

**TEXAS MARINE SPORT-HARVEST MONITORING PROGRAM  
OPERATIONS MANUAL**

**2012-13 Survey Year**

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29 May 2012**



**Coastal Fisheries Division  
Texas Parks and Wildlife Department**

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## INTRODUCTION

### *OBJECTIVES*

The objectives of the Texas Marine Sport-Harvest Monitoring Program are to:

Determine estimates of total daylight marine resource landings, catch per unit of effort, and size composition by species for:

bay-pass and gulf private-boat sport fishermen, and

bay-pass and gulf party-boat (10 people or fewer) sport fishermen.

Publish results in report form to assist ecosystem and fishery managers in effectively regulating harvest.

### *DESIGN*

Pressure estimates are obtained by roving counts of empty trailers and empty wet slips at inventoried boat-access sites.

Survey sites are selected randomly but selection is weighted according to mean rove counts adjusted by the percentage of target-area fishing activity.

Catch (landings) rates and size compositions by species are obtained by on-site interviews of boaters completing their trips.

### *PUBLICATION AND DISTRIBUTION*

Findings are to be published in report form to assist managers in effectively regulating harvest of marine finfishes.

This manual is updated annually to provide full documentation of all procedures. Ecosystem Leaders will provide input to the Program Leader on manual revision by March 1 of each year. Interim changes in procedures will be communicated through E-mail and by telephone. Ecosystem Leaders are encouraged to communicate procedural problems when they are encountered.

**NOTE:** Boxed text indicates new or changed material from the previous edition.

Copies of this manual are sent to the following personnel: Division Director, Deputy Division Director, Science and Policy Resources Director, Science Director, Regional Directors (2), Program Leaders (4), Ecosystem Leaders (8), Federal Aid Coordinator, and other Coastal Fisheries Division staff.

## **CURRENT SAMPLING DESIGN**

### ***SURVEY AREAS***

Inventoried boat-access sites are surveyed in Sabine Lake, Galveston (including Freeport area), Matagorda (including East Matagorda Bay), San Antonio, Aransas, Corpus Christi, upper Laguna Madre and lower Laguna Madre bay systems. Boat ramps and boat-access areas (e.g., marinas) that can be surveyed from shore are included.

### ***SEASONS AND DAY TYPES***

Each project year is divided into a **High-Use Season** (15 May - 20 November) and a **Low-Use Season** (21 November - 14 May). Surveys and roving counts are made on randomly selected weekend days (Saturday-Sunday) and weekdays (Monday-Friday) during each season in each bay system. Roving counts and surveys are not necessarily conducted on the same day. New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas are considered weekend days. Surveys are not scheduled for New Year's Day, Easter, Thanksgiving, the day after Thanksgiving, Christmas Eve, Christmas, and the day after Christmas.

### ***NUMBER OF SURVEYS***

#### **High-Use Season**

31 weekend days in all bay systems, except Sabine Lake and San Antonio where 26 weekend days will be surveyed.

66 weekdays in all bay systems, except Sabine Lake and San Antonio where 46 weekdays will be surveyed.

Except for upper Laguna Madre, up to eight additional "gulf-only" surveys per bay system will be conducted at gulf-access sites.

#### **Low-Use Season**

12 weekend days in all bay systems.

24 weekdays in all bay systems.

### ***SITE IDENTIFICATION***

All boat-access sites will be identified and coded (Figure 7). Ecosystem Leaders will provide recommendations to the Program Leader for updating the Boat-Access Site Master List by March 1 and September 1 of each year (Figure 1). Copies of the updated list will be kept by the Program Leader and Ecosystem Leaders.

Vigilance is needed to determine presence of new sites, modification or closure of existing sites, and need for reactivation of deleted sites.

**SITE IDENTIFICATION (Continued)**

**NOTE:** Code number 52 is reserved for all locations where there is no boat ramp but boat launching takes place. Code 52 also includes listed sites that have been inactivated (i.e., deleted) and yet-to-be-listed potential sites.

**Figure 1. How to Record Boat-Access Site Changes**

<b><u>If...</u></b>	<b><u>Then...</u></b>	<b><u>Program Leader will...</u></b>
Boat-access site is temporarily or permanently closed.	Notify Program Leader.	Inactivate code number in Master List.
Boat-access site is new and in a location that has never had a boat-access site.	Notify Program Leader.	Use a new code number and place in Master List.
Boat-access site is new but in a location where there has been a boat-access site before.	Notify Program Leader.	Reactivate code number associated with that location. Change name if necessary.

**NOTE:** For a site to be considered closed, there must be a physical barrier that prevents use of the site.

**NOTE:** A site with rove counts of zero for three consecutive years will be deemed closed.

**NOTE:** Boat-access sites in each bay system were mapped by the GIS Analyst using latitude/longitude data. Maps (JPEG file format) are available from the Program Leader.

**INTERVIEW SITE SAMPLING****Proportional Random Sampling**

Boat-access sites are selected at random but selection is weighted according to mean trailer counts obtained from roving counts from the three previous years adjusted by target-area bay-pass private-boat fishing activity (% of all activity) and trailer location from surveys from the previous years. This procedure results in boat-access sites with high bay-pass private-boat fishing activity being surveyed more often than boat-access sites with low bay-pass private-boat fishing activity.

Other scheduling procedures are applied to insure the following: frequently surveyed sites are spread evenly across each season, surveys are distributed evenly among days within each day type, the number of days surveyed each week is limited, and "double" surveys are scheduled to the maximum extent possible.

### ***INTERVIEW SITE SAMPLING (Continued)***

Prior to each survey season, the survey schedule is generated using a listing of proportional fishing pressure at each survey site in a bay system for both weekend and weekday days. This pressure listing is updated each season based on changes in number of non-guided, sport-boat, bay-pass fishing trips lasting 12 hours or less at each boat-access site.

#### **Special Scheduling Considerations**

**Advance Changes:** Survey sites and days may not be changed in advance from the predetermined schedule without approval from the Program Leader.

If it is known in advance that a site will be closed and not available for an upcoming survey, contact the Program Leader for an alternate site. If site is closed temporarily, an alternate site will be selected by swapping dates with another scheduled site. If site is closed permanently or at least for the rest of the survey season, a replacement site will be selected by choosing a site with similar pressure in the same geographic area (when possible).

**Emergency Cancellations:** If an emergency dictates that a scheduled survey cannot begin until after 1030:

Notify the appropriate Ecosystem Leader immediately.

Document reason(s) for missed survey in an e-mail to the Program Leader.

The Program Leader will reschedule the survey.

Rescheduling of surveys will be accomplished by selecting the same site on the same day of the week as soon after the missed survey as possible, except that two different boat-access sites will not be surveyed on the same day in the same bay system. If the same site is unavailable, a site having similar pressure and in the same geographic area will be chosen.

**Alternate Site Changes:** If a survey site is closed (i.e., presence of a physical barrier that prevents use of site) on the survey day:

Examine the entire list of scheduled surveys for the appropriate day type (weekend or weekday) and choose the very next scheduled survey site of the same day type (weekend or weekday) that is within 30 minutes driving time and that can be surveyed with available personnel. Do not choose a site scheduled for a “double” survey to replace a site not scheduled for a “double” survey, and vice versa.

If last survey of season for day type and no scheduled surveys remaining, then determine sites having similar pressure in same geographic area that can be reached in 30 minutes and select one randomly to survey.

**INTERVIEW SITE SAMPLING (Continued)**

**The survey at the alternate site must start by 1030.**

A "2" must be recorded in the "Alt." field of the Meteorological and Hydrological Data sheet to document use of the Alternate Site Change procedure (see Figure 3, step 4).

As soon as possible, request a replacement site from the Program Leader for the one just used as an alternate (not applicable if last survey of season for day type).

If there are no scheduled sites within 30 minutes driving time, the survey is canceled. Notify Program Leader but do not complete harvest data sheet or meteorological-hydrological data sheet. Where possible, the survey will be rescheduled.

**NOTE:** Just because a bait camp is closed for the day does not mean the boat-access site associated with it is closed or unusable.

**NOTE:** If wet slips are included in the same site as a boat ramp and the boat ramp is closed choose an alternate site.

**Failure to Conduct a Survey as Scheduled:** If a survey is not conducted due to neglect, or is conducted at the wrong site, or is early-terminated improperly:

Notify Program Leader who will reschedule the survey as described above for Emergency Cancellations.

Submit an e-mail to Program Leader with the following: what happened (i.e., survey missed by whom and why); what was done about it (i.e., survey rescheduled to what date); and what actions will be taken to prevent reoccurrence.

**Survey Cancellation Due to Severe Tropical Weather or Other Natural Disasters:** Surveys are not conducted when severe tropical weather or other natural disasters essentially prevent a reasonable expectation of fishing effort in the bay system prior to, during, and after the event. Such cancelled surveys will not be rescheduled and data sheets will not be completed. When possible prior to such events, Ecosystem Leaders in the affected areas will communicate with the Program Leader to determine the appropriate course of action. After the event, Ecosystem Leaders in the affected areas will send an e-mail to the Program Leader that makes recommendations for "non-fishable" days and documents tropical weather advisories issued by the National Weather Service, evacuation orders issued by governmental entities, and actual weather conditions experienced in the area.

