

SEAMAP Spring 2013 Plankton Survey Cruise Report

Cruise Dates: 05/06/13-05/09/13

Prepared by Chloe Dean on 06/04/13

Louisiana Department of Wildlife and Fisheries

195 Ludwig Annex

Grand Isle, LA 70358

Introduction

The Southeast Area Monitoring and Assessment Program (SEAMAP) spring plankton surveys are conducted to provide information on the occurrence, abundance and geographical distribution of the eggs and larvae of spring spawning fish, particularly Atlantic bluefin tuna, which is essential to fisheries management of the Gulf of Mexico.

Objectives

1. Sample in conjunction with the National Marine Fisheries Service (NMFS) SEAMAP Spring Plankton Survey and select stations from their Spring 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 and labeled aboard the vessel. 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 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

The survey was conducted on 06-09 May 2013 aboard the R/V Blazing Seven. Louisiana sampled sixteen plankton stations between longitudes 88° 29.75 and 92° 29.59 and between latitudes 28° 29.74 and 29° 29.85. Eighty-six plankton samples (jars) were collected. Plankton samples were transferred to the NMFS Pascagoula, MS lab on 30 May 2013. All chlorophyll samples were analyzed by spectroscopy in the LDWF Fisheries Research Laboratory.

Deviations

On station B184, we collected a total of 2227.58L of *Sargassum* in the neuston tow. The total amount of *Sargassum* was subsampled and 568.26L were sorted and included in the final sample. Upon NOAA's receipt of this sample, they informed us that it was not able to be sent to Poland due to the subsampling. There were no instructions in the manual as to what to do when this amount of *Sargassum* was collected in under five minutes (minimum tow time), so we did the best we could with the information at hand. Andy Millett, the FPC on the NOAA plankton survey was notified and informed that the station may need to be redone, so they may have picked the station up on their way in from their plankton survey.

Two different Sea-Bird CTD units (SBE 9plus and SBE 37) were used during this survey as well as a YSI Professional Plus unit (one site). This was due to a cable connection problem on the SBE 9plus. Once we lost SBE 9plus capabilities, we lost the ability to collect water from middle and bottom depths. Site B201 was sampled with the YSI and has surface and middle water quality data as well as surface chlorophyll data. The YSI did not have a cable long enough to reach the bottom depth. Sites B196 – B179 have full water quality data but only surface chlorophyll data. There were no other deviations.

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, Michael Sweda, Jessica Scallan, Jennifer Frey, and Jennifer Atilano.

Submitted By:

Chloe Dean
SEAMAP Chief Scientist

STA. #	PASCA. #	DATE	GMT START TIME	LAT	LONG	DEPTH (m)	SALINITY			TEMPERATURE			DO			PLANKTON TOW
		MM/DD/YYYY					SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX	
B192	88001	5/6/2013	1305	29° 00.18	90° 27.79	11.6	28.92	28.92	29.21	21.10	21.10	21.22	6.24	6.29	6.17	B/N
B193	88002	5/6/2013	1730	29° 00.15	90° 59.08	7.9	16.57	19.61	22.96	20.69	21.00	21.37	8.05	7.46	6.22	B/N
B197	88003	5/6/2013	2233	28° 59.58	91° 29.65	10.9	21.14	24.90	35.21	21.74	21.15	22.20	11.85	9.12	5.51	B/N
B200	88004	5/7/2013	0257	29° 00.08	91° 59.48	19.7	30.84	32.01	35.66	21.37	21.29	21.92	8.98	8.62	5.42	B/N
B204	88005	5/7/2013	0723	28° 59.99	92° 29.59	26.8	29.86	33.20	35.47	21.54	21.58	21.28	8.56	7.12	5.61	B/N
B201	88006	5/7/2013	1303	28° 30.71	92° 00.30	50.3	32.41	36.84	NA	21.50	21.90	NA	8.51	7.25	NA	B/N
B196	88007	5/7/2013	1711	28° 29.86	91° 31.22	50.0	30.12	35.60	36.40	21.77	21.96	21.44	6.02	5.03	4.68	B/N
B194	88008	5/7/2013	2137	28° 29.90	91° 00.34	35.3	26.27	34.26	36.36	22.54	22.22	21.75	10.47	6.11	6.51	B/N
B191	88009	5/8/2013	0130	28° 29.98	90° 30.23	40.0	27.76	35.52	36.35	22.36	21.94	20.98	8.64	6.42	6.85	B/N
B189	88010	5/8/2013	0535	28° 30.14	90° 00.48	89.4	26.47	36.38	36.24	21.94	21.03	16.99	9.82	5.73	7.40	B/N
B186	88011	5/8/2013	1745	28° 30.66	89° 29.94	421.0	30.13	36.45	36.36	21.73	22.03	19.45	8.57	6.82	7.11	B/N
B184	88012	5/8/2013	2240	28° 30.36	89° 01.68	802.2	33.07	36.38	36.41	24.30	21.52	19.01	8.28	6.89	6.71	B/N
B251	88013	5/9/2013	0415	28° 29.74	88° 29.89	1650.0	33.91	36.21	36.36	22.27	22.46	19.54	7.77	6.94	6.21	B/N
B180	88014	5/9/2013	1719	28° 59.08	88° 29.99	585.0	32.57	36.32	36.30	21.97	19.30	17.16	11.13	5.18	5.77	B/N
B323	88015	5/9/2013	2007	29° 13.40	88° 29.75	111.9	30.06	36.35	36.37	23.92	20.94	19.29	10.03	6.98	9.52	B/N
B179	88016	5/9/2012	2249	29° 29.85	88° 30.10	51.8	35.01	36.41	36.39	22.01	18.57	18.42	7.19	4.50	7.85	B/N

