

**Center for Fisheries Research & Development - Gulf Coast Research Laboratory  
703 E. Beach Drive, Ocean Springs, MS 39564**

**SEAMAP Summer Shrimp/Groundfish Survey, *R/V Tommy Munro*  
Cruise 0903 - West Delta Stations**

**Introduction** - The West Delta Summer Shrimp/Groundfish Survey cruise was conducted from June 27, 2009, through July 1, 2009. A total of four day and five night stations were sampled, with tow times ranging from 15 to 30 minutes depending on depth strata coverage.

**Objectives**

- Conduct summer trawl survey in West Delta region at randomly-selected stations (locations of which are provided by NMFS) with standard SEAMAP 40-ft trawls to collect information on shrimp and groundfish abundance and distribution.
- Process all species (identified to the species level) collected by 40-ft trawl using the FSCS software for total number and total weight. Process individual lengths and weights, sampled (or sub-sampled) by species, using FSCS software according to NMFS SEAMAP Operations Manual.
- Collect information on physical-chemical and environmental parameters in conjunction with trawl sampling and process those using SCS software.
- Submit data to the Gulf States Marine Fisheries commission/NMFS Data Manager.

**Methods** - All trawl samples were collected aboard the *R/V Tommy Munro*. A 40 ft. trawl with 1.58 inch stretched mesh was lowered into position at selected stations, and the towline was set at a 3.5:1 cable length to water depth ratio. Trawling was conducted at or near 3 knots for a period of 10 to 30 minutes after lockdown in order to sample the appropriate depth stratum. Sample and data processing was conducted in accordance with the SEAMAP Operations Manual. Data were entered using the Fisheries Scientific Computer System. Environmental data were collected in conjunction with each trawl. Temperature, dissolved oxygen, and salinity values were measured and recorded, along with meteorological conditions.

**Results** - A total of 7,722 organisms were collected in nine trawl samples. Time, location, depth and hydrology data are presented in Tables 1 and 2. Catch data are presented in Table 3.

**Deviations** - There were no deviations from standard SEAMAP protocol.

**Cruise participants** - USM/GCRL/CFRD

Submitted By:



Read Hendon, Principal Investigator

**Table 1. Time, location and depth data for 40-ft trawl samples collected aboard *R/V Tommy Munro*, SEAMAP Cruise Number 0903 – West Delta, June 27-July 1, 2009.**

SEAMAP Station No.	Trawl Start Time (GMT)	Start Latitude	Start Longitude	Stop Latitude	Stop Longitude	Start Depth (fm)	Stop Depth (fm)	Tow Time
WN53	6/28/2009 8:18	2911.18	8930.07	2910.18	8930.72	3.1	3.9	24.3
WD54	6/28/2009 16:19	2859.61	9044.40	2858.32	9043.21	4.4	5.4	30.1
WD53	6/28/2009 19:09	2900.78	9102.37	2859.29	9101.95	3.2	4.1	30.6
WD52	6/28/2009 20:36	2902.62	9104.26	2901.13	9103.79	2.0	2.9	29.3
WN54	6/29/2009 1:25	2857.34	9120.93	2856.61	9121.75	4.2	5.2	19.5
WN52	6/29/2009 3:46	2910.88	9124.66	2909.50	9125.62	2.1	2.9	30.3
WD49	6/29/2009 13:48	2912.86	9208.82	2912.32	9208.02	3.3	3.9	15.6
WN48	6/30/2009 1:22	2944.98	9309.73	2944.01	9309.89	2.2	3.0	16.8
WN50	6/30/2009 3:54	2941.47	9321.07	2940.34	9321.01	4.3	5.0	19.7