**NOTE:** Non-fishable days reduce the number of multiplier days in a season for the generation of sportfishing effort and landings estimates.

## ***INTERVIEWING PROCEDURES***

Interviews are conducted during an 8-hour period from 1000 to 1800 (clock time) with the following exceptions:

### **Early Termination of Surveys**

In **high-use season**, a weekend survey will be terminated at 1300 and a weekday survey will be terminated at 1400 if no angling interviews (activity 1, 2 or 3) are conducted prior to that time and no activities 95, 97, 98 or 99 are recorded.

**NOTE:** Do not early-terminate a survey if it is known that a party-boat trip will return to the survey site prior to 1800 hours.

**NOTE:** Early-termination procedures also apply to "gulf-only" surveys. Do not early-terminate a "gulf-only" survey if it is known that a gulf party-boat trip will return to the survey site prior to 1800 hours.

In **low-use season** a weekend survey will be terminated at 1400 and a weekday survey will be terminated at 1600 if no angling interviews (activity 1, 2 or 3) are conducted prior to that time and no activities 95, 97, 98 or 99 are recorded.

### **Nomograph Cancellation of Surveys**

In **low-use season**, a survey will be canceled if the day qualifies as a "bad" survey day based on the comparison of that day's air temperature, wind speed and precipitation with the respective nomograph (Figures 18 and 19).

Weather parameters used in the nomographs will be determined at or as near as possible to 0900 from the best available source for weather conditions in the respective bay system. Local National Weather Service data should be used if deemed reflective of bay system conditions.

Wind speed should be considered sustained speed, not gusts. To match units on nomograph, multiply knots by 1.15 to obtain miles/hr.

Drizzle is considered to be precipitation; mist is not.

If the plot of the day's weather conditions falls below or to the right of the nomograph, it is a "bad" survey day.

If the plot of the day's weather conditions falls on, above or to the left of the nomograph, it is a "good" survey day.

**If for any reason there is doubt about the status of a survey day, then consider that day a good day.**

**Avoid strict nomograph application that results in survey cancellation when observed and forecasted conditions indicate non-cancellation more appropriate.**

## ***INTERVIEWING PROCEDURES (Continued)***

Completion of survey forms for early-terminated and nomograph-canceled surveys should follow procedures detailed in Figures 2 and 3.

### ***DUTIES OF INTERVIEWER***

Interviewers must be thoroughly trained and closely observed before conducting interviews without supervision. Interviewers must be knowledgeable of all survey components, including field procedures for selecting an alternate survey site and for early-terminating a survey. Ecosystem Leaders are responsible for assuring these requirements are met.

Interviewers must always strive to project a professional image during surveys. Discretion shall be exercised when passing time between interviews so as not to create a negative public image (e.g., sleeping, viewing DVDs, grilling food, fishing, etc.).

Interviewers shall have a neat appearance and wear approved Coastal Fisheries Division clothing (i.e., TPWD-issued hat with TPW/CF emblem, khaki shirt with tail tucked in, acceptable pants [or shorts] with belt [if loops present], and appropriate shoes [no flip-flops, slaps, slip-ons, etc.]). Each interviewer shall wear a wristwatch set to the correct time or carry an adequately-charged cellular phone.

Cellular phone use (if any) shall not disrupt interviewing efforts, produce unsafe situations, or create a negative public image.

Interviews shall be conducted in a courteous and professional manner.

Interviewers shall initiate interviews with an acceptable greeting (hello, good morning, good afternoon, etc.), a brief explanation of survey intent (to collect fisheries-related information), and agency affiliation (Texas Parks and Wildlife Department). Do not include statements that might give interviewees the option of declining interview participation.

Interviewers must be prepared to adequately fulfill public information requests and needs (i.e., fishing regulation booklets, bag/size limit cards, and water safety digests).

Interviewers shall determine presence of landings at beginning of interview so that minor bay, gear, and bait can be queried with specific reference to the landings when present.

Survey questions must be asked in a non-leading manner with appropriate scrutiny of responses.

Data shall be recorded in a legible manner and data sheets shall be filled out as completely as time allows during the survey. Because poor handwriting contributes to errors in computer entry of data, all data sheets must be checked for legibility prior to submission.

Interviewers shall strive to avoid soiling boat surfaces with slime and blood when fish are measured and counted on-board.

***DUTIES OF INTERVIEWER (Continued)***

During all surveys, a TPWD vehicle shall be present and a TPWD Fisheries Survey Station sign shall be displayed.

The latest version of this manual, including survey schedule and necessary code lists, shall be present during all surveys.

Other equipment shall be present during all surveys: thermometer and compass for on-site measurement of meteorological conditions; map of surrounding waters to aid in "minor bay" determination; fish identification book(s); TPWD shark identification and regulations brochure; data sheets and pencils; rain gear and waterproof data sheets for wet weather; measuring board(s) (1-meter board for all surveys and 2-meter board for gulf-access surveys); flexible non-corroding measuring tape; catch handling containers (bushel basket or tub, and 5-gallon bucket); cloth or paper towels; first-aid kit; drinking water; sun screen; and fire extinguisher.

When violations of size and bag limits are encountered during surveys, interviewers should inform anglers of legal limits. This includes requirement to affix a properly completed Red Drum Tag or Bonus Red Drum Tag to retained over-size red drum. Interviewers should not accept illegal fish from anglers as a means of disposal.

If when surveying alone an interviewer must leave the survey site for a short time (e.g., bathroom use), then interviewer should count trailers or slips before and after absence and record counts in comments section to determine whether any interviews should be recorded as missed.

**NOTE: FALSIFICATION OF COASTAL FISHERIES DATA IS GROUNDS FOR DISMISSAL.**

Two different data sheets will be completed each survey day.

**NOTE:** Do not transcribe data from one data sheet to another to obtain a neater copy.

**Marine Harvest Monitoring - Interview Data** (Figure 15). Data sheet color is light green. One or more sheets per survey will be completed. Completion procedures are detailed in Figure 2.

All trip-ending motorized and non-motorized boat parties shall be interviewed. Non-motorized boats include canoes, kayaks, punts, rowboats, rubber rafts, and sailboats.

For the purpose of conducting an interview, a trip ends at a survey site when landings or people (exception: non-fishing party members on a fishing trip) are offloaded. A trip also ends when a party returns to a survey site to pick-up additional party members. The goal is to obtain interviews with a match between fishing effort and landings.

To prevent possible selection bias, parties should be interviewed in order of trip completion whenever possible.

***DUTIES OF INTERVIEWER (Continued)***

For each boat party that completes a trip, interview party and examine landings (if any) to obtain all required information. Only activity 1, 2, and 3 parties are queried for trip grade and species sought. Interviewers must personally identify, measure, and count all sport-boat landings (i.e., angler assistance should not be sought or accepted).

For each interview with more than one residence or more than one species caught, arrows shall be drawn down for the total number of lines in that interview under each column except for Origin (No. and Res.), User Defined Field F, Species Name, Species Code, Number, Weight, Length-Type Indicator and Length. Do not draw arrows down from one interview into the next interview. Species entries (if any) must begin on the first line of each interview. Do not leave blank line areas between species entries within an interview.

When an interview continues from one page to the next, be sure to double check for proper transcription of repeated data elements.

When an unusual interview scenario is encountered, conduct a full interview, provide explanation in comments section, and discuss upon return to field station.

**NOTE:** Occasionally a party will return to the survey site for a brief time period, and then return to water to continue fishing trip. This return to shore should be considered a completed trip for the purpose of conducting an interview if landings or anglers are off-loaded; if time period on shore is expected to be lengthy; or if additional anglers board the boat.

**NOTE:** Occasionally a party will launch their boat, park their trailer, never leave the ramp area (e.g., had motor problem, performed boat maintenance, etc.), and then haul-out the boat. This haul-out should be considered a completed trip for the purpose of conducting an interview.

**NOTE:** If two parties that fished together return to the survey site with all landings in one boat, then split landings of each species and any bought or caught bait shrimp proportionally between the boats based on number of anglers in each boat.

**NOTE:** If a party is trying to keep captured bait species alive for later use, then omit length measurements, examine catch to estimate number present of each species, and provide explanation in comments section.

**NOTE:** If all or a portion of a sportfishing party's catch was given away, then consider that a "missed" interview (activity 95 for party boats and activity 97 for private and tournament boats).

***DUTIES OF INTERVIEWER (Continued)***

**NOTE:** If all or a portion of a sportfishing party's catch was offloaded at a non-survey site (i.e., a site not included in the current boat-access site list) (e.g., residence, condominium, motel, "fishing" lodge, fish cleaning service, etc.), then consider that a "missed" interview (activity 95 for party boats and activity 97 for private and tournament boats).

**NOTE:** If all or a portion of a sportfishing party's catch was offloaded at another survey site (i.e., a site included in the current boat-access site list), then consider that a "haul-out" interview (activity 0).

**NOTE:** If a portion of a sportfishing party's catch was not caught by the party or was caught on a previous trip, and cannot be accurately separated, then consider that a "missed" interview (activity 95 for party boats and activity 97 for private and tournament boats). If said landings can be accurately separated, then a full interview should be conducted with said landings excluded. In some cases, this may require omitting length measurements and recording only counts.

