



OFFICE OF FISHERIES

SEAMAP Fall 2013 Shrimp/Groundfish Survey Cruise Report
Cruise Dates: 10/28/13-10/30/13 and 11/17/13

Prepared by Suzy Delaune on 11/12/13
Louisiana Department of Wildlife and Fisheries
195 Ludwig Annex
Grand Isle, LA 70358

Introduction

SEAMAP Shrimp/Groundfish surveys are conducted to provide fishery-independent monitoring and assessment information and are part of a Gulf-wide coordinated and cost-efficient program. This data is essential to the management of the fisheries resources in Louisiana's Gulf of Mexico.

Objectives

1. Conduct a trawl survey to collect information on shrimp and groundfish abundance and distribution with standard SEAMAP 42ft trawls.
2. Sample in conjunction with the National Marine Fisheries Service (NMFS) SEAMAP Fall Shrimp/Groundfish Survey and select stations from their Fall randomized sampling grid. Select stations from the grid west of the Mississippi River for LDWF sampling. Species are identified, weighed and counted, and measured according to NMFS SEAMAP Operations Manual guidelines.
3. Collect a water column profile (salinity, temperature, dissolved oxygen, conductivity) at each SEAMAP station using a Conductivity/Temperature/Depth (CTD) device. Other environmental data is 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. Code all data according to approved NMFS SEAMAP Operations Manual guidelines, and enter data on the LDWF SEAMAP data entry system.
6. Submit data to Jeff Rester, SEAMAP coordinator and Lloyd Kirk, Data Manager at the Gulf States Marine Fisheries Commission.

Methods

SEAMAP Shrimp/Groundfish trawl sampling consists of pulling a 42ft trawl with 1.58 inch stretched mesh at each selected site. The towline is set at a 4:1 cable length/water depth ratio to target shrimp and groundfish species. Trawl towing is conducted at or near 2.5 knots for 30 minutes after the net is fully deployed. Trawl catch specimens are identified, counted, measured for length and weighed.

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

Environmental data is collected in conjunction with each trawl and plankton station. Temperature, dissolved oxygen, salinity and conductivity values are measured with a CTD. In the event a DO reading falls below 2.0 mg/L, the DO is verified using a YSI.

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

Louisiana conducted its SEAMAP Fall Shrimp/Groundfish Survey on 28-30 October, 2013 and on 17 November, 2013. Seventeen shrimp/groundfish stations were sampled in Louisiana's territorial sea and the adjacent EEZ (between 28° 32.19 and 29° 29.12 and longitudes -89° 29.68 and -92° 40.92) (Table 1, Figure 1). The vessel used was the R/V Blazing 7. Louisiana also sampled seven plankton stations between latitudes 28° 29.00 and 29° 00.00 and longitudes -89° 29.00 and -91° 29.00. Twenty-one plankton sample jars were collected (see Plankton Sample Check-In Form). Plankton samples will be transferred to the NMFS Pascagoula, MS lab as soon as possible. All chlorophyll samples were analyzed by spectroscopy in the LDWF Fisheries Research Laboratory.

Dominant species collected from the trawl stations include the following:

1. Atlantic croaker, *Micropogonias undulatus*
2. Sand seatrout, *Cynoscion arenarius*
3. White shrimp, *Penaeus setiferus*
4. Atlantic cutlassfish, *Trichiurus lepturus*
5. Atlantic bumper, *Chloroscombrus chrysurus*
6. Moon jellyfish, *Aurelia aurita*
7. Gulf butterfish, *Peprilus burti*
8. Hardhead catfish, *Arius felis*
9. Atlantic moonfish, *Selene setapinnis*

10. Spot, *Leiostomus xanthurus*
11. Longspine porgy, *Stenotomus caprinus*
12. Gafftopsail catfish, *Bagre marinus*

Deviations

Upon completing site 88021 (W1601) the trawl net got caught in the port side propeller and seas were steadily increasing. Night had fallen so divers were to be sent in to remove the entanglement the following morning (Oct. 31st) but the seas were too rough and we had to wait out a front that had moved in. During this wait the net got caught in the starboard propeller as well. The following morning (Nov. 1st) the divers were sent in to cut the net from the propellers. Time did not allow for the completion of the cruise and 13 trawl sites were not completed. On November 17, 2013 three additional sites were completed, therefore only 10 trawl sites were not completed for the entire cruise. Communication with Gulf States Marine Fisheries Commission and National Marine Fisheries Service (Pascagoula) were maintained throughout these issues.

Cruise participants:

Sampling was conducted by Louisiana Department of Wildlife and Fisheries, Research and Assessment Division personnel. The crew consisted of the following biologists: Suzy Delaune, Robert Boothe, Chloe Dean, Leigh Engel, Zach Hamer, Katie Gherard, Clint Edds, and Courtney Zambory. There were also three volunteers participating in the cruise: Jason Olive, Lianne Jacobson, and Edward Camp. On November 17, 2013 the crew consisted of Suzy Delaune, Mike Sweda, Clint Edds, Robert Boothe, Leigh Engel, and Courtney Zambory. Sample summary and data entry completed by Suzy Delaune.