LDWF SEAMAP Plankton Sample Check-In

Cruise 1301

Month/Year May, 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	B192	29°00.00	90°30.00	Bongo-Lt.	05/06	F - E	1425	1	45918
				Bongo-Rt.	05/06	E - E	1425	1	45919
				Neuston	05/06	E - E	1425	1	45920
88002	B193	29°00.00	91°00.00	Bongo-Lt.	05/06	F - E	1943	1	45921
				Bongo-Rt.	05/06	E - E	1943	1	45922
				Neuston	05/06	E - E	1943	1	45923
88003	B197	29°00.00	91°30.00	Bongo-Lt.	05/06	F - E	2359	1	45924
				Bongo-Rt.	05/06	E - E	2359	1	45925
				Neuston	05/06	E - E	2359	1	45926
88004	B200	29°00.00	92°00.00	Bongo-Lt.	05/07	F - E	0439	1	45927
				Bongo-Rt.	05/07	E - E	0439	1	45928
				Neuston	05/07	E - E	0439	5	45929
88005	B204	29°00.00	92°32.40	Bongo-Lt.	05/07	F - E	0941	6	45930
				Bongo-Rt.	05/07	E - E	0941	4	45931
				Neuston	05/07	E - E	0941	10	45932
88006	B201	28°30.00	92°00.00	Bongo-Lt.	05/07	F - E	1423	1	45933
				Bongo-Rt.	05/07	E - E	1423	1	45934
				Neuston	05/07	E - E	1423	2	45935
88007	B196	28°30.00	91°30.00	Bongo-Lt.	05/07	F - E	1915	1	45936
				Bongo-Rt.	05/07	E - E	1915	2	45937
				Neuston	05/07	E - E	1915	2	45938

LDWF SEAMAP Plankton Sample Check-In

Cruise 1301

Month/Year May, 2013

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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	B194	28°30.00	91°00.00	Bongo-Lt.	05/07	F - E	2230	1	45939
				Bongo-Rt.	05/07	E - E	2230	1	45940
				Neuston	05/07	E - E	2230	2	45941
88009	B191	28°30.00	90°30.00	Bongo-Lt.	05/08	F - E	0313	1	45942
				Bongo-Rt.	05/08	E - E	0313	1	45943
				Neuston	05/08	E - E	0313	3	45944
88010	B189	28°30.00	90°00.00	Bongo-Lt.	05/08	F - E	0940	2	45945
				Bongo-Rt.	05/08	E - E	0940	1	45946
				Neuston	05/08	E - E	0940	5	45947
88011	B186	28°30.00	89°30.00	Bongo-Lt.	05/08	F - E	1934	1	45948
				Bongo-Rt.	05/08	E - E	1934	1	45949
				Neuston	05/08	E - E	1934	3	45950
88012	B184	28°30.00	89°00.00	Bongo-Lt.	05/08	F - E	2338	1	45951
				Bongo-Rt.	05/08	E - E	2338	1	45952
				Neuston	05/08	E - E	2338	5	45953
*subsampled neuston									
88013	B251	28°30.00	88°30.00	Bongo-Lt.	05/09	F - E	0503	1	45954
				Bongo-Rt.	05/09	F - E	0503	1	45955
				Neuston	05/09	F - E	0503	5	45956
88014	B180	29°00.00	88°30.00	Bongo-Lt.	05/09	F - E	1800	1	45957
				Bongo-Rt.	05/09	F - E	1800	1	45958
				Neuston	05/09	F - E	1800	3	45959