**NOTE:** If a portion of a sportfishing party's members were dropped off just prior to end of trip and they can be accurately determined, then a full interview should be conducted and the absent party members included. If party members cannot be accurately determined, then consider that a "missed" interview (activity 95 for party boats and activity 97 for private and tournament boats).

**NOTE:** If all or a portion of a commercial-fishing party's catch was off-loaded elsewhere, do not code as a "missed" interview; rather, conduct an interview and ask fisherman for type and total amount of landings.

**NOTE:** For "missed" parties (activities 94, 95, 96, 97, 98 and 99), record only ID number, interview time, and activity.

**NOTE:** A party that participated in "catch-and-release" fishing or in a "live-fish" tournament should not be considered a missed party due to the release of fish.

**NOTE:** For continuous multi-day trips, include landings from all days, not just those from the current day.

**NOTE:** For a party that both hunted and fished, code as a fishing activity, record the fishing gear and bait, and record the hunted and fished landings; do not code the hunting gear. This procedure should be followed even if there are hunted landings but no fished landings.

**NOTE:** For a guided duck-hunting trip where the guide fishes and retains fish while the party hunts, record as two interviews. One for the guide with actual ID number, activity of 1, and actual trailer location; the other for the hunters with a "TT" ID number, activity of 8, and trailer location of 2. Use same trip length for both interviews.

**DUTIES OF INTERVIEWER (Continued)**

**NOTE:** For all sportfishing parties (activities 1, 2 and 3), determine whether bait shrimp were bought for or caught during the trip (see steps 20, 28, 30 and 31 in Figure 2). Bought shrimp must not have been left over from a previous trip. Captured shrimp must have been acquired during that day's trip. Shrimp bought or caught by another party should not be included.

**NOTE:** Government and university parties should be interviewed and coded with an activity of 10. Any landings should be documented in the usual manner.

**NOTE:** For non-fishing parties (activities 0, 7, 8, 9 and 10), record only ID number, interview time, trip length, activity, origin, minor bay and trailer location, except on activity 8 interviews also include the hunted landings.

**NOTE:** For commercial finfishing and crabbing parties on trips to place or bait fishing gear, record gear and bait used even if there were no landings.

**NOTE:** For sport crabbing parties on trips to place or bait fishing gear, record gear and bait used even if there were no landings.

**NOTE:** During "gulf-only" surveys, conduct full interviews only for activity 1, 2 and 3 parties that fished in the gulf; for other gulf parties and all bay/pass parties record only ID number, interview time, activity, minor bay, and trailer location. A party that fished the gulf and had no gulf landings but fished a bay/pass area and had bay/pass landings should not be recorded as a gulf interview. If a party fished both the gulf and a bay/pass area and had no landings from either area, then record as a gulf interview only if most fishing activity occurred in the gulf. Use activity 97 only for gulf private and tournament boats. Use activity 95 only for gulf party boats. Early termination procedures also apply to these surveys; any activity 1, 2, 3, 95, 97, 98 or 99 interview prior to the designated time will prevent early termination. Write "gulf-only" at top of Meteorological and Hydrological Data sheet for each gulf-only survey.

**Figure 2. How to Complete Interview Data Sheet**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
1	<b>Major Area</b>	Enter numerical code of major bay system where survey is conducted (codes: Figure 6).
2	<b>Minor Bay</b>	Enter numerical code of minor bay where survey is conducted (codes: Figure 6). <u>Do not use leading zeros.</u>
3	<b>Station</b>	Enter numerical code of survey site (codes: Figure 7).
4	<b>Completion Date</b>	Enter ending date of survey as month (1-12), day (1-31) and year (four digits), using a dash to separate each. <u>Do not use leading zeros for month or day.</u>

**DUTIES OF INTERVIEWER (Continued)****Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
5	<b>Completion Time</b>	Enter ending time of survey using 24-hour system. Do not use a separating colon between hours and minutes.  <b>NOTE:</b> For nomograph-canceled surveys, enter 1001.
6	<b>Stratum</b>	Enter numerical code 82 (Figure 8).
7	<b>Day Type</b>	Enter two-digit numerical code for day type. 1st digit = holiday (1) or non-holiday (2) (only Memorial Day, July 4th, and Labor Day are considered holidays <u>for survey scheduling purposes</u> ). 2nd digit = day of week (Saturday = 1, Sunday = 2, Monday = 3, Tuesday = 4, Wednesday = 5, Thursday = 6, and Friday = 7).
8	<b>User Defined Field</b>	Enter a 9 if survey is a “gulf-only” survey; otherwise leave blank.
9	<b>Page</b>	Enter page number.
10	<b>Total Pages</b>	Enter total number of pages in survey.
11	<b>Special Studies Code</b>	Leave blank.
12	<b>Comments</b>	Use this section to provide additional information for clarification of unusual situations; to explain reason for leaving required data fields blank; to document full boat ID numbers or names that have greater than six digits or letters; to explain reason for use of activity codes 94, 95, 96, and 97, and activity code 99 when time constraints not involved; to verify unexpected minor bay codes; and to identify meaning of activity code 0, gear codes 9 and 99, bait codes 6 and 99, and species sought code 9. Also use this section to account for non-measurement of fish; to acknowledge odd-sized (small and large; under-sized and over-sized) measurements; and to indicate non-entry of bought or caught bait shrimp due to previous-trip purchase or capture. In addition, use this section to document original volume or weight measurements converted to kilograms prior to entry in weight column.  <b>NOTE:</b> Record line numbers to differentiate comments.

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
13	<b>ID Number</b>	<p>Enter last four digits and two letters of boat registration number (TX or other state number) or last six digits of Coast Guard documentation number (if no registration number) or first six letters of boat name (if no registration or documentation number) of boat used by interviewed party (e.g., if number was TX1234AB then enter 1234 in first box and AB in second box). If boat has no registration or documentation number or name, or if registration or documentation number or name is incomplete, enter TI first and then interview time (e.g., if interview time was 1030 then enter TI10 in first box and 30 in second box). If boat does not have typical registration number or is registered in another state, enter last six digits and/or letters (e.g., if number was KA123AB then enter A123 in first box and AB in second box). If number or name has less than six figures, leave blanks in the first box.</p> <p><b><u>NOTE:</u></b> If documentation number or boat name has greater than six digits or letters, record entire documentation number or boat name in comments section.</p> <p><b><u>NOTE:</u></b> For missed parties (activities 94, 95, 96, 97, 98, and 99), enter registration number, documentation number, or boat name, if possible, otherwise enter TI and interview time. <b>Do not enter duplicate "TI/interview time" ID numbers on a survey.</b></p> <p><b><u>NOTE:</u></b> If no interviews were conducted during a survey, you <b>must</b> enter "NONE" in the first box of line 1.</p>
14	<b>Interview Time</b>	<p>Enter beginning time of interview using 24-hour system. Do not use a separating colon between hours and minutes.</p> <p><b><u>NOTE:</u></b> For missed parties (activities 94, 95, 96, 97, 98, and 99) enter time when party missed.</p>
15	<b>Trip Length</b>	<p>Enter trip length to nearest 0.5 hour. If trip length less than 0.5 hour, then enter 0.5. Trip length is the lapsed time from when a party leaves ramp or wet slip at start of trip until party returns to ramp or wet slip at end of trip. Leave blank in rare event that trip length is unknown or undetermined, and provide explanation in comments section.</p>

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b><u>NOTE:</u></b> Do not ask party how long they have been out; rather, ask party what time they left, and then calculate trip length based on interview time. Use the following guidelines to round calculated minutes to nearest half hour. Round 1-14 minutes down to “.0” hour, 15-29 minutes up to “.5” hour, 31-44 minutes down to “.5” hour, and 45-59 minutes up to “.0” hour.</p> <p><b><u>NOTE:</u></b> The recording of departure times in the left margin of the data sheet is a reasonable means of increasing the accuracy of trip-length calculations.</p> <p><b><u>NOTE:</u></b> If a party launched their boat, used a docking facility several days (i.e., docked boat daily), and then hauled the boat out after having fished that day, trip length is based only on that day’s trip.</p> <p><b><u>NOTE:</u></b> If a party “remains on the water” for an overnight trip or a camping trip, trip length is the lapsed time from launching or slip departure until haul-out or final docking at wet slip.</p>
16	Activity	<p>Enter numerical code for type of activity party was primarily engaged in (i.e., enter a single code; do not combine codes); however, if anyone in the party fished any portion of the trip, then code as a sportfishing activity (see last NOTE on page 10 for exception) (codes: Figure 9 and bottom of interview data sheet). Leave blank in rare event that activity is unknown or undetermined, and provide explanation in comments section.</p> <p><b><u>NOTE:</u></b> If a party participated in a fishing tournament, enter 3. This does not include long-term events such as the coastwide STAR tournament.</p> <p><b><u>NOTE:</u></b> For guided tournament fishing, enter 2, rather than 3.</p> <p><b><u>NOTE:</u></b> Non-commercial bait procurement trips are considered fishing trips; enter 1 if fish were targeted; enter 4 if shrimp were targeted. This includes a fish guide procuring bait on one day for use on a guided trip the next day.</p> <p><b><u>NOTE:</u></b> For divers using spear guns, enter 1, rather than 9.</p> <p><b><u>NOTE:</u></b> If a party had their boat docked and is hauling it out, but did not fish that day or ended a fishing trip earlier in the day, enter 0.</p>

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
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**NOTE:** If code 0 is used, describe activity in comments section.

