generally high.
40 Fog at distance at time of observation, but NOT at station during past hour.	41 Fog in patches	42 Fog, sky discernible, has become thinner during past hour.	43 Fog, sky NOT discernible, has become thinner during past hour.	44 Fog, sky discernible, no appreciable change during past hour	45 Fog, sky NOT discernible no appreciable change during past hour.	46 Fog, sky discernible, has begun or become thicker during past hour.	47 Fog sky NOT discernible, has begun or become thicker during past hour	48 Fog, depositing rime, sky discernible	49 Fog depositing rime sky not discernible
50 Intermittent drizzle (NOT freezing) slight at time of observation.	51 Continuous drizzle (NOT freezing) slight at time of observation.	52 Intermittent drizzle (NOT freezing) moderate at time of ob.	53 Continuous drizzle (NOT freezing), moderate at time of ob.	54 Intermittent drizzle (NOT freezing), thick at time of observation.	55 Continuous drizzle (NOT freezing), thick at time of observation.	56 Slight freezing drizzle	57 Moderate or thick freezing drizzle	58 Drizzle and rain, slight	59 Drizzle and rain, moderate or heavy
60 Intermittant rain (NOT freezing), slight at time of observation.	61 Continuous rain (NOT freezing), slight at time of observation.	62 Intermittent rain (NOT freezing), moderate at time of ob.	63 Continuous rain (NOT freezing), moderate at time of observation.	64 Intermittent rain (NOT freezing), heavy at time of observation.	65 Continuous rain (NOT freezing), heavy at time of observation.	66 Slight freezing rain.	67 Moderate or heavy freezing rain	68 Rain or drizzle and snow, slight	69 Rain or drizzle and snow moderate or heavy
70 Intermittent fall of snowflakes, slight at time of observation.	71 Continuous fall of snowflakes, slight at time of observation.	72 Intermittent fall of snowflakes, moderate at time of observation.	73 Continuous fall of snowflakes, moderate at time of observation	74 Intermittent fall of snowflakes, heavy at time of observation.	75 Continuous fall of snowflakes, heavy at time of observation.	76 Ice needles (with or without fog).	77 Granular snow (with or without fog)	78 Isolated starlike snow crystals (with or without fog)	79 Ice pellets (sleet, U S definition).
80 Slight rain shower(s)	81 Moderate or heavy rain shower(s).	82 Violent rain shower(s).	83 Slight shower(s) of rain and snow mixed.	84 Moderate or heavy shower(s) of rain and snow mixed.	85 Slight snow shower(s).	86 Moderate or heavy snow shower(s).	87 Slight shower(s) of soft or small hail with or without rain or rain and snow mixed.	88 Moderate or heavy shower(s) of soft or small hail with or without rain or rain and snow mixed	89 Slight shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder
90 Moderate or heavy shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.	91 Slight rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	92 Moderate or heavy rain at time of ob.; thunderstorm during past hour, but NOT at time of observation	93 Slight snow or rain and snow mixed or hail at time of observation.; thunderstorm during past hour, but not at time of observations	94 Mod. or heavy snow, or rain and snow mixed or hail at time of ob.; thunderstorm during past hour, but NOT at time of observation.	95 Slight or mod. thunderstorm without hail, but with rain and/or snow at time of observation.	96 Slight or moderate thunderstorm, with hail at time of observation.	97 Heavy thunderstorm, without hail, but with rain and/or snow at time of observation	98 Thunderstorm combined with duststorm or sandstorm at time of observation	99 Heavy thunderstorm with hail at time of observation.

Table 3.--Cloud type

Code	
0	Stratus or Fractostratus
1	Cirrus
2	Cirrostratus
3	Cirrocumulus
4	Altocumulus
5	Altostratus
6	Stratuscumulus
7	Nimbostratus
8	Cumulus or Fractocumulus
9	Cumulonumbus

Table 4.--Cloud amount

Code	
0	No clouds
1	Less than 1/10 or 1/10
2	2/10 and 3/10
3	4/10
4	5/10
5	6/10
6	7/10 and 8/10
7	9/10 and 9/10 plus
8	10/10
9	Sky obscured

Table 5.--Sea amount

Code	Approximate Height (feet)	Description
0	------	Calm
1	Less than 1	Smooth
2	1 to 3	Slight
3	3 to 5	Moderate
4	5 to 8	Rough
5	8 to 12	Very rough
6	12 to 20	High
7	20 to 40	Very high
8	40 and over	Mountainous
9	------	Very rough confused sea

Table 6.--Swell amount

Code	Approximate Height (feet)	Description		Approximate Length (feet)
0	----	No swell		----
1	1 to 6	Low swell	Short or Average	0 to 600
2			Long	Above 600
3	6 to 12	Moderate	Short	0 to 300
4			Average	300 to 600
5			Long	Above 600
6	Greater than 12	High	Short	0 to 300
7			Average	300 to 600
8			Long	Above 600
9	----	Confused		----

Table 7. Visibility

Code

0	Dense fog	50 yards
1	Thick fog	200 yards
2	Fog	400 yards
3	Moderate fog	1000 yards
4	Thin fog or mist	1 mile
5	Visibility poor	2 miles
6	Visibility moderate	5 miles
7	Visibility good	10 miles
8	Visibility very good	30 miles
9	Visibility excellent	Over 30 miles

Table 8.--Plankton volumes (Gulf III and silk half-meter nets)

Sta.	Position N. Lat.	Position W. Long.	(1953) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
1	27° 00'	79° 18'	Oct. 12	0324	0347	147.4	0-56	0.102
2	26° 58'	79° 40'	Oct. 12	0705	0728	239.7	0-65	0.167
3	27° 00'	80° 04'	Oct. 12	1032	1058	317.8	0-10	0.110
4	27° 20'	80° 02'	Oct. 12	1346	1409	255.4	0-18	0.117
5	27° 40'	80° 04'	Oct. 12	1655	1718	198.9	0-17	0.302
6	27° 37'	79° 40'	Oct. 12	2148	2215	256.4	0-65	0.117
7	27° 40'	79° 18'	Oct. 13	0215	0241	302.4	0-60	0.050
8	28° 18'	79° 26'	Oct. 13	1109	1145	398.4	0-56	0.063
9	28° 17'	79° 49'	Oct. 13	1415	1439	273.0	0-56	0.110
10	28° 20'	80° 10'	Oct. 13	1652	1714	301.5	0-18	0.016
11	28° 20'	80° 33'	Oct. 13	1940	2001	199.7	0-27	0.401
12	28° 41'	80° 24'	Oct. 13	2307	2329	213.1	0-4	0.235
13	29° 00'	80° 32'	Oct. 14	0143	0206	240.0	0-12	0.188
14	29° 00'	80° 10'	Oct. 14	0433	0456	273.0	0-15	0.128
15	29° 00'	79° 48'	Oct. 14	0902	0925	198.5	0-69	0.050
16	29° 00'	79° 26'	Oct. 14	1325	1351	217.0	0-56	0.069
18	29° 36'	79° 58'	Oct. 14	1907	1931	185.5	0-65	0.054
19	29° 40'	80° 23'	Oct. 14	2227	2252	105.2	0-20	0.333
20	29° 40'	80° 45'	Oct. 15	0128	0151	67.6	0-14	0.592
21	29° 40'	81° 06'	Oct. 15	0352	0418	45.0	0-4	0.889
22	30° 00'	81° 12'	Oct. 15	0657	0719	101.8	0-4	0.098
23	30° 20'	81° 20'	Oct. 15	1023	1044	167.3	Surface	0.030
24	30° 21'	80° 58'	Oct. 15	1341	1404	97.8	0-8	0.358
25	30° 20'	80° 35'	Oct. 15	1622	1644	126.9	0-17	0.236
26	30° 17'	80° 11'	Oct. 15	1957	2022	219.4	0-52	0.160
27	30° 19'	79° 50'	Oct. 15	2332	2359	259.7	0-60	0.077
28	30° 20'	79° 26'	Oct. 16	0315	0339	236.7	0-56	0.084
29	30° 59'	79° 14'	Oct. 16	0913	0937	272.6	0-52	0.055
30*	30° 58'	79° 38'	Oct. 16	1308	1334	267.9	0-58	0.093
31*	31° 00'	80° 00'	Oct. 16	1721	1734	164.3	0-22	0.304
32*	31° 00'	80° 23'	Oct. 16	2004	2027	167.7	0-21	0.388
33*	31° 00'	80° 46'	Oct. 16	2256	2318	-	0-13	-
34*	31° 00'	81° 08'	Oct. 17	0140	0202	133.3	0-8	0.150
35	31° 21'	80° 52'	Oct. 21	1728	1751	119.7	0-10	0.418
36	31° 41'	80° 35'	Oct. 21	2255	2318	57.9	0-10	0.345

* Half-meter No. 1 silk net

Table 8.--Plankton volumes (Gulf III and silk half-meter nets), cont'd

Sta.	Position N. Lat.	Position W. Long.	(1953) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
37	31° 38'	80° 14'	Oct. 22	0144	0207	184.8	0-19	0.270
38	31° 36'	79° 50'	Oct. 22	0512	0532	248.9	0-34	0.281
39	31° 34'	79° 28'	Oct. 24	1843	1915	176.7	0-56	0.198
40	31° 28'	78° 42'	Oct. 25	0046	0119	307.2	0-65	0.049
41	31° 41'	79° 00'	Oct. 25	0535	0607	289.4	0-77	0.034
42	31° 57'	79° 16'	Oct. 25	1007	1033	256.0	0-33	0.156
43	32° 11'	79° 33'	Oct. 25	1315	1338	374.5	0-12	0.080
45	32° 40'	79° 32'	Oct. 25	1932	1953	71.0	0-5	0.352
46	32° 54'	79° 16'	Oct. 25	2241	2302	121.0	0-4	0.289
47	32° 40'	79° 00'	Oct. 26	0122	0143	85.2	0-14	0.235
48	32° 25'	78° 44'	Oct. 26	0442	0513	173.7	0-60	0.173
49	32° 11'	78° 26'	Oct. 26	0821	0852	168.2	0-69	0.327
50	31° 57'	78° 09'	Oct. 26	1152	1224	341.8	0-52	0.015
51	32° 18'	77° 29'	Oct. 26	1649	1721	319.5	0-65	0.031
52	32° 34'	77° 48'	Oct. 26	2120	2146	187.5	0-56	0.160
53	32° 48'	78° 04'	Oct. 27	0042	0112	170.4	0-60	0.235
54	33° 03'	78° 21'	Oct. 27	0331	0354	184.6	0-12	0.244
55	33° 18'	78° 38'	Oct. 27	0624	0645	118.6	0-6	0.464
56	33° 32'	78° 55'	Oct. 27	0855	0920	174.0	0-2	0.345
57	33° 34'	78° 24'	Oct. 27	1233	1251	131.1	0-8	0.305
58	33° 36'	77° 56'	Oct. 27	1603	1624	126.7	0-8	0.355
59	33° 22'	77° 38'	Nov. 7	2216	2239	335.0	0-12	0.209
60	33° 07'	77° 21'	Nov. 8	0200	0235	415.1	0-98	0.072
61	32° 53'	77° 04'	Nov. 8	0525	0554	361.4	0-52	0.055
62	32° 40'	76° 46'	Nov. 8	0934	1006	462.2	0-52	0.043
63	33° 14'	76° 22'	Nov. 8	1437	1519	486.2	0-65	0.031
64	33° 28'	76° 39'	Nov. 8	1752	1817	301.0	0-52	0.100
65	33° 43'	76° 56'	Nov. 8	2032	2055	321.4	0-15	0.156
66	33° 57'	77° 12'	Nov. 8	2312	2334	187.7	0-13	0.293
67	34° 11'	77° 30'	Nov. 9	0145	0209	288.0	0-10	0.278
68	34° 22'	77° 10'	Nov. 9	0420	0443	132.7	0-11	0.452
69	34° 39'	76° 43'	Nov. 9	0801	0823	162.7	0-10	0.123
70	34° 19'	76° 32'	Nov. 9	1048	1112	216.0	0-17	0.324
75	34° 39'	75° 52'	Nov. 12	1423	1449	148.3	0-23	0.202
76	34° 53'	76° 10'	Nov. 12	1713	1738	160.3	0-14	0.312
77	35° 02'	75° 46'	Nov. 12	2024	2046	212.6	0-11	0.259
Spc. 9	28° 00'	79° 00'	Oct. 13	0645	0709	276.5	0-56	0.018

Table 9.--Plankton volumes (Gulf IA High-speed sampler)

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1953) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
1	27° 01'	79° 29'	Oct. 12	0400	0547	18.2	0.055
2	27° 09'	80° 04'	Oct. 12	1115	1230	10.8	0.278
3	27° 28'	80° 04'	Oct. 12	1430	1540	13.2	0.076
4	27° 36'	79° 49'	Oct. 12	1740	1943	20.8	0.144
5	27° 43'	79° 32'	Oct. 12-13	2220	0035	20.6	0.048
6	27° 53'	79° 05'	Oct. 13	0315	0500	23.1	0.043
7	28° 10'	79° 15'	Oct. 13	0730	0950	17.2	0.058
8	28° 17'	79° 40'	Oct. 13	1206	1308	11.4	0.088
9	28° 20'	80° 00'	Oct. 13	1444	1600	14.0	0.071
10	28° 20'	80° 23'	Oct. 13	1715	1845	9.3	0.538
11	28° 29'	80° 22'	Oct. 13	2005	2215	19.0	0.632
12	28° 51'	80° 27'	Oct. 13-14	2330	0105	15.3	0.654
13	29° 00'	80° 20'	Oct. 14	0207	0345	14.9	0.134
14	29° 00'	79° 59'	Oct. 14	0500	0640	15.8	0.126
15	29° 03'	79° 36'	Oct. 14	0930	1200	22.8	0.044
16	29° 12'	79° 39'	Oct. 14	1400	1645	26.0	0.038
17	29° 30'	79° 56'	Oct. 14	1655	1750	8.7	0.115
18	29° 40'	80° 10'	Oct. 14	1940	2144	21.2	0.236
19	29° 40'	80° 34'	Oct. 14-15	2257	0045	15.2	0.263
21	31° 39'	80° 23'	Oct. 21-22	2325	0100	28.2	0.035
22	31° 32'	79° 07'	Oct. 24	1918	2150	29.2	0.034
23	31° 28'	78° 47'	Oct. 24	2200	2250	8.5	0.118
24	31° 36'	78° 45'	Oct. 25	0125	0340	21.8	0.046
25	31° 49'	79° 07'	Oct. 25	0614	0830	25.4	0.039
26	32° 06'	79° 24	Oct. 25	1035	1235	21.2	0.142
27	32° 17'	79° 38'	Oct. 25	1342	1530	13.7	0.146
28	32° 34'	79° 40'	Oct. 25	1656	1845	16.8	0.298
29	32° 47'	79° 24'	Oct. 25	1958	2125	14.0	0.500
30	32° 48'	79° 07'	Oct. 25-26	2310	0030	15.8	0.190
31	32° 33'	78° 49'	Oct. 26	0145	0323	22.9	0.175
32	32° 17'	78° 34'	Oct. 26	0515	0700	18.7	0.267
34	32° 08'	77° 50'	Oct. 26	1230	1515	43.7	0.023
35	32° 28'	77° 35'	Oct. 26	1723	1940	24.8	0.242
36	32° 41'	77° 57'	Oct. 26	2155	2345	21.5	0.232
37	32° 55'	78° 11'	Oct. 27	0117	0235	14.7	0.204
38	33° 12'	78° 29'	Oct. 27	0358	0530	16.0	0.125
39	33° 28'	78° 45'	Oct. 27	0649	0806	13.2	0.152

Table 9.--Plankton volumes (Gulf IA High-speed sampler), cont'd

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1953) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
40	33° 34'	78° 39'	Oct. 27	0922	1154	25.5	0.039
41	33° 34'	78° 13'	Oct. 27	1253	1436	16.6	0.301
42	33° 29'	77° 48'	Oct. 27	1637	1750	-	-
43	33° 17'	77° 30'	Nov. 7-8	2240	0030	19.5	0.102
44	33° 00'	77° 11'	Nov. 8	0245	0350	15.7	0.064
45	32° 49'	76° 56'	Nov. 8	0558	0735	16.4	0.061
46	32° 59'	76° 35'	Nov. 8	1010	1305	37.6	0.026
47	33° 23'	76° 29'	Nov. 8	1525	1635	14.2	0.070
48	33° 38'	76° 44'	Nov. 8	1822	1940	15.0	0.133
49	33° 50'	77° 04'	Nov. 8	2100	2230	18.1	0.055
50	34° 04'	77° 19'	Nov. 8-9	2335	0115	18.6	0.161
51	34° 17'	77° 17'	Nov. 9	0215	0345	18.1	0.110
52	34° 29'	76° 54'	Nov. 9	0450	0715	26.3	0.228
53	34° 28'	76° 37'	Nov. 9	0827	1010	14.2	0.352

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net)

Station Number	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
Protozoa	198.5	879.2	1.4	6.3	955.1	873.1	165.4	434.7
Coelenterata	3.4	9.1	4.8	5.6	7.5	11.1	4.0	2.9
Chaetognatha	6.8	11.8	37.4	45.6	28.8	4.5	4.5	3.5
Misc. Worms	0.9	0.9	0.2	0.2	28.8	1.2	0.4	0.4
Copepoda	89.2	123.8	72.7	366.9	294.2	115.8	91.1	41.5
Ostracoda	4.9	3.2	-	-	3.6	2.3	4.2	1.0
Mysidacea	-	-	-	-	-	-	-	-
Amphipoda	0.4	2.4	0.1	0.1	3.0	1.0	0.2	0.2
Isopoda	-	-	-	-	-	-	0.1	-
Stomatopoda	-	0.1	-	0.1	0.3	0.1	0.1	0.1
Euphausiacea	2.3	2.8	-	-	0.1	5.4	3.7	2.2
Shrimp	1.5	0.2	118.7	182.6	97.0	1.2	1.4	0.4
Crabs	0.5	0.2	80.7	63.9	2.8	0.2	1.0	0.6
Misc. Crustaceans	0.3	-	2.0	2.0	17.0	0.2	0.2	0.4
Pteropoda	1.2	0.8	-	-	1.5	0.8	0.5	0.6
Misc. Mollusca	2.8	2.0	0.1	3.1	20.2	4.3	1.9	1.0
Larvacea	9.8	8.0	0.3	1.2	34.1	30.6	18.9	25.0
Misc. Tunicata	0.3	8.3	0.1	0.9	3.1	3.2	0.4	0.4
Leptocardia	0.03	-	<0.01	0.01	-	0.02	0.01	<0.01
Misc. Organisms	3.8	16.4	54.7	40.7	143.9	4.8	2.4	4.3
Subtotal	326.6	1069.2	373.2	719.2	1641.0	1059.8	300.4	519.2
Fish Eggs	-	<0.01	0.02	0.06	0.12	0.01	0.02	<0.01
Fish Larvae	0.81	0.50	0.24	0.38	0.83	0.94	0.50	0.59
Total	327.4	1069.7	373.5	719.6	1642.0	1060.8	300.9	519.8

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 9	Reg. 10	Reg. 11	Reg. 12	Reg. 13	Reg. 14	Reg. 15	Reg. 16
Protozoa	871.3	21.8	3.7	33.8	24.7	59.0	312.9	153.4
Coelenterata	9.7	1.2	0.6	1.4	1.8	3.7	5.1	4.6
Chaetognatha	4.0	38.0	145.4	36.8	45.0	30.3	7.0	4.7
Misc. Worms	0.6	0.2	0.1	0.1	0.5	1.2	0.8	0.6
Copepoda	71.4	72.4	467.1	565.1	402.8	568.4	91.8	64.5
Ostracoda	0.9	-	-	-	0.7	112.6	3.4	1.3
Mysidacea	-	-	9.0	3.8	3.4	0.6	-	-
Amphipoda	1.0	-	0.3	0.1	0.3	2.9	0.6	0.2
Isopoda	-	-	0.2	0.1	-	-	-	-
Stomatopoda	-	-	-	-	-	0.1	-	0.1
Euphausiacea	1.2	-	0.1	-	-	-	3.2	3.2
Shrimp	1.0	46.4	14.8	3.9	21.5	55.1	3.3	1.4
Crabs	0.2	7.4	120.0	17.9	6.2	15.4	0.8	1.3
Misc. Crustaceans	0.6	1.4	0.2	0.4	0.8	105.6	10.2	5.1
Pteropoda	1.0	-	-	-	-	0.9	0.2	0.6
Misc. Mollusca	2.3	0.2	223.0	5.4	1.3	10.5	2.3	2.4
Larvacea	76.9	0.5	0.6	1.0	3.8	14.8	9.6	21.5
Misc. Tunicata	1.8	0.1	-	-	-	2.3	0.6	1.0
Leptocardia	0.01	-	0.03	0.02	0.01	0.06	0.02	-
Misc. Organisms	24.8	17.6	4.6	35.8	25.6	43.5	6.8	3.3
Subtotal	1068.7	207.2	989.7	705.6	538.4	1027.0	458.6	269.2
Fish Eggs	0.16	0.04	0.07	0.06	0.54	3.60	0.08	<0.01
Fish Larvae	0.78	0.27	0.20	0.04	0.09	0.77	0.58	0.53
Total	1069.6	207.5	990.0	705.7	539.0	1031.4	459.3	269.7

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 18	Reg. 19	Reg. 20	Reg. 21	Reg. 22	Reg. 23	Reg. 24	Reg. 25
Protozoa	792.0	368.8	216.4	362.8	91.6	103.9	119.2	83.5
Coelenterata	8.3	9.9	7.4	12.9	1.8	0.5	7.4	4.9
Chaetognatha	2.3	20.7	65.8	30.2	8.4	5.4	18.6	8.0
Misc. Worms	0.4	0.8	1.5	3.6	-	0.4	-	1.9
Copepoda	115.4	634.8	708.8	1762.0	106.2	394.1	294.8	245.6
Ostracoda	1.5	258.0	210.1	4.9	1.8	0.5	10.8	18.9
Mysidacea	-	3.8	6.5	18.7	-	-	0.2	-
Amphipoda	1.7	24.5	11.2	4.0	0.2	-	4.1	1.3
Isopoda	-	0.4	0.3	0.4	-	-	-	-
Stomatopoda	0.4	0.2	-	-	-	-	-	-
Euphausiacea	1.5	-	-	-	-	-	-	0.6
Shrimp	1.4	7.6	53.3	226.1	7.7	1.3	4.5	6.9
Crabs	0.4	15.8	24.3	17.8	11.0	2.4	9.6	4.1
Misc. Crustaceans	0.6	211.6	138.0	12.4	4.1	1.0	3.3	1.1
Pteropoda	0.6	5.1	3.8	0.9	-	-	4.7	5.5
Misc. Mollusca	2.9	38.3	22.2	122.5	3.1	1.6	91.0	11.0
Larvacea	34.3	17.9	181.9	212.0	75.0	1.9	52.0	14.5
Misc. Tunicata	3.7	8.7	3.8	3.1	-	-	3.3	6.0
Leptocardia	0.02	0.29	0.25	0.89	0.03	-	0.02	-
Misc. Organisms	4.4	189.4	263.4	325.1	66.6	1.0	119.2	60.1
Subtotal	971.8	1816.6	1919.0	3120.3	377.5	514.0	742.7	473.9
Fish Eggs	0.03	2.21	11.39	7.89	0.15	0.12	1.23	1.04
Fish Larvae	0.36	0.70	4.79	0.20	0.58	0.06	0.43	1.78
Total	972.2	1819.5	1935.2	3128.4	378.2	514.2	744.4	476.7

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 26	Reg. 27	Reg. 28	Reg. 29	Reg. 30	Reg. 31	Reg. 32	Reg. 33*
Protozoa	1005.9	546.8	198.8	237.2	762.9	52.9	132.7	40492
Coelenterata	6.6	6.6	4.3	4.3	9.0	7.4	64.5	5936
Chaetognatha	7.0	4.3	4.3	4.0	10.3	16.9	50.6	15264
Misc. Worms	0.7	0.5	0.7	0.4	1.6	1.3	2.3	80
Copepoda	109.2	40.0	78.8	61.4	60.1	125.2	106.2	60632
Ostracoda	5.9	1.6	3.5	2.7	1.5	345.8	165.6	70596
Mysidacea	-	0.1	-	-	-	-	5.5	680
Amphipoda	2.6	0.9	0.2	0.2	0.8	5.6	3.2	4028
Isopoda	-	-	-	-	-	-	-	20
Stomatopoda	0.1	-	0.1	-	0.1	-	0.1	20
Euphausiacea	1.8	2.9	3.4	3.4	2.3	-	-	-
Shrimp	2.1	0.5	1.0	0.4	0.7	2.6	5.5	5724
Crabs	1.5	0.2	0.2	0.4	0.2	2.4	6.7	2340
Misc. Crustaceans	3.3	0.3	0.4	0.5	0.1	0.5	0.8	980
Pteropoda	2.2	0.2	0.4	0.5	0.9	1.5	2.4	120
Misc. Mollusca	2.6	1.9	2.6	1.5	2.2	3.0	14.8	340
Larvacea	10.8	31.0	42.1	70.0	34.8	98.0	24.0	28832
Misc. Tunicata	4.7	1.8	2.9	1.2	20.6	2.3	40.4	9964
Leptocardia	0.01	-	0.05	0.02	<0.01	-	-	2
Misc. Organisms	16.4	4.5	31.3	3.2	23.0	158.7	125.2	47488
Subtotal	1183.4	644.1	375.0	391.3	931.1	824.1	750.5	293538
Fish Eggs	0.04	0.02	0.01	0.02	<0.01	0.19	0.39	235
Fish Larvae	0.39	0.26	0.57	0.38	0.56	1.08	1.08	294
Total	1183.8	644.4	375.6	391.7	931.7	825.4	752.0	294067

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 34	Reg. 35	Reg. 36	Reg. 37	Reg. 38	Reg. 39	Reg. 40	Reg. 41
Protozoa	116.1	251.5	988.6	323.5	73.2	418.7	78.7	63.7
Coelenterata	4.0	5.5	6.9	26.4	14.5	6.6	3.1	3.2
Chaetognatha	14.2	33.6	26.2	40.1	35.8	6.3	5.1	1.6
Misc. Worms	0.4	-	0.7	1.3	0.4	1.4	0.3	0.7
Copepoda	157.4	650.0	563.9	100.9	93.7	211.1	56.6	23.6
Ostracoda	10.6	31.9	35.9	75.7	425.0	3.2	2.8	2.3
Mysidacea	10.4	6.2	8.6	3.9	1.1	0.2	-	-
Amphipoda	0.3	92.1	8.6	1.8	9.1	2.8	0.7	0.1
Isopoda	0.8	1.0	3.8	0.9	0.1	-	-	-
Stomatopoda	-	-	-	0.1	0.2	-	0.1	-
Euphausiacea	-	-	-	-	0.1	4.6	1.9	2.8
Shrimp	11.7	83.2	67.4	5.5	1.4	0.3	0.9	0.2
Crabs	17.0	76.2	33.8	3.6	2.2	0.7	0.2	-
Misc. Crustaceans	2.0	30.1	9.0	1.6	0.9	0.1	0.1	0.1
Pteropoda	-	0.3	2.8	0.3	0.9	0.9	0.6	0.2
Misc. Mollusca	3.2	10.9	23.5	34.4	23.0	4.9	4.7	1.6
Larvacea	38.2	77.9	117.2	1.6	20.4	8.5	4.1	4.4
Misc. Tunicata	7.5	51.4	10.4	11.4	17.0	0.3	0.1	-
Leptocardia	-	0.02	0.05	0.02	0.01	-	0.01	0.02
Misc. Organisms	109.7	118.7	205.0	75.7	30.7	43.2	12.4	1.3
Subtotal	503.5	1520.5	2112.4	708.7	749.7	713.8	172.4	105.8
Fish Eggs	0.09	1.44	1.19	0.10	0.24	<0.01	0.01	-
Fish Larvae	0.14	1.50	1.54	1.40	0.88	0.24	0.59	0.29
Total	503.7	1523.4	2115.1	710.2	750.8	714.0	173.0	106.1

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 42	Reg. 43	Reg. 45	Reg. 46	Reg. 47	Reg. 48	Reg. 49	Reg. 50
Protozoa	300.6	122.8	194.1	117.4	263.8	195.3	1053.6	125.3
Coelenterata	9.8	2.8	12.1	6.0	8.9	12.4	10.3	9.9
Chaetognatha	31.5	5.6	9.8	66.6	5.9	9.8	14.4	7.1
Misc. Worms	2.1	0.2	1.4	0.7	1.2	1.0	0.8	0.4
Copepoda	125.0	61.7	477.7	790.1	253.8	290.5	175.2	38.4
Ostracoda	149.9	1.8	3.4	22.8	84.6	105.0	11.0	1.8
Mysidacea	-	-	11.0	26.3	2.6	0.1	0.1	-
Amphipoda	4.4	1.1	59.7	33.3	3.3	5.9	1.5	0.3
Isopoda	0.1	-	0.6	0.3	-	-	-	-
Stomatopoda	0.1	0.2	-	-	-	-	0.2	-
Euphausiacea	1.1	<0.1	-	-	1.4	1.7	2.2	1.3
Shrimp	4.7	0.6	20.6	49.0	2.1	1.3	1.9	0.9
Crabs	5.4	0.3	41.4	45.6	7.0	1.0	1.2	0.1
Misc. Crustaceans	0.2	0.2	12.7	4.6	3.3	1.3	1.3	0.4
Pteropoda	3.9	0.2	21.4	3.1	0.7	2.2	2.2	0.7
Misc. Mollusca	8.2	2.1	10.1	33.3	6.1	9.6	3.0	1.8
Larvacea	146.6	31.7	250.8	101.6	94.6	48.8	104.6	39.1
Misc. Tunicata	3.8	0.8	0.8	80.6	1.9	2.5	2.4	0.8
Leptocardia	-	<0.01	0.03	0.05	0.06	0.02	-	0.01
Misc. Organisms	79.5	19.8	203.0	106.9	129.4	43.9	54.2	13.6
Subtotal	876.9	252.0	1330.6	1488.2	870.7	732.3	1440.1	241.9
Fish Eggs	0.22	0.12	0.07	0.20	0.35	0.05	-	<0.01
Fish Larvae	0.67	0.11	0.58	0.30	1.04	0.26	0.61	0.33
Total	877.8	252.2	1331.2	1488.7	872.1	732.6	1440.7	242.2