Submitted By:

Suzy Delaune
SEAMAP Chief Scientist

Table 1. SEAMAP Fall 2013 Shrimp/Groundfish Survey Cruise 1304

STA #	PASC #	DATE MM/DD/YYYY Y	GMT TIME	LAT	LONG	STAT ZONE	MAX DEPTH (m)	SALINITY			TEMPERATURE			DO			FIN CATCH	CRUS CATCH	OTHR CATCH	MIN FISH		
								SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX						
W1301	88001	10/28/2013	0706	29	13.28	89	50.90	13	13.5	28.33	28.38	29.52	23.53	23.57	24.29	7.05	6.99	5.79	7.97	0.744	0.017	30
W1302	88003	10/28/2013	1435	28	58.71	89	54.53	13	34.8	28.56	33.04	36.10	24.25	25.80	26.72	7.21	6.82	4.96	11.056	3.207	0.034	30
W1401	88005	10/28/2013	1748	29	00.82	90	02.02	14	23.8	28.58	30.87	35.90	24.58	25.99	27.56	7.43	6.23	3.93	9.275	1.267	1.451	30
W1402	88007	10/28/2013	2341	28	57.72	90	33.11	14	13.7	30.65	30.77	31.19	25.21	25.21	25.11	7.88	7.80	7.38	24.88	0.347	0.002	30
W1404	88008	10/29/2013	0342	28	42.97	90	22.85	14	22.0	34.90	35.10	35.64	26.20	26.40	26.61	6.55	6.47	5.83	17.402	0.024	3.802	30
W1403	88009	10/29/2013	0556	28	44.01	90	36.10	14	17.7	31.76	31.77	33.03	25.72	25.72	25.63	7.20	7.14	6.31	21.237	0.07	0.18	29
W1405	88013	10/29/2013	1644	28	36.68	90	49.68	14	20.1	34.53	34.65	34.77	25.44	25.44	25.47	6.68	6.66	6.58	1.185	0	0.22	30
W1406	88012	10/29/2013	1453	28	32.19	90	52.20	14	29.3	35.71	35.71	35.72	26.14	26.13	26.13	6.42	6.40	6.39	12.757	0.243	0.14	30
W1506	88014	10/29/2013	2114	28	51.03	91	05.18	15	8.2	31.95	31.96	32.01	24.76	24.75	24.75	7.23	7.23	7.21				30
W1502	88016	10/30/2013	0311	28	59.49	91	05.11	15	8.5	30.62	30.61	30.67	24.30	24.30	24.30	7.07	7.07	7.03	21.933	0.639	166.547	30
W1504	88015	10/30/2013	0001	28	57.36	91	07.67	15	9.1	30.26	30.26	30.25	24.31	24.30	24.32	7.20	7.22	7.25	37.52	0.01	438.0	30
W1604	88019	10/30/2013	1631	29	15.80	92	22.57	16	7.9	28.88	28.88	29.31	23.54	23.49	23.42	6.81	6.82	6.79	6.29	0.312	69.06	30
W1602	88020	10/30/2013	1919	29	28.15	92	24.75	16	7.3	22.30	22.85	24.29	23.44	23.21	22.97	8.70	8.34	7.04	12.997	1.65	23.05	30
W1601	88021	10/30/2013	2157	29	29.12	92	40.92	16	13.4	27.19	27.73	28.64	23.65	23.78	23.76	7.70	7.55	6.38	16.054	1.413	236.17	30
W1303	88023	11/18/2013	0451	28	51.33	89	33.92	13	72.0	29.02	35.17	35.51	22.04	23.41	23.24	7.92	6.20	6.25	24.385	1.820	0.274	30
W1304	88022	11/18/2013	0223	28	50.65	89	43.76	13	67.6	29.54	34.70	35.59	21.58	23.00	23.66	8.31	6.44	6.47	26.642	1.673	0.350	30
W1305	88024	11/18/2013	0738	28	50.52	89	29.68	13	57.0	26.21	35.34	35.20	21.45	23.50	22.43	7.87	6.24	6.44	30.677	2.613	0.403	30
B187	88002	10/28/2013	1026	29	00.65	89	29.50	13	14.6	28.95	29.38	34.02	23.97	24.08	26.89	7.23	7.09	4.10				P
B188	88004	10/28/2013	1540	28	59.92	89	59.91	13	26.2	28.58	32.77	36.00	24.35	26.93	27.30	7.33	6.11	3.02				P
B192	88006	10/28/2013	2120	29	00.31	90	29.79	14	10.6	30.06	30.10	30.42	24.88	24.71	24.59	7.03	7.13	6.59				P
B191	88010	10/29/2013	0836	28	30.21	90	30.18	14	36.9	35.74	35.73	35.81	26.40	26.43	26.55	6.42	6.38	6.32				P
B194	88011	10/29/2013	1234	28	29.97	90	59.95	14	35.1	35.77	35.77	35.81	26.11	26.12	26.03	6.40	6.42	6.33				P
B193	88017	10/30/2013	0501	29	00.11	91	00.87	15	7.9	31.00	31.00	31.00	24.48	24.49	24.49	6.83	6.84	6.86				P
B197	88018	10/30/2013	0916	29	00.97	91	29.48	15	11.0	30.05	30.05	30.05	23.58	23.58	23.58	6.70	6.71	6.71				P