**NOTE:** If a party indicates an intention to sell any part of their landings, enter appropriate commercial activity code.

**NOTE:** When determining appropriate commercial activity, focus on what the fisherman was actually doing rather than on the particular license the fisherman may possess. A commercial shrimper trawling for bait fish is not shrimping. A commercial crabber cast netting fish for crab bait is not crabbing. A commercial finfisher using crab traps to catch crabs for trotline bait is not finfishing.

**NOTE:** For activity 1 and 3 parties missed because their members could not be accurately determined, or because all or a portion of their catch could not be accurately counted, enter 97 and provide explanation in comments section. Be sure that all other data recorded for the interview, except for ID number and interview time, are erased. Do not use code 97 for party-boat, commercial, or hunting parties, or for other non-sportfishing parties.

**NOTE:** If fish were consumed during a sportfishing trip, do not enter 97; rather, conduct interview in usual manner and enumerate only the fish that are present, if any.

**NOTE:** For parties missed because they refused to be interviewed, or refused to have their landings examined, or were "in a hurry", uncooperative, evasive, and/or seemingly untruthful, enter 98. Passive resistance to the interview process should not be considered out-right refusal until some form of persuasion has failed to obtain needed cooperation. Do not use code 98 for party boats, commercial vessels or hunting parties.

**NOTE:** For parties missed because interviewer was performing other duties (time constraints) or because of heavy rainfall or because of language barriers, enter 99. Provide explanation in comments section when time constraints not involved. Do not use code 99 for party boats, commercial vessels, or hunting parties.

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b>NOTE:</b> For parties that drive away before an interview can be conducted, enter 98 if interviewer communicated in some manner the intent to conduct an interview; otherwise, enter 99 if intent not communicated.</p> <p><b>NOTE:</b> For missed or refused hunting parties, use code 94 instead of codes 97, 98, and 99, and provide explanation in comments section.</p> <p><b>NOTE:</b> For missed or refused activity 2 parties, use code 95 instead of codes 97, 98, and 99, and provide explanation in comments section.</p> <p><b>NOTE:</b> For missed or refused commercial parties, use code 96 instead of codes 97, 98 and 99, and provide explanation in comments section.</p>
17	<b>Origin</b>	<p>Enter number in party and numerical code of county (if Texas), or state (if USA) or country (if not USA) of permanent residence of party members (codes: Figure 10).</p> <p><b>NOTE:</b> For angling-activity interviews, omit members that are obviously not anglers (e.g., hand-held children or people physically unable to fish) and those who claim not to have fished at all during trip.</p> <p><b>NOTE:</b> The 1 September 2003 regulation that limited the overall catch on guided trips to the combined bag limits of the customers does not exclude counting the guide. A guide contributes significantly to the success of a fishing trip and should always be counted.</p> <p><b>NOTE:</b> For residence codes with one or two digits, enter leading zeros to obtain three digits.</p> <p><b>NOTE:</b> Use a separate line for each different residence code. Do not repeat a residence code within an interview.</p> <p><b>NOTE:</b> If a party member is a Texas resident but does not know their county of residence, determine the county from their town or city of residence, or as a last resort use the state code for Texas.</p>

**DUTIES OF INTERVIEWER (Continued)****Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b>NOTE:</b> If a party member is a <u>temporary</u> resident of Texas (e.g., a Winter Texan), determine state or country of residence based on the party member's <u>permanent</u> residence.</p> <p><b>NOTE:</b> If the residence of a party member cannot be determined at a county, state or country level, use code 888 (residence unknown) as an absolute last resort. Use of this code should be rare.</p>
18	<b>Minor Bay</b>	<p>Enter numerical code of minor bay where most of the retained fish were caught or where most of the fishing activity took place if no fish were retained (codes: Figure 6). <u>Do not use leading zeros.</u> For non-fishing activities, enter minor bay code where most of the activity took place. Verify unexpected minor bay codes in comments section. Leave blank in rare event that minor bay is unknown or undetermined, and provide explanation in comments section.</p> <p><b>NOTE:</b> If fish of the same or different species were caught in more than one minor bay and can be accurately separated, record them with separate minor bay codes. If they cannot be accurately separated, then record them with the minor bay code where most were caught.</p> <p><b>NOTE:</b> If a party fishes within one nautical mile gulfward at the gulfward end of a bay-to-gulf pass, use the pass minor bay code.</p>
19	<b>Gear</b>	<p>Enter numerical code of gear used by party (codes: Figure 11 and bottom of interview data sheet). Leave blank in rare event that gear is unknown or undetermined, and provide explanation in comments section.</p> <p><b>NOTE:</b> If landings present, record only the gear(s) used to capture the landings.</p> <p><b>NOTE:</b> Use only one gear code if a single gear is used to harvest greater than 85% of the landings or is used greater than 85% of the trip if no landings. (<b>Exceptions:</b> If a portion of the landings is bait fish or bait shrimp, record <u>both</u> the gear used to capture the bait and the gear used to capture the rest of the landings. If crabs or oysters represent greater than 85% of the landings and fish are present, then record <u>both</u> the gear used to capture the crabs or oysters and the gear used to capture the fish.)</p>

***DUTIES OF INTERVIEWER (Continued)*****Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b><u>NOTE:</u></b> Two gear codes may be used in sequence with the highest numeral recorded first (e.g., rod and reel, and gig = 21).</p> <p><b><u>NOTE:</u></b> If a gear combination cannot be coded with two digits, enter 99.</p> <p><b><u>NOTE:</u></b> Do not record landings separately by gear code.</p> <p><b><u>NOTE:</u></b> Use code 9 (other) for oysters gathered by hand.</p> <p><b><u>NOTE:</u></b> Use code 44 (baitfish trap) for organisms caught in a baitfish trap.</p> <p><b><u>NOTE:</u></b> If code 9 (other) or 99 (combination) is used, describe gear in comments section.</p> <p><b><u>NOTE:</u></b> Do not record gear for hunted landings.</p> <p><b><u>NOTE:</u></b> Do not record the gear used to catch bait shrimp or bait fish unless some were retained and landed.</p>
20	Bait	<p>Enter numerical code of bait used by party (codes: Figure 12 and bottom of interview data sheet). Leave blank in rare event that bait is unknown or undetermined, and provide explanation in comments section.</p> <p><b><u>NOTE:</u></b> If landings present, record only the bait(s) used to capture the landings.</p> <p><b><u>NOTE:</u></b> Use only one bait code if a single bait is used to harvest greater than 85% of the landings or is used greater than 85% of the trip if no landings (<b><u>Exception:</u></b> If crabs represent greater than 85% of landings and fish are present, then record <b><u>both</u></b> the bait used to capture the crabs and the bait used to capture the fish.).</p> <p><b><u>NOTE:</u></b> Two bait codes may be used in sequence with the highest numeral recorded first (e.g., dead shrimp and live shrimp = 10).</p> <p><b><u>NOTE:</u></b> If a bait combination cannot be coded with two digits, enter 99.</p> <p><b><u>NOTE:</u></b> Do not record landings separately by bait code.</p>

**DUTIES OF INTERVIEWER (Continued)****Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b>NOTE:</b> Do not record a bait code when gear code is 0, 2, 3, 4, 5, 11, or 55.</p> <p><b>NOTE:</b> Use code 6 (other) for all fly-rod baits, ghost shrimp, rock shrimp, and any other artificial or natural bait that does not fit into any other category (see Figure 12 for examples).</p> <p><b>NOTE:</b> If code 6 (other) or 99 (combination) is used, describe bait in comment section.</p> <p><b>NOTE:</b> The purchase or capture of shrimp for bait should be determined for all activity 1, 2 and 3 parties regardless of whether bait codes 0 or 1 are recorded (see steps 28, 30 and 31).</p>
21	<b>Trailer Location</b>	<p>Enter numerical code where trailer was located (codes: Figure 13 and bottom of interview data sheet). Leave blank in rare event that trailer location is unknown or undetermined, and provide explanation in comments section.</p> <p><b>NOTE:</b> For interviews conducted at ramp sites, use code 2 when there is no trailer and the boat is loaded on the vehicle.</p> <p><b>NOTE:</b> For interviews with two (or more) boats loaded on one trailer, use code 1 for one boat and code 2 for other boat(s).</p> <p><b>NOTE:</b> At sites with only a ramp, codes 0, 1, and 2 may be used.</p> <p><b>NOTE:</b> At ramp sites with wet slips not counted on roves, codes 0, 1, and 2 may be used.</p> <p><b>NOTE:</b> At ramp sites with wet slips counted on roves, codes 0, 1, 2, 3, and 5 may be used.</p> <p><b>NOTE:</b> At ramp sites with dry storage slots counted on roves, codes 0, 1, 2, 4, and 5 may be used.</p> <p><b>NOTE:</b> At sites with only wet slips, codes 2 and 3 may be used. Use code 3 when a slip is rented or code 2 when a slip is not rented.</p> <p><b>NOTE:</b> At sites with only dry storage slots, codes 2 and 4 may be used. Use code 4 when a slot is rented or code 2 when a slot is not rented.</p>

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
22	<b>User Def. Field A</b>	Leave blank.
23	<b>Trip Grade</b>	For activity 1, 2 and 3 interviews, ask randomly selected interviewee "On a scale of zero to 10 with zero being the least and 10 being the most, how satisfied were you with today's trip?" <b>Question must be asked <u>before</u> the Species Sought question. Question must be asked verbatim.</b> Exact question wording also located at bottom of interview data sheet.