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 51	Reg. 52	Reg. 53	Reg. 54	Reg. 55	Reg. 56	Reg. 57	Reg. 58
Protozoa	172.5	114.2	247.6	198.7	50.0	3824.5	506.1	291.1
Coelenterata	4.4	8.3	8.8	9.8	2.7	0.9	2.0	1.1
Chaetognatha	0.4	11.7	7.4	16.0	35.1	22.4	34.5	17.0
Misc. Worms	0.7	2.0	1.6	0.6	1.3	0.2	0.6	0.9
Copepoda	61.0	135.7	212.7	242.3	362.9	387.4	223.2	251.0
Ostracoda	3.2	27.8	26.3	10.6	1.7	-	0.2	2.7
Mysidacea	-	-	-	2.8	-	0.3	-	-
Amphipoda	0.2	2.9	2.3	2.4	0.7	3.0	4.4	0.9
Isopoda	-	-	-	0.2	-	-	-	0.2
Stomatopoda	-	-	-	-	-	-	-	-
Euphausiacea	3.4	5.8	2.2	0.2	-	-	-	-
Shrimp	0.8	1.3	1.4	2.0	8.4	1.1	1.8	11.2
Crabs	0.1	0.6	0.6	2.0	7.1	4.9	4.3	6.2
Misc. Crustaceans	0.8	1.9	1.0	0.9	0.3	0.4	0.8	0.5
Pteropoda	0.8	0.7	0.7	1.7	1.0	0.1	1.7	0.6
Misc. Mollusca	1.2	2.3	4.7	5.0	3.4	37.8	5.2	22.2
Larvacea	21.2	67.8	63.4	41.3	55.4	13.3	44.8	148.9
Misc. Tunicata	0.2	1.2	1.0	1.3	0.5	-	0.2	-
Leptocardia	0.01	0.02	0.02	<0.01	<0.01	-	-	-
Misc. Organisms	2.7	32.8	18.3	71.2	1587.3	47.5	53.4	455.1
Subtotal	273.6	417.0	600.0	609.0	2117.8	4343.8	883.2	1209.6
Fish Eggs	<0.01	0.03	0.08	0.69	0.39	0.15	2.88	2.33
Fish Larvae	0.10	0.39	0.54	0.90	1.21	0.05	0.15	0.36
Total	273.7	417.4	600.6	610.6	2119.4	4344.0	886.2	1212.3

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 59	Reg. 60	Reg. 61	Reg. 62	Reg. 63	Reg. 64	Reg. 65	Reg. 66
Protozoa	107.6	118.0	82.7	104.6	75.4	133.1	87.1	215.7
Coelenterata	8.1	8.2	6.8	8.4	7.8	13.6	11.9	13.1
Chaetognatha	44.3	5.2	3.7	2.9	3.6	6.8	13.8	84.7
Misc. Worms	2.7	0.9	0.7	0.4	0.7	1.6	1.2	3.1
Copepoda	388.6	64.9	63.4	39.4	48.4	98.6	232.8	402.1
Ostracoda	71.5	3.1	2.9	5.2	4.6	4.4	23.1	183.0
Mysidacea	4.0	0.2	-	-	-	0.1	1.9	1.9
Amphipoda	5.7	0.8	0.6	0.5	0.6	1.1	2.7	4.7
Isopoda	0.3	-	<0.1	-	-	0.1	0.1	-
Stomatopoda	0.5	-	-	-	-	0.1	0.5	0.2
Euphausiacea	1.9	4.4	2.5	1.4	2.5	6.4	1.0	0.4
Shrimp	4.6	0.9	0.1	0.6	0.3	1.4	2.9	7.4
Crabs	2.1	0.1	0.2	<0.1	0.1	0.4	1.7	4.0
Misc. Crustaceans	1.4	0.2	0.1	0.1	0.2	-	0.2	2.0
Pteropoda	1.2	3.9	0.5	0.2	0.4	1.2	2.1	2.1
Misc. Mollusca	30.4	1.0	1.9	0.9	1.2	5.1	7.1	73.4
Larvacea	32.9	22.0	26.4	25.7	49.7	33.8	46.8	29.4
Misc. Tunicata	0.3	1.1	0.8	0.6	1.4	1.8	1.4	1.2
Leptocardia	0.17	0.02	0.05	<0.01	0.03	0.06	0.03	0.01
Misc. Organisms	231.0	17.9	24.6	6.0	3.3	8.6	66.6	193.1
Subtotal	939.3	252.8	218.0	197.0	200.2	318.3	504.9	1221.5
Fish Eggs	1.66	0.07	0.01	0.01	0.07	0.09	0.80	0.93
Fish Larvae	1.40	0.63	0.84	0.67	0.74	2.21	0.68	2.39
Total	942.4	253.5	218.8	197.7	201.0	320.6	506.4	1224.8

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 67	Reg. 68	Reg. 69	Reg. 70	Reg. 75	Reg. 76	Reg. 77	Spc. 9
Protozoa	131.0	298.7	126.4	155.1	90.1	55.5	5.7	25.0
Coelenterata	1.7	3.2	3.3	3.0	12.9	0.7	1.1	1.1
Chaetognatha	113.4	105.4	44.3	88.3	36.7	240.7	188.5	2.4
Misc. Worms	1.7	0.6	1.8	0.3	1.5	1.6	0.4	0.4
Copepoda	434.3	445.7	276.2	192.4	151.5	543.6	245.3	39.9
Ostracoda	242.2	67.1	3.8	143.3	13.8	13.0	1.4	1.2
Mysidacea	2.8	2.4	-	-	-	23.4	14.9	-
Amphipoda	15.0	12.7	0.2	5.7	1.9	6.9	0.8	0.1
Isopoda	-	-	-	-	0.1	-	-	-
Stomatopoda	0.4	-	-	-	-	-	-	-
Euphausiacea	0.2	-	-	0.2	3.2	0.1	0.1	1.7
Shrimp	9.6	24.3	8.2	2.5	2.8	2.6	0.8	0.6
Crabs	6.0	6.0	6.4	0.8	3.8	1.4	1.4	-
Misc. Crustaceans	3.0	3.9	139.4	0.2	-	1.5	-	0.4
Pteropoda	1.4	6.6	2.8	3.9	0.8	0.5	-	0.1
Misc. Mollusca	34.6	89.5	76.9	28.3	19.6	3.7	7.7	1.2
Larvacea	22.8	83.1	46.9	5.6	4.2	1.6	0.2	1.5
Misc. Tunicata	0.2	1.4	0.2	0.8	0.9	0.1	0.1	0.1
Leptocardia	0.18	0.04	-	-	0.05	-	-	<0.01
Misc. Organisms	136.9	17.9	71.7	195.3	81.5	3.6	0.9	0.9
Subtotal	1157.4	1168.5	808.5	825.7	425.4	900.5	469.3	76.6
Fish Eggs	0.41	0.50	0.55	0.44	0.56	0.44	0.01	0.02
Fish Larvae	1.33	4.50	0.30	0.65	1.82	0.24	0.04	0.55
Total	1159.1	1173.5	809.4	826.8	427.8	901.2	469.4	77.2

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler)

Tow Number	1	2	3	4	5	6	7	8
Protozoa	795.0	4.2	201.1	950.4	532.6	238.6	724.1	483.5
Coelenterata	4.4	11.6	14.0	4.8	2.2	1.7	3.5	0.9
Chaetognatha	4.7	0.5	3.8	3.8	2.7	2.4	3.8	1.8
Misc. Worms	1.4	2.3	3.8	2.4	-	0.4	0.6	-
Copepoda	72.8	58.8	179.9	259.9	94.7	38.3	54.4	62.7
Ostracoda	0.8	-	-	0.7	1.4	0.4	-	-
Mysidacea	-	-	-	-	-	-	-	-
Amphipoda	0.8	-	0.8	1.7	0.7	-	0.6	0.9
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	-	-	-	-	0.7	-	-	-
Euphausiacea	2.2	-	-	2.9	2.7	1.5	2.3	0.9
Shrimp	2.5	453.7	81.1	6.5	3.2	1.3	-	-
Crabs	0.8	63.9	21.2	1.9	1.4	1.1	-	0.4
Misc. Crustaceans	-	-	22.0	0.2	-	-	0.3	-
Pteropoda	0.8	-	3.4	3.4	1.2	0.4	-	-
Misc. Mollusca	1.4	1.8	3.0	4.8	2.7	0.6	0.3	1.3
Larvacea	14.0	-	1.5	1.4	1.2	1.7	4.6	6.6
Misc. Tunicata	3.0	-	3.8	1.2	1.4	-	-	-
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	4.7	20.8	11.4	1.2	4.1	1.9	4.1	-
Subtotal	909.3	617.6	550.8	1247.2	652.9	290.3	798.6	559.0
Fish Eggs	0.05	-	1.29	-	-	-	-	-
Fish Larvae	0.49	0.18	0.53	0.72	0.29	0.61	0.41	0.09
Total	909.8	617.8	552.6	1247.9	653.2	290.9	799.0	559.1

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	9	10	11	12	13	14	15	16
Protozoa	654.9	27.4	-	3.3	23.5	842.0	722.9	303.7
Coelenterata	8.9	2.7	0.5	8.5	2.3	7.9	3.1	2.7
Chaetognatha	1.8	23.1	62.9	32.4	12.4	7.6	2.6	2.1
Misc. Worms	2.1	2.7	-	-	2.0	1.3	0.4	-
Copepoda	190.7	418.8	1294.3	1583.1	618.9	405.9	48.9	28.6
Ostracoda	-	-	-	-	11.1	1.9	-	-
Mysidacea	-	-	10.0	22.5	6.7	-	-	-
Amphipoda	2.1	-	-	-	1.7	4.1	0.4	0.2
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	-	-	-	0.3	-	0.3	-	-
Euphausiacea	1.1	2.7	-	-	-	1.6	2.6	1.9
Shrimp	67.5	10.8	25.5	19.6	6.0	9.8	0.9	1.0
Crabs	9.3	28.5	21.0	15.7	11.1	2.5	0.9	1.2
Misc. Crustaceans	16.8	2.2	-	2.0	84.2	10.8	2.0	0.4
Pteropoda	1.8	-	-	-	0.3	3.2	0.6	0.6
Misc. Mollusca	3.2	5.9	5.0	3.3	2.0	1.9	1.8	1.0
Larvacea	8.6	7.5	0.3	3.9	0.7	5.1	11.6	1.5
Misc. Tunicata	1.8	0.5	-	-	-	1.9	-	-
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	3.6	1.1	-	-	38.9	3.2	1.1	0.8
Subtotal	974.2	533.9	1419.5	1694.6	821.8	1311.0	799.8	345.7
Fish Eggs	0.57	-	0.79	0.13	8.39	0.32	-	-
Fish Larvae	0,64	0.32	0.05	0.13	0.47	0.89	0.35	0.35
Total	975.4	534.2	1420.3	1694.9	830.7	1312.2	800.2	346.0

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	17	18	19	21	22	23	24	25
Protozoa	1090.4	890.0	97.7	469.8	85.3	103.5	37.4	344.3
Coelenterata	11.5	4.2	9.5	1.2	3.1	14.7	4.1	7.9
Chaetognatha	2.9	3.3	15.1	2.5	1.9	6.5	3.4	5.5
Misc. Worms	1.1	1.2	3.0	0.5	0.5	-	0.4	0.4
Copepoda	72.4	500.0	711.3	66.3	27.6	41.2	24.3	79.3
Ostracoda	1.1	11.8	49.7	12.2	1.4	1.2	1.1	0.4
Mysidacea	-	0.7	4.3	1.2	-	-	-	-
Amphipoda	-	3.3	7.6	1.1	0.3	-	-	1.0
Isopoda	-	-	-	0.2	0.3	-	-	-
Stomatopoda	-	-	-	-	-	-	-	-
Euphausiacea	3.4	2.1	2.0	0.7	1.9	1.8	0.7	1.8
Shrimp	2.3	7.3	14.5	4.2	0.8	0.6	1.1	0.6
Crabs	2.9	1.4	4.9	1.2	0.3	0.6	-	-
Misc. Crustaceans	-	64.2	61.2	1.1	-	-	1.8	-
Pteropoda	0.6	1.9	2.0	0.4	0.7	-	0.9	0.8
Misc. Mollusca	4.6	5.2	14.1	3.0	1.0	11.2	2.1	2.4
Larvacea	18.4	16.0	16.8	2.8	3.2	2.4	2.3	10.6
Misc. Tunicata	0.6	0.7	1.3	0.5	-	-	-	8.1
Leptocardia	-	0.05	-	0.04	-	-	-	-
Misc. Organisms	5.2	2.1	11.2	11.5	3.4	3.5	4.4	1.0
Subtotal	1217.4	1515.4	1026.2	580.4	131.7	187.2	84.0	464.1
Fish Eggs	-	0.47	3.95	0.25	0.03	0.12	-	-
Fish Larvae	0.57	0.42	1.78	0.18	0.20	0.82	0.46	0.31
Total	1218.0	1516.3	1031.9	580.8	131.9	188.1	84.5	464.4

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	26	27	28	29	30	31	32	34
Protozoa	245.0	363.6	293.4	35.7	241.5	229.1	504.5	48.5
Coelenterata	4.7	5.5	5.4	4.3	7.3	4.1	8.3	1.2
Chaetognatha	14.2	10.9	12.2	5.7	12.0	4.6	2.9	0.7
Misc. Worms	0.2	-	-	-	0.9	-	0.8	0.2
Copepoda	182.5	328.8	470.0	503.5	298.5	268.5	164.4	4.1
Ostracoda	1.9	0.7	0.6	0.7	10.4	14.6	14.4	-
Mysidacea	-	-	14.0	18.6	5.4	3.0	-	-
Amphipoda	1.9	-	7.4	16.8	9.8	7.9	1.9	-
Isopoda	-	-	1.2	0.7	3.2	0.2	-	-
Stomatopoda	0.5	-	-	-	-	-	-	-
Euphausiacea	0.9	2.2	-	-	-	-	0.5	-
Shrimp	3.3	10.2	16.4	30.4	14.9	5.0	7.2	0.2
Crabs	2.1	12.0	27.7	21.4	8.2	4.8	0.3	-
Misc. Crustaceans	0.5	6.2	5.0	2.5	0.9	0.4	0.3	-
Pteropoda	1.2	1.1	1.8	1.8	0.6	0.4	2.7	0.2
Misc. Mollusca	1.9	2.9	2.1	8.2	4.7	2.2	2.7	0.7
Larvacea	24.8	21.5	15.5	43.2	12.6	22.7	9.4	2.5
Misc. Tunicata	5.7	-	36.9	50.4	5.4	0.4	1.9	0.1
Leptocardia	-	-	-	0.14	-	-	-	-
Misc. Organisms	4.0	15.3	8.9	6.1	51.3	15.1	5.3	0.4
Subtotal	495.3	780.9	918.5	750.1	687.6	583.0	727.5	58.8
Fish Eggs	0.19	1.02	0.54	0.43	0.19	0.61	-	0.02
Fish Larvae	0.85	0.51	0.54	0.43	0.63	0.66	0.11	0.04
Total	496.3	782.4	919.6	751.0	688.4	584.3	727.6	58.9

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	35	36	37	38	39	40	41	42*
Protozoa	312.0	145.4	313.7	228.6	17.8	2.2	111.7	2703
Coelenterata	6.4	6.7	7.5	2.2	10.2	1.4	1.8	50
Chaetognatha	10.1	3.0	7.8	17.2	24.2	0.8	7.5	125
Misc. Worms	1.4	0.5	0.3	0.9	0.8	-	-	5
Copepoda	267.1	83.7	313.7	155.7	377.4	23.7	437.4	2120
Ostracoda	75.4	20.7	31.6	9.4	2.3	0.2	0.9	15
Mysidacea	-	1.4	2.7	3.4	-	-	-	-
Amphipoda	2.0	3.7	5.8	5.3	2.3	0.2	6.0	15
Isopoda	-	0.5	-	0.9	-	-	-	-
Stomatopoda	-	-	-	-	-	-	-	-
Euphausiacea	4.6	0.7	1.7	0.6	-	0.2	0.1	-
Shrimp	2.8	4.9	5.4	9.1	14.0	0.6	14.4	145
Crabs	2.0	3.5	4.8	3.1	6.4	1.4	8.7	65
Misc. Crustaceans	0.4	-	1.4	-	2.6	2.0	0.6	5
Pteropoda	2.2	0.9	1.0	1.6	1.5	1.8	2.4	15
Misc. Mollusca	4.8	3.2	2.7	5.9	3.8	2.4	13.2	85
Larvacea	10.9	10.5	54.4	32.8	23.5	14.5	127.7	935
Misc. Tunicata	2.0	1.9	1.7	1.2	39.0	2.2	0.9	-
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	4.4	6.0	16.7	298.1	558.1	178.7	258.6	4505
Subtotal	708.5	297.2	772.9	776.0	1083.9	232.3	991.9	10788
Fish Eggs	-	0.05	0.54	0.12	0.23	0.04	3.07	56
Fish Larvae	0.12	1.26	0.82	0.81	1.06	0.08	0.18	14
Total	708.6	298.5	774.3	776.9	1085.2	232.4	995.2	10858

* Total number of organisms in sample, water volume not determined

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	43	44	45	46	47	48	49	50
Protozoa	138.6	297.1	368.4	114.2	72.9	176.7	137.6	131.1
Coelenterata	13.3	17.2	14.0	1.7	5.3	10.3	10.2	5.4
Chaetognatha	31.5	3.8	11.6	0.8	5.6	19.0	22.6	52.2
Misc. Worms	0.2	1.9	0.9	0.1	0.4	1.0	1.9	2.2
Copepoda	163.1	61.1	158.4	10.5	40.5	374.5	234.2	379.0
Ostracoda	31.3	2.5	0.9	-	2.1	40.7	11.0	102.6
Mysidacea	7.7	-	-	-	-	-	1.6	4.0
Amphipoda	2.6	0.6	0.6	-	0.7	3.3	0.6	3.8
Isopoda	0.2	-	-	-	-	0.3	-	-
Stomatopoda	2.0	-	-	-	-	0.3	1.1	1.9
Euphausiacea	0.5	5.4	1.5	-	3.2	3.7	1.4	-
Shrimp	6.7	1.0	2.7	-	1.4	2.3	3.3	5.9
Crabs	1.0	0.3	-	0.1	-	0.7	0.8	4.0
Misc. Crustaceans	0.2	0.3	0.3	-	0.4	0.3	-	1.9
Pteropoda	3.1	1.9	1.2	-	0.4	3.7	1.6	3.8
Misc. Mollusca	11.3	5.7	3.0	0.9	2.5	13.3	17.7	53.2
Larvacea	19.2	8.3	11.9	4.1	15.1	15.7	8.6	11.0
Misc. Tunicata	1.0	0.3	2.7	-	-	0.7	-	2.2
Leptocardia	-	-	-	-	-	-	0.06	-
Misc. Organisms	160.4	13.4	17.1	1.3	7.0	54.7	102.5	188.1
Subtotal	593.9	420.8	595.2	133.7	157.5	721.2	556.8	952.3
Fish Eggs	0.92	0.19	-	0.11	0.07	0.07	0.61	1.13
Fish Larvae	0.77	0.76	0.79	0.03	0.14	0.93	0.72	1.02
Total	595.6	421.8	596.0	133.8	157.7	722.2	558.1	954.4

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	51	52	53
Protozoa	93.7	191.4	205.3
Coelenterata	0.6	4.2	1.4
Chaetognatha	70.3	34.2	81.7
Misc. Worms	1.9	3.0	3.5
Copepoda	351.4	975.4	780.1
Ostracoda	65.7	30.0	95.1
Mysidacea	5.8	4.2	6.7
Amphipoda	3.9	4.9	9.8
Isopoda	0.6	-	-
Stomatopoda	0.3	-	-
Euphausiacea	-	-	-
Shrimp	8.0	16.7	15.1
Crabs	6.6	16.0	27.5
Misc. Crustaceans	1.1	75.5	64.8
Pteropoda	-	4.6	4.6
Misc. Mollusca	26.5	68.5	60.9
Larvacea	8.3	38.2	73.9
Misc. Tunicata	0.3	4.2	5.3
Leptocardia	-	-	-
Misc. Organisms	134.7	84.6	205.3
Subtotal	779.7	1555.6	1641.0
Fish Eggs	0.72	2.24	1.41
Fish Larvae	1.16	1.67	4.65
Total	781.6	1559.5	1647.1

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler)

Run No. 4, Date October 12, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0352	0455	0558	0701	0804	0907	1010	1113
Position of Ship: (N. Lat.	27°02'	27°01'	27°01'	27°00'	27°00'	26°57'	27°00'	27°03'
(W. Long.	79°20'	79°29'	79°40'	79°44'	79°49'	80°01'	80°05'	80°05'
Protozoa	133.6	11.6	-	11.6	46.5	5.8	5.8	5.8
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	-	5.8	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	98.8	-	-	75.5	17.4	17.4	-	156.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	5.8	-	23.2	98.8
Crabs	-	-	-	-	-	5.8	5.8	17.4
Misc. Crustaceans	-	-	-	-	-	-	5.8	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	29.0	-	-	5.8	11.6	11.6	34.9	23.2
Subtotal	261.4	11.6	-	92.9	81.3	40.6	81.3	302.1
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	261.4	11.6	-	92.9	81.3	40.6	81.3	302.1

Run No. 5, Date October 12, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1225	1325	1425	1525	1625	1725	1825	1925
Position of Ship: (N. Lat.	27°14'	27°20'	27°24'	27°31'	27°40'	27°38'	27°37'	27°37'
(W. Long.	80°04'	80°03'	80°03'	80°04'	80°04'	80°00'	79°52'	79°44'
Protozoa	-	-	16.4	20.6	24.7	37.0	53.4	-
Coelenterata	-	-	-	-	4.1	-	4.1	-
Chaetognatha	-	4.1	37.0	8.2	4.1	12.3	4.1	-
Misc. Worms	-	-	-	8.2	-	20.6	-	-
Copepoda	123.3	106.9	94.5	267.2	94.5	127.4	41.1	-
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	98.6	61.6	20.6	45.2	12.3	4.1	8.2	8.2
Crabs	82.2	16.4	37.0	45.2	20.6	8.2	-	-
Misc. Crustaceans	8.2	-	4.1	-	4.1	-	4.1	-
Mollusca	-	-	-	8.2	4.1	-	4.1	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	4.1	8.2	4.1	-	20.6	32.9	12.3	-
Subtotal	316.4	197.2	213.7	402.8	189.1	242.5	131.4	8.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	316.4	197.2	213.7	402.8	189.1	242.5	131.4	8.2

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 6, Date October 12-13, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0026	0123	0219	0316	0412	0509	0605	0702
Position of Ship: (N. Lat.	27°41'	27°40'	27°41'	27°47'	27°53'	28°00'	28°00'	28°00'
(W. Long.	79°22'	79°18'	79°16'	79°11'	79°06'	79°00'	79°00'	79°00'
Protozoa	25.0	-	10.7	-	3.6	3.6	14.3	17.8
Coelenterata	-	-	-	-	3.6	-	3.6	-
Chaetognatha	3.6	-	-	3.6	-	-	-	7.1
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	85.7	32.1	39.3	96.4	60.7	35.7	50.0	64.3
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	3.6	-	-	3.6
Shrimp	3.6	-	3.6	-	-	-	3.6	-
Crabs	3.6	-	-	-	-	3.6	-	-
Misc. Crustaceans	7.1	3.6	-	3.6	3.6	-	3.6	-
Mollusca	-	-	-	7.1	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	7.1	7.1	3.6	3.6	-	14.3	10.7
Subtotal	128.6	42.8	60.7	114.3	78.7	42.9	89.4	103.5
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	128.6	42.8	60.7	114.3	78.7	42.9	89.4	103.5

Run No. 7, Date October 13, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0832	0936	1040	1144	1248	1352	1456	1600
Position of Ship: (N. Lat.	28°10'	28°15'	28°17'	28°17'	28°17'	28°18'	28°20'	28°20'
(W. Long.	79°14'	79°23'	79°27'	79°33'	79°43'	79°48'	79°56'	80°07'
Protozoa	29.9	12.8	38.4	85.4	34.2	47.0	-	-
Coelenterata	-	-	8.5	-	-	-	-	-
Chaetognatha	4.3	-	-	-	-	4.3	-	8.5
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	21.4	21.4	4.3	42.7	21.4	8.5	21.4	76.9
Ostracoda	-	-	4.3	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	34.2
Crabs	-	4.3	-	-	-	-	-	4.3
Misc. Crustaceans	4.3	-	-	-	-	-	-	4.3
Mollusca	-	-	-	-	-	-	-	8.5
Invertebrate Eggs	-	-	-	4.3	-	-	-	-
Misc. Organisms	21.4	8.5	4.3	29.9	17.1	38.4	4.3	47.0
Subtotal	81.3	47.0	59.8	162.3	72.7	98.2	25.7	183.7
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	81.3	47.0	59.8	162.3	72.7	98.2	25.7	183.7

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 8, Date October 13, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1730	1830	1930	2030	2130	2230	2330	
Position of Ship: (N. Lat.	28°20'	28°20'	28°20'	28°25'	28°30'	28°37'	28°45'	
(W. Long.	80°17'	80°28'	80°32'	80°26'	80°22'	80°23'	80°25'	
Protozoa	-	-	-	-	-	-	-	
Coelenterata	-	-	-	4.0	-	-	-	
Chaetognatha	8.1	52.6	56.7	72.9	48.6	24.3	28.4	
Misc. Worms	-	-	-	-	-	-	-	
Copepoda	16.2	166.0	109.4	279.4	401.0	445.5	336.2	
Ostracoda	-	-	-	-	-	-	-	
Amphipoda	-	-	-	-	-	-	-	
Shrimp	-	-	4.0	4.0	-	-	4.0	
Crabs	-	8.1	97.2	12.2	12.2	24.3	8.1	
Misc. Crustaceans	4.0	-	-	4.0	4.0	4.0	8.1	
Mollusca	-	-	8.1	-	-	-	-	
Invertebrate Eggs	-	-	-	-	-	-	-	
Misc. Organisms	20.2	4.0	-	4.0	4.0	-	12.2	
Subtotal	48.5	230.7	275.4	380.5	469.8	498.1	397.0	
Fish Eggs	-	-	-	-	-	-	4.0	
Fish Larvae	-	-	-	-	-	-	-	
Total	48.5	230.7	275.4	380.5	469.8	498.1	401.0	

Run No. 9, Date October 14, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0046	0148	0250	0352	0454	0556	0658	0800
Position of Ship: (N. Lat.	28°55'	29°00'	29°00'	29°00'	29°00'	29°00'	29°00'	29°02'
(W. Long.	80°31'	80°31'	80°22'	80°12'	80°08'	79°58'	79°51'	79°50'
Protozoa	-	-	3.5	-	-	31.8	-	21.2
Coelenterata	-	-	-	-	-	-	-	3.5
Chaetognatha	31.8	14.1	28.2	14.1	24.7	7.1	-	-
Misc. Worms	-	-	3.5	-	3.5	-	-	-
Copepoda	586.0	173.0	236.5	391.8	327.7	113.0	141.2	31.8
Ostracoda	-	-	7.1	17.6	14.1	-	-	-
Amphipoda	-	3.5	-	-	-	-	-	-
Shrimp	7.1	3.5	17.6	24.7	21.2	3.5	3.5	-
Crabs	21.2	31.8	45.9	31.8	17.6	3.5	3.5	-
Misc. Crustaceans	-	-	21.2	141.2	70.6	-	-	-
Mollusca	-	-	3.5	-	3.5	-	-	-
Invertebrate Eggs	-	-	-	3.5	3.5	-	3.5	-
Misc. Organisms	10.6	-	10.6	7.1	31.8	28.2	-	-
Subtotal	656.7	225.9	377.6	631.8	518.2	187.1	151.7	56.5
Fish Eggs	-	-	-	7.1	3.5	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	656.7	225.9	377.6	638.9	521.7	187.1	151.7	56.5