LDWF SEAMAP Plankton Sample Check-In

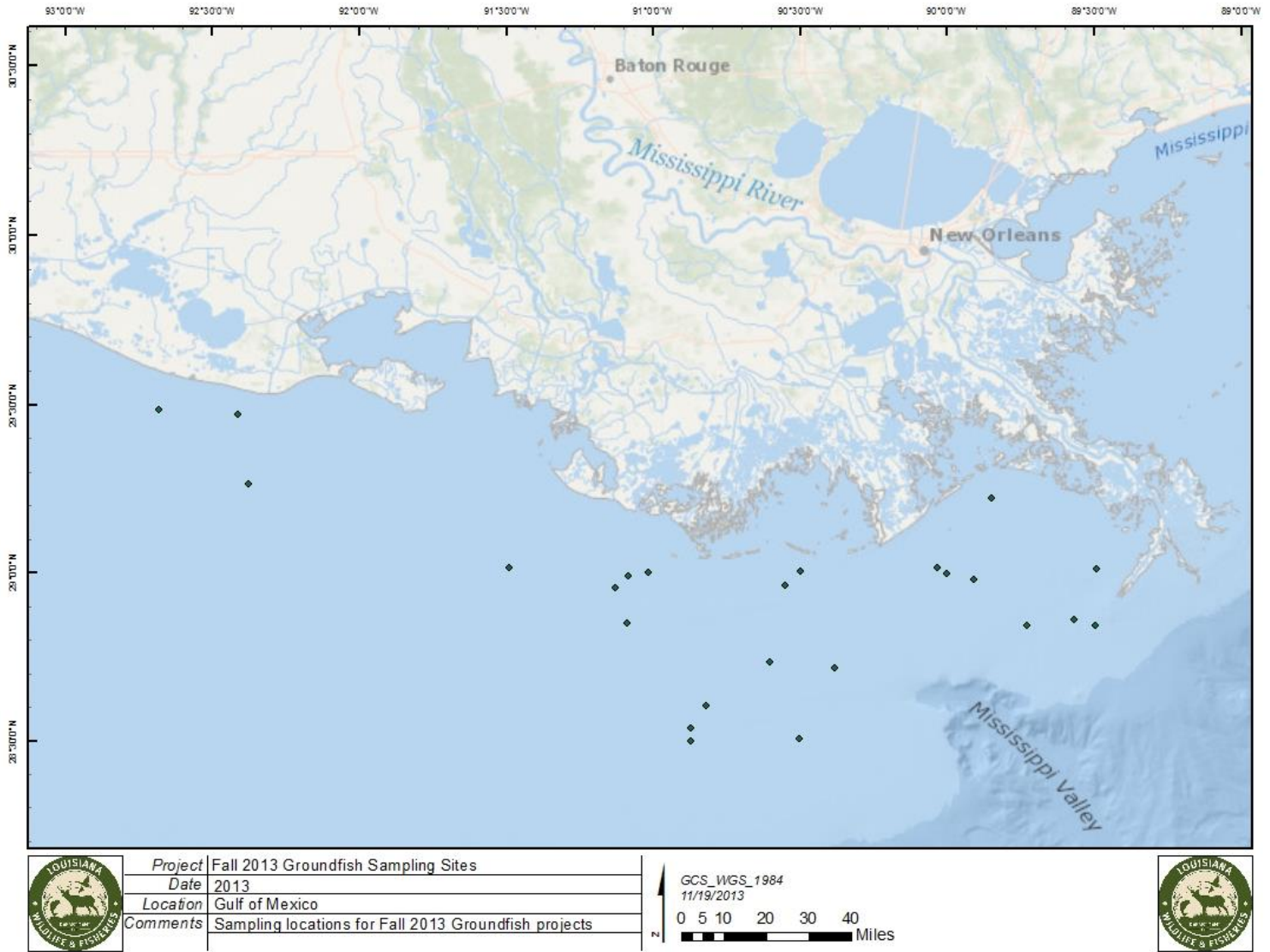
Cruise 1304

Month/Year October, 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		Time (GMT)	No. Jars Glass	SEAMAP Plankton Sample No.
						Initial -	Final			
88002	B187	29 00.00	89 30.00	Bongo-Lt.	10/28/13	E - E		1102	1 pt	46981
				Bongo-Rt.	10/28/13	F - E		1102	1 pt	46982
				Neuston	10/28/13	E - E		1111	1 pt	46983
88004	B188	29 00.00	90 00.00	Bongo-Lt.	10/28/13	E - E		1626	1 pt	46984
				Bongo-Rt.	10/28/13	F - E		1626	1 pt	46985
				Neuston	10/28/13	E - E		1645	1 pt	46986
88006	B192	29 00.00	90 30.00	Bongo-Lt.	10/28/13	E - E		2151	1 pt	46987
				Bongo-Rt.	10/28/13	F - E		2151	1 pt	46988
				Neuston	10/28/13	E - E		2157	1 qt	46989
88010	B191	28 30.00	90 30.00	Bongo-Lt.	10/29/13	E - E		0903	1 pt	46990
				Bongo-Rt.	10/29/13	F - E		0903	1 pt	46991
				Neuston	10/29/13	E - E		0912	1 qt	46992
88011	B194	28 30.00	91 00.00	Bongo-Lt.	10/29/13	E - E		1243	1 pt	46993
				Bongo-Rt.	10/29/13	F - E		1243	1 pt	46994
				Neuston	10/29/13	E - E		1255	1 pt	46995
88017	B193	29 00.00	91 00.00	Bongo-Lt.	10/30/13	E - E		0524	1 pt	46996
				Bongo-Rt.	10/30/13	F - E		0524	1 pt	46997
				Neuston	10/30/13	E - E		0531	1 qt	46998
88018	B197	29 00.00	91 30.00	Bongo-Lt.	10/30/13	E - E		0923	1 pt	46999
				Bongo-Rt.	10/30/13	F - E		0923	1 pt	47000
				Neuston	10/30/13	E - E		0934	1 qt	47001

Figure 1. SEAMAP Fall 2013 Shrimp/Groundfish Survey, Cruise 1304, site locations



SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET



Shift Leader Initials KEG

VESSEL CRUISE SOURCE

Page 1 of 2

PASCAGOULA #

SEAMAP STATION # ^{P105}

88 1304 LA

ZONES
STATISTICAL FAUNAL TIME
13 07 8

88002

B187

MON DAY YR
10 28 13

PLANKTON TARGET COORDINATES

ON STATION TIME

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 00 89 30 00

TARGET WATER DEPTH (M)
15.0

START HH MM FINISH HH MM
10 26 11 25

526
625

PLANKTON ACTUAL BEGINNING COORDINATES

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 65 89 29 50

ACTUAL WATER DEPTH (M)
14.6
48

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 59 33 89 28 99

WAVE HT. (M)
01.0

WIND DEGREES KNOTS
101 05

PRECIPITATION
0

AIR TEMP (°C)
23.6

BAROMETRIC PRESSURE (mbar)
1020

SEA CONDITION (BEAUFORT SCALE)
02

DAYLIGHT ONLY:

% CLOUD COVER
0, 25, 75, 100

SECCHI DISC (M)

DECK DEPTH

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	1.5	4.3893	28.95	23.97	7.23
MID	7.2	4.4568	29.38	24.08	7.09
BOT	12.3	5.3691	34.02	26.89	4.10

CTD PROFILE CREATED? Y N

CTD Beginning Coordinates: 29°00.568 89°29.387

FILE ID B187

CTD Start/End Time: 0532 / 0541

CHLOROPHYLL

SURFACE

MIDWATER

BOTTOM

*FROM LAB (Mg/M³)

CHLOROPHYLL

SURFACE

MIDWATER

BOTTOM

*FROM CTD (Mg/M³)

0.9608

1.0585

1.1317

COMMENTS:

Type of CTD used: SB89 plus
Sargassum in area? If so, describe: NO SARGASSUM

GEAR TYPES USED AT THIS STATION

PN NN BG BC SX OX TC CA

Just by

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials LEG

88

1304

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88002

B187

MON DAY YR
10 28 13

KG

P105

BONGO

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

MIN TOW DEPTH (M) 00 MAX TOW DEPTH (M) 14.7

AT MAX DEPTH

HH MM ANGLE WIRE OUT
11 03 35 18 59ft
18m.

IN TIME OUT

HH MM SS HH MM SS
11 02 13 11 04 55

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 37 89 29 17

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 33 89 29 13

FLOWMETER

LEFT METER ID # B25542 RIGHT METER ID # B25528
START 1103685 START 254492
END 126648 END 257390

BONGO TOW SPEED (KT)

1.5

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

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

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
11 11 20 11 21 20

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 10 89 29 08

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 59 64 89 28 99

JELLYFISH PRESENT?
Y/, IF YES, AMT (L):

SARGASSUM PRESENT?
Y/, IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.0

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

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46981 RIGHT 46982

NEUSTON SEAMAP SAMPLE NUMBER

46983

COMMENTS:

Wire Out: 18 m, 59 ft
Calculated Max Tow Depth = $14.7 = \cos(35^\circ) \cdot \frac{9.18}{\text{wire out (m)}}$

Jars: 1 L Bongo
1 R Bongo
1 Neuston

6 02:13

36 03:54

6 04:55

06 10 20

half break = 209 min

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET



Shift Leader Initials VEG VESSEL 88 CRUISE 1304 SOURCE LA Page 1 of 2

PASCAGOULA # 88004 SEAMAP STATION # P104 B188 STATISTICAL 13 FAUNAL 07 TIME 8

MON 10 DAY 28 YR 13

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES	LONGITUDE DEG MINUTES	TARGET WATER DEPTH (M)	ON STATION TIME
<u>29 08 00</u>	<u>90 00 00</u>	<u>26.0</u>	START MM <u>1540</u> HH <u>17</u> FINISH MM <u>00</u>

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES	LONGITUDE DEG MINUTES	ACTUAL WATER DEPTH (M)	PLANKTON ACTUAL ENDING COORDINATES
<u>28 59 92</u>	<u>89 59 91</u>	<u>26.2</u> ^{78+8 864}	LATITUDE DEG MINUTES <u>29 00 29</u> LONGITUDE DEG MINUTES <u>90 00 79</u>

WAVE HT. (M) 00.5 WIND DEGREES 69 KNOTS 6 PRECIPITATION 0 AIR TEMP (°C) 28.2 BAROMETRIC PRESSURE (mbar) 1023

SEA CONDITION (BEAUFORT SCALE) 01 DAYLIGHT ONLY: 0 % CLOUD COVER 0, 25, 75, 100 SECCHI DISC (M) 7.1

DECK DEPTH _____ WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>1.4</u>	<u>4.3718</u>	<u>28.58</u>	<u>24.35</u>	<u>7.33</u>
MID	<u>13.0</u>	<u>5.1970</u>	<u>32.77</u>	<u>26.93</u>	<u>6.11</u>
BOT	<u>23.6</u>	<u>5.6902</u>	<u>36.00</u>	<u>27.30</u>	<u>3.02</u>

CTD PROFILE CREATED? Y N _____ CTD Beginning Coordinates: 28° 59.822 N, 089° 59.722 W

FILE ID B188 CTD Start/End Time: 1545/1556

CHLOROPHYLL *FROM LAB (Mg/M³)

SURFACE	MIDWATER	BOTTOM
<u> </u>	<u> </u>	<u> </u>

CHLOROPHYLL *FROM CTD (Mg/M³)

SURFACE	MIDWATER	BOTTOM
<u>0.9364</u>	<u>0.3869</u>	<u>0.3137</u>

COMMENTS: had to redo bongo b/c of mud, had small amount of mud in bongo on 2nd try.