**NOTE:** Random selection requires that each party member has an equal and independent chance of being chosen.

**NOTE:** For party-boat interviews, the guide should not be selected for this question.

Record the score in User Defined Field B.

If question is not answered, enter 98. This includes outright refusal or lack of understanding after question asked a second time. If question is not asked, enter 99.

24	<b>Species Sought</b>	For activity 1, 2 and 3 interviews, ask the same randomly selected interviewee "Were you fishing for a particular type of fish today?" <b>Question must be asked <u>after</u> the Trip Grade question. Question must be asked verbatim except as noted below.</b> Exact question wording also located at bottom of interview data sheet (beginning with November 2009 version).
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**NOTE:** For party-boat interviews, the guide should not be selected for this question.

**NOTE:** If question is misunderstood, it can be restated using the word "species" in place of "type of fish" (i.e., "Were you fishing for a particular species today?").

If question is not answered or not asked, leave column blank.

If answer is "no", enter 0 (no preference) under User Defined Field C.

If answer is "yes", ask: "What is it?"

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		Enter answer under User Defined Field C using the following codes (codes also located at bottom of interview data sheet):

- 0 - no preference
- 1 - red drum and spotted seatrout
- 2 - red drum
- 3 - spotted seatrout
- 4 - flounder
- 5 - Atlantic croaker
- 6 - black drum
- 7 - king mackerel
- 8 - red snapper
- 9 - other
- 11 - sheepshead
- 22 - sand seatrout
- 33 - gafftopsail catfish
- 44 - Spanish mackerel
- 55 - shark
- 66 - grouper

**NOTE:** Do not use codes 77, 88, and 99.

**NOTE:** If code 9 (other) is used alone or in combination with another code, record species name(s) in comments section. "Other" species include any species of fish not listed above.

**NOTE:** Combinations requiring three or more digits cannot be used. Instead enter 9 and record species names in comments section (e.g., 9 for king mackerel and Spanish mackerel).

**NOTE:** When recording species names in comments section, be sure to record full common names to avoid confusion (e.g., spotted seatrout or sand seatrout rather than just trout).

**NOTE:** Two codes may be used in sequence with the highest numeral recorded first (e.g., 42 for flounder and red drum, or 97 for dolphin and king mackerel).

**NOTE:** Do not use code 0 (no preference) in combination with other codes.

25	<b>User Def. Field D</b>	Leave blank.
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*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
26	<b>User Def. Field E</b>	Leave blank.
27	<b>Estimated Commercial Weight</b>	<p>If weight is estimated (reported) by interviewed commercial fisherman, enter a check mark in User Defined Field F.</p> <p><b>NOTE:</b> A check mark should also be entered for a weight determined from an estimated number or an estimated volume associated with sport shrimping or sport oystering.</p> <p><b>NOTE:</b> A check mark should also be entered for an estimated or reported number of captured bait fish associated with sport or commercial fishing.</p> <p><b>NOTE:</b> Do not enter check marks when conversion factors are used to determine weights from actual observations.</p> <p><b>NOTE:</b> Do not enter check marks for weights of bought bait shrimp on sportfishing interviews.</p>
28	<b>Species Name</b>	<p>Enter genus (first letter) and species (may limit to first nine letters if desired) (not common name) of each species landed no matter what the activity code (names: Figure 14).</p> <p><b>NOTE:</b> For specimens that cannot be identified down to species, enter first letter of lowest known taxonomic level for which there is a code, followed by taxonomic name (e.g., enter Fbothidae for Family Bothidae).</p> <p><b>NOTE:</b> For fillets, look for remaining skin or other evidence, quiz angler about species composition, and then choose most appropriate level of classification. Use similar methodology for sharks and other species with tails and/or heads removed. Do <u>not</u> identify down to genus/species based solely on what the angler says.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>NOTE:</b> For landings of live bait fish that cannot be individually examined for species identification, enter the lowest possible upper-level taxon (e.g., Ffundulidae for Family Fundulidae).</p> </div> <p><b>NOTE:</b> For landings of shrimp that can not be individually examined for species identification, enter Fpenaeidae for Family Penaeidae.</p>

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b>NOTE:</b> When appropriate, enter designated name for “bought bait shrimp” (BBS) bought for the fishing trip or “caught bait shrimp” (CBS) caught during the fishing trip (activities 1, 2 and 3). These are to be recorded regardless of whether the bait was used to catch any of the fish landed (see steps 20, 30 and 31).</p> <p><b>NOTE:</b> Do not record a BBS or CBS entry if the amount of bait shrimp is unknown.</p> <p><b>NOTE:</b> Do not record bought or caught bait shrimp that were left over from a previous trip or obtained from another party. Document this occurrence in comments section.</p> <p><b>NOTE:</b> If both live and dead bait shrimp were bought for a trip, they must be recorded on separate lines. Record amount of live shrimp as a number on one line and amount of dead shrimp as a weight on another line.</p>
29	Species Code	<p>Enter numerical code of species landed (codes: Figure 14 and N:\SPECIES CODING).</p> <p><b>NOTE:</b> To reduce coding errors, first record species name then species code when conducting an interview. <b>Do not record only species code for later recording of species name.</b></p>
30	Number	<p>Enter total number (not to exceed 999,999) of each species landed (retained) from the trip.</p> <p><b>NOTE:</b> Do not include fish released alive at interview site.</p> <p><b>NOTE:</b> If fillets present, they should be counted and the total count divided by two to determine number of fish.</p> <p><b>NOTE:</b> For live bait fish captured by non-commercial parties, examine catch to estimate number present of each species and provide explanation in comments section.</p> <p><b>NOTE:</b> For live bait fish captured by commercial parties, inquire number of fish present for each species (often stated in dozens). Enter total number and record stated amount in comments section.</p>

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b>NOTE:</b> If possible, determine total number of recreational blue crabs landed. Total numbers are not required for commercial blue crabs, or for sport and commercial oysters and shrimp (except where appropriate as bait shrimp).</p> <p><b>NOTE:</b> For recreational stone crabs, enter total number of claws landed and acknowledge in comments section.</p> <p><b>NOTE:</b> When appropriate, enter total number (regardless of amount used) of live bait shrimp bought for or caught during the fishing trip (activities 1, 2 and 3) (1 pint=50 shrimp, 1 quart=100 shrimp and 1 gallon=400 shrimp) (see steps 20, 28 and 31). Bait shrimp left over from a previous trip or obtained from another party should not be recorded.</p>
31	<b>Weight</b>	<p>Enter total weight (to nearest 0.01 kg) of each species landed when required. If a total weight is recorded, do not record lengths.</p> <p>If a commercial weight is estimated (reported), enter a check mark in User Defined Field F (see step 27 above). A weight recorded on a “dealer receipt” for landings offloaded prior to arrival at the survey site should be considered an estimate.</p> <p>Conversion to kilograms does not change actual observations or measurements into estimated values.</p> <p><b>NOTE:</b> Always record entries in both weight columns (i.e., if weight=0.45 kg then enter a zero in the first column and 45 in the second column; or if weight=45 kg then enter 45 in the first column and 00 in the second column).</p> <p><b>NOTE:</b> For landings weighed in pounds, multiply by 0.454 to convert to kilograms.</p> <p><b>NOTE:</b> Round converted weights to nearest 0.01 kg based on the following rules. If the digit to be rounded off is followed by a digit less than 5, it is not changed (e.g., 0.243 → 0.24). If the digit to be rounded off is followed by a digit greater than 5 or by 5 followed by other nonzero digits, it is increased by one (e.g., 0.237 or 0.2351 → 0.24). If the digit to be rounded off is followed by a 5 standing alone, it is unchanged if it is even (e.g., 0.245 → 0.24) but increased by one if it is odd (e.g., 0.235 → 0.24).</p>

*DUTIES OF INTERVIEWER (Continued)***Figure 2. How to Complete Interview Data Sheet (Continued)**Step    BlankAction

**NOTE:** Total weight is equal to live weight except for Eastern oysters (meat weight).

**NOTE:** Weigh only whole fish.

**NOTE:** Total weights are required for oysters (meat weight); bait and non-bait shrimp (heads-on weight); and commercial blue crabs. Claw weights are required for commercial stone crabs. Enter an estimated weight if an actual weight cannot be obtained.

