



OFFICE OF FISHERIES

SEAMAP Fall 2013 Plankton Survey Cruise Report

Cruise Dates: 09/13/13-09/14/13

Prepared by Chloe Dean on 9/15/2013

Louisiana Department of Wildlife and Fisheries

195 Ludwig Annex

Grand Isle, LA 70358

Introduction

The Southeast Area Monitoring and Assessment Program (SEAMAP) fall plankton surveys are conducted to provide information on the occurrence, abundance, and geographical distribution of the eggs and larvae of fall spawning fish and small juvenile fishes, particularly king and Spanish mackerel, lutjanids and sciaenids, which is essential to fisheries management of the Gulf of Mexico.

Objectives

1. Sample in conjunction with the National Marine Fisheries Service (NMFS) SEAMAP Fall Plankton Survey and select stations from their Fall sampling grid.
2. Conduct bongo and neuston tows at each designated station according to NMFS SEAMAP Operations Manual.
3. Collect a water column profile (salinity, temperature, dissolved oxygen, conductivity) at each SEAMAP station using a Conductivity/Temperature/Depth (CTD). Other environmental data were taken according to the NMFS SEAMAP Operations Manual guidelines.
4. Measure chlorophyll in the water column by collecting water with the CTD water sampler and filtering onboard for later spectroscopic analysis in the LDWF lab.
5. Label and prepare plankton samples according to NMFS SEAMAP Operations Manual guidelines and transfer them in a timely manner to the NMFS Pascagoula, MS lab.
6. Code all data according to approved NMFS SEAMAP Operations Manual guidelines, and enter data on the LDWF SEAMAP data entry system.
7. Submit data to Jeff Rester, SEAMAP coordinator and Lloyd Kirk, Data Manager at the Gulf States Marine Fisheries Commission.

Methods

Plankton sampling is conducted at each station using 60cm, 0.335mm-mesh bongo and 1m x 2m, 0.950mm-mesh neuston nets. Samples are transferred at sea and then transported back to the LDWF Fisheries Research Laboratory for preparation and shipment. Sample workup and data processing is conducted in accordance with the NMFS SEAMAP Operations Manual guidelines. Samples are then delivered to the NMFS Pascagoula, MS lab.

Environmental data is collected in conjunction with each plankton station. Minimum water parameters measured are temperature, dissolved oxygen, salinity, and conductivity values using a CTD for surface, mid, and maximum water depths. In the event a DO reading falls below 2.0 Mg/L, the DO is verified using a YSI. A full water column profile is also recorded with a CTD. Water is collected at each of the surface, mid, and maximum water depths for chlorophyll processing.

Data is coded according to the NMFS SEAMAP Operations Manual guidelines and entered into the LDWF SEAMAP data entry system. The data is then submitted to Jeff Rester, SEAMAP coordinator and Lloyd Kirk, Data Manager at the Gulf States Marine Fisheries Commission.

Results

The survey was conducted on 13-14 September 2013. Louisiana sampled nine plankton stations between longitudes $-89^{\circ} 33.49'$ and $-93^{\circ} 59.86'$ and between the latitudes $28^{\circ} 57.46'$ and $29^{\circ} 30.15'$ (Table 1, Figure 1). Thirty-one plankton samples jars were collected. Plankton samples will be delivered to the NMFS Pascagoula, MS lab in a timely manner. All chlorophyll samples were analyzed by spectroscopy in the LDWF Fisheries Research Laboratory.

Deviations

There is no water column profile for site B205, so YSI values were used for surface, mid, and maximum depth values. The water was collected using a niskin water sampler. The DO for this station is most likely lower than actual values due to flow dependence. The user did not allow enough water flow over the DO sensor for accurate readings.

Cruise participants:

Louisiana Department of Wildlife and Fisheries, Fisheries Management Division personnel collected samples, completed data summaries and entered data on the SAS data entry system. Personnel included Chloe Dean, Suzy Delaune, Katie Gherard and Emily Smith (LSU).

Submitted By:

Chloe Dean

SEAMAP Chief Scientist

Table 1. LDWF SEAMAP 2013 Fall Plankton Survey cruise report summary.

STA. #	PASCA. #	DATE	GMT	LAT	LONG	DEPTH (m)	SALINITY			TEMPERATURE			DO			PLANKTON TOW
		MM/DD/YY YY	START TIME				SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX	
B187	88001	9/13/2013	1015	28° 57.46	89° 33.49	52.4	25.45	33.26	36.32	28.90	29.09	24.09	5.47	5.68	5.73	B/N
B188	88002	9/13/2013	1351	29° 00.22	89° 59.24	26.2	27.26	28.09	33.92	29.09	29.23	28.57	6.14	5.67	4.07	B/N
B192	88003	9/13/2013	1747	28° 54.14	90° 32.32	18.3	29.48	30.91	31.71	29.30	29.19	29.06	6.62	4.92	4.13	B/N
B193	88004	9/13/2013	2030	28° 46.79	90° 53.01	17.4	32.08	32.22	32.34	29.41	29.30	29.10	6.18	6.08	5.58	B/N
B197	88005	9/14/2013	0055	29° 00.02	91° 29.75	10.7	28.47	28.47	28.82	29.91	29.66	29.06	6.64	6.16	5.64	B/N
B205	88006	9/14/2013	0758	29° 24.41	92° 26.29	12.2	25.71	26.01	28.66	29.10	29.30	29.40	3.45	3.54	2.60	B/N
B206	88007	9/14/2013	1208	29° 30.12	93° 00.61	14.6	26.04	30.41	31.02	29.36	29.30	29.42	5.90	6.00	5.90	B/N
B212	88008	9/14/2013	1543	29° 32.42	93° 32.33	12.2	25.48	25.70	27.01	29.85	29.79	29.74	6.36	5.90	4.69	B/N
B213	88009	9/14/2013	1910	29° 30.15	93° 59.86	12.8	28.00	27.96	28.76	29.82	29.74	29.40	6.50	5.52	5.02	B/N

Prepared by: Chloe Dean

Date Prepared: 09/15/2013

LDWF SEAMAP Plankton Sample Check-In

Cruise 1303

Month/Year September, 2013

List stations in ascending order by Pascagoula Station No. (refer to Plankton Station data sheets or Cruise Summary page), then fill in corresponding LDWF Stn. No.

