# Marine Fisheries Crustacean Section - Independent Sampling Activities: Field Manual

Louisiana Wildlife and Fisheries

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# Marine Fisheries Crustacean Section

## Independent Sampling Activities

# Field Manual

October 2022

## INTRODUCTION

The Mission of the Louisiana Department of Wildlife and Fisheries (LDWF) is to manage, conserve, and promote wise utilization of Louisiana's renewable fish and wildlife resources and their supporting habitats through replenishment, protection, enhancement, research, development, and education for the social and economic benefit of current and future generations; to provide opportunities for knowledge of and use and enjoyment of these resources; and to promote a safe and healthy environment for the users of the resources.

The LDWF Office of Fisheries is mandated to protect, manage, and conserve the valuable marine resources of Louisiana. The mission of the Office of Fisheries is to ensure that living aquatic resources are sustainable for present and future generations of Louisiana citizens by providing access and scientific management. The goals of the Office of Fisheries are to improve their ability to manage living aquatic resources through enhancement and more efficient and effective data collection, analysis and regulation and to improve access to those resources. Within the Office, the Marine Fisheries Section is charged with management of the full range of Louisiana's estuarine and marine resources. Participation in numerous local, state, regional, national and international committees, task forces and councils provides professional expertise in the development of state and federal regulation, legislation and standards governing the wise use of renewable natural resources. In order to more efficiently manage the inshore and nearshore fisheries resources of the state, LDWF's Marine Fisheries Section has revised its previous monitoring program and established a new, more flexible approach that encompasses a broader geographic scale.

Sampling protocols described in this document depict only current standard sampling requirements, which may be exceeded periodically to obtain additional biological data for management decisions. For instance, supplemental trawl samples may be taken to quantify distribution, abundance, and size of penaeid shrimp to provide data for managers to recommend the opening and closing of seasons. In addition, the regularly scheduled sampling program may be augmented by monitoring of specific events such as floods, fish kills, chemical or oil spills, habitat modifications, and evolving management strategies.

The fishery independent monitoring program is central to the core duties of the Section and involves field sampling and biologist-led data collection for the main resource groups.

## STATION LOCATION

A station is intended to characterize a specific habitat type within a salinity zone of a basin, using a gear with consistent efficiency and selectivity characteristics (e.g. mesh size, twine size, trawl boards). It is necessary to ensure that everything is done to make those samples as replicable as possible, and comparable across time. Note: effective gear operation is also required for replicability, as described elsewhere in this manual.

Samples shall always be collected as close to the actual station coordinates as possible. It is understood that sampling directly on the station may not always be practical due to circumstances beyond the crew's control (e.g. – recreational or commercial fishing activity at the station, high winds, low water conditions, oyster reef heterogeneity, shoreline erosion, etc…). However, any deviation from the station must not exceed a ¼ mile radius from the point where the sample is initiated and must be of the same habitat type, as well as can be determined based on on-site observations and professional judgement. Any significant deviation within the ¼ mile radius, and the reason for the deviation, must be noted on the data sheet. For any sample that cannot be conducted within these criteria, the crew leader must notify their Supervisor as soon as possible to explain the situation and discuss options (try again later that day, forego the sample until another day, etc…). If the Supervisor cannot be reached while the crew is on the water, they should forego the sample and notify their Supervisor no later than close of business the same day.

Any stations that may need to be permanently moved or deactivated due to changes in site conditions (marsh edge, water depth, habitat type, etc.) must be provided by the CSA Manager to the responsible DCL-B or

Program Manager, and the Operations Manager, for review and approval before submitting the request to Data Management. It is the responsibility of all field personnel to notify their chain of command if changes in site conditions potentially warrant moving or deactivating a station.

Care must be taken when identifying a new station location that the location not have features that might make the station unique within that habitat/zone/basin, unless there is a reason noted to do so (e.g. sampling a new cultch plant or an artificial reef). Such reasons should be noted in the request to establish the station location.

If an approved station move is less than 1,500 yards from the original station location, Data Management will update the coordinates for the existing station. If an approved station move is greater than 1,500 yards from the original station, Data Management will create a new station based on the approved coordinates and deactivate the old station. A brief explanation for the station move shall be recorded in the station comments by Data Management.

## COASTAL SAMPLING BASINS

For resource monitoring purposes, the Louisiana coast is divided into five large hydrological basins, with a field office representing each of those (Figure 1). Geographic boundaries of the basins are as follows:

**Pontchartrain Basin (CSA 1)**

The Pontchartrain Basin is bordered on the north by the Mississippi state line and on the south by the west bank of the Mississippi River running through South Pass. This includes major water bodies such as Chandeleur, Breton, and Mississippi Sounds, Lakes Borgne and Pontchartrain, Black Bay, Bay Gardene, and California Bay, as well as the Biloxi Marsh and the eastern Mississippi River Delta. Monitoring is conducted out of field offices located in Lacombe and New Orleans. This basin contains Coastal Study Area (CSA) 1 and the portion of historical CSA 2 east of the Mississippi River.

**Barataria Basin (CSA 3)**

The Barataria Basin is bounded to the east by the western shore of the Mississippi River through South Pass and to the west by the eastern shore of Bayou Lafourche. This includes Bay Adams, Sandy Point Bay, Barataria Bay, Caminada Bay, Little Lake, and Hackberry Bay. This area also contains the majority of the fisheries infrastructure lying along the Mississippi River and Bayou Lafourche. Monitoring is conducted from offices in New Orleans and the Fisheries Research Lab. This basin contains historical CSA 3 and portions of historical CSA 2 west of the Mississippi River.

**Terrebonne Basin (CSA 5)**

The Terrebonne Basin is bounded to the east by the eastern shore of Bayou Lafourche and to the west by the eastern shore of the Atchafalaya River, and includes Point au Fer Island. Major water bodies include Timbalier Bay, Lake Raccourci, Terrebonne Bay, Lake Pelto, Caillou Bay, Caillou Lake, Lake Mechant, Lake DeCade, and Four-League Bay. Monitoring is conducted from the field office in Bourg. This basin consists of historical CSAs 4 and 5.

**Vermilion Basin (CSA 6)**

The Vermilion Basin is bounded to the east by the eastern shore of the Atchafalaya River and to the west by the western shore of the Freshwater Bayou Canal. Major water bodies include Vermilion Bay, Weeks Bay, West Cote Blanche Bay, East Cote Blanche Bay, and Atchafalaya Bay. Monitoring is conducted from the field office in Lafayette. This basin is composed of the historical CSA 6.

**Calcasieu Basin (CSA 7)**

The Calcasieu Basin is bounded to the east by the western shore of Freshwater Bayou Canal, and to the west by the Louisiana/Texas state line. Major water bodies within this basin include, the Mermentau River Basin, Calcasieu Lake, Lake Charles, Grand Lake, Prien Lake, and Sabine Lake. Monitoring is conducted from the field office in Lake Charles. This basin is composed of historical CSA 7.