Use the following conversions:

Blue crab (live) - 0.23 kg each (commercial only)

Oysters (live) - 0.14 kg each

Oysters (live) (1 five-gallon bucket) - 26.10 kg or  
1.33 kg meat

Oysters (live) (1 bushel, basket, or sack) - 52.20 kg or  
2.65 kg meat

Oysters (live) (1 barrel) - 156.40 kg or 7.94 kg meat

Oyster meat (1 gallon) - 3.97 kg

Shrimp (live) - 2.72 kg per gallon

**NOTE:** For oysters, multiply live weight (shells plus meat) by 0.05077 to convert to meat weight.

**NOTE:** For shrimp, use the following to convert heads-off weight to heads-on weight:

Brown shrimp                    multiply by 1.61

Pink shrimp                    multiply by 1.60

White shrimp                   multiply by 1.54

Royal red shrimp            multiply by 1.80

Sea bobs                        multiply by 1.53

Rock shrimp                   multiply by 1.67

**NOTE:** In comments section, record original volume or weight measurements that required conversion to kilograms prior to entry. Do not record original pound weights of bought dead bait shrimp in comments section unless such weights are greater than 2 pounds.

**DUTIES OF INTERVIEWER (Continued)****Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
		<p><b>NOTE:</b> When appropriate, enter total weight (regardless of amount used) of dead bait shrimp bought for the fishing trip (activities 1, 2 and 3) (see steps 20, 28, and 30). Bait shrimp left over from a previous trip or obtained from another party should not be recorded. Multiply pounds by 0.454 to obtain kilograms. In Lower Laguna Madre, multiply number of "boxes" by 0.257 to obtain kilograms.</p>
32	<b>Length</b>	<p>Enter individual lengths (mm) of each species landed. Record up to six lengths for each species in each party. Acknowledge odd-sized (small and large) measurements in comments section.</p> <p>Only fish and recreationally-caught blue crabs should be measured.</p> <p>Fish total length is tip of snout (mouth closed) to tip of longest caudal ray (caudal fin compressed).</p> <p>Fish standard length is tip of snout (mouth closed) to base of caudal peduncle.</p> <p>Fish fork length is tip of snout (mouth closed) to center of fork in caudal fin.</p> <p>Skates and rays total length is maximum wingspan.</p> <p>Crab total length is lateral spine tip to lateral spine tip.</p> <p><b>NOTE:</b> Total lengths are preferred.</p> <p><b>NOTE:</b> Whether a length is Total (T), Standard (S), or Fork (F) must be indicated in the small boxes next to lengths 1, 3, and 5. Lengths 2, 4, and 6 must be the same type (T, S, or F) as the preceding length.</p> <p><b>NOTE:</b> If more than six specimens of a species are present, randomly select six for measurement.</p> <p><b>NOTE:</b> If six or less specimens of a species are present and one or more cannot be measured, then document in comments section.</p> <p><b>NOTE:</b> If fish present and lengths not obtained, then document reason in comments section.</p>

**DUTIES OF INTERVIEWER (Continued)****Figure 2. How to Complete Interview Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
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**NOTE:** Commercially-caught fish should be measured whenever possible; however, if measurements taken, a total count of fish present is required. If a total count of fish not possible, omit lengths and record total weight.

**Marine Resource/Harvest Monitoring - Meteorological and Hydrological Data** (Figure 16). Data sheet color is light pink. One sheet per survey will be completed. Completion procedures are detailed in Figure 3.

Weather conditions will be measured on-site and recorded at:

beginning of survey, and

end of survey (including early-terminated surveys but not including nomograph-canceled surveys).

**NOTE:** Write “double” or “gulf-only” at top of sheet if survey was such.

**Figure 3. How to Complete Meteorological and Hydrological Data Sheet**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
-------------	--------------	---------------

- |   |                           |  |
|---|---------------------------|--|
| 1 | <b>Major Area</b>         | Enter numerical code of major bay system where survey is conducted (codes: Figure 6).  |
| 2 | <b>Minor Bay</b>          | Enter numerical code of minor bay where survey is conducted (codes: Figure 6). <u>Do not use leading zeros.</u>  |
| 3 | <b>Station</b>            | Enter numerical code of survey site (codes: Figure 7).   |
| 4 | <b>Alt.</b>               | Enter numerical code 2 only if field conditions on day of survey necessitated use of an alternate site (see pages 4 and 5 for instructions on Alternate Site Changes). |
| 5 | <b>Gear/Stratum</b>       | Enter numerical code 82 (Figure 8).  |
| 6 | <b>Gear Size/Day Type</b> | Enter two-digit numerical code for day type. 1st digit = holiday or non-holiday; 2nd digit = day of week. See Figure 2, step 7 for more detail.                        |
| 7 | <b>Completion Date</b>    | Enter ending date of survey as month (1-12), day (1-31), and year (four digits), using a dash to separate each. <u>Do not use leading zeros for month and day.</u>     |

**DUTIES OF INTERVIEWER (Continued)****Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
8	<b>Completion Time</b>	Enter ending time of survey using 24-hour system. Do not use a separating colon between hours and minutes.  <b>NOTE:</b> For nomograph-canceled surveys, enter 1001.
9	<b>Special Studies Code</b>	Leave blank.
10	<b>Surface Area</b>	Leave blank.
11	<b>Start Date</b>	Enter starting date of survey as month (1-12), day (1-31), and year (four digits), using a dash to separate each. <u>Do not use leading zeros for month or day.</u>
12	<b>Start Time</b>	Enter starting time of survey using 24-hour system. Do not use a separating colon between hours and minutes.  <b>NOTE:</b> For nomograph-canceled surveys, enter 1000.
13	<b>Lighting Conditions</b>	Leave blank.
14	<b>Latitude</b>	Enter latitude of survey site (Figure 7).
15	<b>Longitude</b>	Enter longitude of survey site (Figure 7).
16	<b>Wind Speed</b>	Enter wind speed (nearest mph) at start of survey. If no wind, enter a zero.
17	<b>Wind Direction</b>	Circle numerical code of wind direction at start of survey, unless wind speed is zero.
18	<b>Cloud Cover</b>	Leave blank.
19	<b>Barometric Pressure</b>	Leave blank.
20	<b>Precipitation</b>	Circle numerical code of precipitation at start of survey.
21	<b>Fog</b>	Circle numerical code of fog at start of survey.
22	<b>Wave Height</b>	Leave blank.
23	<b>Tide</b>	Leave blank.

**DUTIES OF INTERVIEWER (Continued)****Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
24	<b>Shallow Water Depth</b>	Leave blank.
25	<b>Deep Water Depth</b>	Leave blank.
26	<b>Maximum Station Water Depth</b>	Leave blank.
27	<b>Temperature</b>	Enter air temperature at start of survey. If read from non-digital centigrade thermometer, round to nearest 0.5 C. If converted from Fahrenheit, round to nearest 0.1 C.
		<b>NOTE:</b> Below-zero temperatures should be recorded with a preceding negative sign (e.g., -1.5).
		<b>NOTE:</b> For proper temperature measurement, thermometer should be held in shaded open air away from wind and rain. One method is to hold thermometer in one hand and shade it with the other hand or with the data sheet clipboard. When a thermometer is not available, avoid use of measurements from non-representative inland or coastal weather-reporting sites.
28	<b>Dissolved Oxygen</b>	Leave blank.
29	<b>Salinity</b>	Leave blank.
30	<b>Turbidity</b>	Leave blank.
31	<b>Bottom Type</b>	Leave blank.
32	<b>Personnel</b>	Enter name(s) of person(s) present at beginning of survey (first initial and full last name).
33	<b>Authority Notified and Date</b>	Leave blank.
34	<b>Lighting Conditions</b>	Leave blank.
35	<b>Latitude</b>	Leave blank.

***DUTIES OF INTERVIEWER (Continued)*****Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
36	<b>Longitude</b>	Leave blank.
37	<b>Wind Speed</b>	Enter wind speed (nearest mph) at end of survey. If no wind, enter a zero.
38	<b>Wind Direction</b>	Circle numerical code of wind direction at end of survey, unless wind speed is zero.
39	<b>Cloud Cover</b>	Leave blank.
40	<b>Barometric Pressure</b>	Leave blank.
41	<b>Precipitation</b>	Circle numerical code of precipitation at end of survey.
42	<b>Fog</b>	Circle numerical code of fog at end of survey.
43	<b>Wave Height</b>	Leave blank.
44	<b>Tide</b>	Leave blank.
45	<b>Shallow Water Depth</b>	Leave blank.
46	<b>Deep Water Depth</b>	Leave blank.
47	<b>Maximum Station Water Depth</b>	Leave blank.
48	<b>Temperature</b>	Enter air temperature at end of survey. If read from non-digital centigrade thermometer, round to nearest 0.5 C. If converted from Fahrenheit, round to nearest 0.1 C.  <b><u>NOTE:</u></b> Below-zero temperatures should be recorded with a preceding negative sign (e.g., -1.5).  <b><u>NOTE:</u></b> See step 27 for guidelines on proper temperature measurement.
49	<b>Dissolved Oxygen</b>	Leave blank.
50	<b>Salinity</b>	Leave blank.

***DUTIES OF INTERVIEWER (Continued)*****Figure 3. How to Complete Meteorological and Hydrological Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
51	<b>Turbidity</b>	Leave blank.
52	<b>Bottom Type</b>	Leave blank.
53	<b>Personnel</b>	Enter name(s) of person(s) present at end of survey (first initial and full last name). In parentheses, also list any person that assisted with the survey but was not present at beginning or end of survey.
54	<b>Sample Disposition</b>	Leave blank.

***DOUBLE SURVEYING A SITE***

In the Matagorda-San Antonio, San Antonio-Aransas, and Aransas-Corpus Christi bay areas, some boat-access site surveys will count for both bay systems. In order to ensure that all interview data are assigned to the bay system in which the activity occurred, follow the procedures in Figure 4 below.