Pascagoula Stn. No.	SEAMAP Stn. No.	Target Lat.	Target Long.	Net	Coll. Date	Preservation Initial - Final	Time (GMT)	No. Jars Glass	SEAMAP Plankton Sample No.
88001	B187	28 57.48	89 33.18	Bongo-Lt.	09/13/13	E - E	1026	1 pt	46915
				Bongo-Rt.	09/13/13	F - E	1026	1 pt	46916
				Neuston	09/13/13	E - E	1035	1 qt	46917
88002	B188	29 00.00	90 00.00	Bongo-Lt.	09/13/13	E - E	1356	1 pt	46918
				Bongo-Rt.	09/13/13	F - E	1356	1 pt	46919
				Neuston	09/13/13	E - E	1405	3 qt	46920
88003	B192	28 54.00	90 33.00	Bongo-Lt.	09/13/13	E - E	1748	1 pt	46921
				Bongo-Rt.	09/13/13	F - E	1748	1 pt	46922
				Neuston	09/13/13	E - E	1753	1 qt	46923
88004	B193	28 47.00	90 53.00	Bongo-Lt.	09/13/13	E - E	2035	1 pt	46924
				Bongo-Rt.	09/13/13	F - E	2035	1 pt	46925
				Neuston	09/13/13	E - E	2040	1 qt	46926
88005	B197	29 00.00	91 30.00	Bongo-Lt.	09/14/13	E - E	0058	1 pt	46927
				Bongo-Rt.	09/14/13	F - E	0058	1 pt	46928
				Neuston	09/14/13	E - E	0102	2 qt	46929
88006	B205	29 25.00	92 27.24	Bongo-Lt.	09/14/13	E - E	0802	1 pt	46930
				Bongo-Rt.	09/14/13	F - E	0802	1 pt	46931
				Neuston	09/14/13	E - E	0808	1 qt	46932
88007	B206	29 30.00	93 00.00	Bongo-Lt.	09/14/13	E - E	1212	1 pt	46933
				Bongo-Rt.	09/14/13	F - E	1212	1 pt	46934
				Neuston	09/14/13	E - E	1218	1 qt	46935

LDWF SEAMAP Plankton Sample Check-In

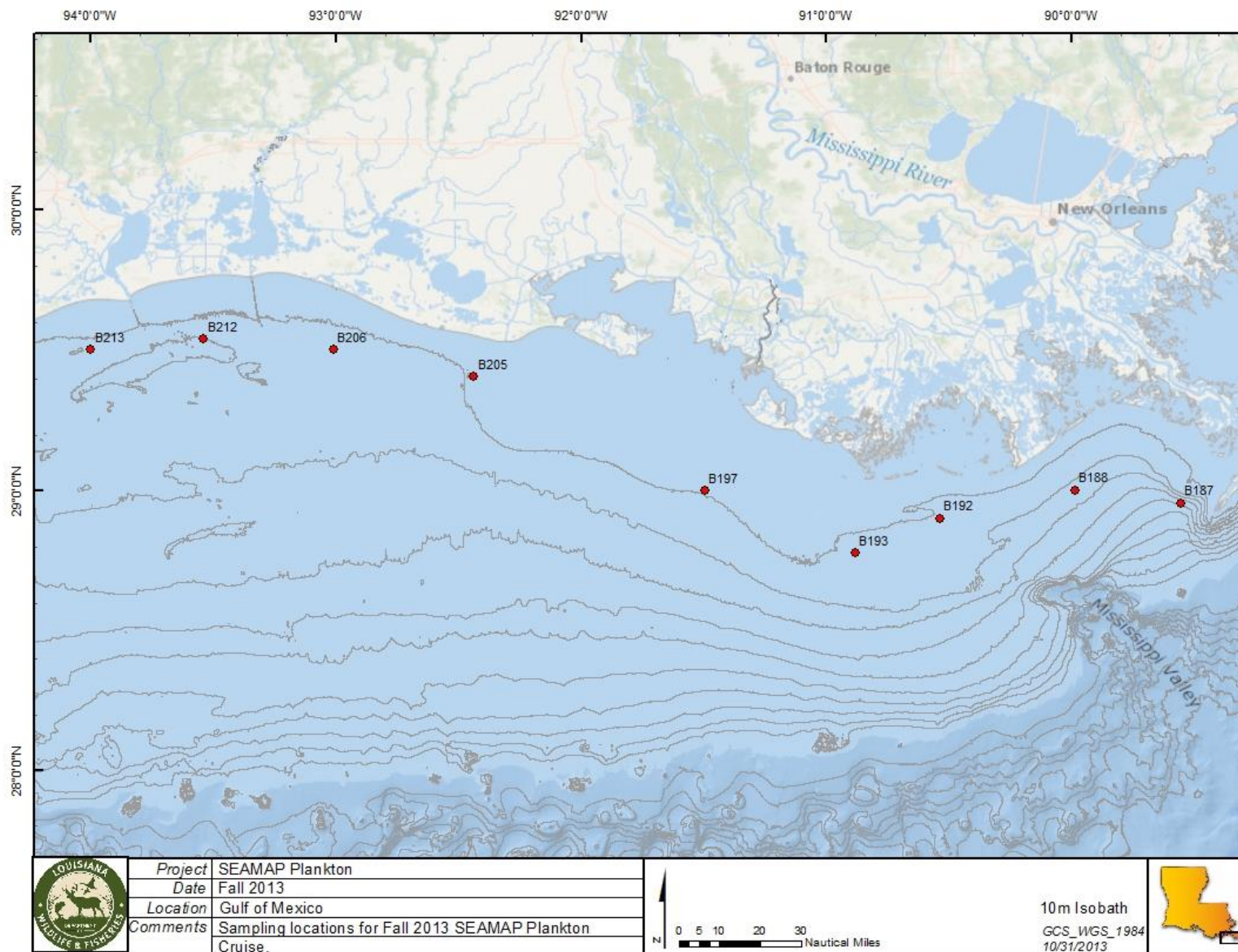
Cruise 1303

Month/Year September, 2013

List stations in ascending order by Pascagoula Station No. (refer to Plankton Station data sheets or Cruise Summary page), then fill in corresponding LDWF Stn. No.