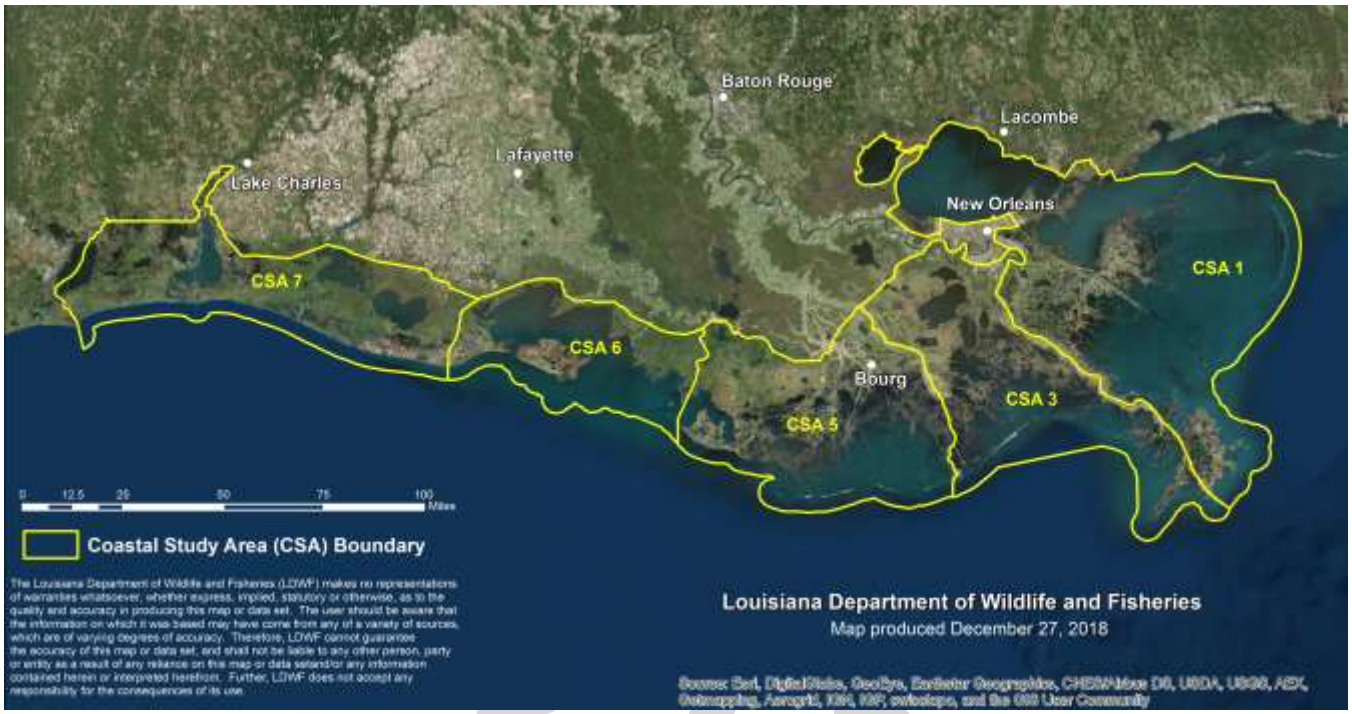



**Figure 1.** Map of Coastal Study Areas / Hydrologic Sampling Basins.

## MONITORING PROGRAMS

### CRUSTACEAN PROGRAM

This fisheries-independent monitoring program is largely based upon methodology developed during the Cooperative Gulf of Mexico Estuarine Inventory and Study (GMEI; Perret et al. 1971). That project was conducted in cooperation with the Gulf States Marine Fisheries Commission (GSMFC), the states of Alabama and Mississippi, and the National Marine Fisheries Service (NMFS) laboratories at Galveston, Texas and St. Petersburg, Florida. Standardized sampling methods and procedures used in the GMEI were developed by the Technical Coordinating Committee of the GSMFC.

Marine Fisheries Section's shrimp trawl database dates back to 1965 for some areas in Louisiana. The program has been modified over the years to reflect changes in habitat, management, and gears. Enhanced monitoring was initiated in 2010 to increase the spatial coverage of the program. Revisions to sampling frequency were initiated in 2013 to more efficiently gather the required data. Beginning in 2013, nearshore stations previously sampled with 16 foot (ft.) trawls were sampled with 20 ft. trawls and additional offshore sample sites were added throughout Louisiana's offshore waters. Current sampling gears include 6 ft. and 16 ft. trawls for inshore stations, as well as 20 ft. trawls for nearshore stations. Sampling for this program also provides data for use in stock assessment development for multiple species.

## GEARS

### 16 ft. INSHORE TRAWL

A 16 ft. flat otter trawl is used to sample penaeid shrimp, blue crabs, finfishes, and other marine organisms in the larger inshore bays and waterways. The webbing, size of individual sections, and other specifications for a 16 ft. flat otter trawl are described in Appendix A.

The objectives of this project are to determine relative abundance and size distribution of selected species and to provide data for use in the development of management recommendations that include openings and closures of harvest seasons. Indices of abundance of other species (e.g. blue crabs) gathered from this gear are used for stock assessments and monitoring of other fisheries groups and species.

Whenever possible, samples are to be taken during weeks illustrated in the Sampling Schedule box below. Deviations from the schedule due to weather and/or complications should be after consultation between Basin Manager, Crustacean Program Manager, and the Operations Manager. A summary of specific data uses at certain times for penaeid shrimp is below.

- Data collected in January and February are primarily used in monitoring white shrimp abundance and size during potential extensions of the fall inshore shrimp season.
- Data collected in March and April are used in monitoring over-wintering white shrimp abundance and size for use in potential emergency openings of special spring inshore or offshore shrimp seasons within each coastal basin.
- Sample data collected in late April and the first week of May are used in developing recommendations to the Louisiana Wildlife and Fisheries Commission (LWFC) relative to opening dates for the spring inshore shrimp seasons.
- Data collected in June and July are used for both recommending emergency closures and potential extensions of the spring inshore shrimp season in inshore waters.
- Sample data collected in late July and early August are used in developing recommendations to the LWFC relative to potential opening dates for the fall inshore shrimp season.
- Data collected from mid-August through December are used in monitoring white shrimp distribution, abundance and size, and used in developing recommendations to the Secretary for emergency closures and potential extensions for the fall inshore shrimp season.

*16 ft. Trawl Sampling Schedule*

| JAN | | | | FEB | | | | MAR | | | | APR | | | | MAY | | | | JUN | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | x | | | | x | | | | | | x | | x | | x | x | | x | | | | x | x |
| **JUL*** | | | | **AUG**** | | | | **SEP** | | | | **OCT** | | | | **NOV** | | | | **DEC** | | | |
| | x | | x | | | | x** | | | x | | | | x | | | | x | | x | | x | |

*Weekly sampling typically conducted by CSA 6 in July.
**August 16 ft. trawl samples should be taken the week prior to the opening of the fall season.

*Sampling Procedure*

The 16 ft. trawl is attached to a 1/2 in. diameter nylon rope, Kevlar rope, or stainless steel tow line and bridle. The length of the bridle is 2-3 times the trawl width. Tow line length is normally at least 4-5 times the maximum depth of water. The trawl is towed for ten minutes (timed from when the trawl first begins to move forward to when it

stops forward movement) at a constant speed and in a weaving or circular track to allow the prop wash to pass on either side of the trawl.

All organisms are identified to species, counted, and up to 50 individuals of each species measured in 5 millimeter (mm) intervals or work groups. Size measurements are taken as follows: shrimp - anterior tip of rostrum to posterior tip of telson; crabs - carapace width (CW); squid - mantle length; medusoid jellyfish - diameter; stingray - disc width; and other finfish - total length (tip of snout to tip of longest lobe of compressed caudal fin). Blue crabs (*Callinectes spp*.) larger than 55 mm CW are sexed and all females staged (i.e. immature, mature or gravid). The presence of any external parasites, eggs, and molt phase are noted under species specific observation codes

**6 ft. INSHORE TRAWL**

A 6 ft. balloon otter trawl is used to sample juvenile penaeid shrimps in shallow edge habitats in the interior marshes. The webbing, size of individual sections, and other specifications for a 6 ft. two-seam balloon trawl are described in Appendix A.

Sample data collected in April and the first week of May are used in presenting recommendations to the LWFC relative to potential opening dates for the spring inshore shrimp season within each basin. Sample data collected in June and July are used in monitoring the distribution and size frequency of newly recruited white shrimp (*Litopenaeus setiferus*) during the spring inshore shrimp season. Recommendations are developed and presented, if necessary, to the Secretary for emergency actions to close all or parts of inshore waters to shrimping within each basin.