**Figure 4. How to Double Survey a Site**

<u>Step</u>	<u>Action</u>
1	Conduct interviews in the usual manner.
2	Complete key fields on all data sheets used in the survey, except do not fill in major area and station number.
3	At conclusion of survey, photocopy (on appropriately-colored, legal-size paper) all data sheets to create a duplicate set of data sheets. For each set of data sheets, fill in appropriate major area and station codes. Write "original" in red at top of photocopied data sheets. In addition, write "double" <span style="border: 1px solid black; padding: 0 2px;">in red</span> at top of each Meteorological and Hydrological Data sheet.
	<b><u>NOTE:</u></b> Be sure to check for data entries erased from original data sheets that unintentionally show up on photocopies.
4	On the interview data sheets for each bay system, scratch out all lines of data associated with bay and pass minor bays not in that bay system. Be sure to scratch out the entire line including the left-side "Ln No." column. Use a <b><u>broad felt-tip red</u></b> marker for this purpose.

**DOUBLE SURVEYING A SITE (Continued)****Figure 4. How to Double Survey a Site (Continued)**

<u>Step</u>	<u>Action</u>
	<p><b>NOTE:</b> If minor bay codes from both bay systems are recorded in an interview, use the first minor bay code listed in the interview to determine which bay system to assign all lines of data for that interview.</p> <p><b>NOTE:</b> An interview from neither target bay system should be assigned to the nearest target bay system (e.g., an interview from the Upper Laguna Madre would be retained on Corpus Christi Bay data sheets and scratched out on Aransas Bay data sheets).</p>
	<p><b>NOTE:</b> In the rare event that minor bay is unknown, retain interview on pages from bay system where survey site is located.</p>
5	<p>On one of the two sets of interview data sheets, scratch out all lines of data associated with gulf minor bay codes (i.e., all Gulf interviews should remain together on only one of the duplicate data sheet sets).</p> <p><b>NOTE:</b> If minor bay codes from one bay system <u>and</u> the gulf are recorded in an interview, retain all lines of the interview on data sheets for that bay system.</p>
6	<p>Eliminate duplication of activity 94, 95, 96, 97, 98, and 99 entries by assigning them to one or the other bay system in the same proportion that bay/pass fishing interviews (activity 1, 2, and 3) were distributed on that day (e.g., if 75% of fishing interviews were from one bay system, then 25% of activity 94, 95, 96, 97, 98, and 99 entries should be scratched from that bay system's data sheets; the remaining 75% of activity 94, 95, 96, 97, 98, and 99 entries should be scratched from the other bay system's data sheets).</p> <p><b>NOTE:</b> The sum of the number of activity 94, 95, 96, 97, 98, and 99 entries remaining on the two sets of interview data sheets should equal the total number recorded during the survey.</p>
7	<p>For each set of interview data sheets, eliminate pages with all data scratched out, and then renumber pages as necessary.</p>
8	<p>The team that conducts the survey submits the completed data sheets for <u>both</u> bay systems to the Regional Editor and sends a copy of the data sheets from the other bay system to that bay system for filing.</p>

## **ROVING COUNTS**

Roving counts will be conducted on "good" days in order to maximize the number of empty trailers and empty boat slips counted. Do not conduct a rove when there is doubt whether a potential rove day is "good".

In the **high-use season**, a "good" rove day is a day when Small Craft Advisories are not in effect.

**NOTE:** According to the National Weather Service, Small Craft Advisories are issued when winds greater than 20 knots are observed or forecast. Small Craft Advisories may also be issued when there are lower wind speeds or hazardous sea conditions that may affect small craft operations.

In the **low-use season**, a "good" rove day for each day type is determined by comparing that day's air temperature, wind speed, and precipitation with the respective nomograph (Figures 18-19). If the plot of weather conditions at 0800 falls on, above or to the left of the nomograph, it is a "good" rove day. If nomograph indicates a "good" day but Small Craft Advisories will be in effect during the rove, then consideration should be given to postponing the rove for another day if available.

### **High-Use Season**

Five (5) weekend days. **Two (2) must be on Saturday and two (2) must be on Sunday.**

Five (5) weekdays.

**NOTE:** One (1) weekend and one (1) weekday rove should be conducted during each of the following periods: May 15-June, July, August, September, and October-November 20.

### **Low-Use Season**

Three (3) weekend days. **One (1) must be on Saturday and one (1) must be on Sunday.**

Three (3) weekdays.

**NOTE:** One (1) weekend and one (1) weekday rove should be conducted during each of the following periods: November 21-January, February-March, and April-May 14.

**Failure to Conduct a Rove:** If a rove is not conducted in one of the time periods listed above, notify Program Leader for remedy; then submit an e-mail to Program Leader describing what happened, what was done about it, and what actions will be taken to prevent reoccurrence.

**ROVING COUNTS (Continued)**

**NOTE:** “Mini-roves” are conducted to more efficiently rove geographically-isolated sites. Galveston Bay personnel rove Sabine Lake site 28 and Matagorda Bay personnel rove Galveston Bay sites 98, 108 and 109.

**DUTIES OF ROVING COUNTER**

Roving counters must be thoroughly trained, knowledgeable of all rove components, and familiar with route to be taken and sites to be counted. Ecosystem Leaders are responsible for assuring these requirements are met.

Personnel conducting roves shall have a neat appearance and wear approved Coastal Fisheries division clothing (i.e., TPWD-issued hat with CF patch or khaki shirt with CF patch and tail tucked in; acceptable pants [or shorts] with belt [if loops present]; and appropriate shoes [no flip-flops, slaps, slip-ons, etc.]).

The latest version of this manual, including an updated boat-access site list, shall be present during all roves.

Other equipment shall be present during all roves: rove tally sheet with sites listed in the order they are to be counted; thermometer and compass for onsite measurement of meteorological conditions; first-aid kit; drinking water; fire extinguisher; adequately-charged cellular phone; and any device that displays the correct time.

Cellular phone use (if any) shall not disrupt roving count efforts, produce unsafe situations, or create a negative public image.

Roves are conducted by traveling around the bay system as quickly as practical between 0800 and 1230 (clock time) and counting empty boat trailers and/or empty boat slips at pre-determined boat-access sites. Route(s) taken and number of personnel assigned should insure that counts are conducted within the 0800-1230 rove period.

The count order is determined by starting at opposite ends of the rove list on alternate rove days for each day type. Starting at opposite ends of the rove list serves to negate potential rove count bias based on count time for sites at either end of the list.

**NOTE:** With the exception of sites counted during “mini-roves”, all sites in a bay system must be counted on the same day.

**NOTE:** An explanation is required in comments section of rove data sheet when counts are conducted outside the 0800-1230 rove period.

**NOTE:** Roves conducted between 0900 and 1100 are preferred in order to maximize the number of empty trailers and empty slips counted.

**NOTE:** If a boat-access site is temporarily closed (i.e., unusable or inaccessible, but does not include a ramp clogged with water hyacinth or seagrass), do not enter a station number, count time, or total count for that site on roving count data sheet, but make a note of situation in comments section.

**DUTIES OF ROVING COUNTER (Continued)**

Two different data sheets will be completed for each rove.

**NOTE:** Do not transcribe data from one data sheet to another to obtain a neater copy.

**Marine Harvest Monitoring - Roving Count Data** (Figure 17). Data sheet color is light blue. Complete as detailed in Figure 5 below.

**NOTE:** The roving count data sheet has two columns with lines 1-20 in column one and lines 21-40 in column two. All 20 lines of column one must have entries when there are entries in column two. Do not leave blank lines between non-blank lines.

**NOTE:** An alternate rove sheet with additional data fields to complete (e.g., number of attached trailers, number of unattached trailers, number of empty slips, number of rented slips, prompts to check specific areas with known site-52 activity, etc.) may be used during the rove. Once final counts are determined, they can be recorded on the roving count data sheet and verified by a second staff member.

**NOTE:** In the Galveston and Matagorda Bay systems where there are greater than 40 sites to count, more than one roving count data sheet is needed. Entries should be consolidated so that there are not multiple data sheets with entries only in column one. If a single-column data sheet is unavoidable, then it should be the last numbered page for the rove.

**Figure 5. How to Complete Roving Count Data Sheet**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
1	<b>Major Area</b>	Enter numerical code of major bay system where roving count is conducted (codes: Figure 6).
2	<b>Minor Bay</b>	Enter 0.
3	<b>Completion Date</b>	Enter ending date of roving count as month (1-12), day (1-31), and year (four digits), using a dash to separate each. <span style="border: 1px solid black; padding: 2px;">Do not use leading zeros for month or day.</span>
4	<b>Completion Time</b>	Enter ending time of roving count (i.e., time when last site was counted) using 24-hour system. Do not use a separating colon between hours and minutes.
5	<b>Stratum</b>	Enter 82 (Figure 8).
6	<b>Day Type</b>	Enter two-digit numerical code of day type. 1st digit = holiday or non-holiday; 2nd digit = day of week. See Figure 2, step 7 for more detail.