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 10, Date October 14, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1016	1118	1220	1322	1424	1526	1628	1730
Position of Ship: (N. Lat.	29°04'	29°03'	29°00'	29°00'	29°05'	29°13'	29°22'	29°30'
(W. Long.	79°42'	79°33'	79°25'	79°25'	79°31'	79°40'	79°48'	79°57'
Protozoa	-	3.2	6.3	31.6	34.8	25.3	22.1	85.3
Coelenterata	-	-	-	-	6.3	-	-	-
Chaetognatha	3.2	3.2	-	-	6.3	-	6.3	-
Misc. Worms	-	-	-	-	-	-	3.2	-
Copepoda	63.2	34.8	69.5	167.5	85.3	25.3	37.9	44.2
Ostracoda	-	-	-	3.2	-	3.2	-	-
Amphipoda	-	-	3.2	-	-	-	-	-
Shrimp	-	-	-	-	3.2	-	-	-
Crabs	-	-	-	6.3	-	-	3.2	-
Misc. Crustaceans	-	-	-	-	6.3	3.2	-	-
Mollusca	-	-	-	3.2	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	3.2	-	6.3	-	22.1	6.3	-	22.1
Subtotal	69.6	41.2	85.3	211.8	164.3	63.3	72.7	151.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	69.6	41.2	85.3	211.8	164.3	63.3	72.7	151.6

Run No. 11, Date October 14-15, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1908	2007	2106	2205	2304	0003	0102	0201
Position of Ship: (N. Lat.	29°38'	29°40'	29°40'	29°40'	29°40'	29°40'	29°40'	29°40'
(W. Long.	79°59'	80°05'	80°14'	80°23'	80°27'	80°37'	80°45'	80°49'
Protozoa	33.6	47.0	20.2	50.4	10.1	6.7	23.5	-
Coelenterata	-	-	-	-	6.7	3.4	3.4	-
Chaetognatha	6.7	3.4	16.8	30.2	26.9	16.8	3.4	-
Misc. Worms	-	-	-	3.4	13.4	3.4	3.4	-
Copepoda	60.5	245.3	161.3	450.2	147.8	336.0	342.7	245.3
Ostracoda	3.4	-	13.4	6.7	16.8	47.0	40.3	-
Amphipoda	-	-	-	30.2	6.7	3.4	3.4	3.4
Shrimp	-	3.4	10.1	10.1	6.7	6.7	20.2	3.4
Crabs	-	-	3.4	13.4	3.4	23.5	13.4	30.2
Misc. Crustaceans	6.7	26.9	40.3	205.0	104.2	57.1	77.3	16.8
Mollusca	-	-	-	-	3.4	3.4	16.8	3.4
Invertebrate Eggs	-	-	-	13.4	26.9	13.4	3.4	-
Misc. Organisms	10.1	40.3	67.2	60.5	47.0	151.2	84.0	23.5
Subtotal	121.0	366.3	332.7	873.5	420.0	672.0	635.2	326.0
Fish Eggs	-	-	-	-	-	3.4	-	6.7
Fish Larvae	-	-	-	-	-	3.4	-	-
Total	121.0	366.3	332.7	873.5	420.0	678.8	635.2	332.7

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 12, Date October 15, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0439	0547	0655	0803	0911	1019	1127	1235
Position of Ship: (N. Lat.	29°45'	29°53'	29°59'	30°05'	30°14'	30°19'	30°19'	30°20'
(W. Long.	81°06'	81°10'	81°12'	81°12'	81°16'	81°19'	81°12'	81°02'
Protozoa	34.2	6.8	-	27.4	6.8	-	13.7	41.0
Coelenterata	-	-	-	-	-	-	-	6.8
Chaetognatha	-	13.7	-	6.8	6.8	-	-	20.5
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	1217.5	287.3	143.6	164.2	164.2	157.3	143.6	437.8
Ostracoda	-	13.7	6.8	6.8	13.7	-	20.5	13.7
Amphipoda	-	13.7	6.8	6.8	27.4	-	-	-
Shrimp	13.7	-	-	6.8	-	-	41.0	6.8
Crabs	6.8	-	-	13.7	-	-	-	27.4
Misc. Crustaceans	6.8	6.8	6.8	13.7	-	-	-	-
Mollusca	-	-	-	-	-	-	-	6.8
Invertebrate Eggs	6.8	-	-	-	-	-	-	13.7
Misc. Organisms	61.6	13.7	13.7	-	6.8	13.7	-	109.4
Subtotal	1347.4	355.7	177.7	246.2	225.7	171.0	218.8	683.9
Fish Eggs	6.8	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	1354.2	355.7	177.7	246.2	225.7	171.0	218.8	683.9

Run No. 13, Date October 15, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1422	1527	1632	1737	1842	1947	2052	2157
Position of Ship: (N. Lat.	30°19'	30°19'	30°19'	30°18'	30°17'	30°17'	30°17'	30°18'
(W. Long.	80°52'	80°42'	80°34'	80°26'	80°15'	80°10'	80°03'	79°54'
Protozoa	20.6	10.3	13.8	24.1	6.9	-	192.6	31.0
Coelenterata	3.4	-	-	-	-	-	13.8	3.4
Chaetognatha	13.8	20.6	10.3	6.9	-	-	10.3	3.4
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	289.0	147.9	106.6	92.9	27.5	10.3	309.6	55.0
Ostracoda	-	3.4	-	3.4	-	-	10.3	-
Amphipoda	-	-	-	-	-	-	6.9	-
Shrimp	6.9	-	13.8	6.9	3.4	-	3.4	3.4
Crabs	-	3.4	-	6.9	3.4	-	17.2	-
Misc. Crustaceans	6.9	-	-	3.4	3.4	-	48.2	13.8
Mollusca	6.9	3.4	-	-	-	-	3.4	-
Invertebrate Eggs	-	-	-	-	-	-	3.4	-
Misc. Organisms	41.3	13.8	6.9	6.9	3.4	-	72.2	20.6
Subtotal	388.8	202.8	151.4	151.4	48.0	10.3	691.3	130.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	388.8	202.8	151.4	151.4	48.0	10.3	691.3	130.6

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 14, Date October 15-16, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0006	0109	0212	0315	0418	0521	0624	0727
Position of Ship: (N. Lat.	30°21'	30°19'	30°19'	30°20'	30°28'	30°37'	30°47'	30°58'
(W. Long.	79°46'	79°36'	79°26'	79°25'	79°22'	79°21'	79°18'	79°15'
Protozoa	473.4	-	126.2	199.9	5.3	68.4	52.6	99.9
Coelenterata	10.5	-	5.3	-	-	-	-	-
Chaetognatha	5.3	-	5.3	-	-	-	-	15.8
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	52.6	36.8	52.6	47.3	47.3	15.8	42.1	73.6
Ostracoda	-	5.3	-	-	-	-	-	5.3
Amphipoda	-	-	-	-	-	-	-	5.3
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	5.3	-	-	5.3	-	10.5
Mollusca	5.3	-	-	-	-	5.3	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	15.8	10.5	5.3	15.8	15.8	21.0	5.3	36.8
Subtotal	562.9	52.6	200.0	263.0	68.4	115.8	100.0	247.2
Fish Eggs	-	-	-	-	-	-	5.3	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	562.9	52.6	200.0	263.0	68.4	115.8	105.3	247.2

Run No. 16, Date October 16, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1030	1130	1230	1330	1430	1530	1630	1730
Position of Ship: (N. Lat.	30°57'	30°57'	31°00'	31°02'	31°03'	31°02'	31°01'	31°00'
(W. Long.	79°24'	79°33'	79°36'	79°37'	79°44'	79°53'	80°00'	80°03'
Protozoa	3.9	23.3	15.5	139.7	-	46.6	3.9	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	11.6	-	3.9
Misc. Worms	-	-	-	-	-	3.9	7.8	-
Copepoda	31.0	38.8	7.8	19.4	27.2	38.8	54.3	81.5
Ostracoda	-	-	-	-	-	-	-	3.9
Amphipoda	-	-	-	-	-	3.9	3.9	-
Shrimp	-	-	-	-	-	-	-	3.9
Crabs	-	-	-	-	-	3.9	-	3.9
Misc. Crustaceans	3.9	3.9	-	-	3.9	-	3.9	3.9
Mollusca	-	-	-	-	-	-	-	7.8
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	3.9	42.7	31.0	54.3	-	89.2	19.4	66.0
Subtotal	42.7	108.7	54.3	213.4	31.1	197.9	93.2	174.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	42.7	108.7	54.3	213.4	31.1	197.9	93.2	174.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 17, Date October 16-17, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2052	2154	2256	2358	0100			
Position of Ship: (N. Lat.	31°00'	31°00'	31°00'	31°01'	31°00'			
(W. Long.	80°28'	80°39'	80°46'	80°56'	81°04'			
Protozoa	24.1	13.8	24.1	223.6	106.6			
Coelenterata	-	-	-	-	-			
Chaetognatha	3.4	48.2	61.9	44.7	17.2			
Misc. Worms	6.9	6.9	-	3.4	-			
Copepoda	151.4	285.5	165.1	805.0	192.6			
Ostracoda	-	10.3	13.8	58.5	10.3			
Amphipoda	6.9	-	3.4	10.3	-			
Shrimp	3.4	6.9	10.3	31.0	17.2			
Crabs	-	3.4	20.6	24.1	17.2			
Misc. Crustaceans	-	10.3	3.4	10.3	13.8			
Mollusca	3.4	10.3	3.4	10.3	-			
Invertebrate Eggs	-	-	-	65.4	3.4			
Misc. Organisms	65.4	48.2	92.9	216.7	31.0			
Subtotal	264.9	443.8	398.9	1503.3	409.3			
Fish Eggs	-	-	-	-	-			
Fish Larvae	-	-	-	-	-			
Total	264.9	443.8	398.9	1503.3	409.3			

Run No. 18, Date October 21-22, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2006	2109	2212	2315	0018	0121	0224	0327
Position of Ship: (N. Lat.	31°24'	31°31'	31°40'	31°40'	31°38'	31°38'	31°38'	31°36'
(W. Long.	80°48'	80°42'	80°38'	80°34'	80°23'	80°16'	80°11'	80°02'
Protozoa	29.4	135.2	464.5	417.5	117.6	100.0	100.0	29.4
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	5.9	41.2	47.0	29.4	41.2	29.4	41.2	5.9
Misc. Worms	-	-	-	-	-	-	-	5.9
Copepoda	511.6	229.3	235.2	376.3	123.5	105.8	135.2	164.6
Ostracoda	5.9	17.6	17.6	5.9	11.8	47.0	29.4	70.6
Amphipoda	-	-	5.9	-	-	-	-	-
Shrimp	5.9	11.8	5.9	17.6	11.8	11.8	-	-
Crabs	11.8	-	5.9	17.6	11.8	-	-	-
Misc. Crustaceans	17.6	-	41.2	52.9	35.3	29.4	11.8	5.9
Mollusca	5.9	-	5.9	-	-	-	-	-
Invertebrate Eggs	-	23.5	47.0	23.5	35.3	76.4	-	-
Misc. Organisms	11.8	82.3	76.4	58.8	41.2	35.3	11.8	23.5
Subtotal	605.8	540.9	952.5	999.5	429.5	435.1	329.4	305.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	605.8	540.9	952.5	999.5	429.5	435.1	329.4	305.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 19, Date October 22, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0439	0539	0639	0739	0839	0939	1039	1139
Position of Ship: (N. Lat.	31°36'	31°36'	31°33'	31°35'	31°42'	31°48'	31°55'	32°02'
(W. Long.	79°52'	79°47'	79°40'	79°36'	79°38'	79°40'	79°43'	79°45'
Protozoa	22.7	11.4	11.4	53.1	3.8	-	-	3.8
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	34.1	19.0	19.0	26.5	45.5	15.2	26.5	34.1
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	295.6	106.1	68.2	60.6	79.6	7.6	41.7	56.8
Ostracoda	83.4	72.0	11.4	11.4	3.8	3.8	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	7.6	-	-	-	-	-	-	-
Crabs	7.6	11.4	-	7.6	-	-	3.8	3.8
Misc. Crustaceans	7.6	3.8	-	-	-	7.6	-	-
Mollusca	3.8	-	3.8	-	-	-	-	-
Invertebrate Eggs	-	11.4	-	-	-	-	-	7.6
Misc. Organisms	19.0	22.7	19.0	34.1	7.6	-	-	19.0
Subtotal	481.4	257.8	132.8	193.3	140.3	34.2	72.0	125.1
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	481.4	257.8	132.8	193.3	140.3	34.2	72.0	125.1

Run No. 20, Date October 24-25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1917	2022	2127	2232	2337	0042	0147	0252
Position of Ship: (N. Lat.	31°34'	31°32'	31°30'	31°29'	31°29'	31°29'	31°34'	31°37'
(W. Long.	79°22'	79°11'	78°58'	78°47'	78°43'	78°43'	78°39'	78°48'
Protozoa	-	-	7.1	10.7	14.3	21.4	3.6	7.1
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.6	14.3	17.8	3.6	3.6	14.3	3.6	10.7
Misc. Worms	-	-	-	-	-	-	3.6	-
Copepoda	64.3	53.6	46.4	25.0	17.8	17.8	46.4	67.8
Ostracoda	17.8	25.0	-	3.6	-	-	3.6	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	7.1	-	-	-	-	-	-	3.6
Misc. Crustaceans	7.1	10.7	3.6	-	3.6	7.1	-	3.6
Mollusca	-	-	3.6	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	3.6	-	185.6
Misc. Organisms	7.1	14.3	7.1	10.7	10.7	3.6	17.8	21.4
Subtotal	107.0	117.9	85.6	53.6	50.0	67.8	78.6	299.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	107.0	117.9	85.6	53.6	50.0	67.8	78.6	299.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 21, Date October 25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0406	0507	0608	0709	0810	0911	1012	1113
Position of Ship: (N. Lat.	31°39'	31°41'	31°43'	31°48'	31°55'	31°57'	31°58'	32°03'
(W. Long.	78°58'	79°00'	79°00'	79°05'	79°11'	79°15'	79°16'	79°22'
Protozoa	8.6	-	8.6	30.2	12.9	-	8.6	4.3
Coelenterata	-	-	-	8.6	-	-	-	-
Chaetognatha	8.6	12.9	-	12.9	51.7	-	4.3	4.3
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	38.8	12.9	30.2	4.3	38.8	25.9	38.8	30.2
Ostracoda	4.3	-	-	-	4.3	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	4.3	-	-	-
Misc. Crustaceans	-	-	4.3	-	4.3	-	-	-
Mollusca	-	-	4.3	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	21.6	-	12.9	8.6	21.6	8.6	12.9	38.8
Subtotal	81.9	25.8	60.3	64.6	137.9	34.5	64.6	77.6
Fish Eggs	-	-	4.3	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	81.9	25.8	64.6	64.6	137.9	34.5	64.6	77.6

Run No. 22, Date October 25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1407	1509	1611	1713	1815	1917	2019	2121
Position of Ship: (N. Lat.	32°14'	32°20'	32°26'	32°29'	32°36'	32°41'	32°44'	32°51'
(W. Long.	79°36'	79°43'	79°49'	79°46'	79°38'	79°34'	79°29'	79°21'
Protozoa	3.5	3.5	-	13.8	6.9	24.2	3.5	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	13.8	24.2	6.9	31.1	31.1	20.8	13.8	72.7
Misc. Worms	-	-	3.5	-	6.9	3.5	3.5	3.5
Copepoda	110.7	51.9	128.0	86.5	176.5	159.2	121.1	242.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	3.5	-	-
Shrimp	-	-	-	-	6.9	20.8	20.8	17.3
Crabs	3.5	3.5	-	10.4	17.3	13.8	10.4	3.5
Misc. Crustaceans	3.5	-	3.5	-	3.5	20.8	10.4	6.9
Mollusca	-	-	-	-	3.5	6.9	-	6.9
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	38.1	34.6	38.1	100.3	86.5	110.7	69.2	110.7
Subtotal	173.1	117.7	180.0	242.1	339.1	384.2	252.7	463.7
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	173.1	117.7	180.0	242.1	339.1	384.2	252.7	463.7

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 23, Date October 25-26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2334	0036	0137	0239	0340	0442	0543	0645
Position of Ship: (N. Lat.	32°49'	32°43'	32°38'	32°33'	32°27'	32°24'	32°19'	32°14'
(W. Long.	79°10'	79°03'	78°57'	78°50'	78°44'	78°43'	78°37'	78°29'
Protozoa	91.1	62.1	12.4	8.3	20.7	20.7	37.3	91.1
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	62.1	20.7	12.4	16.6	12.4	12.4	8.3	8.3
Misc. Worms	-	4.1	-	-	-	-	-	-
Copepoda	194.6	244.3	194.6	82.8	115.9	111.8	132.5	165.6
Ostracoda	4.1	12.4	8.3	4.1	8.3	8.3	12.4	4.1
Amphipoda	8.3	4.1	-	-	-	-	8.3	4.1
Shrimp	16.6	-	-	-	4.1	-	-	-
Crabs	4.1	-	-	-	4.1	-	-	4.1
Misc. Crustaceans	8.3	4.1	4.1	-	4.1	-	4.1	-
Mollusca	4.1	4.1	-	-	4.1	-	4.1	4.1
Invertebrate Eggs	-	4.1	4.1	-	12.4	-	-	-
Misc. Organisms	153.2	128.3	78.7	41.4	33.1	24.8	16.6	41.4
Subtotal	546.5	488.3	314.6	153.2	219.2	178.0	223.6	322.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	546.5	488.3	314.6	153.2	219.2	178.0	223.6	322.8

Run No. 24, Date October 26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0857	1000	1104	1207	1311	1414	1518	1621
Position of Ship: (N. Lat.	32°10'	32°02'	31°57'	32°00'	32°06'	32°10'	32°16'	32°19'
(W. Long.	78°18'	78°14'	78°08'	78°05'	77°56'	77°45'	77°34'	77°27'
Protozoa	11.7	-	-	11.7	11.7	-	-	11.7
Coelenterata	7.8	-	-	-	-	-	-	-
Chaetognatha	15.6	3.9	3.9	3.9	3.9	7.8	3.9	3.9
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	89.9	23.5	27.4	11.7	23.5	50.8	35.2	54.7
Ostracoda	-	-	3.9	3.9	-	-	3.9	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	3.9	-	-	-	-	-	-	-
Crabs	7.8	3.9	-	-	-	-	-	-
Misc. Crustaceans	3.9	-	-	3.9	3.9	-	-	3.9
Mollusca	3.9	-	-	-	3.9	-	-	3.9
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	97.8	11.7	-	-	-	7.8	15.6	15.6
Subtotal	242.3	43.0	35.2	35.1	46.9	66.4	58.6	93.7
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	242.3	43.0	35.2	35.1	46.9	66.4	58.6	93.7

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 25, Date October 26-27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1806	1908	2011	2113	2216	2318	0021	0123
Position of Ship: (N. Lat.	32°25'	32°31'	32°35'	32°35'	32°38'	32°45'	32°49'	32°52'
(W. Long.	77°32'	77°41'	77°48'	77°48'	77°52'	77°59'	78°05'	78°09'
Protozoa	10.1	-	10.1	13.5	3.4	6.8	13.5	10.1
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	10.1	16.9	10.1	10.1	10.1	16.9	13.5	16.9
Misc. Worms	-	-	-	-	-	3.4	-	-
Copepoda	192.7	60.8	84.5	91.3	94.6	33.8	47.3	91.3
Ostracoda	-	67.6	81.1	30.4	16.9	10.1	6.8	3.4
Amphipoda	-	-	3.4	-	-	-	-	-
Shrimp	3.4	-	3.4	-	-	-	3.4	-
Crabs	-	3.4	-	3.4	-	3.4	-	-
Misc. Crustaceans	6.8	-	3.4	3.4	-	-	-	3:4
Mollusca	6.8	-	-	3.4	-	3.4	3.4	-
Invertebrate Eggs	-	16.9	43.9	33.8	10.1	-	-	-
Misc. Organisms	50.7	16.9	84.5	30.4	67.6	10.1	13.5	64.2
Subtotal	280.6	182.5	324.4	219.7	202.7	87.9	101.4	189.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	280.6	182.5	324.4	219.7	202.7	87.9	101.4	189.3

Run No. 26, Date October 27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0235	0335	0435	0535	0635	0735	0835	0935
Position of Ship: (N. Lat.	33°00'	33°05'	33°10'	33°16'	33°21'	33°29'	33°33'	33°33'
(W. Long.	78°17'	78°22'	78°27'	78°35'	78°40'	78°46'	78°55'	78°50'
Protozoa	18.0	-	54.1	13.5	-	18.0	13.5	4.5
Coelenterata	-	-	-	-	-	-	4.5	-
Chaetognatha	27.1	9.0	13.5	36.1	22.6	45.1	4.5	-
Misc. Worms	-	-	4.5	-	4.5	-	-	-
Copepoda	198.4	112.8	153.3	126.3	234.5	153.3	203.0	67.6
Ostracoda	9.0	4.5	9.0	18.0	-	-	9.0	-
Amphipoda	4.5	-	-	-	-	-	-	-
Shrimp	-	-	4.5	-	4.5	-	-	-
Crabs	9.0	-	4.5	4.5	-	4.5	-	-
Misc. Crustaceans	13.5	-	-	-	13.5	4.5	4.5	-
Mollusca	-	-	9.0	-	4.5	-	4.5	-
Invertebrate Eggs	-	-	18.0	-	-	-	-	-
Misc. Organisms	49.6	4.5	239.0	1416.1	1118.5	198.4	40.6	13.5
Subtotal	329.1	130.8	509.4	1614.5	1402.6	423.8	284.1	85.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	329.1	130.8	509.4	1614.5	1402.6	423.8	284.1	85.6

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 28, Date November 7-8, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2253	2355	0057	0159	0301	0403	0505	0607
Position of Ship: (N. Lat.	33°21'	33°14'	33°08'	33°07'	33°03'	32°56'	32°55'	32°54'
(W. Long.	77°35'	77°26'	77°21'	77°20'	77°14'	77°06'	77°03'	77°02'
Protozoa	14.5	14.5	-	14.5	-	14.5	-	43.4
Coelenterata	-	-	-	-	-	14.5	-	-
Chaetognatha	-	14.5	-	-	-	14.5	-	14.5
Misc. Worms	14.5	-	-	-	-	-	-	-
Copepoda	984.0	86.8	-	14.5	57.9	289.4	72.4	115.8
Ostracoda	-	43.4	-	-	-	-	-	14.5
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	14.5	-	-	-	-	28.9	-	-
Mollusca	14.5	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	14.5	14.5	-	43.4	57.9	86.8	-	72.4
Subtotal	1056.5	173.7	-	72.4	115.8	448.6	72.4	260.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	1056.5	173.7	-	72.4	115.8	448.6	72.4	260.6

Run No. 29, Date November 8, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0718	0819	0921	1022	1124	1225	1327	1428
Position of Ship: (N. Lat.	32°47'	32°41'	32°40'	32°48'	32°58'	33°07'	33°13'	33°16'
(W. Long.	76°53'	76°46'	76°44'	76°41'	76°35'	76°28'	76°22'	76°21'
Protozoa	4.1	20.6	12.4	-	8.2	8.2	16.5	4.1
Coelenterata	-	4.1	-	-	-	-	4.1	-
Chaetognatha	-	16.5	-	8.2	-	-	-	4.1
Misc. Worms	-	-	4.1	-	-	-	-	-
Copepoda	49.4	8.2	8.2	8.2	8.2	16.5	8.2	24.7
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	4.1	-	-	-
Mollusca	-	-	4.1	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	12.4	-	8.2	12.4	12.4	-	-	8.2
Subtotal	65.9	49.4	37.0	28.8	32.9	24.7	28.8	41.1
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	65.9	49.4	37.0	28.8	32.9	24.7	28.8	41.1

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 30, Date November 8-9, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1626	1728	1830	1932	2034	2136	2238	2340
Position of Ship: (N. Lat.	33°26'	33°31'	33°35'	33°40'	33°45'	33°50'	33°56'	34°00'
(W. Long.	76°34'	76°39'	76°42'	76°49'	76°56'	77°04'	77°10'	77°15'
Protozoa	9.3	-	23.3	18.6	4.7	4.7	32.6	14.0
Coelenterata	4.7	-	4.7	-	-	4.7	4.7	-
Chaetognatha	18.6	-	9.3	32.6	-	14.0	9.3	18.6
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	107.2	23.3	88.5	107.2	88.5	79.2	102.5	181.7
Ostracoda	-	-	18.6	9.3	4.7	9.3	-	97.9
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	4.7	-	-	-	-	-	4.7	-
Crabs	-	-	-	-	4.7	-	-	-
Misc. Crustaceans	4.7	-	-	-	4.7	-	4.7	-
Mollusca	-	-	-	4.7	9.3	4.7	-	4.7
Invertebrate Eggs	-	-	-	-	-	-	4.7	32.6
Misc. Organisms	37.3	4.7	41.9	60.6	23.3	51.3	55.9	51.3
Subtotal	186.5	28.0	186.3	233.0	139.9	167.9	219.1	400.8
Fish Eggs	-	-	-	-	-	-	-	4.7
Fish Larvae	-	-	-	-	4.7	-	4.7	-
Total	186.5	28.0	186.3	233.0	144.6	167.9	223.8	405.5

Run No. 31, Date November 9, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0051	0153	0256	0358	0501	0603	0706	0808
Position of Ship: (N. Lat.	34°07'	34°11'	34°17'	34°23'	34°23'	34°30'	34°36'	34°39'
(W. Long.	77°22'	77°29'	77°18'	77°09'	77°02'	76°55'	76°47'	76°41'
Protozoa	110.9	-	-	-	-	6.2	6.2	110.9
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	61.6	12.3	86.2	55.4	129.4	73.9	147.8	55.4
Misc. Worms	-	-	12.3	6.2	-	6.2	6.2	-
Copepoda	505.1	49.3	197.1	289.5	252.6	264.9	320.3	320.3
Ostracoda	67.8	12.3	92.4	6.2	12.3	24.6	12.3	49.3
Amphipoda	-	-	6.2	-	-	-	6.2	-
Shrimp	-	6.2	-	-	-	6.2	30.8	12.3
Crabs	-	-	-	-	-	6.2	-	18.5
Misc. Crustaceans	18.5	-	-	12.3	-	6.2	-	30.8
Mollusca	12.3	-	-	12.3	18.5	18.5	18.5	-
Invertebrate Eggs	61.6	6.2	43.1	-	-	12.3	-	-
Misc. Organisms	166.3	12.3	67.8	73.9	80.1	37.0	67.8	98.6
Subtotal	1004.1	98.6	505.1	455.8	492.9	462.2	616.1	696.1
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	12.3	-	6.2	-	-
Total	1004.1	98.6	505.1	468.1	492.9	468.4	616.1	696.1

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 32, Date November 9, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0916	1018	1120					
Position of Ship: (N. Lat.	34°30'	34°22'	34°22'					
(W. Long.	76°39'	76°33'	76°33'					
Protozoa	58.7	-	19.6					
Coelenterata	-	-	-					
Chaetognatha	88.0	29.3	29.3					
Misc. Worms	29.3	9.8	-					
Copepoda	655.3	185.8	254.3					
Ostracoda	107.6	9.8	19.6					
Amphipoda	-	-	-					
Shrimp	19.6	9.8	9.8					
Crabs	9.8	-	-					
Misc. Crustaceans	9.8	-	19.6					
Mollusca	48.9	19.6	-					
Invertebrate Eggs	-	-	68.5					
Misc. Organisms	136.9	9.8	58.7					
Subtotal	1163.9	273.9	479.4					
Fish Eggs	-	-	-					
Fish Larvae	-	-	-					
Total	1163.9	273.9	479.4					

Run No. 33, Date November 12, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1455	1554	1654	1753	1853	1952	2052	2151
Position of Ship: (N. Lat.	34°40'	34°47'	34°52'	34°55'	34°58'	35°02'	35°02'	35°06'
(W. Long.	75°50'	76°01'	76°09'	76°05'	75°57'	75°50'	75°45'	75°42'
Protozoa	8.7	8.7	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	34.6	34.6	103.9	129.9	103.9	112.6	138.6	43.3
Misc. Worms	-	-	-	-	8.7	-	-	-
Copepoda	121.2	147.2	103.9	355.1	164.5	233.8	103.9	95.3
Ostracoda	-	-	-	17.3	17.3	17.3	17.3	-
Amphipoda	-	-	8.7	8.7	34.6	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	8.7	-	-	8.7	17.3	-	8.7
Mollusca	-	-	8.7	8.7	-	-	-	-
Invertebrate Eggs	-	-	-	52.0	-	-	-	-
Misc. Organisms	52.0	8.7	8.7	-	17.3	-	-	-
Subtotal	216.5	207.9	233.9	571.7	355.0	381.0	259.8	147.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	216.5	207.9	233.9	571.7	355.0	381.0	259.8	147.3

Table 13.--List of the species of fish in dip-net, trolling, stomach contents, and larval fish net collections (D-dip net; T-trolling; S-stomach contents; L-larval fish net)

Ablennes hians (Valenciennes) D
Abudefduf saxatilis (Linnaeus) D L
Acanthurus sp. S
Acanthurus chirurgus (Bloch) D S
Ahlia egmontis (Jordan) D
Albula vulpes (Linnaeus) D
Allanetta harringtonensis (Goode) D
Alutera sp. D
Aluteridae, unidentified S L
Anchoa sp. D
Anoplogaster cornutus (Valenciennes) ? S
Antigonia capros Lowe S
Astroscopus ygraecum (Cuvier) T
Balistes capriscus Gmelin D
Caranx bartholomaei Cuvier D L
Caranx crysos (Mitchill) D
Caranx hippos (Linnaeus) S
Caranx hippos ? S
Caranx latus Agassiz S
Caranx ruber (Bloch) D S
Carcharhinus falciformis (Müller & Henle) T
Chaetodon capistratus Linnaeus D
Chiasmodontidae, unidentified S
Clupeidae, unidentified D
Clupeoidei, unidentified D
Coryphaena hippurus Linnaeus D T
Cypselurus cyanopterus (Valenciennes) D
Cypselurus furcatus (Mitchill) D
Cypselurus heterurus (Rafinesque) D L
Decapterus sp. L
Decapterus punctatus (Agassiz) D S
Diaphus dumerili Bleeker D
Diaphus garmani Gilbert D
Diodon hystrix Linnaeus ? D
Diplophos taenia Günther L
Diplophos taenia ? L
Echeneis naucrates Linnaeus T
Elagatis bipinnulatus (Quoy & Gaimard) D
Engraulidae, unidentified S
Epinnula orientalis Gilchrist & von Bonde S
Epinnula orientalis ? S
Etrumeus sadina (Mitchill) S
Eupomacentrus sp. ? D
Euthynnus alletteratus (Rafinesque) T
Gempylidae, unidentified S
Hemiramphus balao LeSueur D
Hemiramphus brasiliensis (Linnaeus) D L
Hippocampus hudsonius DeKay D
Hirundichthys affinis (Günther) D
Histrio gibba (Mitchill) D L
Holocentrus sp. S
Holocentrus bullisi Woods D
Holocentrus vexillarius Poey D
Hygophum reinhardti (Lütken) L
Hyporhamphus unifasciatus (Ranzani) D
Istiophorus americanus (Cuvier) D
Jenkinsia lamprotaenia (Gosse) D
Katsuwonus pelamis (Linnaeus) T
Kyphosus incisor (Cuvier) D
Kyphosus sectatrix (Linnaeus) D L

Table 13.--List of the species of fish in dip-net, trolling, stomach contents, and larval fish net collections (D-dip net; T-trolling; S-stomach contents; L-larval fish net), cont'd.