Pascagoula Stn. No.	SEAMAP Stn. No.	Target Lat.	Target Long.	Net	Coll. Date	Preservation Initial - Final	Time (GMT)	No. Jars Glass	SEAMAP Plankton Sample No.
88008	B212	29 32.12	93 32.12	Bongo-Lt.	09/14/13	E - E	1547	1 pt	46936
				Bongo-Rt.	09/14/13	F - E	1547	1 pt	46937
				Neuston	09/14/13	E - E	1553	1 qt	46938
88009	B213	29 30.00	94 00.00	Bongo-Lt.	09/14/13	E - E	1912	1 pt	46939
				Bongo-Rt.	09/14/13	F - E	1912	1 pt	46940
				Neuston	09/14/13	E - E	1917	2 qt	46941

Figure 1. Site locations for SEAMAP Fall Plankton Survey, 2013.



SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials 88

VESSEL 88 CRUISE 1303 SOURCE LA
 PASCAGOULA # 88001 SEAMAP STATION # B187
 MON 09 DAY 13 YR 13
 ZONES STATISTICAL 13 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES
 LATITUDE DEG MINUTES 28 57 48 LONGITUDE DEG MINUTES 89 33 18
 TARGET WATER DEPTH (M) 43.3
 ON STATION TIME START 515 MM HH FINISH 1118 MM HH

PLANKTON ACTUAL BEGINNING COORDINATES
 LATITUDE DEG MINUTES 28 57 46 LONGITUDE DEG MINUTES 89 33 49
 PLANKTON ACTUAL ENDING COORDINATES
 LATITUDE DEG MINUTES 28 56 00 LONGITUDE DEG MINUTES 89 34 55
 ACTUAL WATER DEPTH (M) 52.4

WAVE HT. (M) 00.6 WIND DEGREES 78 KNOTS 5
 PRECIPITATION 0 AIR TEMP (°C) 28.3 BAROMETRIC PRESSURE (mbar) 1015

SEA CONDITION (BEAUFORT SCALE) 02
 DAYLIGHT ONLY: 0, 25, 75, 100 % CLOUD COVER 0 SECCHI DISC (M) 0

DECK DEPTH _____ WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>3.0</u>	<u>4.3018</u>	<u>25.45</u>	<u>28.90</u>	<u>5.47</u>
MID	<u>22.0</u>	<u>5.4856</u>	<u>33.26</u>	<u>29.09</u>	<u>5.68</u>
BOT	<u>44.0</u>	<u>5.3895</u>	<u>36.32</u>	<u>24.09</u>	<u>5.73</u>

CTD PROFILE CREATED? Y N _____ CTD Beginning Coordinates: 28.93336 89.57566
 FILE ID 6187 CTD Start/End Time: 1116 / 1117

CHLOROPHYLL *FROM LAB (Mg/M³) SURFACE 4.1259 MIDWATER 0.6299 BOTTOM 0.1655

CHLOROPHYLL *FROM CTD (Mg/M³) SURFACE N/A MIDWATER N/A BOTTOM N/A

COMMENTS:
 Sargassum present in area?
 If so, describe: none
 used SBE 19 + y SI
 water collection w/ Niskin bottle (3m) (ySI surface 4.296 cond. temp oxy sal PH)
 (filtered 500mL for chlorophyll) 28.8 5.96 26.98 8.20

GEAR TYPES USED AT THIS STATION

PN NN CA BG SX TC OX SY TY OY

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials SS

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88001

B187

MON DAY YR
09 13 13

SD

BONGO

DEPTH CODE 03 MESH NET # 02
(C/O) 0 GEAR 01

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 52.1

AT MAX DEPTH

HH MM ANGLE WIRE OUT
10 28 40 68

IN TIME OUT

HH MM SS HH MM SS
10 26 58 10 30 12

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 57 41 89 33 44

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 57 33 89 33 48

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 180820 START 000506
END 188154 END 008332

BONGO TOW SPEED (KT)

1.5

PRESERVATIVE USED: ~~LEFT~~ BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)

PRESERVATIVE USED: ~~RIGHT~~ BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46915 RIGHT 46916

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 GEAR 03

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
10 35 41 10 45 41

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 57 16 89 33 62
28 95 27 89 56 46
NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 56 51 89 34 02
28 94 19 89 56 70

JELLYFISH PRESENT?

Y/N, IF YES, AMT (L): 2.4L

340 mm
Zimoonjelly 350 mm

SARGASSUM PRESENT?

Y/N IF YES, AMT (L):

4 halfbeak 213 mm
(FL) 257 mm
229 mm
193 mm

NEUSTON TOW SPEED (KT)

3.5

PRESERVATIVE USED: NEUSTON

ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46917

COMMENTS:

Wire Out: 68 m, 334 ft
Calculated Max Tow Depth = 52.1 = $\cos(40) * 68$

Jars: 1st R Bongo
1st L Bongo
1st Neuston

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials SO

VESSEL 88 CRUISE 1303 SOURCE LA

PASCAGOULA # 88002 SEAMAP STATION # B188

MON 09 DAY 13 YR 13

STATISTICAL 14 FAUNAL 07 TIME 8

ZONES

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 29 00 00 LONGITUDE DEG MINUTES 90 00 00

TARGET WATER DEPTH (M) 21.6

ON STATION TIME

START 1351 MM HH 1436 HH MM

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 29 00 22 LONGITUDE DEG MINUTES 89 59 24

ACTUAL WATER DEPTH (M) 26.2

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 29 01 16 LONGITUDE DEG MINUTES 90 01 18

WAVE HT. (M) 00.6 WIND DEGREES 57 KNOTS 6

PRECIPITATION 0 AIR TEMP (°C) 33.2 BAROMETRIC PRESSURE (mbar) 1016

SEA CONDITION (BEAUFORT SCALE) 02

DAYLIGHT ONLY: 0, 25, 75, 100 % CLOUD COVER 75 SECCHI DISC (M) 3.0

DECK DEPTH _____ WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>3.0</u>	<u>4.5913</u>	<u>27.26</u>	<u>29.09</u>	<u>6.14</u>
MID	<u>11.0</u>	<u>4.7295</u>	<u>28.09</u>	<u>29.23</u>	<u>5.67</u>
BOT	<u>22.0</u>	<u>5.5271</u>	<u>33.92</u>	<u>28.57</u>	<u>4.07</u>

CTD PROFILE CREATED? Y N _____ CTD Beginning Coordinates: 29° 00.97 90° 00.98

FILE ID B188 CTD Start/End Time: 1421 / 1421

CHLOROPHYLL *FROM LAB (Mg/M³)