*6 ft. Trawl Sampling Schedule*

| JAN | | | | FEB | | | | MAR | | | | APR | | | | MAY | | | | JUN | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | x | x | x | x | x | | | | | x | x | x |
| **JUL** | | | | **AUG** | | | | **SEP** | | | | **OCT** | | | | **NOV** | | | | **DEC** | | | |
| x | | | | | | | | | | | | | | | | | | | | | | | |

*Sampling Procedure*

A 3/8 in. diameter tow line and bridle is attached to the 6 ft. trawl. Tow line and bridle length determinations are identical to that of the 16 ft. trawl. Gear deployment is identical to that described for 16 ft. trawls. Only penaeid shrimp are identified, counted, and up to 50 measured (in 5 mm work groups) per species.

Based upon the desired level of precision, a basin-specific number of weekly samples is drawn from the total list of 6 ft. trawl stations based on power analysis of data from prior years. The number of stations are distributed among, and randomized within, geographical stratifications identified within each coastal basin. If more samples are required than a multiple of the number of strata, then additional random samples are chosen from a randomly selected stratum. Stratification ensures better spatial coverage over a weekly sampling event.

The Pontchartrain Basin has six strata, the Barataria and Terrebonne Basins have four each, and due to the historically documented homogeneity of its habitat during 6 ft. trawl sampling, the entire Vermilion Basin is treated as a single stratum. Due to the limited availability of this habitat in the Calcasieu system, this gear is not used in that basin.

**20 ft. NEARSHORE TRAWL**

A 20 ft. semi-balloon trawl with aluminum doors is used to sample nearshore bottoms within Louisiana territorial waters. The webbing, size of individual sections, and other specifications for the 20 ft. trawl are described in Appendix A.

Sample data collected within these areas are used primarily in presenting recommendations to the LWFC on shrimping closures in all or portions of outside waters. These closures are designed to protect small over-wintering white shrimp in areas where significant numbers occur and allow them the opportunity to reach marketable sizes and/or re-enter inshore waters for harvest in the spring.

Sample data are also used in developing and presenting recommendations to the Secretary and the LWFC for emergency closing and reopening of these waters when closures are no longer needed. Louisiana has recently acted to expand its reef fisheries jurisdiction seaward nine nautical miles from the coastline and there is a need to collect additional data in these waters for management purposes.

Sample data collected in November, December and January are used in presenting recommendations to the LWFC and/or Secretary concerning potential closures of portions of state outside waters to shrimping. Historical data indicate that significant numbers of small over-wintering white shrimp occupy portions of state outside waters and these closures protect these individuals.

Data collected from March through early May are used in presenting recommendations to the LWFC and/or Secretary concerning potential reopening of portions of state outside waters to shrimping.

Sample data are not collected in state outside waters seaward of Breton and Chandeleur Sounds.

*20 ft. Trawl Sampling Schedule*

| JAN | | | | FEB | | | | MAR | | | | APR | | | | MAY | | | | JUN | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | x | | | | | | | | | | x | x | | x | | x | | | | | | | |
| **JUL** | | | | **AUG** | | | | **SEP** | | | | **OCT** | | | | **NOV** | | | | **DEC** | | | |
| | | | | | | | | | | | | | | | | | | x | | x | | x | |

*Sampling Procedure*

The method of use is similar to that of 16' trawls. All organisms are identified to species, counted, and up to 50 individuals of each species measured in 5 mm intervals. Size measurements are taken as follows: shrimp - anterior tip of rostrum to posterior tip of telson; crabs - carapace width (CW); squid - mantle length; medusoid jellyfish - diameter; stingray - disc width; and other finfish - total length (tip of snout to tip of longest lobe of compressed caudal fin). Blue crabs (*Callinectes sapidus*) larger than 55 mm CW are sexed and all females staged (i.e. immature, mature or gravid). The presence of any external parasites, eggs, as well as molt phase (i.e soft) is noted under species specific observation codes.

Whenever possible, samples are to be taken during weeks illustrated in the Sampling Schedule above. Deviations from the schedule should be after consultation between Basin Manager, Crustacean Program Manager, and the Operations Manager.

## ENVIRONMENTAL OBSERVATIONS

Hydrological and climatic measurements are taken in conjunction with all biological samples. The measured parameters are air and water temperature (°C), water transparency (ft.), conductivity (millimhos/centimeter),

dissolved oxygen (mg/L), and salinity (ppt). Air temperature is measured with a mercury thermometer or with an electronic meter. Water transparency is measured with an all-white 30 cm diameter, Secchi disk suspended from a staff or line. The Secchi disk is lowered into the water to the point at which it is no longer visible. The disk is then gradually raised up to the point at which it barely becomes visible, and the depth recorded to the nearest tenth of a foot.

Conductivity, salinity, water temperature, and dissolved oxygen are measured to the nearest tenth of the appropriate unit using a YSI or equivalent instrument. All instruments are calibrated as described in the instrument manual, or by standard EPA or APHA Standard Methods. A calibration log is maintained that includes notes of any problems with the meter, repairs, deviations from standard, etc. Two readings at depth should be taken at each sampling event at one foot below the surface and one foot above the bottom. Additional readings may also be taken to delineate thermoclines, haloclines, or areas of anoxia / hypoxia.

# Appendix A

## Gear Specifications

6 ft. BALLOON TRAWLS

- Two seam 6 ft. balloon trawls, body to be constructed of ¾ in. stretched (3/8 in. bar) mesh.
- Mesh to be composed of # 6 (50 lb. test) nylon.
- Bag to be constructed of ½ in. stretched (1/4 in. bar) mesh composed of # 44 heavy delta webbing.
- Bag to measure 75 meshes long.
- Head-rope and foot-rope to be composed of 3/8 in. twisted poly Dacron.
- All hangings to utilize # 21 (204 lb. test) green nylon twine. Head-rope to be hung with three 1½ in. X 2 in. spongex floats spaced 2 ft. apart along the center of the head-rope.
- A minimum of 2½ ft. of extra head-rope and foot-rope on each end of the net shall be provided in order to attach to doors.
- Two loops (28 links each) of # 3 American galvanized chain to be hung in set back on each end of foot-rope with a third loop (14 links) centered and hung on the foot-rope.
- Top of trawl body to measure 90 meshes at mouth, 15 meshes at tail and 120 meshes deep.
- Bottom of trawl body to measure 90 meshes at mouth, 15 meshes at tail and 110 meshes deep.
- Each wing to measure 26 meshes at mouth, 10 meshes at tail and 141 meshes total length.
- Top corner wedges in wing to be 49 meshes long and 15 meshes wide with 4 meshes at end of wing.
- Bottom corner wedges in wing to measure 54 meshes long and 15 meshes wide.
- All trawls to be treated with green plastic net dip thinned to provide a reasonable degree of pliability.
- Boards to be constructed of ¾ in. marine plywood.
- Boards to measure 14 in. long, 9 in. tall at back and 7 in. tall at front with a 2 in. front rounded corner.
- Chain bridle to be constructed of 1/8 in. standard galvanized links containing 16, 10, 15 and 9 links, respectively (see drawing).
- Two iron flat bars measuring ¼ in. X 1½ in. X 12 in. to be bolted to the bottom side of each trawl door.

16 ft. FLAT OTTER TRAWLS

- Four seam flat otter trawl body to be constructed of 1½ in. stretched (3/4 in. bar) mesh.
- Mesh to be composed of # 9 (86 lb.test) nylon.
- Bag to be constructed of ½ in. stretched (1/4 in. bar) mesh composed of # 44 heavy delta webbing.
- Bag to measure 54-60 in. long.