Leptocephali, unidentified D L
Lutianus sp. D
Maurolicus sp. ? S
Monacanthus ciliatus (Mitchill) D S
Monacanthus ciliatus ? S
Monacanthus tuckeri Bean D S
Mugil curema Valenciennes D
Myctophum affine (Lütken) D L
Myctophum asperum Richardson L
Myctophum obtusirostris Taning D
Nesiarchus nasutus Johnson ? S
Ogcocephalidae, unidentified S
Ostraciidae, unidentified L
Otophidium omostigmum (Jordan & Gilbert) ? S
Oxyporhamphus micropterus (Valenciennes) D
Parexocoetus brachypterus (Richardson) D L
Pomatomus saltatrix (Linnaeus) T
Pristigenys altus (Gill) S
Prognichthys gibbifrons (Valenciennes) D
Prognichthys gibbifrons ? D
Promethichthys prometheus (Cuvier) ? S
Pseudupeneus maculatus (Bloch) D
Pterolamiops longimanus (Poey) T
Remora remora (Linnaeus) T
Sarda sarda (Bloch) ? T
Sardinella anchovia Valenciennes D
Sardinella anchovia ? S
Scomberomorus cavalla (Cuvier) T
Scomberomorus maculatus (Mitchill) T
Scombridae, unidentified S
Selar crumenophthalmus (Bloch) D S
Seriola sp. D
Seriola dumerili (Risso) T
Seriola falcata Valenciennes D
Seriola fasciata (Bloch) D
Sphaeroides sp. D S
Sphyraena sp. L
Sphyraena barracuda (Walbaum) T
Stephanolepis hispidus (Linnaeus) D L
Stephanolepis setifer (Bennett) D
Strongylura acus (Lacepede) D
Strongylura acus ? S
Strongylura ardeola (Valenciennes) D
Strongylura raphidoma (Ranzani) D
Strongylura timucu (Walbaum) D
Strongylura timucu ? D S
Syngnathus pelagicus Linnaeus D
Syngnathus springeri Herald D
Synodus sp. D
Tetraodontidae, unidentified S
Thunnus atlanticus (Lesson) T S
Trachinocephalus myops (Forster) ? L
Xiphias gladius Linnaeus D
Xyrichthys psittacus (Linnaeus) S

Table 14.--Numbers and species of fish taken by trolling

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Carcharhinus falciformis /1	Oct. 26	2030	32°35'	77°48'	M	I	1780 /2	100.	squid remains; unidentified material
Pterolamiops longimanus /1	Oct. 8	2030	24°00'	77°18'	M	--/3	2251 /2	300.	none
" /1	Oct. 12	2115	27°40'	79°42'	M	--	2294 /2	300.	sea turtles, Eretmochelys imbricata (Linnaeus) (1) and Chelonia mydas (Linnaeus) (1); cephalopod beak; sessile tunicate; bottom debris
Sphyraena barracuda	Oct. 3	1330	26°50'	79°10' /4	F	III-IV	682	4.5	none
"	Oct. 3	1440	26°45'	79°05' /4	F	I	731	5.4	none
"	Oct. 11	1425	25°53'	77°51'	F	II	738	5.0	Caranx ruber (1); fish remains, unidentified (2)
"	Oct. 11	1615	26°01'	78°06'	F	IV	810	6.5	Thunnus atlanticus (1); Gempylidae, unidentified (1); fish remains, unidentified (2); unidentified worm (1)

/1 Bait fishing
/2 Total length
/3 Contained 2 embryos
/4 Latitude and longitude estimated

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
S. barracuda (cont'd)	Oct. 11	1654	26°05'	78°12'	M	III	1135	18.0	Caranx hippos (1); Caranx hippos ? (5); Promethichthys prometheus ? (1); Monacanthus ciliatus (6); Chiasmodontidae, unidentified (5); Scombridae, unidentified (1); fish remains, unidentified (20); squid (1)
Katsuwonus pelamis	Oct. 3	1730	26°30'	78°40' /4	M	II	495	4.5	Holocentrus sp. (6); Aluteridae, unidentified (1); fish remains, unidentified (7); stomatopods (79); gastropod (1); heteropod, decapod, isopod, and crustacean remains
Euthynnus alletteratus	Oct. 11	1200	25°34'	77°39'	M	I	500	2.5	--
"	Oct. 12	1440	27°26'	80°03'	M	I	650	8.7	Engraulidae, unidentified (10); fish remains, unidentified (12); stomatopod (1); isopod (1); crab (1)
"	Oct. 15	1500	30°20'	80°46'	F	I-II	482	3.0	none
"	Oct. 24	1039	32°31'	79°42'	F	I	548	5.3	fish remains, unidentified (21); stomatopod (1)
"	Oct. 24	1040	32°31'	79°42'	F	I	548	5.6	fish remains, unidentified (20); polychaetes (4); stomatopod (1)
"	Oct. 24	1045	32°30'	79°42'	F	I	550	5.3	worm, unidentified (1)
"	Oct. 24	1150	32°22'	79°39'	F	I	547	5.0	squid remains (1); stomatopods (6); decapod (1)

/4 Latitude and longitude estimated

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
E. alletteratus (cont'd)	Oct. 25	1140	32°05'	79°25'	M	VII	701	10.4	Xyrichthys psittacus (1); fish remains, unidentified (2)
"	Oct. 25	1148	32°07'	79°27'	F	I	553	5.2	Sardinella anchovia ? (2)
"	Oct. 25	1210	32°09'	79°28'	F	I	717	10.2	Caranx latus (1); Aluteridae, unidentified (1); fish remains, unidentified (5); stomatopods (6); decapod (1)
"	Oct. 27	0710	33°28'	78°43'	F	I	535	5.0	none
"	Oct. 27	0725	33°28'	78°45'	F	I	540	4.0	none
"	Oct. 28	0715	33°40'	77°58'	F	I	585	6.2	squid (7)
"	Oct. 29	0820	33°13'	78°41' /4	M	I	730	12.4	Aluteridae, unidentified (10); fish remains, unidentified (21)
"	Nov. 11	0900	34°35'	76°37' /4	F	I	700	11.0	Etrumeus sadina (2); Strongylura acus ? (1)
"	Nov. 11	1000	34°29'	76°31' /4	F	I	695	11.0	none
"	Nov. 11	1030	34°27'	76°27' /4	F	I	770	14.0	none
"	Nov. 11	1100	34°29'	76°22' /4	F	I	690	13.0	Strongylura acus ? (1); squid (1)
"	Nov. 11	1145	34°31'	76°16' /4	-	--	-	10 ?	--
"	Nov. 13	1600	33°16'	77°51'	F	I	700	10.2	none
"	Nov. 13	1615	33°15'	77°53'	F	I	700	12.5	Strongylura timucu ? (7); Otophidium omostigmum ? (1); fish remains, unidentified (6)
Thunnus atlanticus	Oct. 2	0845	30°30'	79°05' /4	F	I	658	12.1	Decapterus punctatus (1); squid (1); unidentified worm (1)

/4 Latitude and longitude estimated

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
T. atlanticus (cont'd)	Oct. 3	1555	26°45'	78°55'/4	F	I	525	6.2	Anoplogaster cornutus ? (1); Epinnula orientalis ? (5); Antigonia capros (1); Acanthurus chirurgus (2); Acanthurus sp. (3); Sphaeroides sp. (21); Chiasmodontidae, unidentified (1); fish remains, unidentified (55); stomatopods (13); decapods (8); crustacean (1); squid (21); octopuses (48)
"	Oct. 3	1555	26°45'	78°55'/4	F	I	488	5.4	Pristigenys altus (1); Monacanthus ciliatus ? (2); Acanthurus sp. (1); Gempylidae, unidentified (1); Chiasmodontidae unidentified (1); Tetraodontidae, unidentified (1); fish remains, unidentified (31); squid (4); octopuses (11); heteropods (2); pteropod (1); stomatopods (34); decapods (12); amphipods (12); copepod (1)
"	Oct. 3	1600	26°45'	78°55/4	F	I	570	6.0	Monacanthus ciliatus (1); Monacanthus tuckeri (1); Maurolicus sp. ? (73); Sphaeroides sp. (3); Gempylidae, unidentified (3); fish remains, unidentified (49); octopuses (15); stomatopods (77); decapods (69); amphipods (3)
"	Oct. 3	1730	26°30'	78°40'/4	F	I	536	6.9	Epinnula orientalis (2); Monacanthus tuckeri (1)

/4 Latitude and longitude estimated

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
T. atlanticus (cont'd)	Oct. 11	1524	25°58'	78°00'	F	I	615	8.2	Nesiarchus nasutus ? (4); Selar crumenophthalmus (1); Acanthurus chirurgus (12); Acanthurus sp. (12); Chiasmodontidae, unidentified (1); Gempylidae, unidentified (1); Ogcocephalidae, unidentified (1); fish remains, unidentified (75); heteropods (9); cephalopods (7); stomatopods (15); amphipods (7); isopod (1); decapods (4)
"	Oct. 11	1630	26°02'	78°08'	F	II	490	4.5	none
"	Oct. 25	1149	32°07'	79°27'	F	I	523	6.0	none
Sarda sarda ?	Oct. 27	0825	33°31'	78°52'	M	I	409	3.3	none
"	Oct. 29	0825	33°13'	78°41' /4	F	I	385	1.6	none
Scomberomorus cavalla	Oct. 3	1730	26°30'	78°40' /4	F	I	797	9.8	none
"	Oct. 4	1745	25°32'	77°37'	M	I	1000	17.0	none
"	Oct. 27	0710	33°28'	78°43'	M	I	852	11.0	none
Scomberomorus maculatus	Oct. 4	1630	25°40'	77°42'	M	--	488	1.0	none
"	Oct. 4	1720	25°36'	77°40'	F	I	551	2.0	none
"	Oct. 4	1800	25°30'	77°36'	F	I	647	4.0	none
"	Oct. 28	1625	33°33'	78°19'	F	I	647	4.8	Decapterus punctatus (1)

/4 Latitude and longitude estimated

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Coryphaena hippurus	Oct. 16	1000	30°58'	79°19'	M	IV-V	538	2.0	none
"	Oct. 24	1445	31°53'	79°34'	M	II	642	4.6	none
"	Oct. 26	1035	32°00'	78°11'	M	II	630	4.0	none
Seriola dumerili	Oct. 24	1210	32°19'	79°38'	F	I	834	19.8	fish remains, unidentified (2)
Pomatomus saltatrix (2)/1	Nov. 11-12	1600-0500	34°38'	76°33'	-	--	164,165/5	--	--
Echeneis naucrates/6	Oct. 11	1654	26°05'	78°12'	-	--	76/5	--	--
Remora remora/7	Oct. 12	2115	27°40'	79°42'	-	--	118/5	--	--
Astroscopus ygraecum/1	Nov. 11-12	1600-0500	34°38'	76°33'	-	--	174/5	--	--

/1 Bait fishing
/5 Standard length
/6 Removed from S. barracuda
/7 Removed from P. longimanus

Table 15.--Numbers and species of fish taken by dip net

Species	Location of capture, number and size range (in standard length) of specimens
ALBULIDAE	
Albula vulpes	-Hawksbill Creek, Grand Bahama I., 26°31'N., 78°46.5'W., 10/3/53, 1900-2100, (1 leptocephalus) 49.5 mm.
CLUPEOIDEI	
Unidentified	-Hawksbill Creek, 10/3/53, 1900-2100, (2) 13-15 mm.
CLUPEIDAE	
Unidentified	-Reg. 52, (1) 32 mm.
Sardinella anchovia	-Reg. 67, (1) 140 mm.
Jenkinsia lamprotaenia	-Hawksbill Creek, 10/3/53, 1900-2100, (37) 13-32.5 mm. Hawksbill Creek, 10/3/53, 2130-2330, (8) 15-23 mm.
ENGRAULIDAE	
Anchoa sp.	-Reg. 46, (25) 89.5-111 mm. Reg. 46, (12) 23-33 mm.
LEPTOCEPHALI	
Unidentified	-Hawksbill Creek, 10/3/53, 1900-2100, (1) 88.5 mm.
ECHELIDAE	
Ahlia egmontis	-Hawksbill Creek, 10/3/53, 1900-2100, (1) 112 mm. Reg. 66, (3) 297-336 mm.
SYNODIDAE	
Synodus sp.	-Hawksbill Creek, 10/3/53, 1900-2100, (1) 24 mm. Hawksbill Creek, 10/3/53, 2130-2330, (1) 35 mm.
MYCTOPHIDAE	
Myctophum affine	-TO-1, 24°32'N., 77°18'W., 10/7/53, 1715-2200, (7) 15-34 mm. TO-2, 24°28'N., 77°28'W., 10/8/53, 0030, (7) 15-30 mm. TO-6, 24°02'N., 77°18'W., 10/8/53, 1900-2145, (5) 17.5-42.5 mm. Reg. 6, (27) 18-29 mm. Reg. 27, (1) 28 mm. Reg. 28, (2) 18-55 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
MYCTOPHIDAE (cont'd)	
Myctophum obtusirostris	-Hawksbill Creek, 10/3/53, 1900-2100, (4) 43-53 mm.
Diaphus dumerili	-Hawksbill Creek, 10/3/53, 1900-2100, (31) 54-78 mm.
	Hawksbill Creek, 10/3/53, 2130-2330, (56) 49-77 mm.
Diaphus garmani	-Hawksbill Creek, 10/3/53, 1900-2100, (2) 40-45.5 mm.
	Hawksbill Creek, 10/3/53, 2130-2330, (2) 45 mm.
BELONIDAE	
Strongylura timucu	-Reg. 66, (1) 325 mm.
Strongylura timucu ?	-Reg. 61, (1) 104 mm.
Strongylura ardeola	-Reg. 1, (1) about 265 mm.
	Reg. 6, (3) 240-262 mm.
	Reg. 27, (1) 115 mm.
	Reg. 28, (1) 62 mm.
Strongylura acus	-TO-1, (4) 35-110 mm.
	TO-2, (1) 515 mm.
	TO-6, (3) 162-500 mm.
	Reg. 1, (2) 488-496 mm.
	Reg. 14, (5) 138-540 mm.
	Reg. 16, (1) 352 mm.
	Reg. 27, (1) 68 mm.
Strongylura raphidoma	-TO-2, (1) 72 mm.
Ablennes hians	-Reg. 1, (1) 298 mm.
	Reg. 6, (1) 255 mm.
	Reg. 7, (1) 485 mm.
	Reg. 14, (3) 117-198 mm.
	Reg. 19, (2) 224-230 mm.
	Reg. 52, (3) 172-290 mm.
HEMIRAMPHIDAE	
Hemiramphus brasiliensis	-Hawksbill Creek, 10/3/53, 2130-2330, (1) 175 mm.
	Reg. 1, (2) 49.5-177 mm.
	Reg. 7, (1) 145 mm.
	Reg. 14, (7) 68-167 mm.
	Reg. 28, (3) 158-178 mm.
	Reg. 45, (3) 167-170 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
HEMIRAMPHIDAE (cont'd)	
Hemiramphus balao	-TO-1, (2) 23.5-24 mm. TO-6, (1) 30.5 mm. Nassau Harbor, 25°05.5'N., 77°22'W., 10/11/53, 0800, (25) 22.5-33.5 mm. Reg. 1, (2) 33-59 mm. Reg. 7, (4) 69.5-170 mm. Reg. 14, (1) 59 mm. Reg. 15, (1) 19 mm. Reg. 26, (6) 63.5-86 mm. Reg. 30, (1) 25 mm. Reg. 39, (4) 33-50.5 mm.
Hyporhamphus unifasciatus	-Hawksbill Creek, 10/3/53, 1900-2100, (1) 38 mm. Reg. 13, (4) 56.5-143 mm. Reg. 21, (19) 54-121 mm. Reg. 46, (1) 54 mm.
EXOCOETIDAE	
Oxyporhamphus micropterus	-Reg. 26, (10) 34-47 mm.
Parexocoetus brachypterus	-TO-1, (3) 20-73 mm. TO-2, (1) 50 mm. Reg. 1, (3) 39-115 mm. Reg. 7, (2) 31.5-37.5 mm. Reg. 14, (93) 28-125 mm. Reg. 18, (2) 91.5-119 mm. Reg. 19, (7) 35-114 mm. Reg. 20, (4) 58-69 mm. Reg. 26, (1) 60.5 mm. Reg. 27, (3) 70-106 mm. Reg. 36, (6) 37-64.5 mm. Reg. 39, (26) 19-38 mm. Reg. 40, (1) 60 mm. Reg. 45, (1) 59 mm. Reg. 52, (3) 20-28 mm. Reg. 53, (1) 29 mm. Reg. 60, (3) 85-100 mm. Reg. 61, (5) 31-74 mm. Reg. 65, (7) 90-126 mm.
Cypselurus cyanopterus	-Reg. 61, (2) 48-73 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
EXOCOETIDAE (cont'd)	
Cypselurus heterurus	-TO-1, (1) 65 mm. TO-2, (2) 20-156 mm. TO-6, (1) 33.5 mm. Reg. 6, (2) 68-73.5 mm. Reg. 19, (2) 119-121 mm. Reg. 26, (1) 101 mm. Reg. 28, (1) 106 mm. Reg. 32, (2) 33-40 mm. Reg. 33, (4) 28.5-67 mm. Reg. 36, (1) 92 mm. Reg. 52, (1) 16.5 mm. Reg. 61, (1) 86 mm. Reg. 65, (1) 19.5 mm.
Cypselurus furcatus	-Reg. 40, (4) 32-66 mm.
Prognichthys gibbifrons	-TO-2, (1) 11 mm. Reg. 14, (1) 21 mm. Reg. 15, (1) 11 mm. Reg. 19, (1) 77 mm. Reg. 26, (1) 35.5 mm. Reg. 52, (1) 58 mm. Reg. 65, (1) 71 mm.
Prognichthys gibbifrons ?	-Reg. 15, (1) about 5 mm.
Hirundichthys affinis	-Reg. 1, (1) 176 mm. Reg. 52, (3) 16-18 mm.
HOLOCENTRIDAE	
Holocentrus vexillarius	-Reg. 7, (1) 27.5 mm. Reg. 28, (3) 34-35 mm.
Holocentrus bullisi	-Reg. 60, (1) 26 mm.
SYNGNATHIDAE	
Syngnathus pelagicus	-Reg. 32, (1) 54 mm. Reg. 61, (4) 78-114 mm. Reg. 62, (4) 73-109 mm.
Syngnathus springeri	-Reg. 33, (1) 75 mm.
Hippocampus hudsonius	-Reg. 33, (1) 19 mm.
ATHERINIDAE	
Allanetta harringtonensis	-Hawksbill Creek, 10/3/53, 1900-2100, (2) 14.5-18.5 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
MUGILIDAE	
Mugil curema	-Reg. 7, (1) 13 mm. Reg. 8, (1) 7.2 mm. Reg. 15, (1) 8.8 mm. Reg. 26, (1) 16.1 mm. Reg. 32, (1) 18.8 mm. Reg. 52, (2) 20.2-20.5 mm.
ISTIOPHORIDAE	
Istiophorus americanus	-TO-1, (1) 20.9 mm.
XIPHIIDAE	
Xiphias gladius	-TO-1, (1) 43.7 mm.
CORYPHAENIDAE	
Coryphaena hippurus	-TO-1, (1) 40.6 mm. TO-2, (2) 17.5-98.5 mm. Reg. 6, (1) 190 mm. Reg. 8, (1) 23 mm. Reg. 15, (1) 20 mm. Reg. 26, (4) 30.2-44.8 mm. Reg. 27, (2) 30.5-66.5 mm. Reg. 39, (1) 34 mm. Reg. 40, (1) 32 mm. Reg. 52, (12) 16.5-48 mm. Reg. 53, (2) 22-33 mm. Reg. 60, (4) 24-40.5 mm. Reg. 61, (1) 67.5 mm. Reg. 65, (1) 29 mm.
CARANGIDAE	
Seriola falcata	-Reg. 16, (2) 13.5-17 mm. Reg. 32, (4) 20.5-49.5 mm. Reg. 40, (1) 34 mm. Reg. 52, (2) 11.6-13.8 mm.
Seriola dumerili	-Reg. 32, (1) 30 mm. Reg. 53, (1) 37 mm.
Elagatis bipinnulatus	-Reg. 16, (2) 11-13.5 mm. Reg. 52, (1) 11 mm.
Decapterus punctatus	-Reg. 52, (1) 34 mm. Reg. 53, (3) 18-24 mm. Reg. 65, (1) 21.5 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
CARANGIDAE (cont'd)	
Selar crumenophthalmus	-Reg. 65, (3) 21.5-27.5 mm.
Caranx crysos	-Reg. 61, (1) 29.1 mm.
Caranx ruber	-Reg. 2, (1) 18 mm.
	Reg. 7, (2) 26.7-33.5 mm.
	Reg. 28, (1) 31 mm.
	Reg. 30, (1) 37.3 mm.
Caranx bartholomaei	-Reg. 16, (3) 16.7-22.4 mm.
	Reg. 28, (1) 23 mm.
	Reg. 40, (3) 22.5-24.4 mm.
LUTIANIDAE	
Lutianus sp.	-Hawksbill Creek, 10/3/53, 1900-2100, (72) 13-15.5 mm.
	Hawksbill Creek, 10/3/53, 2130-2330, (22) 12-15.5 mm.
KYPHOSIDAE	
Kyphosus sectatrix	-TO-2, (1) 11 mm.
	Reg. 6, (1) 15.5 mm.
	Reg. 15, (1) 13 mm.
	Reg. 18, (1) 18.5 mm.
	Reg. 40, (1) 28 mm.
	Reg. 51, (1) 27 mm.
Kyphosus incisor	-Reg. 16, (1) 9 mm.
	Reg. 30, (1) 18 mm.
	Reg. 32, (3) 17-29 mm.
	Reg. 33, (1) 37 mm.
MULLIDAE	
Pseudupeneus maculatus	-Reg. 1, (1) 39 mm.
	Reg. 65, (1) 19 mm.
CHAETODONTIDAE	
Chaetodon capistratus	-TO-1, (1) 62.5 mm.
ACANTHURIDAE	
Acanthurus chirurgus	-Hawksbill Creek, 10/3/53, 1900-2100, (1) 25.5 mm.
POMACENTRIDAE	
Eupomacentrus sp. ?	-Hawksbill Creek, 10/3/53, 1900-2100, (2) 11-11.5 mm.
	Hawksbill Creek, 10/3/53, 2130-2330, (2) 12-13.5 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
POMACENTRIDAE (cont'd)	
Abudefduf saxatilis	-TO-2, (2) 11-12 mm. Reg. 2, (3) 15-22 mm. Reg. 4, (1) 21 mm. Reg. 6, (2) 15-17 mm. Reg. 16, (3) 15.5-18 mm. Reg. 32, (5) 19-22 mm. Reg. 33, (1) 24 mm. Reg. 40, (1) 15 mm. Reg. 51, (2) 12-31 mm. Reg. 53, (1) 14 mm. Reg. 65, (1) 15.5 mm.
BALISTIDAE	
Balistes capriscus	-Reg. 15, (1) 23 mm. Reg. 16, (1) 30 mm. Reg. 32, (1) 18.5 mm.
ALUTERIDAE	
Monacanthus ciliatus	-Hawksbill Creek, 10/3/53, 1900-2100, (6) 12.9-22 mm. Hawksbill Creek, 10/3/53, 2130-2330, (1) 21.5 mm. Reg. 16, (1) 24 mm. Reg. 32, (2) 19-24 mm.
Monacanthus tuckeri	-Hawksbill Creek, 10/3/53, 1900-2100, (2) 18.5 mm. Hawksbill Creek, 10/3/53, 2130-2330, (4) 17-20 mm.
Stephanolepis hispidus	-Reg. 2, (9) 13-39 mm. Reg. 4, (3) 14-47 mm. Reg. 13, (1) 31 mm. Reg. 14, (32) 17-34 mm. Reg. 15, (1) 16.5 mm. Reg. 16, (23) 13.5-27 mm. Reg. 19, (1) 25 mm. Reg. 28, (2) 19-22.5 mm. Reg. 32, (441) 12.5-52 mm. Reg. 33, (72) 9.5-46 mm. Reg. 34, (6) 19-29 mm. Reg. 36, (37) 16-48.5 mm. Reg. 37, (336) 10-37.5 mm. Reg. 39, (1) 15 mm. Reg. 46, (2) 42-53 mm. Reg. 52, (14) 10-42.5 mm. Reg. 53, (2) 19-22.5 mm. Reg. 59, (1) 40 mm. Reg. 65, (1) 19 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
ALUTERIDAE (cont'd)	
Stephanolepis setifer	-Reg. 2, (5) 17.6-27 mm. Reg. 16, (1) 29 mm.
Alutera sp. /1	-Reg. 32, (1) 28.5 mm.
TETRAODONTIDAE	
Sphaeroides sp.	-Reg. 8, (1) 10 mm. Reg. 32, (1) 14.5 mm.
DIODONTIDAE	
Diodon hystrix ?	-Reg. 26, (1) 100 mm.
ANTENNARIIDAE	
Histrio gibba	-Reg. 2, (3) 10-13 mm. Reg. 6, (1) 11.5 mm. Reg. 15, (1) 13.5 mm. Reg. 16, (8) 11.5-15.5 mm. Reg. 19, (1) 21 mm. Reg. 28, (2) 13.5-14.5 mm. Reg. 30, (1) 10.5 mm. Reg. 61, (2) 9.5-17 mm. Reg. 62, (3) 12.5-23 mm.

/1 *Alutera punctata* Agassiz or *A. schoepfii* (Walbaum)

Table 16.--Numbers and species of fish taken by larval fish net

Species	Location of capture, number and size range (in standard length) of specimens
GONOSTOMIDAE	
Diplophos taenia	-Reg. 6, (2) 42-44 mm.
Diplophos taenia ?	-Reg. 4, (1) about 30 mm.
LEPTOCEPHALI	
Unidentified	-TO-1, 24°32'N., 77°18'W., 10/7/53, 2155-2226, (1) 69 mm. TO-2, 24°28'N., 77°28'W., 10/8/53, 1055-1128, (1) 72 mm.
SYNODIDAE	
Trachinocephalus myops ?	-TO-2, (1) 16.5 mm.
MYCTOPHIDAE	
Hygophum reinhardti	-Reg. 6, (1) 42 mm.
Myctophum affine	-TO-1, (1) 15 mm. Reg. 6, (11) 16-27 mm. Reg. 7, (3) 17-19 mm. Reg. 39, (3) 16-17 mm.
Myctophum asperum	-Reg. 6, (1) 62.5 mm.
HEMIRAMPHIDAE	
Hemiramphus brasiliensis	-TO-1, (3) 22.5-28.5 mm.
EXOCOETIDAE	
Parexocoetus brachypterus	-TO-1, (1) 33 mm.
Cypselurus heterurus	-TO-6, 24°02'N., 77°18'W., 10/8/53, 2200-2233, (1) 198 mm.
SPHYRAENIDAE	
Sphyraena sp.	-TO-2, (1) 14 mm.
CARANGIDAE	
Decapterus sp.	-Reg. 39, (1) about 13 mm.
Caranx bartholomaei	-TO-2, (1) 18.8 mm.
KYPHOSIDAE	
Kyphosus sectatrix	-TO-2, (1) 11 mm.
POMACENTRIDAE	
Abudefduf saxatilis	-TO-1, (3) 13-15 mm.
ALUTERIDAE	
Unidentified	-Reg. 7, (1) about 8 mm.
Stephanolepis hispidus	-Reg. 5, (3) 15-39.5 mm. Reg. 35, (28) 21.5-54 mm. Reg. 39, (1) 20.5 mm.
OSTRACIIDAE	
Unidentified	-Reg. 6, (3) 4.7-5 mm.
ANTENNARIIDAE	
Histrio gibba	-TO-2, (2) 12-12.5 mm. Reg. 39, (1) 13.5 mm.