LDWF SEAMAP Plankton Sample Check-In

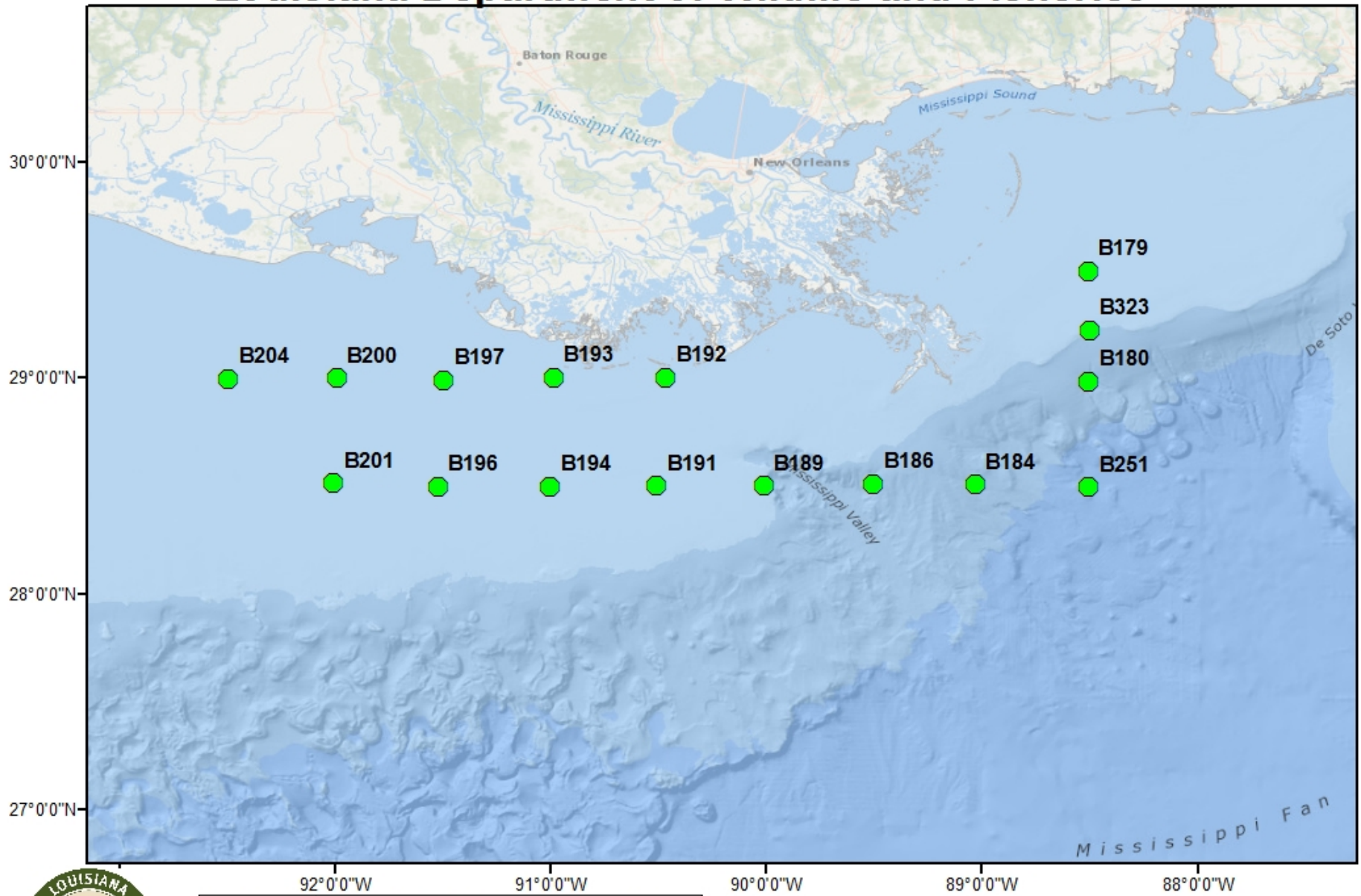
Cruise 1301

Month/Year May, 2013

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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.
88015	B323	29°13.20	88°30.00	Bongo-Lt.	05/09	F - E	2057	1	45960
				Bongo-Rt.	05/09	F - E	2057	1	45961
				Neuston	05/09	F - E	2057	14	45962
88016	B179	29°30.00	88°30.00	Bongo-Lt.	05/09	F - E	2320	1	45963
				Bongo-Rt.	05/09	F - E	2320	1	45964
				Neuston	05/09	F - E	2320	1	45965

Louisiana Department of Wildlife and Fisheries



Project	LDWF SEAMAP Spring Plankton Survey
Date	May 6 - 9, 2013
Location	Gulf of Mexico, Louisiana

0 25 50 100 Nautical Miles