- Head-rope and foot-rope to be composed of 3/8 in. twisted poly Dacron.
- All hangings to utilize # 21 (204 lb. test) green nylon twine.
- Head-rope to be hung with four 3 in. X 1½ in. spongex floats spaced evenly along the center of the head-rope.
- A minimum of 3½ ft. of extra head-rope and foot-rope on each end of the net shall be provided in order to attach to doors.
- Foot-rope to be hung with 1/8 in. (long-link) chain along the entire length and hung in 20 links/loop intervals.
- Top of trawl body to measure 120 meshes wide at mouth (to measure 16 ft. of webbing along head-rope), 12 meshes at tail and 110 meshes deep.
- Bottom of trawl body to measure 120 meshes at mouth (to measure 20 ft. of webbing along foot-rope), 32 meshes at tail and 90 meshes deep.
- Each wing to measure 30 meshes at mouth (29 in. staging from float line to lead line), 21 meshes at tail and 140 meshes deep.
- Top corner wedge to end with four (4) meshes.
- Bottom corner wedge to end with three (3) meshes.
- All trawls to be treated with green plastic net dip thinned to provide a reasonable degree of pliability.
- Plywood boards (preferred) to be constructed of ¾ in. marine plywood. Slotted boards to be constructed of ½ in. treated pine.
- Boards to measure 24 in. long, 14 in. tall at back and 10 in. tall at front with a 4 in. front rounded corner.
- Chain bridle to be constructed of 3/16 in. standard galvanized links containing 17, 10, 16 and 9 links, respectively.
- Curved iron flat bar measuring 3/8 in. X 2 in. to be bolted to the bottom of each trawl board.

<u>20 ft. SEMI-BALLOON TRAWL</u>

- Four-seam body webbing is constructed of #9 (1.5 in.) stretched mesh.
- Cod end constructed of #44 heavy delta (0.5 in.) stretched mesh and is 72 in. in circumference and 54 in. long.
- Head rope length measures 20 ft. and is 3/8 in. polydacron rope.
- Foot rope (lead line) measures 24.9 ft. and is 3/8 in. polydacron rope.
- Leads measure 5 ft. in length with a 5/16 in. thimble spliced in
- Head rope contains five (5) evenly spaced 3 in. X 3 in. floats
- Foot rope with five loops of 3/16 in. galvanized chain on each end and three single loops at center
- Front of each wing is constructed with 6 ft. of ¼ in. polydacron rope and tied at 4.5 ft. from each end to the head and foot ropes.

- Top of body measures 184 meshes wide by 142 meshes deep, finished at 42 meshes
- Bottom of body measures 170 meshes wide by 110.5 meshes deep, finished at 53 meshes.
- Top wedge measures 40 meshes deep = 96 bars plus 12 sets 2+1 point
- Bottom wedge measures 60 meshes deep = 96 bars plus 12 sets 2+1 point
- Set back cut-out = 14 meshes with 2:1 taper. Set back on 11$^{th}$ mesh.
- Wings measure 59.5 meshes wide by 160 meshes deep. Topside tapered with 40 straight meshes then 2:1 taper to point.
- Back end of net measures 100 meshes in circumference
- Doors are constructed of 1/8 in. aluminum plate with a ½ in. x 3 ft. aluminum shoe and measure 36 in. long by 18 in. tall.
- Back side of door vertically reinforced with 2 lengths of 1 in. x 2 in. aluminum channel.
- Three 1.5 in. wide water gaps measuring 6 in., 15 in., and 7 in. cut horizontally midway along length of board.
- Chain bridle constructed of 3/16 in. NACM stainless steel chain with 1¼ in. stainless shackle.
- Top front chain measures 18 links, top bottom chain measures 16 links
- Top back chain measures 28 links, bottom back chain measures 26 links.

# Appendix B

## Station Locations by Coastal Study Area and Gear

**CSA 1**

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| CSA 1 - 16' Trawl | 1000 | Redfish Bay | 29.08722 | -89.11389 | 29° 05' 14" N | 089° 06' 50" W |
| | 1000 | The Separator | 29.63861 | -89.52306 | 29° 38' 19" N | 089° 31' 23" W |
| | 1002 | Grand Pass | 29.73 | -89.60833 | 29° 43' 48" N | 089° 36' 30" W |
| | 1002 | Yaratich Bay/Main Pass | 29.33 | -89.22306 | 29° 19' 48" N | 089° 13' 23" W |
| | 1005 | Seabrook Bridge | 30.03278 | -90.03667 | 30° 01' 58" N | 090° 02' 12. " W |
| | 1006 | Bonnet Carre Spillway | 30.07472 | -90.41306 | 30° 04' 29" N | 090° 24' 47. " W |
| | 1007 | Point aux Herbes | 30.18361 | -89.89722 | 30° 11' 01" N | 089° 53' 50" W |
| | 1008 | Mid-Lake Causeway | 30.1925 | -90.12139 | 30° 11' 33" N | 090° 07' 17" W |
| | 1009 | Goose Point | 30.25222 | -89.98306 | 30° 15' 08" N | 089° 58' 59" W |
| | 1010 | Shore w. of Tangipahoa River | 30.31806 | -90.23472 | 30° 19' 05" N | 090° 14' 05" W |
| | 1013 | Lake Eugenie | 29.91361 | -89.42389 | 29° 54' 49" N | 089° 25' 26" W |
| | 1014 | Cat Island Pass | 30.19917 | -89.18306 | 30° 11' 57" N | 089° 10' 59" W |
| | 1017 | Bay Eloi | 29.7409 | -89.41432 | 29° 44' 27.23" N | 089° 24' 51.54" W |
| | 1023 | North Chandeleur Sound | 30.09028 | -88.915 | 30° 05' 25" N | 088° 54' 54" W |
| | 1029 | Middle Chandeleur Sound | 29.86833 | -89.03444 | 29° 52' 06" N | 089° 02' 04" W |
| | 1037 | Elephant Pass | 30.00028 | -89.24333 | 30° 00' 01" N | 089° 14' 36" W |
| | 1039 | Mitchell Island | 29.88556 | -89.22806 | 29° 53' 08" N | 089° 13' 41" W |
| | 1060 | Petit Pass | 30.08133 | -89.47982 | 30° 04' 52.78" N | 089° 28' 47.34" W |
| | 1061 | Grand Pass | 30.11949 | -89.2394 | 30° 07' 10.16" N | 089° 14' 21.84" W |
| | 1063 | Rigolets | 30.14397 | -89.62921 | 30° 08' 38.28" N | 089° 37' 45.14" W |
| | 1080 | Bayou Bienvenue | 29.99833 | -89.88861 | 29° 59' 54" N | 089° 53' 19" W |
| | 1118 | Kelly Gap | 29.455 | -89.51833 | 29° 27' 18" N | 089° 31' 06" W |
| | 1122 | Breton Sound | 29.48361 | -89.33389 | 29° 29' 01" N | 089° 20' 02" W |
| | 1134 | MRGO Rocks | 29.60444 | -89.34778 | 29° 36' 16" N | 089° 20' 52" W |
| | 1139 | Nine-Mile Bayou | 30.03528 | -89.42 | 30° 02' 07" N | 089° 25' 12. " W |
| | 1159 | Treasure Pass | 29.82874 | -89.42084 | 29° 49' 43.45" N | 089° 25' 15. " W |
| | 1176 | Pintail Pass | 29.58167 | -89.61 | 29° 34' 54" N | 089° 36' 36" W |
| | 1196 | St. Joe Pass | 30.16361 | -89.45111 | 30° 09' 49" N | 089° 27' 04 " W |
| | 1197 | Alligator Point | 30.01222 | -89.70361 | 30° 00' 44" N | 089° 42' 13" W |
| | 1198 | Shell Beach | 29.89528 | -89.65056 | 29° 53' 43" N | 089° 39' 02" W |
| | 1199 | South Chandeleur Sound | 29.65194 | -89.14722 | 29° 39' 07" N | 089° 08' 50" W |
| | 1200 | Hospital Wall | 30.16694 | -89.75028 | 30° 10' 01" N | 089° 45' 01. " W |
| | 1201 | Chef Pass | 30.09956 | -89.8172 | 30° 05' 58.40" N | 089° 49' 01.90" W |