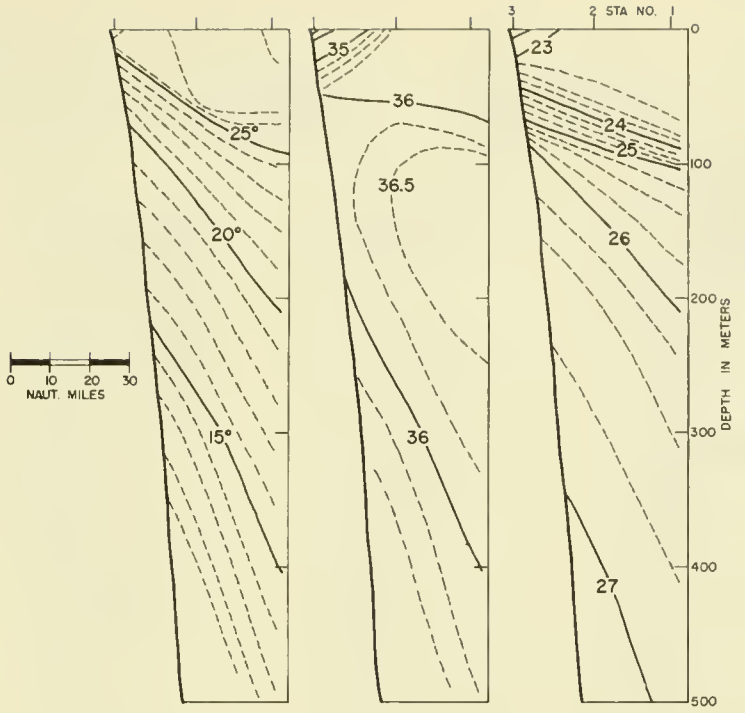

Figure 5.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 1, 2, and 3 (Jupiter Section).

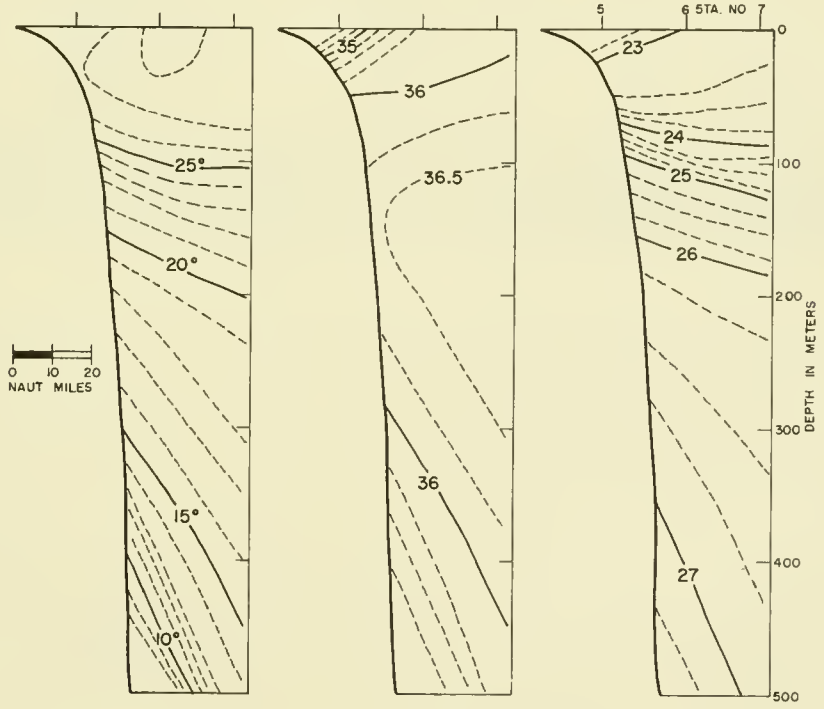

Figure 6.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 5, 6, and 7 (Vero Section).

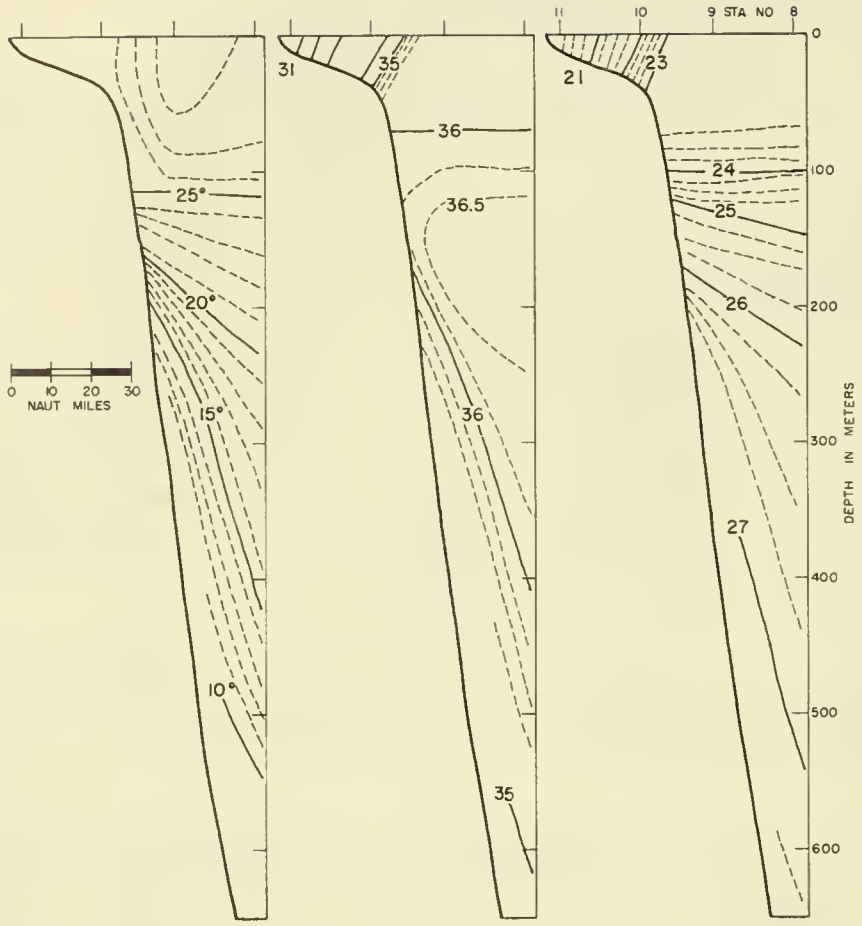

Figure 7.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 8, 9, 10, and 11 (Canaveral Section).

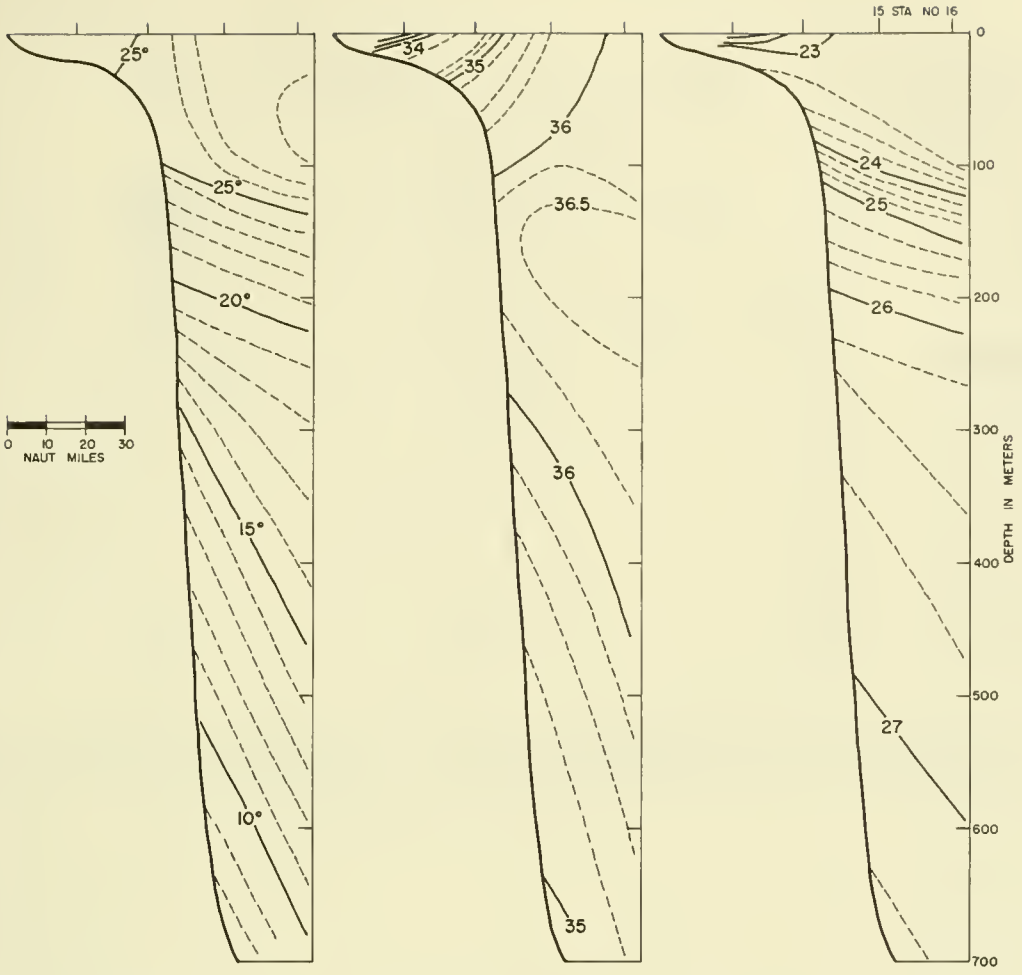

Figure 8.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 13, 14, 15, and 16 (Ponce de Leon Section).

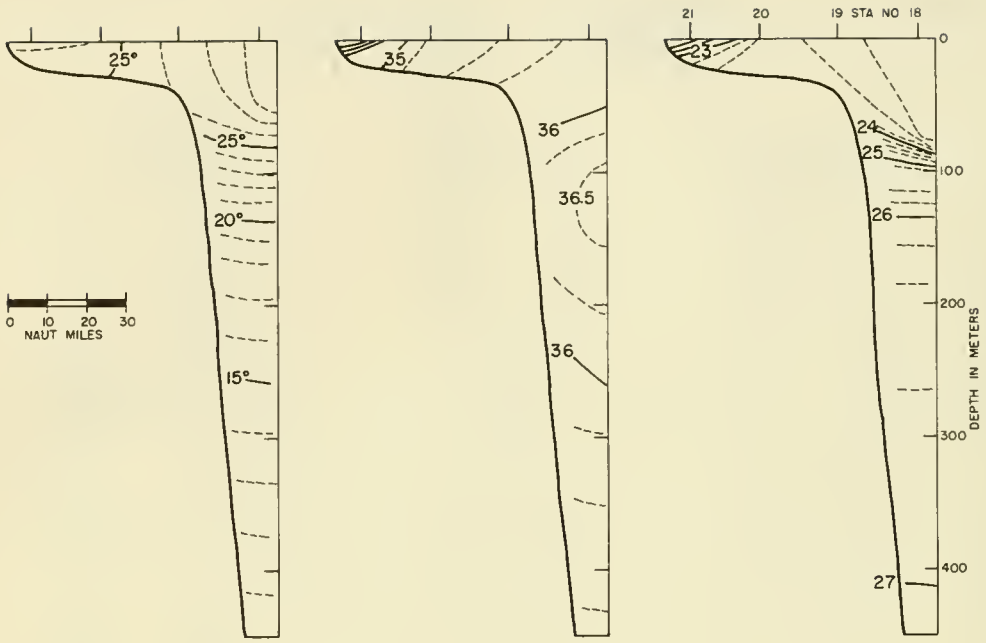

Figure 9.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 18, 19, 20, and 21 (Matanzas Section).

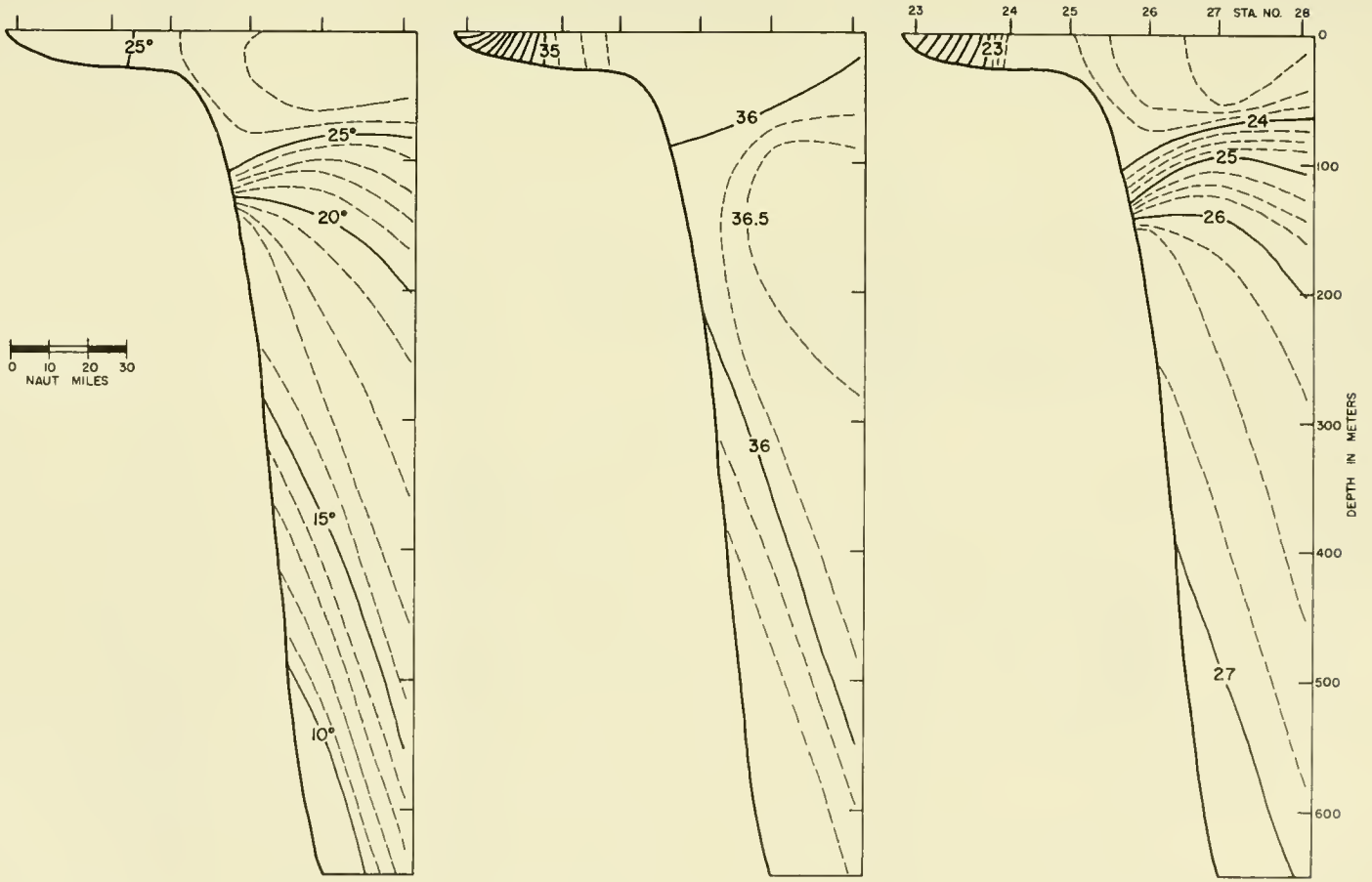

Figure 10.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 23, 24, 25, 26, 27, and 28 (Jacksonville Section).

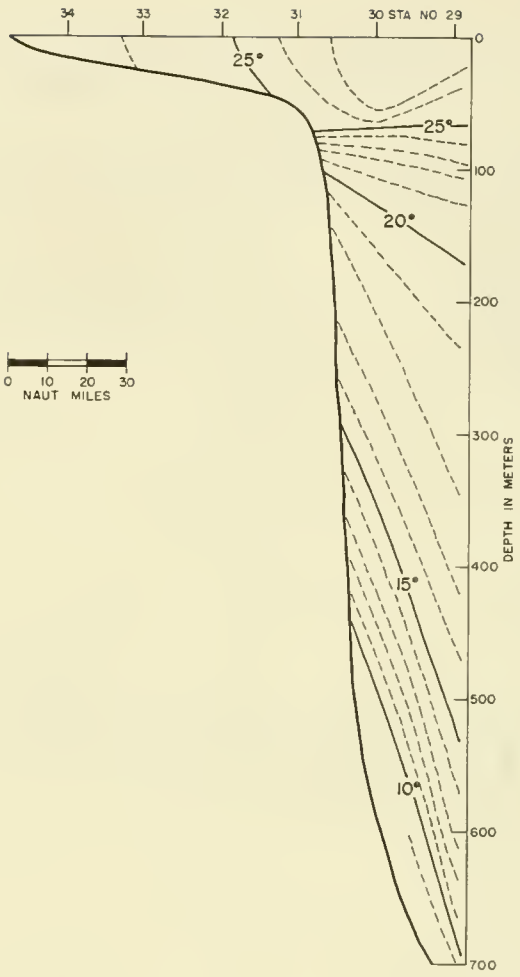

Figure 11.--Distribution of temperature (°C) across section of stations 29, 30, 31, 32, 33, and 34 (Brunswick Section).

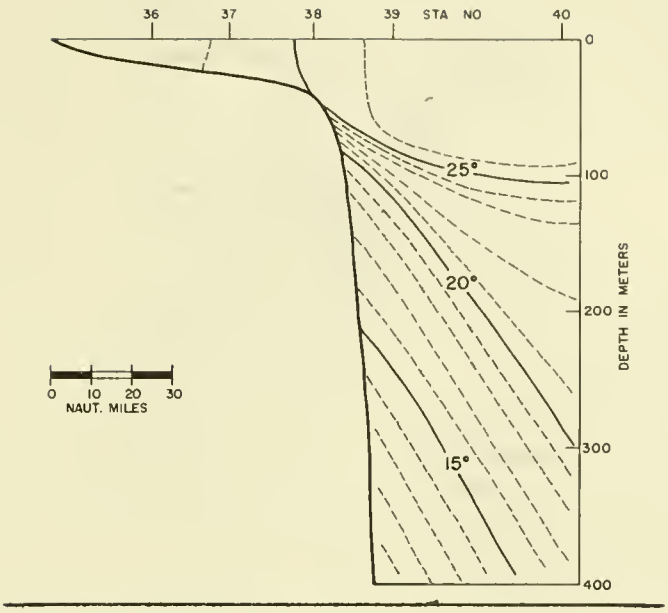

Figure 12.--Distribution of temperature (°C) across section of stations 36, 37, 38, 39, and 40 (Savannah Section).

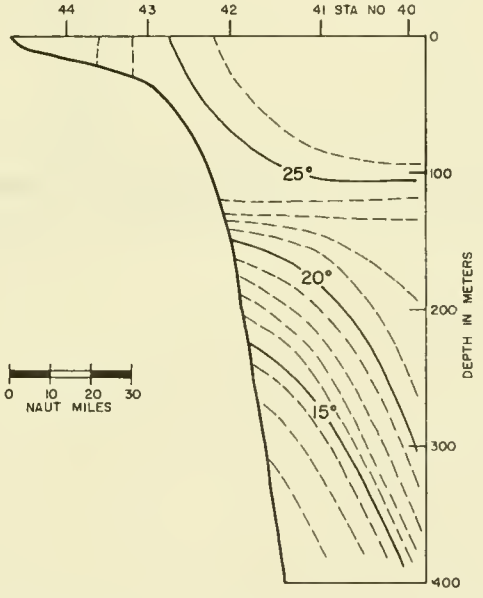

Figure 13.--Distribution of temperature (°C) across section of stations 40, 41, 42, 43, and 44 (Charleston Section).

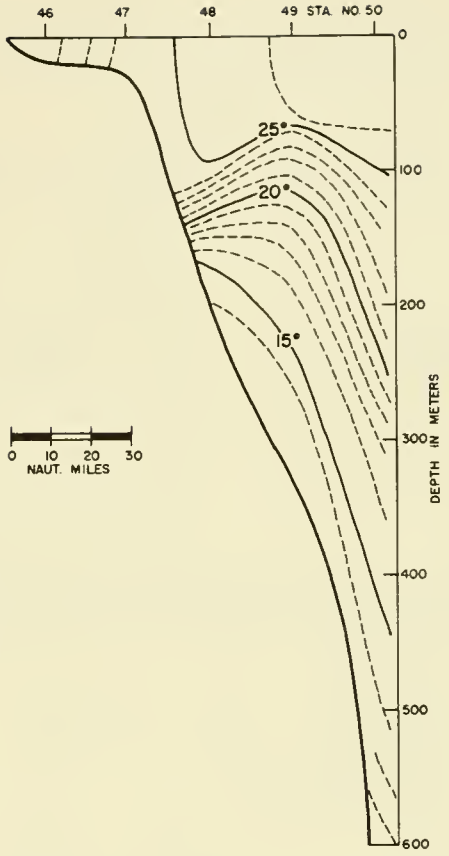

Figure 14.--Distribution of temperature (°C) across section of stations 46, 47, 48, 49, and 50 (Cape Romain Section).

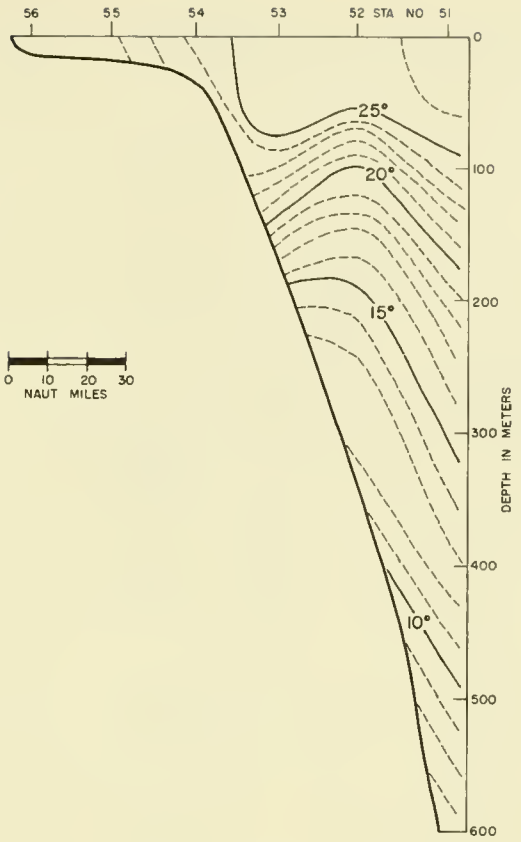

Figure 15.--Distribution of temperature (°C) across section of stations 51, 52, 53, 54, 55, and 56 (Long Bay Section).

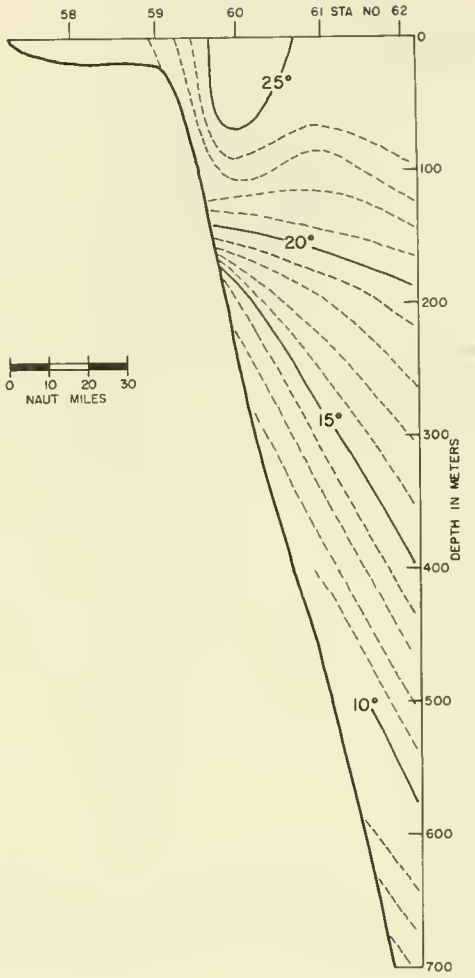

Figure 16.--Distribution of temperature (°C) across section of stations 58, 59, 60, 61, and 62 (Cape Fear Section).

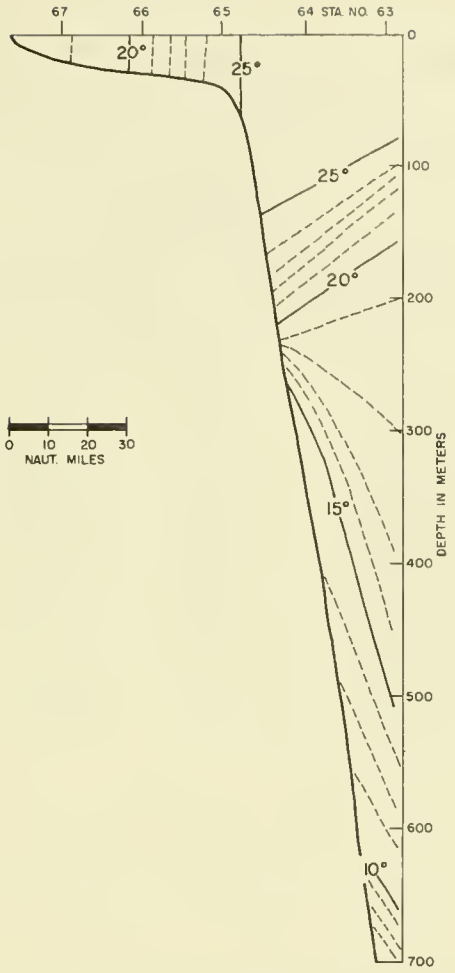

Figure 17.--Distribution of temperature (°C) across section of stations 63, 64, 65, 66, and 67 (Onslow Bay Section).

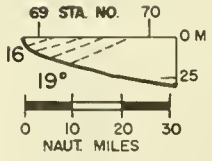

Figure 18.--Distribution of temperature (°C) across section of stations 69 and 70 (Cape Lookout Section).

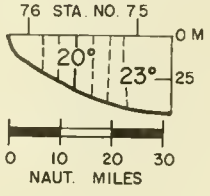

Figure 19.--Distribution of temperature (°C) across section of stations 75 and 76 (Raleigh Bay Section).