SURFACE 4.5807 MIDWATER 3.4900 BOTTOM 2.0059

CHLOROPHYLL *FROM CTD (Mg/M³) N/A

~~SURFACE~~ ~~MIDWATER~~ ~~BOTTOM~~

COMMENTS:

Sargassum in area? no
 If so, describe: none

CTD-SBE19 + YSI
water collected w/ Niskin bottle, used ysi in niskin water

"DOUBLE-BOUNCE"

GEAR TYPES USED AT THIS STATION

PN NN SE CA TC SX OX SY TY OY BG

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Page 2 of 2

Shift Leader Initials SD

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88002

B188

MON DAY YR
09 13 13

SD

BONGO

DEPTH CODE 03 MESH NET # 02
(C/O) C 01 GEAR

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 26.0

AT MAX DEPTH

HH MM ANGLE WIRE OUT
13 57 45 34

IN TIME OUT

HH MM SS HH MM SS
13 56 48 14 00 06

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 17 89 59 50

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 15 89 59 63

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 188154 START 008324
END 196666 END 017395

BONGO TOW SPEED (KT)

1.5

PRESERVATIVE USED: ~~LEFT~~ BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)

PRESERVATIVE USED: RIGHT BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46918 RIGHT 46919

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 03 GEAR

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

9 05 16 IN TIME OUT

HH MM SS HH MM SS
14 05 16 14 15 16

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 35 90 00 02

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 87 90 00 82

JELLYFISH PRESENT?

Y/N, IF YES, AMT (L): 4L

SARGASSUM PRESENT?

Y/N, IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.0

PRESERVATIVE USED: NEUSTON ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46920

COMMENTS:

Wire Out: 34 m, 112 ft
Calculated Max Tow Depth = 26.0 = $\cos(45) \times 34$

Jars: 10⁺ R Bongo
10⁺ L Bongo
3⁺ Neuston

Double Bounce

① 1357 at max tow depth $\angle 45^\circ$

② 1359 at max tow depth $\angle 50^\circ$

Aurelia 5
380mm
290mm
260mm
245mm
200mm

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials GD

VESSEL 88 CRUISE 1303 SOURCE LA

Page 1 of 2

PASCAGOULA #
88003

SEAMAP STATION #
B192

MON 09 DAY 13 YR 13

ZONES
STATISTICAL 14 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 285400
LONGITUDE DEG MINUTES 903300

TARGET WATER DEPTH (M)
149

ON STATION TIME

START MM 1747 HH 1829 FINISH MM

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 285414
LONGITUDE DEG MINUTES 903232

ACTUAL WATER DEPTH (M)
183

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 285317
LONGITUDE DEG MINUTES 903346

WAVE HT. (M)
10

WIND DEGREES 68 KNOTS 8

PRECIPITATION
0

AIR TEMP (°C)
319

BAROMETRIC PRESSURE (mbar)
1016

SEA CONDITION (BEAUFORT SCALE)
03

DAYLIGHT ONLY: 0,25,75,100 % CLOUD COVER 50 SECCHI DISC (M) 37

DECK DEPTH _____

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>3</u> <u>0</u>	<u>4</u> <u>9452</u>	<u>29</u> <u>48</u>	<u>29</u> <u>30</u>	<u>6</u> <u>62</u>
MID	<u>8</u> <u>0</u>	<u>5</u> <u>1469</u>	<u>30</u> <u>91</u>	<u>29</u> <u>19</u>	<u>4</u> <u>92</u>
BOT	<u>16</u> <u>0</u>	<u>5</u> <u>2537</u>	<u>31</u> <u>71</u>	<u>29</u> <u>06</u>	<u>4</u> <u>13</u>

CTD PROFILE CREATED? Y N _____
FILE ID B192

CTD Beginning Coordinates: 28°53.106 / 28°53.13, 90°33.23
CTD Start/End Time: 1809/1813

CHLOROPHYLL *FROM LAB (Mg/M³)
SURFACE 07875 MIDWATER 06122 BOTTOM 43893

CHLOROPHYLL *FROM CTD (Mg/M³) NA
~~SURFACE~~ ~~MIDWATER~~ ~~BOTTOM~~

COMMENTS:
Sargassum in area? yes "double bounce"
If so, describe: small pieces floating on surface, aggregating into small lines; very sparse
Used SBE 19 for water column profile
used Niskin water sampler to collect water, use YSI in Niskin water

GEAR TYPES USED AT THIS STATION

PN NN B6 CA SE SX TC DX SY TY OY _____

SEAMAP PLANKTON TOWS SHEET

VESSEL CRUISE SOURCE Page 2 of 2

Shift Leader Initials CD

VESSEL 88 CRUISE 1303 SOURCE LA

PASCAGOULA #
88003

SEAMAP STATION #
B192

MON DAY YR
09 13 13

RECORDER (INITIALS)
CD

BONGO

DEPTH CODE 03 MESH NET # 02
(C/O) C GEAR 01

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 18.0

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 GEAR 03

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

AT MAX DEPTH

HH MM ANGLE WIRE OUT
17 48 35 22

IN TIME OUT
HH MM SS HH MM SS
17 48 20 17 50 15

IN TIME OUT
HH MM SS HH MM SS
17 53 10 18 03 35

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 54 12 90 32 34

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 53 91 90 32 48

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 54 07 96 32 38

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 53 19 90 32 97

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101

START 196684 START 017397

END 200978 END 021851

JELLYFISH PRESENT?
 N, IF YES, AMT (L): 0.5 cup / 0.12L

SARGASSUM PRESENT?
 N, IF YES, AMT (L): 3L (all sargassum balls)

BONGO TOW SPEED (KT)
1.5

NEUSTON TOW SPEED (KT)
3.0

PRESERVATIVE USED: ~~LEFT~~ BONGO Right
FORMALIN (INITIAL) / ETHANOL (FINAL)
PRESERVATIVE USED: ~~RIGHT~~ BONGO Left
ETHANOL (INITIAL) / ETHANOL (FINAL)

PRESERVATIVE USED: NEUSTON
ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS
LEFT 46921 RIGHT 46922