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| CSA 1 - 6' Trawl | 1001 | Lake Lery | 29.79833 | -89.82167 | 29° 47' 54" N | 089° 49' 18" W |
| | 1003 | Quatro Caballo/4 Horse | 29.69667 | -89.7 | 29° 41' 48" N | 089° 42' 00" W |
| | 1004 | Spanish Lake | 29.70028 | -89.90944 | 29° 42' 01" N | 089° 54' 34" W |
| | 1042 | Bayou Platte | 30.08986 | -89.73622 | 30° 05' 23.49" N | 089° 44' 10.38" W |
| | 1044 | Marques Canal | 30.08634 | -89.77728 | 30° 05' 10.82" N | 089° 46' 38.20" W |
| | 1056 | False Mouth Bayou | 30.01778 | -89.50861 | 30° 01' 04" N | 089° 30' 31" W |
| | 1063 | Bayou Eloi | 29.74083 | -89.41444 | 29° 44' 26.99" N | 089° 24' 51.98" W |
| | 1077 | Bayou Marron | 29.9925 | -89.47389 | 29° 59' 33" N | 089° 28' 26" W |
| | 1081 | Bienvenue Lagoon | 30.00005 | -89.8605 | 30° 00' 00.18" N | 089° 51' 37.80" W |
| | 1083 | Bayou Palo | 29.664 | -89.54 | 29° 39' 50.40" N | 089° 32' 24" W |
| | 1084 | Bottle Bayou | 29.707 | -89.648 | 29° 42' 25.20" N | 089° 38' 52.79" W |
| | 1089 | Fucich Bayou | 29.51222 | -89.66194 | 29° 30' 44" N | 089° 39' 43" W |
| | 1097 | Cow Bayou | 29.575 | -89.713 | 29° 34' 30" N | 089° 42' 46.79" W |
| | 1100 | Bass Field | 29.58806 | -89.795 | 29° 35' 17" N | 089° 47' 42" W |
| | 1101 | Bayou LaCroix | 29.63806 | -89.86778 | 29° 38' 17" N | 089° 52' 04" W |
| | 1102 | Lil Crevasse | 29.63167 | -89.7875 | 29° 37' 54" N | 089° 47' 15" W |
| | 1106 | Petit Lake | 29.71333 | -89.79667 | 29° 42' 48" N | 089° 47' 48" W |
| | 1141 | Picnic Bayou | 30.0375 | -89.28139 | 30° 02' 15" N | 089° 16' 53" W |
| | 1146 | Drum Bayou | 30.07333 | -89.2675 | 30° 04' 24" N | 089° 16' 03" W |
| | 1148 | Bayou Creque | 30.09027 | -89.25215 | 30° 05' 24.98" N | 089° 15' 07.74" W |
| | 1156 | Bayou Mussel | 29.91306 | -89.40556 | 29° 54' 47" N | 089° 24' 20" W |
| | 1161 | Jules Cut | 29.86367 | -89.35063 | 29° 51' 49.21" N | 089° 21' 02.27" W |

**CSA 3**

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| CSA 3 - 16' Trawl | 1000 | Salvador DP | 29.67917 | -90.20306 | 29° 40' 45" N | 090° 12' 11" W |
| | 1001 | Rigolettes DP | 29.645 | -90.12694 | 29° 38' 42" N | 090° 07' 37" W |
| | 1002 | Little Lake DP | 29.49361 | -90.12611 | 29° 29' 37" N | 090° 07' 34" W |
| | 1005 | Snail Bay DP | 29.44278 | -90.05917 | 29° 26' 34" N | 090° 03' 33" W |
| | 1009 | Spoonbill DP | 29.55667 | -90.02444 | 29° 33' 24" N | 090° 01' 28" W |
| | 1013 | The Pen DP | 29.64972 | -90.08944 | 29° 38' 59" N | 090° 05' 22" W |
| | 1039 | Caminada | 29.23889 | -90.02417 | 29° 14' 20" N | 090° 01' 27" W |
| | 1044 | Independence | 29.31222 | -89.93528 | 29° 18' 44" N | 089° 56' 07" W |
| | 1051 | Ronquille | 29.32972 | -89.87111 | 29° 19' 47 N | 089° 52' 16" W |
| | 1059 | St. Mary | 29.41833 | -89.95667 | 29° 25' 06" N | 089° 57' 24" W |
| | 1068 | Lake Palourde | 29.212 | 90.122 | 29° 12' 43. N | 090° 07' 18" E |
| | 1073 | Bayou Wilkinson | 29.4875 | -89.91028 | 29° 29' 15" N | 089° 54' 37" W |
| | 1074 | Grand Bayou | 29.49917 | -89.75 | 29° 29' 57" N | 089° 45' 00" W |

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| | 1076 | Hospital Bay | 29.31028 | -89.4025 | 29° 18' 37" N | 089° 24' 09" W |
| | 1082 | Bayou Casse Tete | 29.36972 | -90.06111 | 29° 22' 11" N | 090° 03' 40" W |
| | 10-1501 | Hermitage | 29.57172 | -89.86807 | 29° 34' 18.19" N | 89° 52' 05.04" W |
| | 25-1502 | Scofield Bay | 29.25487 | -89.54517 | 29° 15' 17.53" N | 89° 32' 42.60" W |
| | 28-1503 | Middle Bank | 29.34912 | -89.94265 | 29° 20' 56.82" N | 89° 56' 33.54" W |
| | 31-1504 | Bay Joe Wise | 29.32201 | -89.69595 | 29° 19' 19.24" N | 89° 41' 45.40" W |
| | 44-1505 | Saturday Island | 29.42127 | -89.91501 | 29° 25' 16.57" N | 89° 54' 54.01" W |
| | 53-1506 | Bay Sansbois | 29.47748 | -89.76696 | 29° 28' 38.93" N | 89° 46' 01.04" W |
| | 89-1507 | Bay Jacquin | 29.29515 | -89.55476 | 29° 17' 42.53" N | 89° 33' 17.13" W |
| | 108-1508 | Bayou St. Denis | 29.46003 | -89.97339 | 29° 27' 36.09" N | 89° 58' 24.21" W |
| | 117-1509 | Bay Chene Fleur | 29.45986 | -89.90162 | 29° 27' 35.47" N | 89° 54' 05.81" W |
| | 156-1510 | Bay Champagne | 29.33583 | -90.02543 | 29° 20' 08.98" N | 90° 01' 31.54" W |
| CSA 3 - 20' Trawl | 1019 | Grand Isle 5 mile | 29.15833 | -89.95861 | 29° 09' 30" N | 089° 57' 31" W |
| | 1020 | Grand Isle 7 mile | 29.125 | -89.9475 | 29° 07' 30" N | 089° 56' 51" W |
| | 1021 | Empire 5 mile | 29.17417 | -89.60028 | 29° 10' 27. N | 089° 36' 01" W |
| | 1022 | Empire 7 mile | 29.14361 | -89.60028 | 29° 08' 37" N | 089° 36' 01" W |
| | 1038 | Grand Isle Beach | 29.24417 | -89.95722 | 29° 14' 39" N | 089° 57' 26" W |
| | 1064 | 3 Mile Grand Terre | 29.25083 | -89.90333 | 29° 15' 03" N | 089° 54' 12" W |
| | 1065 | Grand Terre Beach | 29.27389 | -89.935 | 29° 16' 26" N | 089° 56' 06" W |
| | 1075 | Empire Jetty | 29.25 | -89.6 | 29° 15' 00" N | 089° 36' 00" W |
| | 1077 | Sandy Point | 29.20778 | -89.49 | 29° 12' 28" N | 089° 29' 24" W |
| | 1078 | 3 Mile Grand Isle | 29.19583 | -89.95167 | 29° 11' 45" N | 089° 57' 06" W |
| CSA 3 - 6' Trawl | 1004 | Snail Bay | 29.42972 | -90.05639 | 29° 25' 47" N | 090° 03' 23" W |
| | 1007 | Mud Lake | 29.46389 | -90.02 | 29° 27' 50" N | 090° 01' 12" W |
| | 1008 | Little Lake | 29.44928 | -90.10111 | 29° 26' 57.40" N | 090° 06' 04" W |
| | 1010 | Wilkinson Bay | 29.45028 | -89.93417 | 29° 27' 01" N | 089° 56' 03" W |
| | 1011 | Lake Five | 29.53111 | -89.9625 | 29° 31' 52" N | 089° 57' 45" W |
| | 1012 | Round Lake | 29.56194 | -89.96611 | 29° 33' 43" N | 089° 57' 58" W |
| | 1014 | Porpoise | 29.21861 | -90.08389 | 29° 13' 07" N | 090° 05' 02" W |
| | 1015 | Airplane Lake | 29.22167 | -90.11167 | 29° 13' 18" N | 090° 06' 42" W |
| | 1016 | Bayou Garci | 29.25167 | -90.12389 | 29° 15' 06" N | 090° 07' 26" W |
| | 1017 | Bay Jacques | 29.28556 | -90.13 | 29° 17' 08" N | 090° 07' 48" W |
| | 1021 | Bay Rambo | 29.33639 | -90.11861 | 29° 20' 11" N | 090° 07' 07" W |
| | 1023 | Bay L'ours | 29.34417 | -90.09583 | 29° 20' 39" N | 090° 05' 45" W |
| | 1024 | Billet Bay Crash | 29.36333 | -89.75667 | 29° 21' 48" N | 089° 45' 24" W |
| | 1047 | Bay Dispute | 29.31333 | -89.87167 | 29° 18' 48" N | 089° 52' 18" W |
| | 1048 | Grand Bank Bayou | 29.32111 | -89.87111 | 29° 19' 16" N | 089° 52' 16" W |
| | 1053 | Bay Long | 29.34917 | -89.81722 | 29° 20' 57" N | 089° 49' 02" W |