STATION 1

DATE Oct. 12, 1953 LAT. 27°00'N. LONG. 79°18'W. TIME 08
DEPTH 651 WIND 4 , 02 BAR. 13 AIR TEMP: dry 25.0°C, wet 21.1°C
HUMIDITY 71% WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 02 , amt. 2
SWELL: dir. 01 , amt. 3 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.02	35.93	23.11	4.57
10	28.01	35.97	23.14	4.44
20	28.00	35.93	23.11	4.40
49	27.97	35.91	23.11	4.51
99	24.03	36.64	24.89	4.55
148	21.96	36.74	25.57	-
198	20.19	36.65	25.99	3.72
246	18.48	36.46	26.29	3.65
295	17.40	36.36	26.48	4.12
394	14.91	35.95	26.74	3.66
493	12.91	35.65	26.93	3.13

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.02	35.93	23.11	4.57
10	28.01	35.97	23.14	4.44
20	28.00	35.93	23.11	4.40
30	27.99	35.92	23.11	4.42
50	27.97	35.91	23.11	4.51
75	26.05	36.32	24.03	4.55
100	23.90	36.64	24.93	4.53
150	21.91	36.74	25.58	4.05
200	20.13	36.64	26.00	3.70
250	18.34	36.45	26.31	3.66
300	17.33	36.34	26.48	4.11
400	14.75	35.93	26.76	3.62

STATION 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	1.6	1.6
10	-	<0.1	-	1.2	1.3
20	-	0.1	-	0.0	0.9
49	-	0.5	-	-	0.5
99	-	0.1	-	-	1.0
148	-	0.5	-	-	0.2
198	-	0.3	-	1.2	0.4
246	-	0.7	-	-	0.8
295	-	0.7	-	-	0.6
394	-	1.1	-	2.5	0.7
493	-	1.3	-	2.2	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	1.6	1.6
10	-	<0.1	-	1.2	1.3
20	-	0.1	-	0.0	0.9
30	-	0.2	-	-	0.8
50	-	0.5	-	-	0.5
75	-	0.3	-	-	0.8
100	-	0.1	-	-	1.0
150	-	0.5	-	-	0.2
200	-	0.3	-	1.2	0.4
250	-	0.7	-	1.6	0.8
300	-	0.7	-	1.9	0.6
400	-	1.1	-	2.5	0.7
500	-	1.3	-	2.2	0.2

STATION 2

DATE Oct. 12, 1953 LAT. 26°58'N. LONG. 79°40'W. TIME 11
DEPTH 549 WIND 4 , 02 BAR. 15 AIR TEMP: dry 25.6°C, wet 21.7°C
HUMIDITY 71% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 02 , amt. 3
SWELL: dir. 01 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.54	35.89	23.23	-
10	27.54	35.91	23.25	4.61
20	27.56	35.89	23.23	4.70
50	27.43	35.97	23.33	4.67
100	21.49	36.48	25.50	3.90
150	18.95	36.50	26.20	3.65
200	17.06	36.28	26.50	3.60
250	15.61	36.02	26.64	3.29
300	13.88	35.76	26.82	3.05
400	10.67	35.27	27.06	2.98

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.54	35.89	23.23	-
10	27.54	35.91	23.25	4.61
20	27.56	35.89	23.23	4.70
30	27.54	35.90	23.24	4.70
50	27.43	35.97	23.33	4.67
75	24.04	36.29	24.63	4.24
100	21.49	36.48	25.50	3.90
150	18.95	36.50	26.20	3.65
200	17.06	36.28	26.50	3.60
250	15.61	36.02	26.64	3.29
300	13.88	35.76	26.82	3.05
400	10.67	35.27	27.06	2.98

STATION 3

DATE Oct. 12, 1953 LAT. 27°00' N. LONG. 80°04' W. TIME 15
DEPTH 14 WIND 5 , 04 BAR. 17 AIR TEMP: dry 27.2 °C, wet 22.2 °C
HUMIDITY 65 % WEATHER 02 CLOUDS: type 2 , amt. 1 SEA: dir. 02 , amt. 2
SWELL: dir. 04 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.92	32.65	21.31	4.44
10	26.23	34.54	22.64	3.33

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.92	32.65	21.31	4.44
10	26.23	34.54	22.64	3.33

STATION 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.3	-	1.2	1.6
10	-	0.6	-	1.5	1.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.3	-	1.2	1.6
10	-	0.6	-	1.5	1.8

STATION 4

DATE Oct. 12, 1953 LAT. 27°20'N. LONG. 80°02'W. TIME 18
DEPTH 27 WIND 4 , 04 BAR. 16 AIR TEMP: dry 26.7°C, wet 22.8°C
HUMIDITY 72% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 02 , amt. 2
SWELL: dir. 04 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.44	34.66	22.66	4.88
10	26.20	34.65	22.73	4.64
20	26.19	34.63	22.72	4.53

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.44	34.66	22.66	4.88
10	26.20	34.65	22.73	4.64
20	26.19	34.63	22.72	4.53

STATION 5

DATE Oct. 12, 1953 LAT. 27°40'N. LONG. 80°04'W. TIME 22
DEPTH 34 WIND 3 , 04 BAR. 16 AIR TEMP: dry 29.4°C, wet 23.3°C
HUMIDITY 60% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 03 , amt. 1
SWELL: dir. 07 , amt. 1 VIS. 2 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.42	34.47	22.52	4.85
10	26.59	34.75	22.68	4.79
20	26.88	35.26	22.97	4.59
30	26.99	35.55	23.16	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.42	34.47	22.52	4.85
10	26.59	34.75	22.68	4.79
20	26.88	35.26	22.97	4.59
30	26.99	35.55	23.16	4.70

STATION 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.6	-	-	0.9
10	-	0.4	-	2.1	0.8
20	-	0.1	-	1.6	0.5
30	-	0.2	-	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.6	-	-	0.9
10	-	0.4	-	2.1	0.8
20	-	0.1	-	1.6	0.5
30	-	0.2	-	-	0.7

STATION 6

DATE Oct. 13, 1953 LAT. 27°37'N. LONG. 79°40'W. TIME 01
DEPTH 543 WIND 3 , 10 BAR. 18 AIR TEMP: dry 25.6°C, wet 21.7°C
HUMIDITY 71% WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 10 , amt. 1
SWELL: dir. 07 , amt. 2 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.07	35.91	23.08	4.70
10	28.08	35.91	23.07	4.61
29	28.10	35.90	23.06	4.61
72	26.64	36.22	23.77	4.61
96	25.31	36.35	24.29	4.59
143	21.68	36.74	25.65	3.83
191	19.08	36.54	26.19	3.61
239	17.74	36.38	26.41	3.77
287	16.60	36.22	26.56	3.57
383	13.17	35.71	26.93	3.18
479	8.72	35.10	27.26	3.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.07	35.91	23.08	4.70
10	28.08	35.91	23.07	4.61
20	28.09	35.90	23.06	4.61
30	28.08	35.91	23.07	4.61
50	27.53	36.03	23.34	4.61
75	26.49	36.23	23.83	4.61
100	24.96	36.41	24.44	4.57
150	21.22	36.73	25.77	3.77
200	18.81	36.52	26.25	3.62
250	17.51	36.35	26.44	3.72
300	16.20	36.16	26.61	3.52
400	12.46	35.58	26.97	3.17

STATION 7

DATE Oct. 13, 1953 LAT. 27°40'N. LONG. 79°18'W. TIME 06
DEPTH 549 WIND 4 , 10 BAR. 18 AIR TEMP: dry 25.0°C, wet 20.6°C
HUMIDITY 67% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 10 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.83	35.97	23.20	4.52
10	27.87	35.99	23.20	3.78
20	27.86	35.99	23.21	4.35
50	27.60	36.15	23.41	4.61
100	25.45	36.47	24.33	4.55
150	22.14	36.71	25.50	4.52
200	19.97	36.74	26.11	4.48
250	18.68	36.58	26.33	4.48
300	18.07	36.49	26.41	4.44
400	15.68	36.10	26.68	3.92
500	13.62	35.79	26.89	3.74

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.83	35.97	23.20	4.52
10	27.87	35.99	23.20	3.78
20	27.86	35.99	23.21	4.35
30	27.86	36.04	23.24	4.46
50	27.60	36.15	23.41	4.61
75	26.67	36.32	23.84	4.57
100	25.45	36.47	24.33	4.55
150	22.14	36.71	25.50	4.52
200	19.97	36.74	26.11	4.48
250	18.68	36.58	26.33	4.48
300	18.07	36.49	26.41	4.44
400	15.68	36.10	26.68	3.92
500	13.62	35.79	26.89	3.74

STATION 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	-	0.5
10	-	<0.1	-	1.9	0.3
20	-	0.3	-	0.1	0.6
50	-	0.0	-	0.5	0.0
100	-	0.2	-	1.4	0.0
150	-	0.3	-	-	0.6
200	-	0.2	-	1.7	-
250	-	0.1	-	-	0.6
300	-	0.5	-	-	0.5
400	-	0.8	-	0.0	0.0
500	-	1.1	-	0.2	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	-	0.5
10	-	<0.1	-	1.9	0.3
20	-	0.3	-	0.1	0.6
30	-	0.2	-	0.2	0.4
50	-	0.0	-	0.5	0.0
75	-	0.1	-	1.0	0.0
100	-	0.2	-	1.4	0.0
150	-	0.3	-	1.6	0.6
200	-	0.2	-	1.7	0.6
250	-	0.1	-	1.3	0.6
300	-	0.5	-	0.9	0.5
400	-	0.8	-	0.0	0.0
500	-	1.1	-	0.2	0.2

STATION 8

DATE Oct. 13, 1953 LAT. 28°18' N. LONG. 79°26' W. TIME 15
DEPTH 777 WIND 3 , 03 BAR. 20 AIR TEMP: dry 27.8 °C, wet 23.3 °C
HUMIDITY 69% WEATHER 02 CLOUDS: type 8 , amt. 3 SEA: dir. 03 , amt. 1
SWELL: dir. 02 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.98	35.92	23.11	4.72
9	27.98	35.90	23.10	4.70
18	27.97	35.90	23.10	4.70
46	27.99	35.91	23.10	4.70
91	26.64	36.16	23.73	4.52
137	23.87	36.62	24.93	4.70
183	22.00	36.69	25.52	4.26
275	18.25	36.43	26.32	4.31
366	16.40	36.18	26.58	4.00
459	13.61	35.69	26.82	3.39
552	9.73	35.14	27.13	2.94
644	7.82	34.92	27.26	3.09

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.98	35.92	23.11	4.72
10	27.98	35.90	23.10	4.70
20	27.99	35.90	23.10	4.70
30	27.99	35.91	23.10	4.70
50	27.92	35.92	23.13	4.69
75	27.27	36.05	23.44	4.57
100	26.03	36.28	24.01	4.53
150	23.34	36.65	25.10	4.68
200	21.16	36.64	25.72	4.27
250	19.08	36.50	26.16	4.30
300	17.83	36.38	26.39	4.25
400	15.51	36.01	26.65	3.75
500	11.66	35.41	26.99	3.16
600	8.49	34.99	27.21	3.01

STATION 9

DATE Oct. 13, 1953 LAT. 28°17'N. LONG. 79°49'W. TIME 19
DEPTH 374 WIND 5 , 04 BAR. 20 AIR TEMP: dry 27.2 °C, wet 22.8 °C
HUMIDITY 69 % WEATHER 02 CLOUDS: type 8 , amt. 3 SEA: dir. 06 , amt. 2
SWELL: dir. 04 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.15	35.90	23.04	4.76
9	28.13	35.88	23.03	4.76
19	28.11	35.91	23.06	4.74
47	28.12	35.91	23.06	4.79
93	26.72	36.20	23.73	4.67
141	22.91	36.65	25.23	4.02
188	19.76	36.54	26.02	3.65
235	14.69	35.86	26.72	3.31
283	11.64	35.41	26.99	3.05

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.15	35.90	23.04	4.76
10	28.13	35.88	23.03	4.75
20	28.12	35.91	23.06	4.74
30	28.12	35.91	23.06	4.77
50	28.10	35.92	23.07	4.79
75	27.53	36.07	23.37	4.77
100	26.13	36.30	23.99	4.55
150	22.46	36.64	25.35	3.94
200	18.27	36.37	26.27	3.55
250	13.51	35.69	26.84	3.21

STATION 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	4.2	0.3
9	-	0.1	-	0.0	0.2
19	-	0.1	-	0.2	0.4
47	-	0.0	-	0.0	0.6
93	-	0.0	-	0.6	0.4
141	-	0.2	-	-	0.6
188	-	0.4	-	2.9	0.1
235	-	1.1	-	3.7	0.7
283	-	1.5	-	0.8	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	4.2	0.3
10	-	0.1	-	0.0	0.2
20	-	0.1	-	0.2	0.4
30	-	<0.1	-	0.1	0.5
50	-	0.0	-	0.0	0.6
75	-	0.0	-	0.4	0.5
100	-	0.0	-	0.6	0.4
150	-	0.2	-	2.0	0.5
200	-	0.6	-	3.1	0.3
250	-	1.2	-	2.8	0.6

STATION 10

DATE Oct. 13, 1953 LAT. 28°20'N. LONG. 80°10'W. TIME 22
DEPTH 38 WIND 5 , 04 BAR. 20 AIR TEMP: dry 27.2°C, wet 22.8°C
HUMIDITY 68% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 06 , amt. 2
SWELL: dir. 04 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.61	33.52	22.06	5.13
10	25.58	33.64	22.16	4.96
20	25.81	33.89	22.28	4.70
30	-	34.96	-	4.44

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.61	33.52	22.06	5.13
10	25.58	33.64	22.16	4.96
20	25.81	33.89	22.28	4.70
30	-	34.96	-	4.44

STATION 11

DATE Oct. 14, 1953 LAT. 28°20'N. LONG. 80°33'W. TIME 00
DEPTH 12 WIND 5 , 03 BAR. 20 AIR TEMP: dry 25.6°C, wet 22.2°C
HUMIDITY 76% WEATHER 00 CLOUDS: type - , amt. 0 SEA: dir. 04 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.09	30.67	20.07	5.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.09	30.67	20.07	5.00

STATION 11

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.9	-	2.4	1.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.9	-	2.4	1.7

STATION 12

DATE Oct. 14, 1953 LAT. 28°41'N. LONG. 80°24'W. TIME 04
DEPTH 20 WIND 2 , 02 BAR. 21 AIR TEMP: dry 25.0°C, wet 22.2°C
HUMIDITY 79% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 02 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.64	30.21	19.86	5.00
10	24.75	31.18	20.56	4.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.64	30.21	19.86	5.00
10	24.75	31.18	20.56	4.96

STATION 13

DATE Oct. 14, 1953 LAT. 29°00'N. LONG. 80°32'W. TIME 01
DEPTH 20 WIND 5 , 06 BAR. 21 AIR TEMP: dry 25.0°C, wet 21.7°C
HUMIDITY 74% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. 07 , amt. 2
SWELL: dir. 07 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.11	31.27	20.82	5.13
10	24.18	34.21	23.01	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.11	31.27	20.82	5.13
10	24.18	34.21	23.01	4.70

STATION 13

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.6	-	1.2	1.5
10	-	0.3	-	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.6	-	1.2	1.5
10	-	0.3	-	-	0.8

STATION 14

DATE Oct. 14, 1953 LAT. 29°00'N. LONG. 80°10'W. TIME 09
DEPTH 60 WIND 6 , 04 BAR. 20 AIR TEMP: dry 25.0°C, wet 21.7°C
HUMIDITY 74% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. 09 , amt. 3
SWELL: dir. 07 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.20	34.47	22.90	4.90
10	25.24	34.46	22.88	4.96
20	25.56	34.87	23.09	5.05
30	-	35.21*	-	4.96
50	25.79	35.37	23.40	4.52

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.20	34.47	22.90	4.90
10	25.24	34.46	22.88	4.96
20	25.56	34.87	23.09	5.05
30	25.66	35.08	23.22	4.96
50	25.79	35.37	23.40	4.52

STATION 15

DATE Oct. 14, 1953 LAT. 29°00'N. LONG. 79°48'W. TIME 13
DEPTH 677 WIND 8 , 08 BAR. 21 AIR TEMP: dry 25.6°C, wet 21.7°C
HUMIDITY 75% WEATHER 03 CLOUDS: type 8 , amt. 5 SEA: dir. 08 , amt. 3
SWELL: dir. 05 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.80	35.89	23.15	4.09*
9	27.77	35.88	23.15	4.68
19	27.79	35.87	23.14	4.70
47	27.85	35.87	23.12	4.70
94	26.55	36.17	23.76	4.52
142	23.05	36.56	25.12	4.09
189	20.55	36.56	25.82	3.65
285	16.71	36.14	26.48	3.48
381	13.90	35.71	26.77	3.22
478	11.68	35.35	26.94	3.05
670	7.55	34.93	27.31	3.25

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.80	35.89	23.15	-
10	27.77	35.88	23.15	4.68
20	27.80	35.87	23.14	4.70
30	27.82	35.87	23.13	4.70
50	27.83	35.89	23.14	4.69
75	27.16	36.05	23.48	4.62
100	26.06	36.24	23.97	4.46
150	22.60	36.56	25.25	3.99
200	19.85	36.51	25.97	3.63
250	17.89	36.29	26.30	3.55
300	16.23	36.07	26.53	3.43
400	13.46	35.63	26.80	3.17
500	11.19	35.28	26.98	3.06
600	9.02	35.07	27.19	3.17

STATION 15

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	<0.1	-	-	0.7
9	-	0.1	-	-	0.6
19	-	0.0	-	-	1.2
47	-	0.1	-	0.3	0.4
94	-	0.2	-	1.2	0.1
142	-	0.2	-	-	0.4
189	-	0.4	-	-	0.7
285	-	0.9	-	-	0.2
381	-	1.2	-	0.6	0.3
478	-	1.5	-	-	0.7
670	-	1.6	-	2.8	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	<0.1	-	-	0.7
10	-	0.1	-	-	0.6
20	-	0.0	-	-	1.2
30	-	<0.1	-	-	0.9
50	-	0.1	-	0.3	0.4
75	-	0.2	-	0.8	0.2
100	-	0.2	-	1.2	0.1
150	-	0.2	-	-	0.5
200	-	0.5	-	-	0.6
250	-	0.7	-	-	0.4
300	-	1.0	-	-	0.2
400	-	1.3	-	0.7	0.4
500	-	1.5	-	1.5	0.7
600	-	1.6	-	2.2	0.9

STATION 16

DATE Oct. 14, 1953 LAT. 29°00'N. LONG. 79°26'W. TIME 17
DEPTH 805 WIND 11, 08 BAR. 21 AIR TEMP: dry 21.1°C, wet 20.6°C
HUMIDITY 95% WEATHER 50 CLOUDS: type 9, amt. 6 SEA: dir. 08, amt. 3
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.94	36.04	23.22	4.78
9	27.90	36.04	23.23	4.71
19	27.94	36.05	23.22	4.74
48	28.05	36.04	23.18	4.72
96	27.96	36.05	23.22	4.70
144	24.20	36.55	24.77	4.54
193	21.47	36.64	25.63	4.02
290	17.96	36.38	26.36	3.79
486	14.39	35.87	26.79	4.05
584	12.03	35.51	27.00	3.39
682	9.89	35.26	27.19	3.57

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.94	36.04	23.22	4.78
10	27.90	36.04	23.23	4.71
20	27.95	36.05	23.22	4.73
30	28.00	36.04	23.20	4.73
50	28.05	36.04	23.18	4.72
75	28.00	36.05	23.21	4.72
100	27.61	36.11	23.38	4.69
150	23.83	36.57	24.90	4.46
200	21.18	36.62	25.70	3.99
250	19.07	36.49	26.16	3.85
300	17.81	36.36	26.38	3.80
400	15.95	36.11	26.63	3.93
500	14.04	35.81	26.82	3.94
600	11.67	35.46	27.03	3.43

STATION 18

DATE Oct. 14, 1953 LAT. 29°36'N. LONG. 79°58'W. TIME 23
DEPTH 612 WIND 10 , 07 BAR. 20 AIR TEMP: dry 25.6 °C, wet 22.2 °C
HUMIDITY 76% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 07 , amt. 4
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.08	35.94	23.10	4.71
9	28.08	35.92	23.08	4.77
18	28.09	35.91	23.07	4.77
45	28.18	35.92	23.05	4.79
90	23.91	36.44	24.78	4.35
136	19.91	36.56	25.99	3.74
181	17.45	36.36	26.47	3.65
274	14.46	35.86	26.77	3.65
366	12.18	35.44	26.91	3.13
459	10.00	35.18	27.11	3.05

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.08	35.94	23.10	4.71
10	28.08	35.92	23.08	4.77
20	28.16	35.91	23.05	4.77
30	28.17	35.91	23.04	4.78
50	27.69	36.00	23.27	4.77
75	25.29	36.31	24.26	4.51
100	22.91	36.49	25.11	4.17
150	19.07	36.50	26.17	3.70
200	16.78	36.25	26.54	3.65
250	15.17	35.98	26.71	3.65
300	13.80	35.72	26.80	3.45
400	11.37	35.33	26.98	3.06

STATION 19

DATE Oct. 15, 1953 LAT. 29°40'N. LONG. 80°23'W. TIME 03
DEPTH 42 WIND 5 , 05 BAR. 21 AIR TEMP: dry 25.0°C, wet 21.1°C
HUMIDITY 71% WEATHER 01 CLOUDS: type - , amt. 1 SEA: dir. 06 , amt. 3
SWELL: dir. 03 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.25	35.58	23.41	4.94
10	26.28	35.56	23.39	4.96
20	-	35.57*	-	4.96
30	26.16	35.77	23.58	4.74

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.25	35.58	23.41	4.94
10	26.28	35.56	23.39	4.96
20	26.22	35.67	23.49	4.96
30	26.16	35.77	23.58	4.74

STATION 19

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	-	0.0	0.8
10	-	0.3	-	0.0	0.8
20	-	0.3	-	-	0.4
30	-	0.2	-	0.0	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	-	0.0	0.8
10	-	0.3	-	0.0	0.8
20	-	0.3	-	0.0	0.4
30	-	0.2	-	0.0	0.3

STATION 20

DATE Oct. 15, 1953 LAT. 29°40'N. LONG. 80°45'W. TIME 06
DEPTH 27 WIND 6 , 07 BAR. 20 AIR TEMP: dry 24.4 °C, wet 21.7 °C
HUMIDITY 78% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 07 , amt. 3
SWELL: dir. 03 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.91	35.39	23.68	4.96
10	24.94	35.39	23.67	4.79
20	24.93	35.35	23.65	5.07

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.91	35.39	23.68	4.96
10	24.94	35.39	23.67	4.79
20	24.93	35.35	23.65	5.07

STATION 21

DATE Oct. 15, 1953 LAT. 29°40'N. LONG. 81°06'W. TIME 09
DEPTH 18 WIND 5 , 05 BAR. 19 AIR TEMP: dry 24.4 °C, wet 22.2 °C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 06 , amt. 4
SWELL: dir. 04 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.64	31.12	20.84	5.41
10	24.44	34.31	23.01	5.10

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.64	31.12	20.84	5.41
10	24.44	34.31	23.01	5.10

STATION 21

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	-	1.2	1.5
10	-	0.1	-	1.6	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	-	1.2	1.5
10	-	0.1	-	1.6	0.7

STATION 22

DATE Oct. 15, 1953 LAT. 30°00'N. LONG. 81°12'W. TIME 12
DEPTH 12 WIND 7 , 02 BAR. 20 AIR TEMP: dry 23.3°C, wet 21.7°C
HUMIDITY 86% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 04 , amt. 3
SWELL: dir. 36 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.39	31.71	21.36	4.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.39	31.71	21.36	4.96

STATION 23

DATE Oct. 15, 1953 LAT. 30°20'N. LONG. 81°20'W. TIME 15
DEPTH 12 WIND 8 , 01 BAR. 21 AIR TEMP: dry 24.4°C, wet 22.8°C
HUMIDITY 87% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 01 , amt. 3
SWELL: dir. 02 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.14	25.16*	16.21	4.96

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.14	-	-	4.96

STATION 23

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.1	-	2.5	4.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1:1	-	2.5	4.6

STATION 24

DATE Oct. 15, 1953 LAT. 30°21'N. LONG. 80°58'W. TIME 18
DEPTH 29 WIND 8 , 02 BAR. 19 AIR TEMP: dry 23.9°C, wet 22.2°C
HUMIDITY 87% WEATHER 02 CLOUDS: type 8 , amt. 3 SEA: dir. 03 , amt. 4
SWELL: dir. 02 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.56	35.41	23.80	5.05
10	24.59	35.42	23.80	5.05
20	24.50	35.39	23.81	5.02

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.56	35.41	23.80	5.05
10	24.59	35.42	23.80	5.05
20	24.50	35.39	23.81	5.02

STATION 25

DATE Oct. 15, 1953 LAT. 30°20'N. LONG. 80°35'W. TIME 21
DEPTH 31 WIND 6 , 04 BAR. 18 AIR TEMP: dry 23.9°C, wet 21.1°C
HUMIDITY 79% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 03 , amt. 4
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.96	35.94	23.78	4.96
10	25.99	35.97	23.79	4.70
20	25.99	35.94	23.77	4.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.96	35.94	23.78	4.96
10	25.99	35.97	23.79	4.70
20	25.99	35.94	23.77	4.96

STATION 25

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	0.0	0.9
10	-	0.1	-	-	0.4
20	-	0.1	-	0.8	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	0.0	0.9
10	-	0.1	-	0.4	0.4
20	-	0.1	-	0.8	0.3

STATION 26

DATE Oct. 16, 1953 LAT. 30°17'N. LONG. 80°11'W. TIME 00
DEPTH 201 WIND 5 , 03 BAR. 18 AIR TEMP: dry 25.6°C, wet 20.6°C
HUMIDITY 64% WEATHER 02 CLOUDS: type 8 , amt. 3 SEA: dir. 03 , amt. 1
SWELL: dir. 02 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.98	35.80	23.35	4.62
10	27.02	35.83	23.36	4.79
20	27.05	35.82	23.34	4.70
30	27.04	35.81	23.34	4.52
50	26.77	35.84	23.44	4.62
75	26.04	35.96	23.77	4.60
100	24.98	36.11	24.21	4.48
150	16.40	36.13	26.54	3.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.98	35.80	23.35	4.62
10	27.02	35.83	23.36	4.79
20	27.05	35.82	23.34	4.70
30	27.04	35.81	23.34	4.52
50	26.77	35.84	23.44	4.62
75	26.04	35.96	23.77	4.60
100	24.98	36.11	24.21	4.48
150	16.40	36.13	26 54	3.11

STATION 27

DATE Oct. 16, 1953 LAT. 30°19'N. LONG. 79°50'W. TIME 04
DEPTH 630 WIND 4 , 04 BAR. 19 AIR TEMP: dry 25.0°C, wet 21.1°C
HUMIDITY 71% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 04 , amt. 1
SWELL: dir. 03 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.80	35.89	23.15	4.79
9	27.86	35.86	23.11	4.79
18	27.86	35.90	23.14	4.27
45	27.84	35.88	23.13	4.56
91	23.87	36.56	24.88	3.86
136	20.32	36.64	25.94	3.64
182	18.74	36.56	26.30	4.20
273	17.09	36.36	26.55	4.28
365	15.06	35.97	26.72	3.78
457	12.54	35.57	26.94	3.28
549	9.70	35.26	27.23	3.36

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.80	35.89	23.15	4.79
10	27.86	35.87	23.12	4.71
20	27.85	35.89	23.13	4.30
30	27.85	35.88	23.13	4.46
50	27.39	35.93	23.31	4.46
75	25.21	36.13	24.15	4.04
100	23.00	36.59	25.16	3.75
150	19.79	36.62	26.07	3.84
200	18.44	36.54	26.36	4.23
250	17.54	36.43	26.50	4.27
300	16.54	36.25	26.60	4.13
400	14.14	35.81	26.80	3.52
500	11.25	35.41	27.07	3.32

STATION 27

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	0.0	0.2
9	-	0.1	-	0.7	0.4
18	-	0.0	-	-	0.5
45	-	0.0	-	1.3	0.4
91	-	0.4	-	-	0.2
136	-	0.3	-	0.8	0.5
182	-	0.1	-	0.9	0.2
273	-	0.5	-	1.6	0.6
365	-	-	-	-	0.5
457	-	1.3	-	-	0.9
549	-	1.7	-	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	0.0	0.2
10	-	0.1	-	0.7	0.4
20	-	0.0	-	0.9	0.5
30	-	0.0	-	1.0	0.5
50	-	<0.1	-	1.3	0.4
75	-	0.3	-	1.1	0.3
100	-	0.4	-	1.0	0.3
150	-	0.2	-	0.8	0.4
200	-	0.2	-	1.0	0.3
250	-	0.4	-	1.4	0.5
300	-	0.6	-	-	0.6
400	-	1.0	-	-	0.7
500	-	1.5	-	-	-

STATION 28

DATE Oct. 16, 1953 LAT. 30°20'N. LONG. 79°26'W. TIME 07
DEPTH 795 WIND 4 , 09 BAR. 17 AIR TEMP: dry 24.4°C, wet 21.1°C
HUMIDITY 74% WEATHER - CLOUDS: type -, amt. - SEA: dir. -, amt. -
SWELL: dir. 03, amt. 3 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.69	35.97	23.25	4.62
10	27.77	35.96	23.21	4.62
20	27.75	36.00	23.25	4.54
50	27.06	36.16	23.59	4.52
100	23.83	36.60	24.92	4.62
150	21.64	36.70	25.63	4.62
200	19.94	36.60	26.02	4.45
300	18.42	36.48	26.32	4.52
400	17.57	36.40	26.47	4.43
500	16.11	36.18	26.65	4.20
600	13.54	35.72	26.86	3.11
700	11.17	35.42	27.09	3.31

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.69	35.97	23.25	4.62
10	27.77	35.96	23.21	4.62
20	27.75	36.00	23.25	4.54
30	27.62	36.04	23.32	4.52
50	27.06	36.16	23.59	4.52
75	25.32	36.42	24.34	4.58
100	23.83	36.60	24.92	4.62
150	21.64	36.70	25.63	4.62
200	19.94	36.60	26.02	4.45
250	19.10	36.54	26.19	4.50
300	18.42	36.48	26.32	4.52
400	17.57	36.40	26.47	4.43
500	16.11	36.18	26.65	4.20
600	13.54	35.72	26.86	3.11

STATION 29

DATE Oct. 16, 1953 LAT. 30°59'N. LONG. 79°14'W. TIME 13
DEPTH 732 WIND 4 , 01 BAR. 18 AIR TEMP: dry 24.4 °C, wet 20.6 °C
HUMIDITY 70 % WEATHER 02 CLOUDS: type 8 , amt. 4 SEA: dir. 02 , amt. 1
SWELL: dir. 11 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.44	36.00	23.35	4.54
10	27.48	36.02	23.35	4.70
19	27.27	36.05	23.44	4.70
48	25.73	36.08	23.95	4.79
97	22.79	36.68	25.29	4.52
146	20.39	36.64	25.93	4.45
195	19.47	36.61	26.15	4.54
293	18.36	36.50	26.35	4.56
392	17.32	36.36	26.50	4.28
491	15.35	36.04	26.71	4.03
591	13.19	35.70	26.91	3.68
690	8.97	35.16	27.27	3.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.44	36.00	23.35	4.54
10	27.48	36.02	23.35	4.69
20	27.21	36.05	23.46	4.70
30	26.68	36.06	23.64	4.75
50	25.48	36.12	24.06	4.77
75	24.11	36.41	24.70	4.61
100	22.60	36.68	25.34	4.51
150	20.31	36.64	25.95	4.45
200	19.41	36.61	26.16	4.54
250	18.84	36.55	26.26	4.58
300	18.32	36.50	26.36	4.53
400	17.17	36.33	26.51	4.26
500	15.24	36.02	26.72	4.00
600	12.89	35.66	26.94	3.64