NEUSTON SEAMAP SAMPLE NUMBER
46923

COMMENTS:
Wire Out: 22 m, 72 ft R Bongo: 1/4 c Sargassum # Jars: 1 R Bongo pt
L Bongo: 1/4 c Sargassum 1 L Bongo pt
Calculated Max Tow Depth = $\cos(35) * 22 = 18.02$ m 1 Neuston pt

* Bongo: did "double bounce" to lengthen time in the water (per loanne's instruction)

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials CD

VESSEL 88 CRUISE 1303 SOURCE LA

Page 1 of 2

PASCAGOULA #
88004

SEAMAP STATION #
B193

MON 09 DAY 13 YR 13

ZONES
STATISTICAL 14 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 284700 LONGITUDE DEG MINUTES 905300

TARGET WATER DEPTH (M) 155

ON STATION TIME

START MM 2030 HH 21 FINISH MM 17 HH 17

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 284679 LONGITUDE DEG MINUTES 905301

ACTUAL WATER DEPTH (M) 174

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 284714 LONGITUDE DEG MINUTES 905494

WAVE HT. (M) 05

WIND DEGREES 75 KNOTS 7

PRECIPITATION 0

AIR TEMP (°C) 315

BAROMETRIC PRESSURE (mbar) 1013

SEA CONDITION (BEAUFORT SCALE) 02

DAYLIGHT ONLY: 0, 25, 75, 100 % CLOUD COVER 25 SECCHI DISC (M) 55

DECK DEPTH _____

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>30</u>	<u>53435</u>	<u>3208</u>	<u>2941</u>	<u>618</u>
MID	<u>80</u>	<u>53515</u>	<u>3222</u>	<u>2930</u>	<u>608</u>
BOT	<u>150</u>	<u>53506</u>	<u>3234</u>	<u>2910</u>	<u>558</u>

CTD PROFILE CREATED? Y N _____
FILE ID _____

CTD Beginning Coordinates: 28°47.11, 90°54.59 / 28°47.11, 90°54.60
CTD Start/End Time: 2102 / 2103

CHLOROPHYLL *FROM LAB (Mg/M³) SURFACE 04565 MIDWATER 00152 BOTTOM 19592

CHLOROPHYLL *FROM CTD (Mg/M³) SURFACE ~~_____~~ MIDWATER ~~_____~~ BOTTOM ~~_____~~

COMMENTS:
Sargassum present in area? yes "double bounce"
If so, describe: small pieces dispersed in water column
used SBE 19 for water column profile
used niskin water sampler to collect water, used ysi in niskin water

GEAR TYPES USED AT THIS STATION

PN NN B6 SE CA SX DX TC SY OY TY

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Page 2 of 2

Shift Leader Initials CD

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88004

B193

MON DAY YR
09 13 13

CD

BONGO

DEPTH CODE 03 MESH NET # 02
(C/O) C 01 GEAR

MIN TOW DEPTH (M) 00 MAX TOW DEPTH (M) 16.2

AT MAX DEPTH

HH MM ANGLE WIRE OUT
20 36 45 23

IN TIME OUT
HH MM SS HH MM SS
20 35 37 20 38 15

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 46 78 90 53 07

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 46 78 90 53 18

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 200988 021851
END 207012 028269

BONGO TOW SPEED (KT)

2.0

PRESERVATIVE USED: LEFT BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)

PRESERVATIVE USED: RIGHT BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46924 RIGHT 46925

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 03 GEAR

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

IN TIME OUT
HH MM SS HH MM SS
20 40 36 20 50 55

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 46 84 90 53 36

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 47 07 90 54 28

JELLYFISH PRESENT?

N, IF YES, AMT (L): 0.5L

SARGASSUM PRESENT?

N, IF YES, AMT (L): 1L

NEUSTON TOW SPEED (KT)

4.0

PRESERVATIVE USED: NEUSTON ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46926

"Double Bounce"

- ① 2036 at max tow depth 45°
- ② 2037 at max tow depth 45°

Cannonball jellyfish -
45 mm
25 mm
90 mm
65 mm
115 mm

COMMENTS:

L Bongo 1/4 L Aurelia (2) 185, 190mm
Wire Out: 22.9 m, 75 ft
Calculated Max Tow Depth = $\cos(45) * 22.9 = 16.2$

Jars: 1 R Bongo p+
1 L Bongo p+
1 Neuston p+

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials LD

PASCAGOULA #
8 8 0 0 5

SEAMAP STATION #
B 1 9 7

VESSEL: 8 8
CRUISE: 1 3 0 3
SOURCE: LA
MON: 0 9
DAY: 1 4
YR: 1 3

ZONES
STATISTICAL: 1 5
FAUNAL: 0 7
TIME: 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES: 2 9 0 0 . 0 0
LONGITUDE DEG MINUTES: 9 1 3 0 . 0 0

TARGET WATER DEPTH (M): 1 1 6

ON STATION TIME

START MM: 0 0 5 5
HH: 0 1
FINISH MM: 3 1
HH: 0 1

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES: 2 9 0 0 . 0 2
LONGITUDE DEG MINUTES: 9 1 2 9 . 7 5

ACTUAL WATER DEPTH (M): 1 0 7

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES: 2 9 0 0 . 8 2
LONGITUDE DEG MINUTES: 9 1 3 0 . 9 0

WAVE HT. (M): 0 5

WIND DEGREES: 1 5 1
KNOTS: 9

PRECIPITATION: 0

AIR TEMP (°C): 2 8 5

BAROMETRIC PRESSURE (mbar): 1 0 1 3

SEA CONDITION (BEAUFORT SCALE): 0 3

DAYLIGHT ONLY: 0, 25, 75, 100
% CLOUD COVER:
SECCHI DISC (M):

DECK DEPTH: _____

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	2 0	4 8 4 6 3	2 8 4 1	2 9 9 1	6 6 4
MID	6 0	4 8 2 5 2	2 8 4 7	2 9 6 6	6 1 6
BOT	1 1 0	4 8 2 4 4	2 8 8 2	2 9 0 6	5 6 4

CTD PROFILE CREATED? Y N
FILE ID: B197

CTD Beginning Coordinates: 29°00.05/91°30.84
CTD Start/End Time: 0820/0821

CHLOROPHYLL *FROM LAB (Mg/M³)
SURFACE: 0 6 5 7 1
MIDWATER: 1 0 3 2 0
BOTTOM: 1 6 3 9 2

CHLOROPHYLL *FROM CTD (Mg/M³) N/A
SURFACE:
MIDWATER:
BOTTOM:

COMMENTS:
Sargassum present in area? *Can't see!*
If so, describe:
* used SBE 19 for water column profile
* used niskin water sampler to collect water and used ysi with it
"Triple bounce" to increase time in water

GEAR TYPES USED AT THIS STATION

P N N N B 6 C A S X T C O X S Y T Y O Y

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials CO

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88005

B197

MON DAY YR
09 14 13

CD

BONGO

DEPTH CODE 03 MESH NET #
(C/O) C 01 GEAR 02

MIN TOW DEPTH (M) 00 MAX TOW DEPTH (M) 10.1

AT MAX DEPTH

HH MM ANGLE WIRE OUT
00 58 45 14

IN TIME OUT

HH MM SS HH MM SS
00 58 02 01 00 02

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 07 91 29 89

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 11 91 29 96

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 207011 START 028273
END 211767 END 033261

BONGO TOW SPEED (KT)

1.5

PRESERVATIVE USED: ~~LEFT~~ BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)

PRESERVATIVE USED: RIGHT BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46927 RIGHT 46928

NEUSTON

DEPTH CODE 09 MESH NET #
(C/O) 0 03 GEAR 01

MIN TOW DEPTH (M) 05 MAX TOW DEPTH (M) 05

IN TIME OUT

HH MM SS HH MM SS
01 02 14 01 12 49

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 17 91 30 07

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 48 91 30 64

JELLYFISH PRESENT?

Y/N, IF YES, AMT (L): 21 gal, 79.59 L all aurelia

SARGASSUM PRESENT?

Y/N, IF YES, AMT (L): 1 cup, 0.24 L

3 halfbeats (F)
135mm
100mm
95mm

NEUSTON TOW SPEED (KT)

3.0

PRESERVATIVE USED: NEUSTON ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46929

COMMENTS:

R Bongo: 2, 3 aurelia # Jars: 1 R Bongo pt
Wire Out: 143 m, 47 ft jelly 1 L Bongo pt
Calculated Max Tow Depth = 143 * 0.5(46) = 290mm 2 Neuston pt
10.1

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials SG

VESSEL 88 CRUISE 1303 SOURCE LA

PASCAGOULA # 88006 SEAMAP STATION # B205

MON 09 DAY 14 YR 13

STATISTICAL 16 FAUNAL 07 TIME 8

ZONES

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 29 25 00 LONGITUDE DEG MINUTES 92 27 24

TARGET WATER DEPTH (M) 98

ON STATION TIME

START 0758 MM HH FINISH 0837 HH MM

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 29 24 41 LONGITUDE DEG MINUTES 92 26 29

ACTUAL WATER DEPTH (M) 122

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 29 24 02 LONGITUDE DEG MINUTES 92 27 23

WAVE HT. (M) 003 WIND DEGREES 28 KNOTS 4

PRECIPITATION 0 AIR TEMP (°C) 28.8 BAROMETRIC PRESSURE (mbar) 1012

SEA CONDITION (BEAUFORT SCALE) 02

DAYLIGHT ONLY: 0, 25, 75, 100 % CLOUD COVER 0 SECCHI DISC (M) 0

DECK DEPTH _____ WATER DATA FROM CTD CAST YS1

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>10</u>	<u>40431</u>	<u>25.71</u>	<u>29.10</u>	<u>3.45</u>
MID	<u>60</u>	<u>40862</u>	<u>26.01</u>	<u>29.30</u>	<u>3.54</u>
BOT	<u>120</u>	<u>44563</u>	<u>28.66</u>	<u>29.40</u>	<u>2.60</u>

DO readings most likely low due to flow dependence

CTD PROFILE CREATED? Y N
 FILE ID B205

CTD Beginning Coordinates: 29° 24.14 92° 26.93
 CTD Start/End Time: 0824 / 0826

CTD dropped but never turned on

CHLOROPHYLL *FROM LAB (Mg/M³)

SURFACE 59515 MIDWATER 46744 BOTTOM

CHLOROPHYLL *FROM CTD (Mg/M³) NA

SURFACE MIDWATER BOTTOM

COMMENTS:

Sargassum present in area?
 If so, describe: can't see (too dark)

CTD w/ SB&19 + YSI

Water collected w/ WSK in sampler

"triple bounce"

No water column profile: CTD did not read properly?

GEAR TYPES USED AT THIS STATION

PN NN BG ST TI OT SY TY OY CA

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials *80*

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88006

B205

MON DAY YR
09 14 13

50

*triple bounce
(2) 8:03 (45°)
(3) 8:04 (40°)*

BONGO

DEPTH CODE *03* MESH NET # *02*
(C/O) *C* GEAR *01*

MIN TOW DEPTH (M) *00* MAX TOW DEPTH (M) *113*

AT MAX DEPTH

HH MM ANGLE WIRE OUT
802 45 116

IN TIME OUT

HH MM SS HH MM SS
080210 080512

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
292434 922646

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
292433 922656

FLOWMETER

LEFT METER ID # *B25528* RIGHT METER ID # *B26101*
START *211763* START *033242*
END *218737* END *040667*

BONGO TOW SPEED (KT)

1.5

PRESERVATIVE USED: ~~LEFT~~ BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)

PRESERVATIVE USED: ~~RIGHT~~ BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT *46930* RIGHT *46931*

NEUSTON

DEPTH CODE *09* MESH NET # *01*
(C/O) *0* GEAR *03*

MIN TOW DEPTH (M) *05* MAX TOW DEPTH (M) *05*

IN TIME OUT

HH MM SS HH MM SS
080851 081851

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
292437 922668

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
292411 922698

JELLYFISH PRESENT?

Y(N) IF YES, AMT (L):

SARGASSUM PRESENT?