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| | 1054 | Creole Bay | 29.35672 | -90.03144 | 29° 21' 24.19" N | 090° 01' 53.18" W |
| | 1056 | Grand Ecaille | 29.37333 | -89.82278 | 29° 22' 24" N | 089° 49' 22" W |
| | 1060 | Bay Batiste | 29.42472 | -89.84167 | 29° 25' 29" N | 089° 50' 30" W |
| | 1069 | Bayou Fernandez | 29.50348 | -89.75033 | 29° 30' 12.53" N | 089° 45' 01.17" W |
| | 1070 | Bayou Vacherie | 29.40556 | -89.62917 | 29° 24' 20" N | 089° 37' 45" W |
| | 1071 | Dry Cypress | 29.306 | -89.522 | 29° 18' 21.60" N | 089° 31' 19.20" W |
| | 1072 | Yellow Cotton | 29.30528 | -89.39583 | 29° 18' 19" N | 089° 23' 45" W |
| | 1079 | Lake Salvador | 29.6575 | -90.27194 | 29° 39' 27" N | 090° 16' 19" W |
| | 1080 | Bernstein Cut | 29.63056 | -90.14028 | 29° 37' 50" N | 090° 08' 25" W |
| | 1081 | Upper Bayou Dupont | 29.63768 | -90.06704 | 29° 38' 15.65" N | 090° 04’ 1.34" W |

## CSA 5

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| CSA 5 - 16' Trawl | 1006 | Hackberry Lake | 29.20833 | -90.87167 | 29° 12' 30" N | 090° 52' 18" W |
| | 1010 | Bay Moncleuse | 29.245 | -90.87167 | 29° 14' 42" N | 090° 52' 18" W |
| | 1019 | Sister Lake | 29.26111 | -90.91667 | 29° 15' 40" N | 090° 55' 00" W |
| | 1026 | Lake Mechant | 29.33056 | -90.95556 | 29° 19' 50" N | 090° 57' 20" W |
| | 1057 | Four League Bay | 29.3 | -91.15 | 29° 18' 00" N | 091° 09' 00" W |
| | 1063 | Moss Bay | 29.21167 | -90.68111 | 29° 12' 42" N | 090° 40' 52" W |
| | 1071 | Terrebonne Bay | 29.16667 | -90.565 | 29° 10' 00" N | 090° 33' 54" W |
| | 1085 | Lake Barre | 29.26444 | -90.55417 | 29° 15' 52" N | 090° 33' 15" W |
| | 1091 | Lake Pelto | 29.08333 | -90.70667 | 29° 05' 00" N | 090° 42' 24" W |
| | 1103 | Lost Lake | 29.33583 | -91.02056 | 29° 20' 09" N | 091° 01' 14" W |
| | 1104 | Caillou Boca | 29.06667 | -90.83333 | 29° 04' 00" N | 090° 50' 00" W |
| | 1105 | Dog Lake | 29.16667 | -90.845 | 29° 10' 00 N | 090° 50' 42" W |
| | 1107 | Lake Tambour | 29.33 | -90.51 | 29° 19' 48" N | 090° 30' 36" W |
| | 1108 | Lake Felicity | 29.26056 | -90.41806 | 29° 15' 38" N | 090° 25' 05" W |
| | 1109 | Bay Courant | 29.3175 | -90.34583 | 29° 19' 03" N | 090° 20' 45" W |
| | 1110 | Catfish Lake | 29.376944 | -90.31139 | 29°22' 37"N | 90°18'41"W |
| | 1111 | Little Lake | 29.24 | -90.27 | 29° 14' 24" N | 090° 16' 12" W |
| | 1112 | Devil's Bay | 29.14861 | -90.26667 | 29° 08' 55" N | 090° 15' 60" W |
| CSA 5 - 20' Trawl | 1057 | Bayou DeWest 3-mile | 29.135 | -91.08833 | 29° 08' 06" N | 091° 05' 18" W |
| | 1072 | Pass Raquette 5-mile | 29.2275 | -91.34389 | 29° 13' 39" N | 091° 20' 38" W |
| | 1074 | Whiskey Pass 7-mile | 28.94944 | -90.80833 | 28° 56' 58" N | 090° 48' 30" W |
| | 1075 | Cat Island Pass 7-mile | 28.98806 | -90.575 | 28° 59' 17" N | 090° 34' 30" W |
| | 1076 | Oyster Bayou 3-mile | 29.17563 | -91.23032 | 29° 10' 32.26" N | 091° 13' 49.15" W |
| | 1077 | Point Au Fer 1-mile | 29.22805 | -91.2872 | 29° 13' 40.98" N | 091° 17' 13.91" W |