**Table 2. Surface and bottom hydrology data for SEAMAP Cruise Number 0903 – West Delta, June 27-July 1, 2009.**

SEAMAP Station No.	Surface Temp (°C)	Surface Salinity (ppt)	Surface DO (mg/L)	Bottom Temp (°C)	Bottom Salinity (ppt)	Bottom DO (mg/L)
WN53	30.2	1.8	5.9	30.5	18.0	4.5
WD54	29.9	23.7	6.9	26.0	33.1	3.0
WD53	30.8	10.3	7.2	27.8	26.7	3.9
WD52	29.5	18.4	4.2	28.0	26.5	4.1
WN54	31.5	13.6	9.2	26.3	33.0	3.7
WN52	30.3	2.9	6.9	27.8	25.7	4.0
WD49	29.9	29.2	5.6	30.1	29.3	5.8
WN48	30.4	31.1	5.2	30.6	31.1	5.4
WN50	30.0	31.4	5.2	30.0	32.1	5.3

**Table 3. Species collected by station in 40-ft trawls aboard *R/V Tommy Munro*, SEAMAP Cruise Number 0903 – West Delta, June 27-July 1, 2009.**

<b>SEAMAP Station No.</b>	<b>Species</b>	<b>Total Number</b>
WD49	<i>ARIUS FELIS</i>	1
WD49	<i>CARETTA CARETTA</i>	1
WD49	<i>CHLOROSCOMBRUS CHRYSURUS</i>	131
WD49	<i>CHRYSAORA QUINQUECIRRHA</i>	66
WD49	<i>ECHENEIS NAUCRATES</i>	3
WD49	<i>HEMICARANX AMBLYRHYNCHUS</i>	1
WD49	<i>LAGODON RHOMBOIDES</i>	1
WD49	<i>LOLLIGUNCULA BREVIS</i>	1
WD49	<i>MICROPOGONIAS UNDULATUS</i>	2
WD49	<i>OPISTHONEMA OGLINUM</i>	30
WD49	<i>SELENE VOMER</i>	2
<b>Station Total - WD49</b>		<b>239</b>

<b>SEAMAP Station No.</b>	<b>Species</b>	<b>Total Number</b>
WD52	<i>ARIUS FELIS</i>	13
<b>Station Total - WD52</b>		<b>13</b>

<b>SEAMAP Station No.</b>	<b>Species</b>	<b>Total Number</b>
WD53	<i>ARIUS FELIS</i>	4
WD53	<i>NEVERITA DUPLICATA</i>	1
<b>Station Total - WD53</b>		<b>5</b>

<b>SEAMAP Station No.</b>	<b>Species</b>	<b>Total Number</b>
WD54	<i>CALLINECTES SAPIDUS</i>	3
<b>Station Total - WD54</b>		<b>3</b>

*Table 3 continued on next page*

Table 3 - continued. Species collected by station in 40-ft trawls aboard *R/V Tommy Munro*, SEAMAP Cruise Number 0903 – West Delta, June 27-July 1, 2009.

SEAMAP Station No.	Species	Total Number
WN48	<i>ANCHOA MITCHILLI</i>	27
WN48	<i>ARIUS FELIS</i>	22
WN48	<i>BREVOORTIA PATRONUS</i>	37
WN48	<i>CALLINECTES SAPIDUS</i>	24
WN48	<i>CALLINECTES SIMILIS</i>	6
WN48	<i>CYNOSCIION ARENARIUS</i>	170
WN48	<i>HEMICARANX AMBLYRHYNCHUS</i>	2
WN48	<i>LAGODON RHOMBOIDES</i>	1
WN48	<i>LEIOSTOMUS XANTHURUS</i>	1
WN48	<i>LOLLIGUNCULA BREVIS</i>	5
WN48	<i>MICROPOGONIAS UNDULATUS</i>	743
WN48	<i>PEPRILUS ALEPIDOTUS</i>	3
WN48	<i>RHINOPTERA BONASUS</i>	2
WN48	<i>SCOMBEROMORUS MACULATUS</i>	1
WN48	<i>SELENE SETAPINNIS</i>	14
WN48	SHRIMP-BROWN MALE	2
WN48	SHRIMP-WHITE FEMALE	12
WN48	SHRIMP-WHITE MALE	9
WN48	<i>STELLIFER LANCEOLATUS</i>	829
WN48	<i>SYMPHURUS PLAGIUSA</i>	1
WN48	<i>TRICHIURUS LEPTURUS</i>	7
WN48	<i>XIPHOPENAEUS KROYERI</i>	178
<b>Station Total - WN48</b>		<b>2096</b>