Y(N) IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.0

PRESERVATIVE USED: NEUSTON

ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46932

*3 halfbeaks
(FL) 189mm
132mm
166mm*

COMMENTS:

Wire Out: *116* m, *51* ft
Calculated Max Tow Depth = $\cos(45) * 116 = 81.3$

Jars: *6* R Bongo
10 L Bongo
1 Neuston
0

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials JO

PASCAGOULA #

88007

SEAMAP STATION #

B206

VESSEL

88

CRUISE

1303

SOURCE

LA

ZONES		
STATISTICAL	FAUNAL	TIME
17	07	8

MON DAY YR
09 14 13

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES	LONGITUDE DEG MINUTES
29 30 00	93 00 00

TARGET WATER DEPTH (M)

13.1

ON STATION TIME

START	HH	FINISH
MM	HH	MM
1208	12	48

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES	LONGITUDE DEG MINUTES
29 30 12	93 00 61

ACTUAL WATER DEPTH (M)

14.6

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES	LONGITUDE DEG MINUTES
29 29 50	93 02 01

WAVE HT. (M)

00.6

WIND DEGREES KNOTS

53 8

PRECIPITATION

0

AIR TEMP (°C)

27.5

BAROMETRIC PRESSURE (mbar)

1012

SEA CONDITION (BEAUFORT SCALE)

02

DAYLIGHT ONLY:	% CLOUD COVER	SECCHI DISC (m)
0, 25, 75, 100	75	3.0

DECK DEPTH

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	3.0	4.4290	26.04	29.36	5.90
MID	7.0	5.0835	30.41	29.30	6.00
BOT	11.0	5.1870	31.02	29.42	5.90

CTD PROFILE CREATED? Y N

FILE ID B206

CTD Beginning Coordinates: 29° 29.42 93° 01.60

CTD Start/End Time: 1234 / 1235

CHLOROPHYLL

*FROM LAB (Mg/M³)

SURFACE
5.9520

MIDWATER
3.5345

BOTTOM
1.5815

CHLOROPHYLL

*FROM CTD (Mg/M³) NA

~~SURFACE~~

~~MIDWATER~~

~~BOTTOM~~

COMMENTS:

Sargassum present in area? no
If so, describe: none

"triple bounce"

CTD SBE 19 / ysi

water collected w/ niskin sampler

GEAR TYPES USED AT THIS STATION

PN NN BG SX TG OX SY TY OY CA

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials *SD*

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88007

B206

MON DAY YR
09 14 13

SD

BONGO

DEPTH CODE 03 MESH NET # 02
(C/O) C 01 GEAR

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 13.8

AT MAX DEPTH

HH MM ANGLE WIRE OUT
12 12 40 18

IN TIME OUT

HH MM SS HH MM SS
12 12 24 12 15 19

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30 2 49 30 0.66

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30 24 9 30 0.74

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 218737 START 040664
END 225696 END 048678

BONGO TOW SPEED (KT)

1.5

PRESERVATIVE USED: LEFT BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)
PRESERVATIVE USED: RIGHT BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46933 RIGHT 46934

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 03 GEAR

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
12 18 48 12 28 48

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30.07 93 00.86

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 29.46 93 01.32

JELLYFISH PRESENT?

Y N, IF YES, AMT (L): 0.25L

1-moon jelly 245mm

SARGASSUM PRESENT?

Y N, IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.5

PRESERVATIVE USED: NEUSTON ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46935

COMMENTS:

Wire Out: 181 m, 59 ft
Calculated Max Tow Depth = $\cos(40) * 18 = 13.8m$

Jars: 10 R Bongo
10 L Bongo
10 Neuston

high bounce

① 1212 at max tow < 40° depth

② 1213 at max tow < 40° depth

③ 1214 at max tow < 40° depth

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials SD

VESSEL 88 CRUISE 1303 SOURCE LA

PASCAGOULA # 88008 SEAMAP STATION # B212

MON 09 DAY 14 YR 13

STATISTICAL 17 FAUNAL 07 TIME 8

ZONES

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 293212 LONGITUDE DEG MINUTES 933212

TARGET WATER DEPTH (M) 110

ON STATION TIME

START 1043 MM HH 15 FINISH 1625 MM HH

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 293242 LONGITUDE DEG MINUTES 933233

ACTUAL WATER DEPTH (M) 122

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 293255 LONGITUDE DEG MINUTES 933373

WAVE HT. (M) 00.6 WIND DEGREES 61 KNOTS 110

PRECIPITATION 0 AIR TEMP (°C) 30.9 BAROMETRIC PRESSURE (mbar) 1014

SEA CONDITION (BEAUFORT SCALE) 02

DAYLIGHT ONLY: 0, 25, 75, 100 % CLOUD COVER 000 SECCHI DISC (M) 2.4

DECK DEPTH _____ WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>3.0</u>	<u>4.3833</u>	<u>25.48</u>	<u>29.85</u>	<u>6.36</u>
MID	<u>7.0</u>	<u>4.4126</u>	<u>25.70</u>	<u>29.79</u>	<u>5.90</u>
BOT	<u>12.0</u>	<u>4.6090</u>	<u>27.01</u>	<u>29.74</u>	<u>4.69</u>

CTD PROFILE CREATED? Y N _____ CTD Beginning Coordinates: 29° 32.52 93° 33.501

FILE ID B212 CTD Start/End Time: 1613/1614

CHLOROPHYLL *FROM LAB (Mg/M³)

SURFACE 5.7728 MIDWATER 5.3548 BOTTOM 3.6358

CHLOROPHYLL *FROM CTD (Mg/M³) NA

SURFACE / MIDWATER / BOTTOM /

COMMENTS:

*Sargassum in area?
If so, describe: none
CTD - SB19 + YSI
collected water w/ niskin sampler*

GEAR TYPES USED AT THIS STATION

PW NN BG SX TC OX SY TY OY CA SE

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials *SD*

88

1303

LA

PASCAGOULA #
88008

SEAMAP STATION #
B212

MON DAY YR
09 14 13

RECORDER (INITIALS)
SD

BONGO

DEPTH CODE 03 MESH NET # 62
(C/O) C 01 GEAR

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 11.3

AT MAX DEPTH

HH MM ANGLE WIRE OUT
15 49 45 116

IN TIME OUT

HH MM SS HH MM SS
15 47 32 15 50 41

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 32 44 93 32 40

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 32 47 93 32 48

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 225688 START 048077
END 230652 END 053299

BONGO TOW SPEED (KT)

1.5

PRESERVATIVE USED: ~~LEFT~~ BONGO Right FORMALIN (INITIAL) / ETHANOL (FINAL)
PRESERVATIVE USED: RIGHT BONGO Left ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46936 RIGHT 46937

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 03 GEAR

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
15 53 08 16 03 08

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 32 54 93 32 59

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 32 50 93 33 24

JELLYFISH PRESENT?