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| | 1093 | Whiskey Pass Beach | 29.02333 | -90.76944 | 29° 01' 24" N | 090° 46' 10" W |
| | 1096 | Caillou Bay | 29.16667 | -90.95833 | 29° 10' 00" N | 090° 57' 30" W |
| | 1097 | Bayou DeWest 1-mile | 29.17306 | -91.05306 | 29° 10' 23.01" N | 091° 03' 11.01" W |
| | 1101 | Oyster Bayou | 29.20833 | -91.13333 | 29° 12' 30" N | 091° 08' 00" W |
| | 1121 | Whiskey Pass 3-Mile | 29.0 | -90.78333 | 29° 00' 00 N | 090° 47' 00" W |
| | 1123 | Cat Island Pass 3-mile | 29.04611 | -90.56972 | 29° 02' 46" N | 090° 34' 11" W |
| CSA 5 - 6' Trawl | 1001 | Dog Lake | 29.16972 | -90.84056 | 29° 10' 11" N | 090° 50' 26.01" W |
| | 1002 | Bay Charlie | 29.17333 | -90.80333 | 29° 10' 24" N | 090° 48' 12" W |
| | 1004 | Hackberry Lake | 29.195 | -90.87333 | 29° 11' 42" N | 090° 52' 24" W |
| | 1005 | Redfish Bayou | 29.2 | -90.895 | 29° 12' 00" N | 090° 53' 42" W |
| | 1011 | Bay Del 'Quest | 29.24667 | -90.84333 | 29° 14' 48" N | 090° 50' 36" W |
| | 1012 | Sister Lake | 29.26 | -90.91528 | 29° 15' 36" N | 090° 54' 55" W |
| | 1013 | Bay Severin | 29.26167 | -90.8625 | 29° 15' 42" N | 090° 51' 45" W |
| | 1014 | Bay Cocodrie | 29.25 | -90.65 | 29° 15' 00" N | 090° 39' 00" W |
| | 1015 | American Bay | 29.19722 | -90.94333 | 29° 11' 50" N | 090° 56' 36" W |
| | 1018 | Sanders Bay | 29.25167 | -90.94306 | 29° 15' 06" N | 090° 56' 35" W |
| | 1020 | King Lake | 29.26333 | -90.98333 | 29° 15' 48" N | 090° 59' 00" W |
| | 1022 | Mud Lake | 29.28 | -90.91667 | 29° 16' 48" N | 090° 55' 00" W |
| | 1024 | New Route Bay | 29.28917 | -91.01167 | 29° 17' 21" N | 091° 00' 42" W |
| | 1027 | Bay LeFleur | 29.2875 | -90.60833 | 29° 17' 15" N | 090° 36' 30" W |
| | 1029 | Bayou Charles Theriot | 29.32167 | -90.5325 | 29° 19' 18" N | 090° 31' 57" W |
| | 1039 | Bay Henry | 29.26 | -90.67694 | 29° 15' 36" N | 090° 40' 37" W |
| | 1041 | Landry Bay | 29.19167 | -90.26667 | 29° 11' 30" N | 090° 16' 00" W |
| | 1042 | Little Lake | 29.24875 | -90.29344 | 29°14'55.50"N | 90°17'36.40"W |
| | 1044 | Bay Rosa | 29.269889 | -90.30194 | 29°16'11.60"N | 90°18'7.00"W |
| | 1046 | Bay Jean La Croix | 29.36514 | -90.42764 | 29°21'54.50"N | 90°25'39.50"W |
| | 1056 | Mud Hole Bay | 29.24889 | -91.01 | 29° 14' 56" N | 091° 00' 36" W |
| | 1058 | Mosquito Bay | 29.2675 | -91.19583 | 29° 16' 03" N | 091° 11' 45" W |
| | 1059 | Violin Lake | 29.27833 | -91.06167 | 29° 16' 42" N | 091° 03' 42" W |
| | 1061 | Lost Lake | 29.32667 | -91.06667 | 29° 19' 36" N | 091° 04' 00" W |
| | 1062 | Oak Bayou | 29.15 | -90.71667 | 29° 09' 00" N | 090° 43' 00" W |
| | 1064 | Moss Bay | 29.2175 | -90.70056 | 29° 13' 03" N | 090° 42' 02" W |
| | 1067 | Pelican Lake | 29.11 | -90.80667 | 29° 06' 36" N | 090° 48' 24" W |
| | 1079 | Devil's Bay | 29.15 | -90.25833 | 29° 09' 00" N | 090° 15' 30" W |
| | 1083 | Old Lady Lake | 29.25833 | -90.40278 | 29° 15' 30" N | 090° 24' 10" W |
| | 1087 | Bay Bourbeaux | 29.31644 | -90.5514 | 29°18'59.20"N | 90°33'5.20"W |
| | 1106 | Bay Antoine | 29.23861 | -90.75667 | 29° 14' 19" N | 090° 45' 24" W |
| | 1113 | Lake Boudreaux | 29.4125 | -90.63194 | 29° 24' 45" N | 090° 37' 55" W |

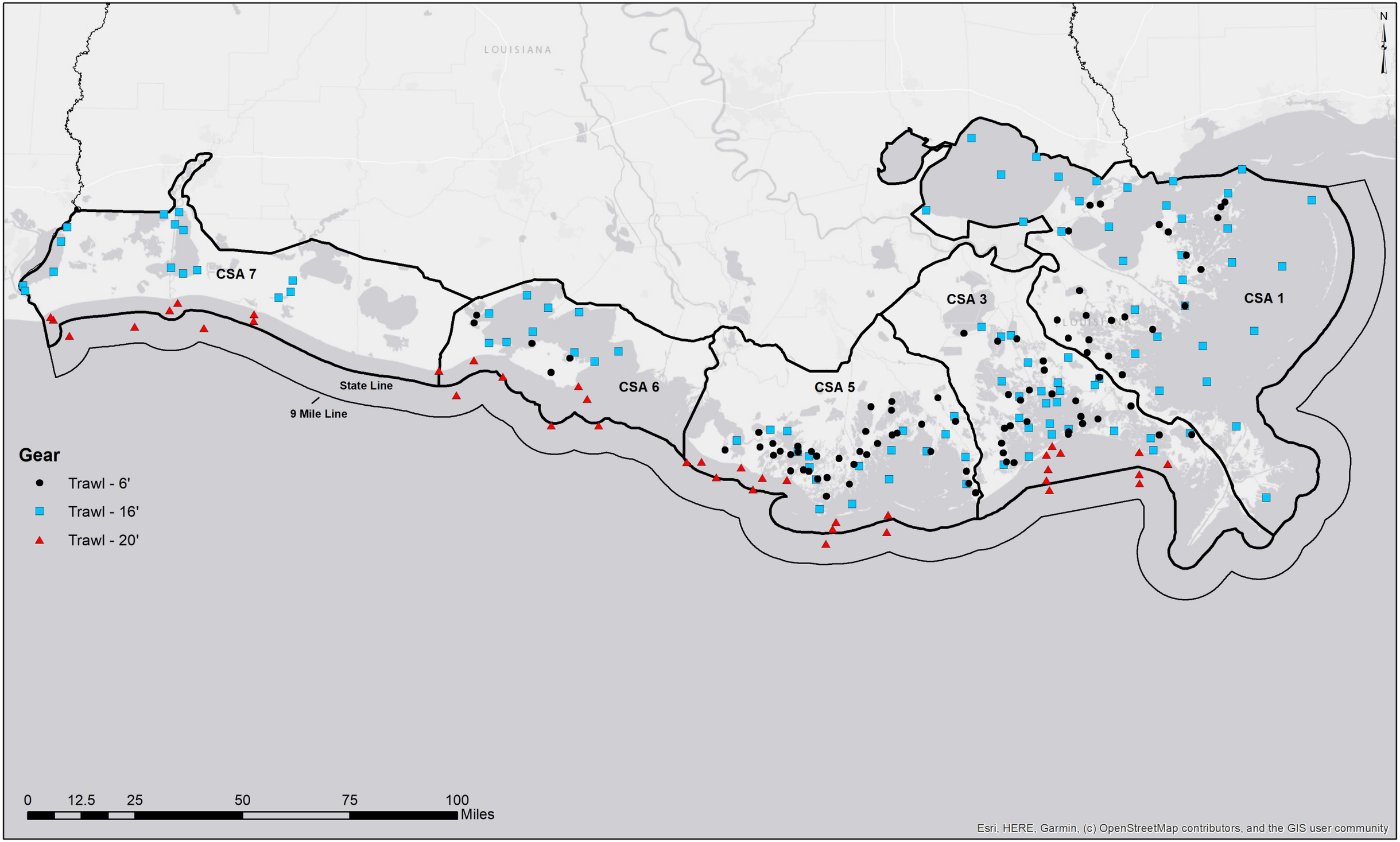
| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| | 1114 | Lake Robinson | 29.32833 | -90.65333 | 29° 19' 42" N | 090° 39' 12" W |
| | 1115 | Madison Bay | 29.39972 | -90.55333 | 29° 23' 59" N | 090° 33' 12" W |
| | 1116 | Wonder Lake | 29.429301 | -90.55138 | 29°25'45.50"N | 90°33'5.00"W |
| | 1117 | PACWMA | 29.44083 | -90.37444 | 29° 26' 27" N | 090° 22' 28" W |
| | 1118 | Lake Chien | 29.35194 | -90.43667 | 29° 21' 07" N | 090° 26' 12" W |
| | 1119 | Catfish Lake | 29.36028 | -90.3075 | 29° 21' 37" N | 090° 18' 27" W |
| | 1120 | Fourchon | 29.11889 | -90.23167 | 29° 07' 08 N | 090° 13' 54" W |