Type of CTD used: SBE 9 plus

Sargassum in area? If so, describe: Ø

GEAR TYPES USED AT THIS STATION

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

led by Chik

SEAMAP PLANKTON TOWS SHEET

VESSEL **88** CRUISE **1304** SOURCE **LA**

Shift Leader Initials **KLG**

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88004

B188

MON **10** DAY **28** YR **13**

KL

P104

BONGO					NEUSTON						
DEPTH CODE (C/O)	03	MESH	NET #	02	DEPTH CODE (C/O)	09	MESH	NET #	01		
	C		GEAR	01		0		GEAR	03		
MIN TOW DEPTH (M)	0.0	MAX TOW DEPTH (M)	22.0		MIN TOW DEPTH (M)	0.0	MAX TOW DEPTH (M)	0.5			
AT MAX DEPTH											
HH	MM	ANGLE	WIRE OUT		HH	MM	ANGLE	WIRE OUT			
16	28	45	31								
IN	TIME	OUT			IN	TIME	OUT				
HH	MM	SS	HH	MM	SS	HH	MM	SS	HH	MM	SS
16	26	30	16	30	38	16	45	20	16	55	20
BONGO ACTUAL BEGINNING COORDINATES					NEUSTON ACTUAL BEGINNING COORDINATES						
LATITUDE DEG MINUTES			LONGITUDE DEG MINUTES		LATITUDE DEG MINUTES			LONGITUDE DEG MINUTES			
29	00	29	89	59	91	29	00	30	90	00	08
BONGO ACTUAL ENDING COORDINATES					NEUSTON ACTUAL ENDING COORDINATES						
LATITUDE DEG MINUTES			LONGITUDE DEG MINUTES		LATITUDE DEG MINUTES			LONGITUDE DEG MINUTES			
29	00	42	89	59	82	29	00	23	90	00	66
FLOWMETER											
LEFT METER ID #	B25542	RIGHT METER ID #	B25528								
START	134558	START	265369								
END	144603	END	273381								
BONGO TOW SPEED (KT)					NEUSTON TOW SPEED (KT)						
1.5					3.0						
PRESERVATIVE USED: RIGHT BONGO					PRESERVATIVE USED: NEUSTON						
FORMALIN (INITIAL) / ETHANOL (FINAL)					ETHANOL (INITIAL) / ETHANOL (FINAL)						
PRESERVATIVE USED: LEFT BONGO											
ETHANOL (INITIAL) / ETHANOL (FINAL)											
BONGO SEAMAP SAMPLE NUMBERS					NEUSTON SEAMAP SAMPLE NUMBER						
LEFT	46984	RIGHT	46985		46986						

COMMENTS: Wire Out: 31.24 m, 102 ft
 Calculated Max Tow Depth = $\cos(45) * 102$

Jars: 1 L Bongo
1 R Bongo
1 Neuston

had to redo b/c of mud

11 26 30
 B: 11 28 34
 O: 11 30 38

72.125 ft
 21.989 m
 31.04
 102 ft

11.95.20

30.5 L of Jellies

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

Shift Leader Initials RIB

PASCAGOULA #
68006

SEAMAP STATION #
P103
B192

VESSEL
88

CRUISE
1304

SOURCE
LA

MON DAY YR
10 24 13

ZONES
STATISTICAL FAUNAL TIME
14 07 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 00 90 30 00

TARGET WATER DEPTH (M)
130

ON STATION TIME
START MM HH FINISH MM HH
21 20 22 17

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 31 90 29 79

ACTUAL WATER DEPTH (M)
106
35 ft

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 01 04 90 29 07

WAVE HT. (M)
1.0

WIND DEGREES KNOTS
64 6.8 (07)

PRECIPITATION
0

AIR TEMP (°C)
25.9

BAROMETRIC PRESSURE (mbar)
1033

SEA CONDITION (BEAUFORT SCALE)
07

DAYLIGHT ONLY: % CLOUD COVER
0, 25, 75, 100

SECCHI DISC (M)
20

DECK DEPTH

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	1.7	4.6235	30.06	24.88	7.03
MID	5.0	4.6130	30.10	24.71	7.13
BOT	8.6	4.6460	30.42	24.59	6.59

CTD PROFILE CREATED? Y N

CTD Beginning Coordinates: 29° 00' 31.4" N 90° 29' 79.1" W
CTD Start/End Time: 1620/1631 (2120/2131)

CHLOROPHYLL

*FROM LAB (Mg/M³) SURFACE MIDWATER BOTTOM

CHLOROPHYLL

*FROM CTD (Mg/M³) SURFACE MIDWATER BOTTOM
0.9852 1.1195 1.2050

COMMENTS:

Type of CTD used: SBE 9plus
Sargassum in area? If so, describe: NO

YSI QAQC: Top Both
Temp: 24.8 24.3
DO: 7.93 7.30
Sal: 30.38 30.56
Cond: 4.6569 4.6416

GEAR TYPES USED AT THIS STATION

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

led by [signature]

SEAMAP PLANKTON TOWS SHEET

Shift Leader Initials RIB

VESSEL

CRUISE

SOURCE

PASCAGOULA #

SEAMAP STATION #

88

1304

LA

88006

B192

MON 10 DAY 28 YR 13

RECORDER (INITIALS)

RIB

P103

BONGO

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

MIN TOW DEPTH (M) 000 MAX TOW DEPTH (M) 0009.8

AT MAX DEPTH
 HH 21 MM 53 ANGLE 35 WIRE OUT 120
 IN TIME 215148 OUT 215512

BONGO ACTUAL BEGINNING COORDINATES
 LATITUDE DEG MINUTES 2900.66 LONGITUDE DEG MINUTES 9029.78

BONGO ACTUAL ENDING COORDINATES
 LATITUDE DEG MINUTES 2900.72 LONGITUDE DEG MINUTES 9029.70

FLOWMETER

LEFT METER ID # 625542 RIGHT METER ID # 625528
 START 144603 START 273383
 END 151277 END 279881

BONGO TOW SPEED (KT)

1.5

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

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46987 RIGHT 46988

NEUSTON

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

MIN TOW DEPTH (M) 000 MAX TOW DEPTH (M) 005

IN TIME 215755 OUT 220758

NEUSTON ACTUAL BEGINNING COORDINATES
 LATITUDE DEG MINUTES 2900.75 LONGITUDE DEG MINUTES 9029.56

NEUSTON ACTUAL ENDING COORDINATES
 LATITUDE DEG MINUTES 2900.78 LONGITUDE DEG MINUTES 9028.98

JELLYFISH PRESENT?
 Y/N, IF YES, AMT (L):
 SARGASSUM PRESENT?
 Y/N, IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

1.5

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

NEUSTON SEAMAP SAMPLE NUMBER

46989

COMMENTS:

Wire Out: 11.6 m, 38 ft
 Calculated Max Tow Depth = 9.8 = $\cos(35) \cdot 12$

Jars: 10 L Bongo
10 R Bongo
10 Neuston

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

X

Shift Leader Initials KEG

VESSEL CRUISE SOURCE

Page 1 of 2

PASCAGOULA #
88010

SEAMAP STATION #
P107
B191

VESSEL: 88
CRUISE: 1304
SOURCE: LA
MON: 10 DAY: 29 YR: 13

ZONES
STATISTICAL: 14
FAUNAL: 07
TIME: 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES: 28 30.00
LONGITUDE DEG MINUTES: 90 30.00

TARGET WATER DEPTH (M): 37.0

ON STATION TIME

START: 0836 MM
FINISH: 0928 MM

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES: 28 30.21
LONGITUDE DEG MINUTES: 90 30.18

ACTUAL WATER DEPTH (M): 36.9
121 ft.

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES: 28 30.13
LONGITUDE DEG MINUTES: 90 31.62

WAVE HT. (M)

WIND DEGREES: 134
KNOTS: 11

PRECIPITATION: 0

AIR TEMP (°C): 24.3

BAROMETRIC PRESSURE (mbar): 1022

SEA CONDITION (BEAUFORT SCALE)

DAYLIGHT ONLY: 0
% CLOUD COVER: 0, 25, 75, 100

SECCHI DISC (M)

DECK DEPTH WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	01.5	05.5556	35.74	26.40	06.42
MID	019.1	05.5588	35.73	26.43	06.38
BOT	036.7	05.5836	35.81	26.55	06.32

CTD PROFILE CREATED? Y N
FILE ID: B191

CTD Beginning Coordinates: 28° 30.228 90° 30.275
CTD Start/End Time: 0843 - 0853

CHLOROPHYLL *FROM LAB (Mg/M³)
SURFACE: [] [] [] [] [] []
MIDWATER: [] [] [] [] [] []
BOTTOM: [] [] [] [] [] []

CHLOROPHYLL *FROM CTD (Mg/M³)
SURFACE: 00.1793
MIDWATER: 00.1793
BOTTOM: 00.3991

COMMENTS:
Type of CTD used: SBE 9plus
Sargassum in area? If so, describe: N/A

GEAR TYPES USED AT THIS STATION
PN NN BC BG SX DX TC CA [] [] [] [] [] []

Field by Chromi

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Page 2 of 2

Shift Leader Initials KEG

88

1304

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88010

B191

MON DAY YR
10 29 13

KEG

P107

BONGO

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 34.6 113

AT MAX DEPTH

HH MM ANGLE WIRE OUT 09 06 45 49 1214
26.9 m
60.32 ft

IN TIME OUT
HH MM SS HH MM SS
09 03 45 09 08 50

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 18 90 30 59

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 08 90 30 73

FLOWMETER

LEFT METER ID # B25542 RIGHT METER ID # B25528
START 15 13 10 START 27 98 80
END 16 34 71 END 29 17 00

BONGO TOW SPEED (KT)

1.8

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

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46990 RIGHT 46991

NEUSTON

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 0.5

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
09 12 28 09 22 28

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 05 90 30 95

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 11 90 31 56

JELLYFISH PRESENT?

N, IF YES, AMT (L):

1 ^{mon} jelly : 35.5 mm

SARGASSUM PRESENT?

Y, IF YES, AMT (L):

0.2 L

1 half beak : 107 mm (for
1 flying fish: 48 mm (Fork
(Chelodactylon spp.))

NEUSTON TOW SPEED (KT)

3.5

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

NEUSTON SEAMAP SAMPLE NUMBER

46992

COMMENTS:

Wire Out: 49 m, 160 ft
Calculated Max Tow Depth =

= $\cos(45) * 49$

Jars: 1 L Bongo
1 R Bongo
1 Neuston

1. 04 03.45
0. 04 06.54
0. 04 08.50

1 04:12:28
0: 04:22:28

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET



Shift Leader Initials KEG

VESSEL 88 CRUISE 1304 SOURCE LA

Page 1 of 2

PASCAGOULA #

P106
SEAMAP STATION #

88011

B194

MON 10 DAY 29 YR 13

ZONES
STATISTICAL 14 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 283000
LONGITUDE DEG MINUTES 910000

TARGET WATER DEPTH (M) 330

ON STATION TIME

START MM 1234 HH 13 FINISH MM 26 HH 26

07 34

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 282997
LONGITUDE DEG MINUTES 905995

ACTUAL WATER DEPTH (M) ¹¹⁵ 351

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 282998
LONGITUDE DEG MINUTES 905893

WAVE HT. (M) 010

WIND DEGREES 108 KNOTS 10

PRECIPITATION 0

AIR TEMP (°C) 251

BAROMETRIC PRESSURE (mbar) 1022

SEA CONDITION (BEAUFORT SCALE) 03

DAYLIGHT ONLY: 0 % CLOUD COVER 25 75, 100

SECCHI DISC (M) 061

DECK DEPTH _____ WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>01</u> <u>4</u>	<u>05</u> <u>5296</u>	<u>35</u> <u>77</u>	<u>26</u> <u>11</u>	<u>06</u> <u>40</u>
MID	<u>01</u> <u>7</u> <u>4</u>	<u>05</u> <u>5312</u>	<u>35</u> <u>77</u>	<u>26</u> <u>12</u>	<u>06</u> <u>42</u>
BOT	<u>03</u> <u>2</u> <u>1</u>	<u>05</u> <u>5274</u>	<u>35</u> <u>81</u>	<u>26</u> <u>03</u>	<u>06</u> <u>33</u>