STATION 29

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.0	0.1
10	-	<0.1	-	-	0.3
19	-	0.1	-	1.0	0.3
48	-	0.0	-	0.7	0.1
97	-	0.2	-	-	0.7
146	-	<0.1	-	-	0.7
195	-	0.1	-	-	0.4
293	-	0.1	-	1.0	0.1
392	-	0.4	-	0.7	0.3
491	-	1.1	-	0.9	0.7
591	-	1.1	-	0.9	0.7
690	-	1.7	-	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.0	0.1
10	-	<0.1	-	0.5	0.3
20	-	0.1	-	1.0	0.3
30	-	<0.1	-	0.9	0.2
50	-	0.0	-	0.7	0.1
75	-	0.1	-	-	0.4
100	-	0.2	-	-	0.7
150	-	<0.1	-	-	0.7
200	-	0.1	-	-	0.4
250	-	0.1	-	-	0.3
300	-	0.1	-	1.0	0.1
400	-	0.4	-	0.7	0.3
500	-	1.1	-	0.9	0.7
600	-	1.1	-	0.9	0.7
700	-	1.7	-	-	0.4

STATION 30

DATE Oct. 16, 1953 LAT. 30°58' N. LONG. 79°38' W. TIME 17
DEPTH 579 WIND 4 , 01 BAR. 19 AIR TEMP: dry 29.4 °C, wet 23.3 °C
HUMIDITY 60 % WEATHER 03 CLOUDS: type 8 , amt. 3 SEA: dir. 02 , amt. 2
SWELL: dir. 32 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	-	36.15	-	4.54
10	27.85	36.15	23.33	4.62
20	27.81	36.13	23.33	4.70
50	27.79	36.15	23.35	4.62
100	21.36	36.92	25.87	3.78
150	19.29	36.87	26.39	4.28
200	18.13	36.73	26.58	4.12
300	16.27	36.44	26.81	3.76
400	13.26	35.91	27.06	3.19
500	9.13	35.39	27.42	3.19

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	-	36.15	-	4.54
10	27.85	36.15	23.33	4.62
20	27.81	36.13	23.33	4.70
30	27.80	36.14	23.34	4.70
50	27.79	36.15	23.35	4.62
75	24.55	36.54	24.66	4.03
100	21.36	36.92	25.87	3.78
150	19.29	36.87	26.39	4.28
200	18.13	36.73	26.58	4.12
250	17.34	36.62	26.69	3.96
300	16.27	36.44	26.81	3.76
400	13.26	35.91	27.06	3.19
500	9.13	35.39	27.42	3.19

STATION 31

DATE Oct. 16, 1953 LAT. 31°00'N. LONG. 80°00'W. TIME 22
DEPTH 54 WIND 2 , 33 BAR. 18 AIR TEMP: dry 25.6°C, wet 21.1°C
HUMIDITY 67% WEATHER 01 CLOUDS: type 1 , amt. 1 SEA: dir. 00 , amt. 0
SWELL: dir. 09 , amt. 1 VIS. 2 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.37	36.13	23.79	4.70
10	26.18	36.13	23.85	4.66
20	-	36.13	-	4.70
40	-	36.15	-	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.37	36.13	23.79	4.70
10	26.18	36.13	23.85	4.66
20	-	36.13	-	4.70
30	-	36.14	-	4.70

STATION 31

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	-	0.7
10	-	0.1	-	-	1.1
20	-	0.1	-	1.0	0.3
40*	-	<0.1	-	1.8	0.4

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	-	0.7
10	-	0.1	-	-	1.1
20	-	0.1	-	1.0	0.3
30	-	<0.1	-	1.8	0.4

STATION 32

DATE Oct. 17, 1953 LAT. 31°00'N. LONG. 80°23'W. TIME 01
DEPTH 36 WIND 0 , 00 BAR. 18 AIR TEMP: dry 23.9°C, wet 20.6°C
HUMIDITY 74% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. 00 , amt. 0
SWELL: dir. 09 , amt. 1 VIS. 3 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.91	36.00	24.14	4.84
10	24.69	36.03	24.23	4.87
20	24.79	36.15	24.29	4.87
30	24.81	36.18	24.31	4.81

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.91	36.00	24.14	4.84
10	24.69	36.03	24.23	4.87
20	24.79	36.15	24.29	4.87
30	24.81	36.18	24.31	4.81

STATION 33

DATE Oct. 17, 1953 LAT. 31°00'N. LONG. 80°46'W. TIME 04
DEPTH 27 WIND 2 , 12 BAR. 19 AIR TEMP: dry 23.3°C, wet 20.6°C
HUMIDITY 78% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. 00 , amt. 0
SWELL: dir. 09 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.25	35.37	23.87	4.91
10	24.10	35.34	23.89	4.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.25	35.37	23.87	4.91
10	24.10	35.34	23.89	4.91

STATION 33

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	-	1.0
10	-	0.1	-	0.1	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	-	1.0
10	-	0.1	-	0.1	0.9

STATION 34

DATE Oct. 17, 1953 LAT. 31°00'N. LONG. 81°08'W. TIME 06
DEPTH 15 WIND 2 , 22 BAR. 19 AIR TEMP: dry 23.3°C, wet 21.1°C
HUMIDITY 82% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. 00 , amt. 0
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.18	34.34	23.40	4.70
10	23.36	34.51	23.48	4.45

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.18	34.34	23.40	4.70
10	23.36	34.51	23.48	4.45

STATION 35

DATE Oct. 22, 1953 LAT. 31°21' N. LONG. 80°52' W. TIME 00
DEPTH 18 WIND 5 , 07 BAR. 19 AIR TEMP: dry 23.9 °C, wet 22.2 °C
HUMIDITY 87 % WEATHER 00 CLOUDS: type - , amt. 0 SEA: dir. 06 , amt. 1
SWELL: dir. 06 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.66	35.11	23.85	4.94
10	23.67	35.08	23.82	4.98

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.66	35.11	23.85	4.94
10	23.67	35.08	23.82	4.98

STATION 35

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.2	0.8
10	-	0.0	-	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.2	0.8
10	-	0.0	-	-	0.6

STATION 36

DATE Oct. 22, 1953 LAT. 31°41'N. LONG. 80°35'W. TIME 04
DEPTH 18 WIND 4 , 08 BAR. 19 AIR TEMP: dry 23.3°C, wet 21.2°C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. 0 SEA: dir. 07 , amt. 1
SWELL: dir. 06 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.66	36.13	24.62	4.91
10	23.64	36.10	24.60	4.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.66	36.13	24.62	4.91
10	23.64	36.10	24.60	4.96

STATION 37

DATE Oct. 22, 1953 LAT. 31°38'N. LONG. 80°14'W. TIME 06
DEPTH 27 WIND 4 , 04 BAR. 18 AIR TEMP: dry 23.9 °C, wet 21.1 °C
HUMIDITY 79% WEATHER 00 CLOUDS: type - , amt. 0 SEA: dir. 07 , amt. 1
SWELL: dir. 07 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.14	36.22	24.54	4.80
10	24.11	36.18	24.52	4.83
20	24.20	36.17	24.49	4.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.14	36.22	24.54	4.80
10	24.11	36.18	24.52	4.83
20	24.20	36.17	24.49	4.75

STATION 37

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.3	-	0.0	0.9
10	-	0.0	-	-	0.4
20	-	0.0	-	6.4	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.3	-	0.0	0.9
10	-	0.0	-	3.2	0.4
20	-	0.0	-	6.4	0.3

STATION 38

DATE Oct. 22, 1953 LAT. 31°36' N. LONG. 79°50' W. TIME 10
DEPTH 42 WIND 8 , 04 BAR. 17 AIR TEMP: dry 23.3 °C, wet 21.1 °C
HUMIDITY 82 % WEATHER 03 CLOUDS: type 9 , amt. 4 SEA: dir. 03 , amt. 3
SWELL: dir. 07 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.13	36.20	24.23	4.91
10	25.11	36.18	24.22	4.70
20	25.04	36.21	24.26	-
30	25.02	36.18	24.25	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.13	36.20	24.23	4.91
10	25.11	36.18	24.22	4.70
20	25.04	36.21	24.26	-
30	25.02	36.18	24.25	-

STATION 39

DATE Oct. 24, 1953 LAT. 31°34'N. LONG. 79°28'W. TIME 23
DEPTH 457 WIND 6 , 22 BAR. 06 AIR TEMP: dry 24.4 °C, wet 21.1 °C
HUMIDITY 74 % WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 22 , amt. 2
SWELL: dir. 06 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.43	36.18	23.81	4.80
10	26.43	36.20	23.82	4.64
19	26.42	36.20	23.83	4.64
47	26.42	36.19	23.82	4.71
71	26.27	36.24	23.90	4.71
94	22.52	36.65	25.34	4.34
142	18.29	36.65	26.48	3.57
190	16.56	36.39	26.70	3.55
286	13.65	36.00	27.05	3.53
479	8.47	35.30	27.46	3.13

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.43	36.18	23.81	4.80
10	26.43	36.20	23.82	4.64
20	26.42	36.20	23.83	4.64
30	26.42	36.19	23.82	4.67
50	26.40	36.20	23.83	4.71
75	25.54	36.33	24.20	4.64
100	21.85	36.65	25.53	4.20
150	17.99	36.60	26.52	3.56
200	16.25	36.35	26.74	3.55
250	14.72	36.14	26.93	3.55
300	13.24	35.95	27.10	3.51
400	10.48	35.57	27.33	3.35

STATION 39

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	-	-	0.3
10	-	0.0	-	1.1	0.3
19	-	0.0	-	0.2	0.3
47	-	0.0	-	0.0	0.0
71	-	0.0	-	0.6	0.8
94	-	0.0	-	2.4	0.9
142	-	0.5	-	0.8	-
190	-	0.4	-	-	0.4
286	-	0.9	-	1.2	0.1
479	-	1.6	-	2.3	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	-	-	0.3
10	-	0.0	-	1.1	0.3
20	-	0.0	-	0.2	0.3
30	-	0.0	-	0.1	0.2
50	-	0.0	-	0.0	0.0
75	-	0.0	-	0.6	0.8
100	-	0.0	-	2.4	0.9
150	-	0.5	-	0.8	0.6
200	-	0.4	-	0.9	0.4
250	-	0.7	-	1.0	0.2
300	-	1.0	-	1.2	0.2
400	-	1.3	-	1.8	0.6

STATION 40

DATE Oct. 25, 1953 LAT. 31°28' N. LONG. 78°42' W. TIME 04
DEPTH 576 WIND 6 , 25 BAR. 08 AIR TEMP: dry 25.6 °C, wet 22.2 °C
HUMIDITY 76 % WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. 25 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.40	36.29	23.90	4.69
9	26.42	36.27	23.88	4.73
18	26.43	36.32	23.91	4.90
45	26.44	36.36	23.94	4.82
90	26.06	36.58	24.23	4.64
137	22.93	36.85	25.38	4.13
180	22.06	36.92	25.68	3.68
272	20.60	36.92	26.08	3.61
365	17.17	36.47	26.62	2.92

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.40	36.29	23.90	4.69
10	26.42	36.28	23.89	4.75
20	26.44	36.32	23.91	4.89
30	26.44	36.33	23.92	4.86
50	26.38	36.38	23.98	4.81
75	26.22	36.50	24.12	4.73
100	25.20	36.65	24.55	4.52
150	22.65	36.88	25.48	3.96
200	21.91	36.92	25.72	3.67
250	21.12	36.92	25.94	3.63
300	19.77	36.83	26.24	3.46

STATION 40

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.0	0.2
9	-	0.0	-	1.9	0.8
18	-	0.0	-	-	0.6
45	-	0.0	-	1.6	0.2
90	-	0.0	-	0.0	0.8
137	-	0.0	-	-	0.7
180	-	0.0	-	-	0.6
272	-	0.2	-	10.0	0.5
365	-	0.6	-	2.1	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.0	0.2
10	-	0.0	-	1.9	0.8
20	-	0.0	-	1.8	0.6
30	-	0.0	-	1.7	0.4
50	-	0.0	-	1.4	0.3
75	-	0.0	-	0.5	0.6
100	-	0.0	-	-	0.8
150	-	0.0	-	-	0.7
200	-	<0.1	-	-	0.6
250	-	0.2	-	-	0.5
300	-	0.3	-	7.7	0.5

STATION 41

DATE Oct. 25, 1953 LAT. 31°41' N. LONG. 79°00' W. TIME 10
DEPTH 493 WIND 10 , 02 BAR. 08 AIR TEMP: dry 23.3 °C, wet 20.6 °C
HUMIDITY 78 % WEATHER 01 CLOUDS: type 1 , amt. 2 SEA: dir. 01 , amt. 3
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.29	36.26	23.91	4.47
10	26.31	36.26	23.91	-
19	26.26	36.27	23.93	4.47
47	26.29	36.26	23.91	4.56
71	26.34	36.31	23.94	4.39
95	25.71	36.55	24.31	4.64
143	22.07	36.98	25.72	3.90
191	19.63	36.82	26.27	3.38
289	14.03	36.03	26.99	3.27
386	11.84	35.71	27.19	3.10

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.29	36.26	23.91	4.47
10	26.31	36.26	23.91	4.47
20	26.26	36.27	23.93	4.47
30	26.27	36.26	23.92	4.54
50	26.33	36.26	23.90	4.55
75	26.29	36.35	23.98	4.46
100	25.27	36.62	24.50	4.55
150	21.73	36.97	25.81	3.80
200	18.97	36.73	26.37	3.37
250	15.85	36.29	26.79	3.32
300	13.61	35.97	27.04	3.25

STATION 42

DATE Oct. 25, 1953 LAT. 31°57'N. LONG. 79°16'W. TIME 14
DEPTH 155 WIND 6 , 03 BAR. 12 AIR TEMP: dry 21.1°C, wet 18.3°C
HUMIDITY 77% WEATHER 02 CLOUDS: type 1 , amt. 3 SEA: dir. 01 , amt. 4
SWELL: dir. 03 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.10	36.17	23.91	4.64
10	26.15	36.16	23.88	4.60
20	26.09	36.17	23.91	4.63
50	25.45	36.16	24.10	4.69
75	24.85	36.20	24.31	4.39
100	24.47	36.26	24.47	4.30

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.10	36.17	23.91	4.64
10	26.15	36.16	23.88	4.60
20	26.09	36.17	23.91	4.63
30	25.89	36.16	23.96	4.66
50	25.45	36.16	24.10	4.69
75	24.85	36.20	24.31	4.39
100	24.47	36.26	24.47	4.30

STATION 42

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.3	0.4
10	-	0.0	-	1.4	0.7
20	-	<0.1	-	0.0	0.7
50	-	0.0	-	-	0.2
75	-	0.2	-	0.9	0.4
100	-	0.0	-	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.3	0.4
10	-	0.0	-	1.4	0.7
20	-	<0.1	-	0.0	0.7
30	-	<0.1	-	0.2	0.5
50	-	0.0	-	0.5	0.2
75	-	0.2	-	0.9	0.4
100	-	0.0	-	-	0.7

STATION 43

DATE Oct. 25, 1953 LAT. 32°11'N. LONG. 79°33'W. TIME 18
DEPTH 36 WIND 7 , 03 BAR. 13 AIR TEMP: dry 21.1°C, wet 17.8°C
HUMIDITY 72% WEATHER 02 CLOUDS: type 1 , amt. 2 SEA: dir. 03 , amt. 2
SWELL: dir. 06 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.34	36.18	24.45	4.82
10	24.38	36.25	24.49	4.88
20	24.31	36.24	24.51	4.90
30	24.36	36.22	24.48	4.86

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.34	36.18	24.45	4.82
10	24.38	36.25	24.49	4.88
20	24.31	36.24	24.51	4.90
30	24.36	36.22	24.48	4.86

STATION 44

DATE Oct. 25, 1953 LAT. 32°24' N. LONG. 79°50' W. TIME 21
DEPTH 17 WIND 4 , 03 BAR. 13 AIR TEMP: dry 23.3 °C, wet 17.8 °C
HUMIDITY 58 % WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. 03 , amt. 1
SWELL: dir. 05 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.20	36.06	24.99	5.20
10	22.23	36.04	24.96	5.25

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.20	36.06	24.99	5.20
10	22.23	36.04	24.96	5.25

STATION 45

DATE Oct. 26, 1953 LAT. 32°40'N. LONG. 79°32'W. TIME 00
DEPTH 16 WIND - , - BAR. 15 AIR TEMP: dry 19.4°C, wet 15.6°C
HUMIDITY 66% WEATHER 02 CLOUDS: type - , amt. 2 SEA: dir. 00 , amt. 0
SWELL: dir. 05 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.08	36.17	25.10	4.99
10	22.14	36.16	25.08	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.08	36.17	25.10	4.99
10	22.14	36.16	25.08	4.99

STATION 45

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.0	0.8
10	-	0.0	-	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.0	0.8
10	-	0.0	-	-	0.8

STATION 46

DATE Oct. 26, 1953 LAT. 32°54'N. LONG. 79°16'W. TIME 03
DEPTH 18 WIND -, - BAR. 16 AIR TEMP: dry 19.4°C, wet 15.6°C
HUMIDITY 66% WEATHER 00 CLOUDS: type -, amt. 0 SEA: dir. 00, amt. 0
SWELL: dir. 07, amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.74	35.80	24.92	5.16
10	21.80	35.82	24.92	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.74	35.80	24.92	5.16
10	21.80	35.82	24.92	4.99

STATION 46

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.3	0.6
10	-	0.3	-	-	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.3	0.6
10	-	0.3	-	-	1.5

STATION 47

DATE Oct. 26, 1953 LAT. 32°40' N. LONG. 79°00' W. TIME 06
DEPTH 27 WIND 1 , 09 BAR. 16 AIR TEMP: dry 20.6 °C, wet 15.6 °C
HUMIDITY 59 % WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.31	36.32	24.57	4.74
10	24.37	36.30	24.53	4.82
20	24.30	36.29	24.55	4.82

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.31	36.32	24.57	4.74
10	24.37	36.30	24.53	4.82
20	24.30	36.29	24.55	4.82

STATION 48

DATE Oct. 26, 1953 LAT. 32°25'N. LONG. 78°44'W. TIME 09
DEPTH 210 WIND 1 , 09 BAR. 16 AIR TEMP: dry 21.1°C, wet 15.6°C
HUMIDITY 55% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.47	36.18	24.11	4.64
10	25.52	36.14	24.06	4.64
20	25.49	36.15	24.08	4.71
50	25.45	36.18	24.11	4.73
100	24.70	36.40	24.51	4.43
150	16.73	36.33	26.62	3.44

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.47	36.18	24.11	4.64
10	25.52	36.14	24.06	4.64
20	25.49	36.15	24.08	4.71
30	25.48	36.15	24.08	4.72
50	25.45	36.18	24.11	4.73
75	25.14	36.33	24.32	4.60
100	24.70	36.40	24.51	4.43
150	16.73	36.33	26.62	3.44

STATION 48

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	0.8	0.2
10	-	0.1	-	1.4	0.3
20	-	0.2	-	0.0	0.8
50	-	0.0	-	-	0.5
100	-	0.1	-	1.0	0.3
150	-	0.7	-	0.2	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	0.8	0.2
10	-	0.1	-	1.4	0.3
20	-	0.2	-	0.0	0.8
30	-	0.1	-	0.1	0.7
50	-	0.0	-	0.4	0.5
75	-	<0.1	-	0.7	0.4
100	-	0.1	-	1.0	0.3
150	-	0.7	-	0.2	0.1

STATION 49

DATE Oct. 26, 1953 LAT. 32°11'N. LONG. 78°26'W. TIME 13
DEPTH 332 WIND 3 , 06 BAR. 18 AIR TEMP: dry 22.2°C, wet 17.2°C
HUMIDITY 61% WEATHER 02 CLOUDS: type 1 , amt. 1 SEA: dir. 05 , amt. 1
SWELL: dir. 04 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.23	36.13	23.83	4.73
10	26.31	36.11	23.79	4.71
20	26.25	36.12	23.82	4.73
50	26.20	36.17	23.87	4.73
100	21.32	36.63	25.66	4.13
150	17.89	36.64	26.57	3.27
200	15.82	36.28	26.79	3.25
250	14.48	36.27*	27.08	3.08
300	13.37	35.94	27.06	2.92

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.23	36.13	23.83	4.73
10	26.31	36.11	23.79	4.71
20	26.25	36.12	23.82	4.73
30	26.24	36.13	23.83	4.73
50	26.20	36.17	23.87	4.73
75	23.89	36.40	24.75	4.46
100	21.32	36.63	25.66	4.13
150	17.89	36.64	26.57	3.27
200	15.82	36.28	26.79	3.25
250	14.48	36.07	26.93	3.08
300	13.37	35.94	27.06	2.92

STATION 50

DATE Oct. 26, 1953 LAT. 31°57'N. LONG. 78°09'W. TIME 16
DEPTH 723 WIND 2 , 09 BAR. 19 AIR TEMP: dry 23.9 °C, wet 19.4 °C
HUMIDITY 67 % WEATHER 02 CLOUDS: type 1 , amt. 1 SEA: dir. 08 , amt. 1
SWELL: dir. 04 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.24	36.35	24.00	4.73
10	26.25	36.28	23.94	4.73
20	26.21	36.31	23.98	4.73
50	26.20	36.27	23.95	4.63
100	24.93	36.79	24.74	4.99
150	22.70	36.85	25.44	4.34
200	21.37	36.96	25.90	4.39
300	16.88	36.47	26.69	3.61
400	15.22	36.21	26.87	3.52
500	13.99	36.05	27.02	3.44
600	11.24	35.62	27.23	2.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.24	36.35	24.00	4.73
10	26.25	36.28	23.94	4.73
20	26.21	36.31	23.98	4.73
30	26.20	36.27	23.95	4.67
50	26.20	36.27	23.95	4.63
75	25.50	36.59	24.41	4.93
100	24.93	36.79	24.74	4.99
150	22.70	36.85	25.44	4.34
200	21.37	36.96	25.90	4.39
250	18.99	36.75	26.38	3.91
300	16.88	36.47	26.69	3.61
400	15.22	36.21	26.87	3.52
500	13.99	36.05	27.02	3.44
600	11.24	35.62	27.23	2.99

STATION 50

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	-	0.5
10	-	0.1	-	-	0.4
20	-	0.0	-	0.0	1.0
50	-	0.0	-	0.0	1.2
100	-	<0.1	-	-	0.0
150	-	0.0	-	0.0	1.3
200	-	0.1	-	-	0.4
300	-	0.7	-	0.0	0.5
400	-	0.9	-	0.0	0.8
500	-	0.9	-	1.2	-
600	-	1.4	-	1.9	0.0

INTERPOLATED

DEPTH (m).	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	-	0.5
10	-	0.1	-	-	0.4
20	-	0.0	-	0.0	1.0
30	-	0.0	-	0.0	1.1
50	-	0.0	-	0.0	1.2
75	-	<0.1	-	0.0	0.6
100	-	<0.1	-	0.0	0.0
150	-	0.0	-	0.0	1.3
200	-	0.1	-	0.0	0.4
250	-	0.4	-	0.0	0.5
300	-	0.7	-	0.0	0.5
400	-	0.9	-	0.0	0.8
500	-	0.9	-	1.2	0.4
600	-	1.4	-	1.9	0.0

STATION 51

DATE Oct. 26, 1953 LAT. 32°18'N. LONG. 77°29'W. TIME 21
DEPTH 643 WIND 3 , 21 BAR. 18 AIR TEMP: dry 25.0 °C, wet 20.6 °C
HUMIDITY 67% WEATHER 02 CLOUDS: type 1 , amt. 2 SEA: dir. - , amt. 2
SWELL: dir. 03 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.44	36.22	23.84	4.67
10	26.50	36.19	23.79	4.69
19	26.24	36.22	23.90	4.73
48	26.12	36.31	24.00	4.73
97	24.55	36.65	24.74	4.42
146	21.11	36.64	25.73	3.87
195	18.40	36.61	26.42	3.78
293	15.28	36.16	26.82	3.70
391	12.77	35.79	27.07	3.35
489	9.46	35.33	27.32	3.28
588	6.50	35.16	27.63	4.30

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.44	36.22	23.84	4.67
10	26.50	36.19	23.79	4.69
20	26.22	36.22	23.91	4.73
30	26.19	36.24	23.93	4.73
50	26.09	36.33	24.03	4.72
75	25.49	36.54	24.37	4.58
100	24.32	36.65	24.81	4.37
150	20.86	36.64	25.80	3.86
200	18.23	36.59	26.45	3.78
250	16.57	36.35	26.67	3.73
300	15.13	36.14	26.84	3.66
400	12.45	35.74	27.09	3.32
500	9.11	35.30	27.35	3.33

STATION 52

DATE Oct. 27, 1953 LAT. 32°34' N. LONG. 77°48' W. TIME 02
DEPTH 338 WIND 3 , 12 BAR. 18 AIR TEMP: dry 23.3 °C, wet 19.4 °C
HUMIDITY 70 % WEATHER 02 CLOUDS: type - , amt. 2 SEA: dir. - , amt. 2
SWELL: dir. 03 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.52	36.13	24.-6	4.73
10	25.62	36.10	24.00	4.57
20	25.60	36.11	24.02	4.31
50	25.47	36.09	24.04	4.42
100	20.05	36.62	26.00	3.60
150	16.85	36.38	26.63	-
200	14.58	36.05	26.80	3.57
250	12.90	35.81	27.06	3.25
300	12.11	35.72	27.14	3.18

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.52	36.13	24.06	4.73
10	25.62	36.10	24.00	4.57
20	25.60	36.11	24.02	4.31
30	25.58	36.10	24.01	4.36
50	25.47	36.09	24.04	4.42
75	22.48	36.40	25.16	3.94
100	20.05	36.62	26.00	3.60
150	16.85	36.38	26.63	3.58
200	14.58	36.05	26.89	3.57
250	12.90	35.81	27.06	3.25
300	12.11	35.72	27.14	3.18

STATION 52

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	-	0.5
10	-	0.0	-	1.1	0.1
20	-	0.1	-	0.0	0.5
50	-	0.2	-	0.0	0.4
100	-	0.3	-	1.0	0.3
150	-	0.6	-	1.6	0.1
200	-	0.7	-	3.8	0.3
250	-	1.2	-	0.3	0.3
300	-	1.3	-	1.0	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	-	0.5
10	-	0.0	-	1.1	0.1
20	-	0.1	-	0.0	0.5
30	-	0.1	-	0.0	0.5
50	-	0.2	-	0.0	0.4
75	-	0.3	-	0.5	0.4
100	-	0.3	-	1.0	0.3
150	-	0.6	-	1.6	0.1
200	-	0.7	-	3.8	0.3
250	-	1.2	-	0.3	0.3
300	-	1.3	-	1.0	1.4

STATION 53

DATE Oct. 27, 1953 LAT. 32°48'N. LONG. 78°04'W. TIME 05
DEPTH 173 WIND 5 , 11 BAR. 18 AIR TEMP: dry 24.4 °C, wet 21.7 °C
HUMIDITY 78% WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. 11 , amt. 2
SWELL: dir. 12 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.67	36.09	23.98	-
10	25.71	36.09	23.97	4.30
20	25.71	36.09	23.97	4.39
50	25.69	36.12	24.00	4.30
75	25.00	36.26	24.31	3.61
100	22.99	36.51	25.10	3.35
150	18.80	36.49	26.23	2.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.67	36.09	23.98	-
10	25.71	36.09	23.97	4.30
20	25.71	36.09	23.97	4.39
30	25.70	36.10	23.98	4.37
50	25.69	36.12	24.00	4.30
75	25.00	36.26	24.31	3.61
100	22.99	36.51	25.10	3.35
150	18.80	36.49	26.23	2.75

STATION 54

DATE Oct. 27, 1953 LAT. 33°03' N. LONG. 78°21' W. TIME 08
DEPTH 31 WIND 9 ,15 BAR. 17 AIR TEMP: dry 23.9 °C, wet 21.1 °C
HUMIDITY 79 % WEATHER 03 CLOUDS: type 6 ,amt. 8 SEA: dir. 12 ,amt. 3
SWELL: dir. 14 ,amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.39	36.14	24.41	4.86
10	24.35	36.14	24.42	4.64
20	23.75	36.15	24.61	4.04

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.39	36.14	24.41	4.86
10	24.35	36.14	24.42	4.64
20	23.75	36.15	24.61	4.04

STATION 54

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	-	0.4
10	-	0.1	-	0.4	0.2
20	-	0.1	-	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	-	0.4
10	-	0.1	-	0.4	0.2
20	-	0.1	-	-	0.1

STATION 55

DATE Oct. 27, 1953 LAT. 33°18'N. LONG. 78°38'W. TIME 11
DEPTH 18 WIND 5 , 15 BAR. 17 AIR TEMP: dry 22.8°C, wet 21.7°C
HUMIDITY 91% WEATHER 21 CLOUDS: type 7 , amt. 9 SEA: dir. 15 , amt. 2
SWELL: dir. 14 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.96	36.03	25.03	4.21
10	21.90	36.02	25.04	4.04

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.96	36.03	25.03	4.21
10	21.90	36.02	25.04	4.04

STATION 56

DATE Oct. 27, 1953 LAT. 33°32'N. LONG. 78°55'W. TIME 14
DEPTH 12 WIND 4 , 15 BAR. 18 AIR TEMP: dry 22.8°C, wet 20.6°C
HUMIDITY 82% WEATHER 01 CLOUDS: type 8 , amt. 7 SEA: dir. - , amt. 2
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.04	35.79	25.10	5.16