## CSA 6

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| **Left blank intentionally.** | | | | | | |
| **CSA 6 - 16' Trawl** | 1001 | Lake Pt. | 29.56667 | -91.70028 | 29° 34' 00" N | 091° 42' 01" W |
| | 1006 | Indian Pt. | 29.63056 | -92.04167 | 29° 37' 50" N | 092° 02' 30" W |
| | 1010 | Vermilion Bay | 29.66694 | -91.93972 | 29° 40' 01" N | 091° 56' 23" W |
| | 1013 | Blue Pt. | 29.74694 | -91.88056 | 29° 44' 49" N | 091° 52' 50" W |
| | 1014 | VRCO | 29.72639 | -92.10889 | 29° 43' 35" N | 092° 06' 32" W |
| | 1050 | Champlain Pt. | 29.78944 | -91.9625 | 29° 47' 22" N | 091° 57' 45" W |
| | 1051 | Ivanhoe | 29.73278 | -91.76 | 29° 43' 58" N | 091° 45' 36" W |
| | 1052 | Tunnel Pt. | 29.59639 | -91.77833 | 29° 35' 47" N | 091° 46' 42" W |
| | 1053 | Point Marone | 29.6 | -91.60833 | 29° 36' 00" N | 091° 36' 30" W |
| | 1059 | Hell Hole | 29.62694 | -92.10833 | 29° 37' 37" N | 092° 06' 30" W |
| **CSA 6 - 20' Trawl** | 1004 | Freshwater Bayou | 29.533 | -92.302 | 29° 31' 58.80" N | 092° 18' 07.20" W |
| | 1005 | South Pt. | 29.48333 | -91.7625 | 29° 29' 00" N | 091° 45' 45" W |
| | 1021 | Tete Butte | 29.56833 | -92.16667 | 29° 34' 06" N | 092° 10' 00" W |
| | 1049 | Nickle Reef | 29.43944 | -91.72778 | 29° 26' 22" N | 091° 43' 40" W |
| | 1061 | Tiger Shoal | 29.51361 | -92.055 | 29° 30' 49" N | 092° 03' 18" W |
| | 1069 | Offshore East Gulf | 29.35 | -91.68333 | 29° 21' 00" N | 091° 41' 00" W |
| | 1070 | Offshore Middle Gulf | 29.35 | -91.86667 | 29° 21' 00" N | 091° 52' 00" W |
| | 1071 | Offshore West Gulf | 29.45 | -92.23333 | 29° 27' 00" N | 092° 14' 00" W |
| **CSA 6 - 6' Trawl** | 1008 | Lake Fearman | 29.69472 | -92.16833 | 29° 41' 41" N | 092° 10' 06" W |
| | 1009 | Michael Cove | 29.62722 | -91.94333 | 29° 37' 38" N | 091° 56' 36" W |
| | 1012 | Mud Lake | 29.721 | -92.1575 | 29° 43' 15.60" N | 092° 09' 27" W |
| | 1017 | Oyster Lake | 29.52917 | -91.86861 | 29° 31' 45" N | 091° 52' 07" W |
| | 1019 | Blanc Lake | 29.57722 | -91.79667 | 29° 34' 38" N | 091° 47' 48" W |

## CSA 7

| Area and Gear | Number | Name | Latitude | Longitude | Latitude | Longitude |
|---|---|---|---|---|---|---|
| CSA 7 - 16' Trawl | 1000 | West Black Bayou | 29.99889 | -93.75053 | 29° 59' 56" N | 093° 45' 01.90" W |
| | 1001 | Gray's Canal | 29.94934 | -93.77274 | 29° 56' 57.62" N | 093° 46' 21.86" W |
| | 1002 | Johnson's Bayou | 29.84722 | -93.79889 | 29° 50' 50" N | 093° 47' 56" W |
| | 1003 | Blue Buck Point | 29.79846 | -93.91658 | 29° 47' 54.45" N | 093° 54' 59.68" W |
| | 1004 | Sabine Causeway | 29.77989 | -93.90818 | 29° 46' 47.60" N | 093° 54' 29.44" W |
| | 1015 | Turner's Bay | 30.05722 | -93.31639 | 30° 03' 26" N | 093° 18' 59" W |
| | 1017 | Old Revetment | 29.85 | -93.29694 | 29° 51' 00" N | 093° 17' 49" W |
| | 1018 | Grand Bayou | 29.86194 | -93.24222 | 29° 51' 43" N | 093° 14' 32" W |
| | 1024 | S. Ship Channel | 29.86861 | -93.34389 | 29° 52' 07" N | 093° 20' 38" W |
| | 1025 | N. Ship Channel | 30.01556 | -93.33083 | 30° 00' 56" N | 093° 19' 51" W |
| | 1026 | Salt Ditch | 30.04833 | -93.37564 | 30° 02' 54" N | 093° 22' 32.30" W |
| | 1040 | Mermentau River North | 29.83137 | -92.87097 | 29° 49' 52.93" N | 092° 52' 15.49" W |
| | 1041 | Mermentau River Central | 29.79319 | -92.87923 | 29° 47' 35.48" N | 092° 52' 45.22" W |
| | 1042 | Mermentau River South | 29.77245 | -92.92506 | 29° 46' 20.81" N | 092° 55' 30.21" W |
| | 1065 | Hebert's Landing | 29.99611 | -93.29778 | 29° 59' 46" N | 093° 17' 52" W |
| CSA 7 - 20' Trawl | 1005 | Sabine Near Offshore | 29.69416 | -93.80671 | 29° 41' 38.97" N | 093° 48' 24.15" W |
| | 1006 | Sabine Far Offshore | 29.68582 | -93.79632 | 29° 41' 08.95" N | 093° 47' 46.75" W |
| | 1070 | Gulf 92 | 29.75071 | -93.31595 | 29° 45' 2.05" N | 093° 18' 57.42" W |
| | 1043 | Mermentau River Near Offshore | 29.71565 | -93.01983 | 29° 42' 56.34" N | 093° 01' 11.38" W |
| | 1044 | Mermentau River Far Offshore | 29.6938 | -93.01984 | 29° 41' 37.67" N | 093° 01' 11.42" W |
| | 1064 | Gulf 91 | 29.72528 | -93.34667 | 29° 43' 31" N | 093° 20' 48" W |
| | 1066 | Calcasieu SE OS | 29.6668 | -93.2128 | 29° 40' 00.47" N | 093° 12' 46.08" W |
| | 1067 | Calsasieu SW OS | 29.6668 | -93.4803 | 29° 40' 00.47" N | 093° 28' 49.07" W |
| | 1068 | Sab. Ext OS | 29.63242 | -93.73169 | 29° 37' 56.71" N | 093° 43' 54.08" W |


LOUISIANA
N
CSA 7
CSA 6
CSA 5
CSA 3
CSA 1
State Line
9 Mile Line
Gear
Trawl - 6'
Trawl - 16'
Trawl - 20'
0
12.5
25
50
75
100
Miles
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