N, IF YES, AMT (L): 2L

*2 moon jellies
330m m
345m m*

SARGASSUM PRESENT?

N IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.3

PRESERVATIVE USED: NEUSTON ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46938

COMMENTS:

Wire Out: 165 m, 51 ft
Calculated Max Tow Depth = $\cos(45) * 16 = 11.3$

Jars: 10 R Bongo
12 L Bongo
16 Neuston

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials CD

PASCAGOULA #
88009

SEAMAP STATION #
B 2 1 3

VESSEL 88 CRUISE 1303 SOURCE LA
MON 09 DAY 14 YR 13

ZONES
STATISTICAL 17 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 29 30 00 LONGITUDE DEG MINUTES 94 00 00

TARGET WATER DEPTH (M) 122

ON STATION TIME

START MM 1910 HH 1946 FINISH MM

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 29 30 15 LONGITUDE DEG MINUTES 93 59 86

ACTUAL WATER DEPTH (M) 128

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 29 30 79 LONGITUDE DEG MINUTES 93 59 43

WAVE HT. (M) 1.0

WIND DEGREES 104 KNOTS 9

PRECIPITATION 0

AIR TEMP (°C) 28.9

BAROMETRIC PRESSURE (mbar) 1014

SEA CONDITION (BEAUFORT SCALE) 03

DAYLIGHT ONLY: 0, 25, 75, 100 % CLOUD COVER 00 SECCHI DISC (M) 21

DECK DEPTH WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	3.0	4.7674	28.00	29.82	6.50
MID	7.0	4.7550	27.96	29.74	5.52
BOT	12.0	4.8459	28.76	29.40	5.02

CTD PROFILE CREATED? Y N
FILE ID B213

CTD Beginning Coordinates: 29°30.79/93°59.24; 29°30.79/93°59.25
CTD Start/End Time: 1937/1938

CHLOROPHYLL *FROM LAB (Mg/M³) SURFACE 3.5166 MIDWATER 3.3933 BOTTOM 3.9045

CHLOROPHYLL *FROM CTD (Mg/M³) SURFACE MIDWATER BOTTOM

COMMENTS:
Sargassum present in area? no
If so, describe:
used SBE 19 for water column profile
used niskin water sampler to collect water and used ysl with it

GEAR TYPES USED AT THIS STATION

PN NN B6 SE CA SX OX TC SY TY OY

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Page 2 of 2

Shift Leader Initials CD

88

1303

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88009

B213

MON DAY YR
09 14 13

CD

BONGO

DEPTH CODE 03 MESH NET # 02
(C/O) C 01 GEAR

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 9.6

AT MAX DEPTH

HH MM ANGLE WIRE OUT
19 13 55 17

IN TIME OUT
HH MM SS HH MM SS
19 12 15 19 15 40

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30 28 93 59 86

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30 41 93 59 85

FLOWMETER

LEFT METER ID # B25528 RIGHT METER ID # B26101
START 230654 START 053299
END 239815 END 062929

BONGO TOW SPEED (KT)

2.0

PRESERVATIVE USED: LEFT BONGO Right
FORMALIN (INITIAL) / ETHANOL (FINAL)
PRESERVATIVE USED: RIGHT BONGO Left
ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46939 RIGHT 46940

NEUSTON

DEPTH CODE 09 MESH NET # 01
(C/O) 0 03 GEAR

MIN TOW DEPTH (M) 0.5 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
19 17 55 19 28 15

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30 46 93 59 79

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 30 70 93 59 23

JELLYFISH PRESENT?

Y N, IF YES, AMT (L): 2.5L

SARGASSUM PRESENT?

N IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.0

PRESERVATIVE USED: NEUSTON
ETHANOL (INITIAL) / ETHANOL (FINAL)

NEUSTON SEAMAP SAMPLE NUMBER

46941

COMMENTS:

Wire Out: 11.8 m, 55 ft
Calculated Max Tow Depth = $0.05(55) + 17 = 9.75$

2 Bongo = 0.5L jelly aurelia

Jars: 1 R Bongo pt
1 L Bongo pt
2 Neuston pt

2 aurelia
10 mm
2 mm
2 mm
3 mm
1 mm

"Double Bounce"
① 1913 at max tow
L 55°
② 1914 at max tow
L 55°

LDWF SEAMAP Sargassum in Plankton Catches Form

Project: SEAMAP Fall Plankton Survey

Truise Number: 1303

Pascagoula Station Number	SEAMAP Station Number	Net	Amount in cups (use measuring pitcher)	Amount in Liters (from NIMFS Conversion Table)	Remarks
3001	B187	Bongo Left	0	0	—
3001	B187	Bongo Right	0	0	2.4 L jellyfish
3001	B187	Neuston	0	0	3 moonjellies; 4 halfbeaks
3002	B188	Bongo Left	0	0	—
3002	B188	Bongo Right	0	0	—
3002	B188	Neuston	0	0	4 L of moonjellies total
3003	B192	Bongo Left	1/4 cup	0.12	—
3003	B192	Bongo Right	1/4 cup	0.12	—
3003	B192	Neuston	12.7 cup	3 L	0.12 L jellyfish
3004	B193	Bongo Left	0	0	2 Aurelia jellies (0.24)
3004	B193	Bongo Right	0	0	—
3004	B193	Neuston	—	1 L	5 cannonball jellies (0.5 L)
3005	B197	Bongo Left	0	0	—
3005	B197	Bongo Right	0	0	2.3 L jellyfish (1 aurelia)
3005	B197	Neuston	1 cup	0.24 L	79.59 L jellyfish (all aurelia)
3006	B205	Bongo Left	0	0	—
3006	B205	Bongo Right	0	0	—
3006	B205	Neuston	0	0	3 halfbeaks
3007	B206	Bongo Left	0	0	—
3007	B206	Bongo Right	0	0	—
3007	B206	Neuston	0	0	1 moon jelly
3008	B212	Bongo Left	0	0	—
3008	B212	Bongo Right	0	0	—
3008	B212	Neuston	0	0	2 moonjellies
3009	B213	Bongo Left	0	0	—
3009	B213	Bongo Right	0	0	0.5 L jelly (aurelia)
3009	B213	Neuston	0	0	2.5 L jelly (aurelia)

If no Sargassum was collected in the sample, enter ZERO. If left blank, keypunch will enter as Null (No Observation Made).