CTD PROFILE CREATED? Y X N
FILE ID B194

CTD Beginning Coordinates: 28° 29.896 90° 58.840
CTD Start/End Time: 1315 - 1325

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

CHLOROPHYLL *FROM CTD (Mg/M³) SURFACE 000817 MIDWATER 002038 BOTTOM 003625

COMMENTS:
Type of CTD used: SBE 9 plus
Sargassum in area? If so, describe: No

GEAR TYPES USED AT THIS STATION

PN NN BC BG SX OX TC CA SE _____

deal box checked

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Page 2 of 2

Shift Leader Initials PEL

88

1304

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88011

B194

MON DAY YR
10 29 13

PLG

PM6

BONGO

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 33.2

AT MAX DEPTH

HH MM ANGLE WIRE OUT
12 45 45 47 *154.16 ft*

IN TIME OUT

HH MM SS HH MM SS
12 43 35 12 46 55

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 19 90 59 81

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 22 90 59 70

FLOWMETER

LEFT METER ID # B25542 RIGHT METER ID # B25528
START 163471 START 291705
END 172222 END 3001101

BONGO TOW SPEED (KT)

1.8

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

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

NEUSTON

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
12 55 06 13 05 06

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 30 05 90 59 36

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
28 29 74 90 58 89

JELLYFISH PRESENT?

Y/, IF YES, AMT (L):

SARGASSUM PRESENT?

Y/, IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

2.8

PRESERVATIVE USED: NEUSTON

ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46993 RIGHT 46994

NEUSTON SEAMAP SAMPLE NUMBER

46995

COMMENTS:

Wire Out: 47 m, 154 ft
Calculated Max Tow Depth = $33.2 = \cos(45) * 47$

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

*1:07 43 35
6:07 45 15
0:07 46 55*

07:55 06

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

X

Shift Leader Initials VEG

VESSEL 88 CRUISE 1304 SOURCE LA

Page 1 of 2

PASCAGOULA #
88017

SEAMAP STATION #
P102
B193

MON 10 DAY 30 YR 13

ZONES
STATISTICAL 15 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES

LATITUDE DEG MINUTES 29 00.00 LONGITUDE DEG MINUTES 91 00.00

TARGET WATER DEPTH (M) 7.0

ON STATION TIME

START MM 0501 HH 05 FINISH HH 42 MM

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 29 00.11 LONGITUDE DEG MINUTES 91 00.87

ACTUAL WATER DEPTH (M) 26ft
7.9

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 29 00.93 LONGITUDE DEG MINUTES 91 00.12

WAVE HT. (M)

1.5

WIND DEGREES 89 KNOTS 18

PRECIPITATION 0

AIR TEMP (°C) 25.0

BAROMETRIC PRESSURE (mbar) 1022

SEA CONDITION (BEAUFORT SCALE) 2

DAYLIGHT ONLY: 0, 25, 75, 100

% CLOUD COVER

SECCHI DISC (M) 1.0

DECK DEPTH

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>02.0</u>	<u>04.7141</u>	<u>31.00</u>	<u>24.48</u>	<u>06.83</u>
MID	<u>003.3</u>	<u>04.7150</u>	<u>31.00</u>	<u>24.49</u>	<u>06.84</u>
BOT	<u>006.5</u>	<u>04.7156</u>	<u>31.00</u>	<u>24.49</u>	<u>06.86</u>

CTD PROFILE CREATED? Y N

CTD Beginning Coordinates: 29°00.154 N, 091°00.905 W

FILE ID R193

CTD Start/End Time: 0501/0513

CHLOROPHYLL

SURFACE

MIDWATER

BOTTOM

*FROM LAB (Mg/M³)

0.0

0.0

0.0

CHLOROPHYLL

SURFACE

MIDWATER

BOTTOM

*FROM CTD (Mg/M³)

01.2660

01.2538

01.2172

COMMENTS:

Type of CTD used: SBE 9 plus
Sargassum in area? If so, describe: ∅

GEAR TYPES USED AT THIS STATION

PN NN BC BG CA SY OX TC

led by Arthur

SEAMAP PLANKTON TOWS SHEET

VESSEL

CRUISE

SOURCE

Shift Leader Initials KEG

88

1304

LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88017

B193

MON DAY YR
10 30 13

KEG

P102

BONGO

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 5.8

AT MAX DEPTH

HH MM ANGLE WIRE OUT
05 26 40 08

25 ft
7.26m

IN TIME OUT

HH MM SS HH MM SS
05 24 50 05 28 45

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 47 91 00 84

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 52 91 00 72

FLOWMETER

LEFT METER ID # B25542 RIGHT METER ID # B25528
START 172225 START 300094
END 180770 END 308423

BONGO TOW SPEED (KT)

1.9

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

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

NEUSTON

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
05 31 02 05 41 02

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 54 91 00 64

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 93 91 00 12

JELLYFISH PRESENT?

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

SARGASSUM PRESENT?

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

NEUSTON TOW SPEED (KT)

3.6

PRESERVATIVE USED: NEUSTON

ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46996 RIGHT 46997

NEUSTON SEAMAP SAMPLE NUMBER

46998

COMMENTS:

Wire Out: 7.6 m, 25 ft
Calculated Max Tow Depth = $5.8^2 = \cos(40) * 7.6$

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

bounce d bongs
once
1:00 24 50
B: 00 28 20
B: 00 28 05
0:00 28 45
2nd time at max
depth: 2253
d moon jellies
in left
Bongo

fork leusths ^m
103
half beats = 226
120
95
Att. needle fish = 346
317

SEAMAP PLANKTON STATION AND ENVIRONMENTAL SHEET

X

Shift Leader Initials KFG VESSEL 88 CRUISE 1304 SOURCE LA Page 1 of 2

PASCAGOULA # 88018 SEAMAP STATION # P101 B197 MON 10 DAY 30 YR 13 ZONES STATISTICAL 15 FAUNAL 07 TIME 8

PLANKTON TARGET COORDINATES

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

TARGET WATER DEPTH (M) 110

ON STATION TIME

START MM 09 HH 16 FINISH HH 10 MM 08

PLANKTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES 29 00 97 LONGITUDE DEG MINUTES 91 29 48