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.04	35.79	25.10	5.16

STATION 56

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	<0.1	-	0.0	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	<0.1	-	0.0	1.0

STATION 57

DATE Oct. 27, 1953 LAT. 33°34'N. LONG. 78°24'W. TIME 17
DEPTH 20 WIND 2 , 17 BAR. 17 AIR TEMP: dry 23.3°C, wet 22.2°C
HUMIDITY 91% WEATHER 03 CLOUDS: type 8 , amt. 7 SEA: dir. 17 , amt. 2
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.96	36.04	25.04	5.03
10	21.88	36.08	25.09	4.73

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.96	36.04	25.04	5.03
10	21.88	36.08	25.09	4.73

STATION 58

DATE Oct. 27, 1953 LAT. 33°36'N. LONG. 77°56'W. TIME 21
DEPTH 18 WIND 2 , 19 BAR. 15 AIR TEMP: dry 22.2 °C, wet 21.1 °C
HUMIDITY 91% WEATHER 03 CLOUDS: type 8 , amt. 8 SEA: dir. 17 , amt. 1
SWELL: dir. 14 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	21.58	36.16	25.24	4.90
10	21.57	36.17	25.25	4.68

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	21.58	36.16	25.24	4.90
10	21.57	36.17	25.25	4.68

STATION 58

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	<0.1	-	0.1	0.4
10	-	0.1	-	0.5	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	<0.1	-	0.1	0.4
10	-	0.1	-	0.5	0.0

STATION 59

DATE Nov. 8, 1953 LAT. 33°21'N. LONG. 77°38'W. TIME 03
DEPTH 22 WIND 0 , 00 BAR. 24 AIR TEMP: dry 12.2 °C, wet 9.4 °C
HUMIDITY 70% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	22.21	36.26	25.13	4.93
10	21.99	36.26	25.20	5.01

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	22.21	36.26	25.13	4.93
10	21.99	36.26	25.20	5.01

STATION 60

DATE Nov. 8, 1953 LAT. 33°07'N. LONG. 77°21'W. TIME 06
DEPTH 250 WIND 3 , 07 BAR. 24 AIR TEMP: dry 13.9°C, wet 11.1°C
HUMIDITY 72% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.50	36.18	24.10	4.68
10	25.52	36.17	24.09	4.69
20	25.53	36.18	24.09	4.68
50	25.61	36.26	24.13	4.68
99	23.50	36.49	24.94	4.43
149	19.75	36.68	26.13	3.66
198	13.96	35.97	26.96	3.40

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.50	36.18	24.10	4.68
10	25.52	36.17	24.09	4.69
20	25.53	36.18	24.09	4.68
30	25.59	36.20	24.09	4.68
50	25.61	36.26	24.13	4.68
75	24.73	36.38	24.49	4.61
100	23.45	36.50	24.96	4.40
150	19.65	36.67	26.15	3.64

STATION 60

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	<0.1	-	1.3	0.9
10	-	<0.1	-	0.9	1.0
20	-	0.0	-	1.2	0.4
50	-	0.0	-	0.5	1.0
99	-	0.2	-	0.7	0.5
149	-	0.3	-	-	0.4
198	-	0.9	-	2.5	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	<0.1	-	1.3	0.9
10	-	<0.1	-	0.9	1.0
20	-	0.0	-	1.2	0.4
30	-	0.0	-	1.0	0.6
50	-	0.0	-	0.5	1.0
75	-	0.1	-	0.6	0.8
100	-	0.2	-	0.7	0.5
150	-	0.3	-	1.6	0.4
200	-	0.9	-	2.5	0.7

STATION 61

DATE Nov. 8, 1953 LAT. 32°53'N. LONG. 77°04'W. TIME 05
DEPTH 484 WIND 3 , 36 BAR. 22 AIR TEMP: dry 15.0°C, wet 12.8°C
HUMIDITY 78% WEATHER 10 CLOUDS: type - , amt. 0 SEA: dir. 36 , amt. 1
SWELL: dir. 08 , amt. 2 VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.68	36.29	24.43	4.62
10	24.74	36.27	24.40	4.25
20	24.72	36.26	24.40	4.25
50	24.84	36.36	24.44	4.34
100	22.44	36.78	25.46	4.85
150	20.70	36.85	26.00	4.00
200	17.82	36.47	26.46	3.40
300	14.52	36.08	26.93	3.66
400	11.65	35.63	27.16	3.40

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.68	36.29	24.43	4.62
10	24.74	36.27	24.40	4.25
20	24.72	36.26	24.40	4.25
30	24.72	36.28	24.41	4.26
50	24.84	36.36	24.44	4.34
75	23.56	36.61	25.01	4.76
100	22.44	36.78	25.46	4.85
150	20.70	36.85	26.00	4.00
200	17.82	36.47	26.46	3.40
250	16.12	36.28	26.72	3.59
300	14.52	36.08	26.93	3.66
400	11.65	35.63	27.16	3.40

STATION 62

DATE Nov. 8, 1953 LAT. 32°40'N. LONG. 76°46'W. TIME 14
DEPTH 791 WIND 2 , 02 BAR. 24 AIR TEMP: dry 18.9°C, wet 15.0°C
HUMIDITY 66% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 02 , amt. 1
SWELL: dir. 04 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.88	36.27	24.36	4.78
10	24.92	36.26	24.34	4.76
20	24.91	36.26	24.34	4.78
50	24.69	36.29	24.43	4.81
100	23.92	36.70	24.97	4.72
200	19.50	36.76	26.25	3.91
300	16.96	36.44	26.65	3.83
400	14.64	36.13	26.94	3.99
500	-	35.76	-	3.66
600	9.87	35.45	27.34	3.52
700	6.99	35.16	27.57	3.93

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.88	36.27	24.36	4.78
10	24.92	36.26	24.34	4.76
20	24.91	36.26	24.34	4.78
30	24.86	36.27	24.36	4.79
50	24.69	36.29	24.43	4.81
75	24.29	36.50	24.71	4.79
100	23.92	36.70	24.97	4.72
150	21.48	36.74	25.70	4.22
200	19.50	36.76	26.25	3.91
250	18.20	36.60	26.46	3.84
300	16.96	36.44	26.65	3.83
400	14.64	36.13	26.94	3.99
500	12.15	35.76	27.17	3.66
600	9.87	35.45	27.34	3.52

STATION 62

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	0.0	0.8
10	-	<0.1	-	1.6	0.6
20	-	0.0	-	0.0	0.5
50	-	0.0	-	-	0.0
100	-	0.2	-	-	0.9
200	-	0.5	-	-	0.5
300	-	0.7	-	1.2	1.2
400	-	0.7	-	-	0.9
500	-	1.0	-	-	<0.1
600	-	1.3	-	1.9	0.3
700	-	1.5	-	2.2	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	0.0	0.8
10	-	<0.1	-	1.6	0.6
20	-	0.0	-	0.0	0.5
30	-	0.0	-	-	0.3
50	-	0.0	-	-	0.0
75	-	0.1	-	-	0.5
100	-	0.2	-	-	0.9
150	-	0.4	-	-	0.7
200	-	0.5	-	-	0.5
250	-	0.6	-	-	0.9
300	-	0.7	-	1.2	1.2
400	-	0.7	-	1.4	0.9
500	-	1.0	-	1.7	<0.1
600	-	1.3	-	1.9	0.3
700	-	1.5	-	2.2	-

STATION 63

DATE Nov. 8, 1953 LAT. 33°14'N. LONG. 76°22'W. TIME 19
DEPTH 750 WIND -, - BAR. 23 AIR TEMP: dry 20.6°C, wet 15.6°C
HUMIDITY 58% WEATHER 03 CLOUDS: type 9, amt. 5 SEA: dir. -, amt. -
SWELL: dir. 08, amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.79	36.21	24.03	4.67
10	-	36.18	-	4.68
20	25.75	36.18	24.02	4.68
50	25.79	36.18	24.01	4.68
100	24.30	36.55	24.74	4.85
200	19.04	36.81	26.41	4.62
300	17.96	36.66	26.57	4.81
400	16.73	36.47	26.72	4.34
500	14.91	36.16	26.90	4.68
600	12.07	35.71	27.14	3.49
700	6.86	35.24	27.65	4.42

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.79	36.21	24.03	4.67
10	25.76	36.18	24.02	4.68
20	25.75	36.18	24.02	4.68
30	25.76	36.18	24.02	4.68
50	25.79	36.18	24.01	4.68
75	25.14	36.39	24.37	4.78
100	24.30	36.55	24.74	4.85
150	21.15	36.73	25.79	4.68
200	19.04	36.81	26.41	4.62
250	18.52	36.74	26.49	4.71
300	17.96	36.66	26.57	4.81
400	16.73	36.47	26.72	4.34
500	14.91	36.16	26.90	4.68
600	12.07	35.71	27.14	3.49

STATION 64

DATE Nov. 8, 1953 LAT. 33°28'N. LONG. 76°39'W. TIME 22
DEPTH 338 WIND 2 , 99 BAR. 22 AIR TEMP: dry 20.0°C, wet 16.1°C
HUMIDITY 67% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. 06 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.47	36.25	24.16	4.68
10	25.51	36.24	24.14	4.68
20	25.49	36.26	24.16	4.85
50	25.42	36.26	24.18	4.85
100	25.37	36.36	24.28	4.76
150	23.81	36.75	25.04	4.25
200	20.22	36.56	25.91	3.15
250	17.59	36.51	26.55	3.40
300	14.37	36.02	26.91	2.98

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.47	36.25	24.16	4.68
10	25.51	36.24	24.14	4.68
20	25.49	36.26	24.16	4.85
30	25.46	36.26	24.17	4.85
50	25.42	36.26	24.18	4.85
75	25.40	36.27	24.20	4.85
100	25.37	36.36	24.28	4.76
150	23.81	36.75	25.04	4.25
200	20.22	36.56	25.91	3.15
250	17.59	36.51	26.55	3.40
300	14.37	36.02	26.91	2.98

STATION 64

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	<0.1	-	0.6	0.3
10	-	0.0	-	-	0.2
20	-	0.0	-	-	0.3
50	-	0.0	-	2.3	0.5
100	-	0.2	-	0.0	0.7
150	-	0.0	-	0.6	0.5
200	-	0.2	-	-	0.5
250	-	0.6	-	-	0.6
300	-	1.0	-	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	<0.1	-	0.6	0.3
10	-	0.0	-	0.9	0.2
20	-	0.0	-	1.3	0.3
30	-	0.0	-	1.6	0.4
50	-	0.0	-	2.3	0.5
75	-	0.1	-	1.2	0.6
100	-	0.2	-	0.0	0.7
150	-	0.0	-	0.6	0.5
200	-	0.2	-	-	0.5
250	-	0.6	-	-	0.6
300	-	1.0	-	-	0.3

STATION 65

DATE Nov. 9, 1953 LAT. 33°43'N. LONG. 76°56'W. TIME 01
DEPTH 40 WIND 7 , 02 BAR. 23 AIR TEMP: dry 18.3°C, wet 16.7°C
HUMIDITY 85% WEATHER 03 CLOUDS: type - , amt. 7 SEA: dir. - , amt. -
SWELL: dir. 06 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	24.84	36.11	24.25	4.18
10	24.85	36.09	24.23	3.94
20	24.86	36.09	24.23	4.18
30	24.65	36.11	24.31	4.02

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	24.84	36.11	24.25	4.18
10	24.85	36.09	24.23	3.94
20	24.86	36.09	24.23	4.18
30	24.65	36.11	24.31	4.02

STATION 66

DATE Nov. 9, 1953 LAT. 33°57'N. LONG. 77°12'W. TIME 04
DEPTH 32 WIND 6 , 03 BAR. 23 AIR TEMP: dry 17.2°C, wet 13.9°C
HUMIDITY 70% WEATHER 02 CLOUDS: type - , amt. 7 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	20.73	36.18	25.48	4.18
10	20.78	36.20	25.49	4.63
20	20.75	36.18	25.48	4.84

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	20.73	36.18	25.48	4.18
10	20.78	36.20	25.49	4.63
20	20.75	36.18	25.48	4.84

STATION 66

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	-	0.6
10	-	0.0	-	0.8	0.5
20	-	0.0	-	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	-	0.6
10	-	0.0	-	0.8	0.5
20	-	0.0	-	-	1.0

STATION 67

DATE Nov. 9, 1953 LAT. 34°11'N. LONG. 77°30'W. TIME 07
DEPTH 20 WIND 4 , 02 BAR. 23 AIR TEMP: dry 15.0°C, wet 12.2°C
HUMIDITY 73% WEATHER 20 CLOUDS: type - , amt. 7 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	18.96	35.59	25.50	5.17
10	18.96	35.62	25.52	5.18

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	18.96	35.59	25.50	5.17
10	18.96	35.62	25.52	5.18

STATION 68

DATE Nov. 9, 1953 LAT. 34°22'N. LONG. 77°10'W. TIME 09
DEPTH 21 WIND 6 , 02 BAR. 22 AIR TEMP: dry 13.9°C, wet 10.0°C
HUMIDITY 61% WEATHER 20 CLOUDS: type - , amt. 7 SEA: dir. 02 , amt. 2
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	19.02	35.23	25.21	5.19
10	19.06	35.23	25.20	5.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	19.02	35.23	25.21	5.19
10	19.06	35.23	25.20	5.11

STATION 68

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.0	-	1.8	0.4
10	-	0.0	-	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.0	-	1.8	0.4
10	-	0.0	-	-	0.5

STATION 69

DATE Nov. 9, 1953 LAT. 34°39'N. LONG. 76°43'W. TIME 13
DEPTH 10 WIND 9 , 01 BAR. 23 AIR TEMP: dry 11.1°C, wet 8.3°C
HUMIDITY 69% WEATHER 03 CLOUDS: type - , amt. 9 SEA: dir. 02 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	15.85	33.60	24.73	5.58
10	17.23	34.61	25.18	5.33

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	15.85	33.60	24.73	5.58
10	17.23	34.61	25.18	5.33

STATION 70

DATE Nov. 9, 1953 LAT. 34°19'N. LONG. 76°32'W. TIME 16
DEPTH 27 WIND 10 , 04 BAR. 22 AIR TEMP: dry 13.9°C, wet 11.7°C
HUMIDITY 78% WEATHER 51 CLOUDS: type 7 , amt. 8 SEA: dir. 04 , amt. 3
SWELL: dir. 08 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	19.81	34.70	24.60	5.10
10	19.83	34.74	24.63	4.79
20	19.87	34.73	24.61	4.81

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	19.81	34.70	24.60	5.10
10	19.83	34.74	24.63	4.79
20	19.87	34.73	24.61	4.81

STATION 70

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.1	-	1.7	0.8
10	-	0.0	-	0.0	0.5
20	-	0.0	-	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.1	-	1.7	0.8
10	-	0.0	-	0.0	0.5
20	-	0.0	-	-	-

STATION 75

DATE Nov. 12, 1953 LAT. 34°39'N. LONG. 75°52'W. TIME 19
DEPTH 42 WIND 11 , 01 BAR. 24 AIR TEMP: dry 15.0°C, wet 13.9°C
HUMIDITY 89% WEATHER 02 CLOUDS: type 1 , amt. 3 SEA: dir. 03 , amt. 5
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	23.71	36.31	24.74	4.88
10	23.73	36.29	24.72	4.85
20	23.67	36.27	24.72	4.85
30	23.35	36.24	24.79	4.79

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	23.71	36.31	24.74	4.88
10	23.73	36.29	24.72	4.85
20	23.67	36.27	24.72	4.85
30	23.35	36.24	24.79	4.79

STATION 76

DATE Nov. 12, 1953 LAT. 34°53'N. LONG. 76°10'W. TIME 22
DEPTH 18 WIND 12 , 04 BAR. 26 AIR TEMP: dry 14.4 °C, wet 12.8 °C
HUMIDITY 84 % WEATHER 01 CLOUDS: type 1 , amt. 2 SEA: dir. 03 , amt. 4
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	17.34	32.76	23.74	5.53
10	17.37	32.75	23.72	5.53

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	17.34	32.76	23.74	5.53
10	17.37	32.75	23.72	5.53

STATION 76

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.4	-	-	1.0
10	-	0.4	-	0.7	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.4	-	-	1.0
10	-	0.4	-	0.7	1.3

STATION 77

DATE Nov. 13, 1953 LAT. 35°02'N. LONG. 75°46'W. TIME 01
DEPTH 23 WIND 9 , 04 BAR. 26 AIR TEMP: dry 13.3°C, wet 12.8°C
HUMIDITY 95% WEATHER 02 CLOUDS: type 1 , amt. 6 SEA: dir. 04 , amt. 4
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	16.52	32.00	23.35	4.97
10	16.50	32.00	23.35	5.76

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	16.52	32.00	23.35	4.97
10	16.50	32.00	23.35	5.76

STATION 77

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.6	-	-	0.5
10	-	0.6	-	1.6	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.6	-	-	0.5
10	-	0.6	-	1.6	0.5

STATION Special 9

DATE Oct. 13, 1953 LAT. 28°00' N. LONG. 79°00' W. TIME 11
DEPTH 860 WIND 4 , 06 BAR. 18 AIR TEMP: dry 25.6 °C, wet 21.7 °C
HUMIDITY 71 % WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 05 , amt. 1
SWELL: dir. 03 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.95	35.95	23.47	4.96
10	26.98	35.92	23.44	4.87
19	26.93	35.93	23.46	4.79
49	26.98	35.99	23.49	4.81
97	24.02	36.64	24.90	5.25
146	21.85	36.65	25.53	4.81
195	20.33	36.64	25.94	4.70
292	18.58	36.49	26.28	4.70
390	17.69	36.38	26.42	4.35
488	15.54	36.05	26.68	4.25
685	11.09	35.36	27.06	3.44
784	8.38	35.05	27.28	3.22

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.95	35.95	23.47	4.96
10	26.98	35.92	23.44	4.87
20	26.96	35.93	23.45	4.79
30	26.97	35.95	23.46	4.80
50	26.91	36.01	23.53	4.82
75	25.27	36.42	24.35	5.15
100	23.87	36.64	24.94	5.21
150	21.71	36.65	25.57	4.79
200	20.22	36.63	25.96	4.70
250	19.23	36.55	26.16	4.70
300	18.55	36.49	26.29	4.66
400	17.47	36.35	26.45	4.34
500	15.30	36.01	26.70	4.18
600	13.16	35.65	26.88	3.72

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	<0.1	-	-	1.1
10	-	0.1	-	0.6	0.3
19	-	0.3	-	-	1.6
49	-	0.1	-	-	0.3
97	-	0.2	-	0.0	0.0
146	-	<0.1	-	-	1.6
195	-	0.1	-	0.1	0.5
292	-	0.2	-	0.8	0.4
390	-	0.5	-	0.6	0.9
488	-	0.0*	-	1.7	0.7
685	-	1.5	-	0.4	1.2
784	-	1.7	-	1.9	0.4

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	<0.1	-	-	1.1
10	-	0.1	-	0.6	0.3
20	-	0.3	-	0.5	1.6
30	-	0.2	-	0.5	1.2
50	-	0.1	-	0.3	0.3
75	-	0.2	-	0.1	0.2
100	-	0.2	-	0.0	0.0
150	-	<0.1	-	<0.1	1.5
200	-	0.1	-	0.1	0.5
250	-	0.2	-	0.5	0.4
300	-	0.2	-	0.8	0.4
400	-	0.5	-	0.7	0.9
500	-	0.9	-	1.6	0.7
600	-	1.2	-	1.0	1.0
700	-	1.5	-	0.6	1.1

STATION Tongue of the Ocean 1

DATE Oct. 8, 1953 LAT. 24°32'N. LONG. 77°18'W. TIME 01
DEPTH 1152 WIND 4 , 18 BAR. 14 AIR TEMP: dry 27.2 °C, wet 26.1 °C
HUMIDITY 92% WEATHER 51 CLOUDS: type 7 , amt. 8 SEA: dir. 14 , amt. 1
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.41	36.17	23.16	4.51
10	28.43	36.20	23.18	4.31
20	28.58	36.36	23.25	4.40
50	28.33	36.42	23.37	4.36
100	25.17	36.82	24.68	4.38
150	22.86	36.87	25.41	4.06
200	19.64	36.65	26.13	4.25
300	17.73	36.45	26.47	4.23
400	16.02	36.17	26.66	4.18
600	11.48	35.51	27.10	2.89
800	8.65	35.21	27.36	3.43
1000	6.09	35.07	27.62	4.69

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.41	36.17	23.16	4.51
10	28.43	36.20	23.18	4.31
20	28.58	36.36	23.25	4.40
30	28.53	36.37	23.27	4.38
50	28.33	36.42	23.37	4.36
75	26.64	36.66	24.10	4.38
100	25.17	36.82	24.68	4.38
150	22.86	36.87	25.41	4.06
200	19.64	36.65	26.13	4.25
250	18.66	36.56	26.32	4.24
300	17.73	36.45	26.47	4.23
400	16.02	36.17	26.66	4.18
500	13.54	35.80	26.92	3.30
600	11.48	35.51	27.10	2.89
800	8.65	35.21	27.36	3.43
1000	6.09	35.07	27.62	4.69

STATION Tongue of the Ocean 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.0	0.5	-	0.4
10	1.1	0.3	0.0	-	0.2
20	1.1	0.1	2.0	-	0.7
50	1.1	0.3	0.0	-	0.9
100	0.4	0.1	<0.5	0.9	0.4
150	2.4	0.1	1.0	0.3	0.8
200	1.7	0.2	2.0	-	1.0
300	0.7	0.4	6.0	-	1.2
400	1.3	0.6	6.5	-	1.0
600	2.9	1.4	13.0	3.0	1.4
800	2.0	1.7	15.0	0.9	0.7
1000	1.8	1.6	6.0	1.7	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.0	0.5	-	0.4
10	1.1	0.3	0.0	-	0.2
20	1.1	0.1	2.0	-	0.7
30	1.1	0.2	1.0	-	0.8
50	1.1	0.3	0.0	-	0.9
75	0.8	0.2	<0.5	-	0.7
100	0.4	0.1	<0.5	0.9	0.4
150	2.4	0.1	1.0	0.3	0.8
200	1.7	0.2	2.0	-	1.0
250	1.2	0.3	4.0	-	1.1
300	0.7	0.4	6.0	-	1.2
400	1.3	0.6	6.5	-	1.0
500	2.1	1.0	10.0	-	1.2
600	2.9	1.4	13.0	3.0	1.4
700	2.5	1.6	14.0	2.0	1.0
800	2.0	1.7	15.0	0.9	0.7
1000	1.8	1.6	6.0	1.7	0.8

STATION Tongue of the Ocean 2

DATE Oct. 8, 1953 LAT. 24°28'N. LONG. 77°28'W. TIME 12
DEPTH 1737 WIND 4 , 16 BAR. 14 AIR TEMP: dry 27.2 °C, wet 25.6 °C
HUMIDITY 88% WEATHER 01 CLOUDS: type 1 , amt. 7 SEA: dir. 15 , amt. 1
SWELL: dir. 16 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.41	36.27	23.24	-
10	28.39	36.29	23.26	-
20	28.45	36.31	23.25	-
50	28.52	36.31	23.23	-
100	25.87	36.64	24.33	-
149	23.49	36.85	25.21	-
199	20.77	36.65	25.83	-
299	17.98	36.45	26.40	3.70
399	16.38	36.20	26.60	3.92
499	14.08	35.86	26.85	3.02
599	11.62	35.48	27.05	3.43
798	8.35	35.18	27.38	2.99
999	5.41	35.01	27.66	5.24
1199	-	34.97	-	5.74
1399	4.25	34.96	27.75	5.98
1599	3.80	34.94	27.78	6.25

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.41	36.27	23.24	-
10	28.39	36.29	23.26	-
20	28.45	36.31	23.25	-
30	28.49	36.31	23.24	-
50	28.52	36.31	23.23	-
75	27.17	36.49	23.81	-
100	25.87	36.64	24.33	-
150	23.43	36.85	25.23	-
200	20.74	36.65	25.84	-
250	19.20	36.55	26.17	-
300	17.97	36.45	26.41	3.70
400	16.36	36.20	26.60	3.90
500	14.05	35.86	26.86	3.02
600	11.60	35.48	27.06	3.42
800	8.31	35.18	27.39	3.02
1000	5.41	35.01	27.66	5.24
1200	4.78	34.97	27.70	5.74
1500	4.01	34.95	27.77	6.11

STATION Tongue of the Ocean 3

DATE Oct. 8, 1953 LAT. 24°25' N. LONG. 77°38' W. TIME 18
DEPTH 1280 WIND 6 , 10 BAR. 13 AIR TEMP: dry 28.9 °C, wet 26.1 °C
HUMIDITY 80 % WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 13 , amt. 2
SWELL: dir. 16 , amt. 1 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.32	35.43*	22.63	-
10	28.60**	36.33	23.22	-
20	28.63	36.35	23.22	3.78
49	27.50	36.40	23.63	-
99	25.30	36.76	24.60	4.27
148	23.31	36.85	25.27	3.39
197	21.44	36.71	25.69	3.61
296	-	36.50	-	4.16
396	16.46	36.24	26.61	3.43
495	14.04	35.90	26.89	3.30
594	12.06	35.67	27.12	2.73
793	8.27	35.14	27.36	3.02
893	6.77	35.08	27.53	3.41
994	5.54	35.05	27.67	3.61

* Value questionable
** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.32	-	-	-
10	28.60	36.33	23.22	-
20	28.63	36.35	23.22	3.78
30	28.25	36.35	23.35	3.87
50	27.45	36.41	23.66	4.00
75	26.33	36.62	24.17	4.16
100	25.26	36.76	24.61	4.24
150	23.23	36.84	25.28	3.39
200	21.36	36.70	25.71	3.64
250	20.10	36.60	25.97	4.06
300	18.84	36.49	26.22	4.11
400	16.35	36.22	26.62	3.43
500	13.94	35.89	26.90	3.25
600	11.93	35.65	27.13	2.73
800	8.16	35.13	27.37	3.05

STATION Tongue of the Ocean 6

DATE Oct. 8, 1953 LAT. 24°02'N. LONG. 77°18'W. TIME 24
DEPTH 1445 WIND 2 , 12 BAR. 13 AIR TEMP: dry 27.8 °C, wet 26.1 °C
HUMIDITY 88% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. - , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.73	36.28	23.14	4.73
10	28.63	36.44	23.29	4.56
20	28.59	36.45	23.31	4.56
50	28.59	36.48	23.33	4.42
100	26.21	36.72	24.29	4.58
150	23.72	36.83	25.13	-
200	20.81	36.65	25.82	4.30
300	18.17	36.45	26.36	4.23
400	16.58	36.24	26.58	-
500	14.18	35.89	26.85	3.78
600	11.64	35.50	27.06	3.43
700	9.81	35.28	27.22	3.43
800	8.55	35.17	27.34	3.78
900	7.23	35.10	27.49	4.25
1000	6.04	35.05	27.61	-
1100	5.13	34.99	27.67	5.10

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.73	36.28	23.14	4.73
10	28.63	36.44	23.29	4.56
20	28.59	36.45	23.31	4.56
30	28.59	36.45	23.31	4.49
50	28.59	36.48	23.33	4.42
75	27.41	36.62	23.83	4.52
100	26.21	36.72	24.29	4.58
150	23.72	36.83	25.13	4.41
200	20.81	36.65	25.82	4.30
250	19.36	36.55	26.13	4.27
300	18.17	36.45	26.36	4.23
400	16.58	36.24	26.58	4.04
500	14.18	35.89	26.85	3.78
600	11.64	35.50	27.06	3.43
800	8.55	35.17	27.34	3.78
1000	6.04	35.05	27.61	4.68

STATION Tongue of the Ocean 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.0	0.5	0.6	0.5
10	1.4	0.2	1.0	-	0.3
20	0.6	0.0	0.5	-	0.4
50	2.5	<0.1	1.0	0.8	2.0
100	0.1	<0.1	1.0	-	-
150	0.1	<0.1	1.5	-	0.8
200	1.3	<0.1	2.0	0.9	0.5
300	0.9	0.4	1.5	-	0.5
400	2.0	0.6	6.5	-	0.7
500	1.6	1.1	8.5	-	0.0
600	2.4	1.2	11.0	2.4	1.2
700	2.6	1.5	16.5	-	0.2
800	2.2	1.4	15.0	2.7	0.7
900	1.9	1.6	-	0.9	0.3
1000	-	1.6	9.0	-	1.1
1100	-	1.6	10.0	1.2	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.0	0.5	0.6	0.5
10	1.4	0.2	1.0	0.6	0.3
20	0.6	0.0	0.5	0.7	0.4
30	1.2	<0.1	0.5	0.7	0.9
50	2.5	<0.1	1.0	0.8	2.0
75	1.3	<0.1	1.0	0.8	1.7
100	0.1	<0.1	1.0	0.9	1.4
150	0.1	<0.1	1.5	0.9	0.8
200	1.3	<0.1	2.0	0.9	0.5
250	1.1	0.2	2.0	1.1	0.5
300	0.9	0.4	1.5	1.3	0.5
400	2.0	0.6	6.5	1.7	0.7
500	1.6	1.1	8.5	2.1	0.0
600	2.4	1.2	11.0	2.4	1.2
700	2.6	1.5	16.5	2.6	0.2
800	2.2	1.4	15.0	2.7	0.7
1000	-	1.6	9.0	1.1	1.1

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