SEAMAP Station No.	Species	Total Number
WN50	<i>ANCHOA MITCHILLI</i>	24
WN50	<i>ARIUS FELIS</i>	7
WN50	<i>CALLINECTES SAPIDUS</i>	5
WN50	<i>CALLINECTES SIMILIS</i>	36
WN50	<i>CHAETODIPTERUS FABER</i>	2
WN50	<i>CYNOSCIION NOTHUS</i>	82
WN50	<i>LEIOSTOMUS XANTHURUS</i>	15
WN50	<i>LOLLIGUNCULA BREVIS</i>	2
WN50	<i>MICROPOGONIAS UNDULATUS</i>	2670
WN50	<i>PEPRILUS ALEPIDOTUS</i>	2
WN50	SHRIMP-BROWN FEMALE	5
WN50	SHRIMP-BROWN MALE	2
WN50	SHRIMP-WHITE FEMALE	7
WN50	SHRIMP-WHITE MALE	11
WN50	<i>STELLIFER LANCEOLATUS</i>	753
WN50	<i>XIPHOPENAEUS KROYERI</i>	296
<b>Station Total - WN50</b>		<b>3919</b>

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Table 3 - continued. Species collected by station in 40-ft trawls aboard *R/V Tommy Munro*, SEAMAP Cruise Number 0903 – West Delta, June 27-July 1, 2009.

SEAMAP Station No.	Species	Total Number
WN52	<i>ARIUS FELIS</i>	3
WN52	<i>BREVOORTIA PATRONUS</i>	12
WN52	<i>MICROPOGONIAS UNDULATUS</i>	398
<b>Station Total - WN52</b>		<b>413</b>

SEAMAP Station No.	Species	Total Number
WN53	<i>ANCHOA MITCHILLI</i>	27
WN53	<i>ARIUS FELIS</i>	30
WN53	<i>BREVOORTIA PATRONUS</i>	61
WN53	<i>CALLINECTES SAPIDUS</i>	2
WN53	<i>CALLINECTES SIMILIS</i>	6
WN53	<i>CYNOSCION ARENARIUS</i>	7
WN53	<i>LEIOSTOMUS XANTHURUS</i>	1
WN53	<i>MICROPOGONIAS UNDULATUS</i>	420
WN53	<i>SCOMBEROMORUS MACULATUS</i>	2
WN53	SHRIMP-BROWN FEMALE	5
WN53	SHRIMP-BROWN MALE	3
WN53	SHRIMP-WHITE FEMALE	4
WN53	SHRIMP-WHITE MALE	2
WN53	<i>STELLIFER LANCEOLATUS</i>	15
WN53	<i>TRICHIURUS LEPTURUS</i>	1
<b>Station Total - WN53</b>		<b>586</b>

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Table 3 - continued. Species collected by station in 40-ft trawls aboard *R/V Tommy Munro*, SEAMAP Cruise Number 0903 – West Delta, June 27-July 1, 2009.

SEAMAP Station No.	Species	Total Number
WN54	<i>CHLOROSCOMBRUS CHRYSURUS</i>	86
WN54	<i>LIBINIA DUBIA</i>	1
WN54	<i>LOLIGO PLEII</i>	10
WN54	<i>LOLLIGUNCULA BREVIS</i>	17
WN54	<i>MICROPOGONIAS UNDULATUS</i>	3
WN54	<i>MONACANTHUS HISPIDUS</i>	1
WN54	<i>NEVERITA DUPLICATA</i>	1
WN54	<i>OPISTHONEMA OGLINUM</i>	2
WN54	<i>PARANTHUS RAPIFORMIS</i>	8
WN54	<i>PENAEUS AZTECUS</i>	118
WN54	<i>SCOMBEROMORUS MACULATUS</i>	1
WN54	<i>SHRIMP-BROWN FEMALE</i>	92
WN54	<i>SHRIMP-BROWN MALE</i>	108
WN54	<i>SHRIMP-WHITE FEMALE</i>	1
<b>Station Total - WN54</b>		<b>449</b>