ACTUAL WATER DEPTH (M) 110

PLANKTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES 29 00 28 LONGITUDE DEG MINUTES 91 30 55

WAVE HT. (M)

1

WIND DEGREES

177

KNOTS

09

PRECIPITATION

0

AIR TEMP (°C)

24.4

BAROMETRIC PRESSURE (mbar)

1022

SEA CONDITION (BEAUFORT SCALE)

1

DAYLIGHT ONLY:

% CLOUD COVER

0, 25, 75, 100

SECCHI DISC (M)

1

DECK DEPTH

WATER DATA FROM CTD CAST

	DEPTH (M)	CONDUCTIVITY (RATIO)	SALINITY	TEMPERATURE (°C)	DISSOLVED OXYGEN
TOP	<u>01.8</u>	<u>04.5023</u>	<u>30.05</u>	<u>23.58</u>	<u>06.70</u>
MID	<u>005.1</u>	<u>04.5024</u>	<u>30.05</u>	<u>23.58</u>	<u>06.71</u>
BOT	<u>008.7</u>	<u>04.5024</u>	<u>30.05</u>	<u>23.58</u>	<u>06.71</u>

CTD PROFILE CREATED? Y X N

CTD Beginning Coordinates: 29° 0.227' 91° 30.481'

FILE ID B197

CTD Start/End Time: 09:59 → 12:04

CHLOROPHYLL

SURFACE

MIDWATER

BOTTOM

*FROM LAB (Mg/M³)

00.0000

00.0000

00.0000

CHLOROPHYLL

SURFACE

MIDWATER

BOTTOM

*FROM CTD (Mg/M³)

00.8997

00.9486

00.8631

COMMENTS:

Type of CTD used: SOE 9 plus
Sargassum in area? If so, describe: no

GEAR TYPES USED AT THIS STATION

PN NN BC BG CA SK DX TC

led by chloe

SEAMAP PLANKTON TOWS SHEET

VESSEL CRUISE SOURCE Page 2 of 2

Shift Leader Initials LA

VESSEL 88 CRUISE 1304 SOURCE LA

PASCAGOULA #

SEAMAP STATION #

RECORDER (INITIALS)

88018

B197

MON DAY YR
10 30 13

LG

P101

BONGO

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 10.2

AT MAX DEPTH

HH MM ANGLE WIRE OUT
09 25 35 13

*12.5m
404*

IN TIME OUT

HH MM SS HH MM SS
09 23 10 09 26 28

BONGO ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 91 91 29 69

BONGO ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 86 91 29 34

FLOWMETER

LEFT METER ID # B25542 RIGHT METER ID # B25528
START 180770 START 308424*
END 187763 END 315454

BONGO TOW SPEED (KT)

1.9

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

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

NEUSTON

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

MIN TOW DEPTH (M) 0.0 MAX TOW DEPTH (M) 0.5

IN TIME OUT

HH MM SS HH MM SS
09 34 50 09 44 50

NEUSTON ACTUAL BEGINNING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 73 91 30 06

NEUSTON ACTUAL ENDING COORDINATES

LATITUDE DEG MINUTES LONGITUDE DEG MINUTES
29 00 27 91 30 29

JELLYFISH PRESENT?

Y/N IF YES, AMT (L):

SARGASSUM PRESENT?

Y/N IF YES, AMT (L):

NEUSTON TOW SPEED (KT)

3.1

PRESERVATIVE USED: NEUSTON

ETHANOL (INITIAL) / ETHANOL (FINAL)

BONGO SEAMAP SAMPLE NUMBERS

LEFT 46999 RIGHT 47000

NEUSTON SEAMAP SAMPLE NUMBER

47001

COMMENTS:

Wire Out: 12.5 m, 41 ft
Calculated Max Tow Depth =

= $\cos(35) \times 12.5$

Jars: 1 L Bongo
1 R Bongo
1 Neuston

*bounced bongsos
once*

*1:04 2310
B: 04:24:42
at 04:28:28*

*1 moon jelly
in right bongo
(320um)
0.5L*

04 3

LDWF SEAMAP Sargassum in Plankton Catches Form

Project: FALL SEAMAP GROUNDTRUTH
 Cruise Number: 1304

Passagula Station Number	SEAMAP Station Number	Net	Amount in cups (use measuring pitcher)	Amount in Liters (from NMFS Conversion Table)	Remarks
88562	B187/P105	Bongo Left		0	
	B187	Bongo Right		0	
	B187	Neuston		0	
88604	B188/P104	Bongo Left		0	
	B188	Bongo Right		0	
	B188	Neuston		0	
88006	B192/P103	Bongo Left		0	
	B192	Bongo Right		0	
	B192	Neuston		0	
88010	B191/P107	Bongo Left		0	
	B191	Bongo Right		0	
	B191	Neuston		0	
88011	B194/P106	Bongo Left		0	
	B194	Bongo Right		0	
	B194	Neuston		0	
88017	B193/P102	Bongo Left		0	
	B193	Bongo Right		0	
	B193	Neuston		0	
88018	B197/P101	Bongo Left		0	
	B197	Bongo Right		0	
	B197	Neuston		0	
		Bongo Left			
		Bongo Right			
		Neuston			
		Bongo Left			
		Bongo Right			
		Neuston			

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

(FL)
 1 mass jelly (55.5 mm); 1 half plank (107 mm); 1 fly (48 mm)
 (FL)
 2 mass jellies
 (FL)
 4 half planks (153, 226, 133, 95 mm); 2 half plank (346, 317 mm)