**DUTIES OF ROVING COUNTER (Continued)****Figure 5. How to Complete Roving Count Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
7	<b>User Defined Field</b>	Leave blank.
8	<b>Page</b>	Enter the page number.
9	<b>Total Pages</b>	Enter total number of pages of roving count.
10	<b>Special Studies Code</b>	Leave blank.
11	<b>Comments</b>	Use this section to provide additional information relevant to rove (e.g., counting sites outside the 0800-1230 rove period, non-counting of closed sites, <u>and source of site-52 counts</u> ).
12	<b>Station</b>	List sites in the order they are to be counted.  <b>NOTE:</b> Do not list a site for which a count was not obtained; rather, record site in comments section with reason for non-count.  Use a station number of 52 to represent all launching sites other than those listed as active in the Master List (codes: Figure 7).  During the rove, keep track of all trailers parked at launching sites other than designated boat-access sites and enter total number (or 0 if there are none) under station number 52.  <b>NOTE:</b> On “mini-roves” conducted by Galveston personnel for Sabine and by Matagorda personnel for Galveston, station 52 counts should not be included. If a station 52 count other than zero is encountered on a “mini-rove”, it should be recorded in the comments section and communicated to the appropriate crew so they can add it to the station 52 count on the primary rove.
13	<b>Count Time</b>	List the time each site is counted according to the 24-hour system. Do not use a separating colon between hours and minutes. Leave blank for station number 52.
14	<b>Total Count</b>	Enter total number of boat trailers <b>attached</b> and <b>unattached</b> (combined) to vehicles encountered at a boat ramp at time specified. For boat-access sites with rentable boat slips, count the number of slips that are empty, adjust the number downward for the number of slips not rented, and combine with the number of boat trailers encountered if appropriate.

***DUTIES OF ROVING COUNTER (Continued)*****Figure 5. How to Complete Roving Count Data Sheet (Continued)**

<u>Step</u>	<u>Blank</u>	<u>Action</u>
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**NOTE:** Ignore trailers that have boats on them or that appear inoperable or that appear not to have been moved for some time. Do not ignore trailers belonging to government or university sanctioned parties.

**NOTE:** Do not count rented boat slips as empty if they have boat slings (straps) up and out of the water.

**NOTE:** The number of boat slips not rented or not rentable should be determined by contacting the property owner as close to the rove date as possible. Where feasible, this can be done during the rove.

**NOTE:** Special care must be taken to insure rove counts at boat-slip sites accurately reflect daily boating activity. This may require some innovative methodologies depending on characteristics of individual sites. Night roves are conducted in Galveston Bay, Aransas Bay, and Lower Laguna Madre at selected wet-slip sites where contacting the property owner or operator is not useful in determining number of slips actually occupied.

**Marine Resource/Harvest Monitoring - Meteorological and Hydrological Data** (Figure 16). Data sheet color is light pink. One sheet per rove will be completed. Complete as instructed in Figure 3 above except that in:

Step 2. **Minor Bay** - enter 0.

Step 3. **Station** - enter 999.

Step 4. **Alt** - leave blank.

Step 8. **Completion Time** - enter time last site was counted.

Step 12. **Start Time** - enter time first site was counted.

Step 14. **Latitude** - leave blank.

Step 15. **Longitude** - leave blank.

Steps 35-54. Bottom section of data sheet - leave blank unless rove takes more than 4 hours, in which case complete required information.

***DUTIES OF ROVING COUNTER (Continued)***

Weather conditions will be measured on-site and recorded at:

first site counted, and

last site counted (if rove takes more than 4 hours).

## QUALITY CONTROL

### *GENERAL OVERVIEW*

The Coastal Fisheries Quality Control Program was initiated in 1994. The program established a standardized, coastwide quality control program designed to monitor the long-term collection of fishery-dependent and fishery-independent data. As part of the program, designated personnel conduct periodic quality control field visits on sport-boat surveys and roves. Annually-revised report forms are used to facilitate each field visit (Figure 20) (N:\QC\QC Report Forms\). For more information on the program, see the Quality Control Program Field Operations Manual (N:\QC\QC Ops Manual\).

## DATA SUBMISSION AND EDITING

### GENERAL OVERVIEW

In 1999, the Coastal Fisheries Sport-Harvest Monitoring Database was converted from a mainframe, user-language database system (M204) to a client/server, windows-like, relational database management system (Sybase). The system features on-line data-entry and error-detection capabilities that allow for direct updating (additions, deletions and corrections) of the database through programmed screens. Batched raw data are keyed directly into the Holding File for editing. Edit listings are printed for all data added to the Holding File. Ecosystem Teams and Regional Editors insure all data in the Holding File are correct before Program Leader transfers the data to the Master File. Only the Program Leader makes corrections to data in the Master File.

### DUTIES OF COASTAL FISHERIES PERSONNEL

<u>Step</u>	<u>Personnel</u>	<u>Action</u>
1	<b>Sampling Crew</b>	Records survey and roving count data in a legible manner on appropriate sheets.  <div style="border: 1px solid black; padding: 5px;"> <p>Uses data sheet comments section to record information to clarify a variety of situations (see Figure 2, Step 12 for interviews and Figure 5, Step 11 for roves).</p> </div>
2	<b>Ecosystem Team</b>	Carefully edits all data-sheet fields and confirms legibility of all entries.  <div style="border: 1px solid black; padding: 5px;"> <p>Reviews data sheet comments to insure interview and rove data are correctly recorded.</p> </div> <p>Retains photocopy of all sheets and sends original data sheets to Regional Editor <b>within seven (7) working days</b> (i.e., does not include weekend days or TPWD-approved holidays).</p>
3	<b>Regional Editor</b>	Tracks receipt of survey and rove data for timely submission (prepares monthly report on each ecosystem and submits to appropriate Ecosystem Leader and Regional Director) and adherence to schedules (routine surveys and roves; gulf-only surveys; and if applicable, special study surveys and roves). Queries Ecosystem Teams and informs Program Leader when discrepancies detected.  <p>Carefully edits data sheets for key-field errors. Scans data sheets for other errors.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Reviews data sheet comments to insure interview and rove data are correctly recorded.</p> </div>

***DUTIES OF COASTAL FISHERIES PERSONNEL (Continued)***

<u>Step</u>	<u>Personnel</u>	<u>Action</u>
		Prepares monthly lists of detected errors and distributes them to appropriate Ecosystem Teams and Regional Director, and to Program Leader.
		Completes a Data Transmittal Memorandum for each batch of data.
		Initiates a Batch Entry Record in database system and prints a copy of it for submission with data.
		Sends original data sheets, completed Data Transmittal Memorandum, and copy of Batch Entry Record to the Data Entry Clerk in Austin by the 20th of the month following the month of collection.
		Alerts Data Entry Clerk in Austin via e-mail that original data sheets are in transit.
		Maintains tracking sheet on status of data batches, including date sent to Austin, date returned from Austin, date sent to Ecosystem Teams for editing, deadline for return to Regional Editor, date returned to Regional Editor, and date ready for transfer to Master File.
4	<b>Data Entry Clerk</b>	Keys original data sheets into computer database Holding File.
		Returns original data sheets to appropriate Regional Editor.
5	<b>Regional Editor</b>	Prints edit listings.
		Sends original data sheets and edit listings to Ecosystem Teams for editing.
6	<b>Ecosystem Team</b>	Checks all entries on edit listings against original data sheets and carefully examines all flagged entries. Contrasts Regional Editor's list of detected errors with edit listings to be sure all issues have been properly addressed.
		Marks needed corrections on edit listings.
		Returns original data sheets (in ascending date order; i.e., older on top and newer on bottom) and edit listings to Regional Editor by specified deadline (usually 10 working days).

***DUTIES OF COASTAL FISHERIES PERSONNEL (Continued)***

<u>Step</u>	<u>Personnel</u>	<u>Action</u>
7	<b>Regional Editor</b>	<p>Makes on-screen corrections to Holding File based on marked edit listings.</p> <p>Verifies that all flagged entries have been addressed.</p> <p>Runs Pre-Transfer Edit procedure to detect records with unacceptable values for certain variables.</p> <p>Resolves records with unacceptable values, if any, by making on-screen corrections to Holding File.</p> <p>Runs Batch Report procedure to verify that number of pages sent for keying equals number of pages entered.</p> <p>Resolves page discrepancies, if any, by making on-screen corrections to Holding File.</p> <p>Informs Program Leader when batch is ready for transfer to Master File (i.e., when all known errors have been corrected, number of pages sent equals number of pages entered, and Pre-Transfer Edit Report shows no errors).</p> <p>Sends original data sheets in ascending date order (i.e., older on top and newer on bottom) to Program Leader.</p>
8	<b>Program Leader</b>	<p>Runs Pre-Transfer Edit procedure to detect records with unacceptable values for certain variables.</p> <p>Runs Batch Report procedure to verify that number of pages sent for keying equals number pages entered.</p> <p>Makes additional corrections to Holding File as needed.</p> <p>Transfers data from Holding File to Master File.</p> <p>Makes corrections to Master File as needed.</p> <p>Retains original data sheets until data are summarized and annual report is prepared, and then returns original data sheets to Ecosystem Teams.</p>

**NOTE:** For a detailed account of Regional Editor procedures, see the Regional Editor Guidelines document (N:\QC\RE Guidelines\).

## ***DATABASE USER PROCEDURES***

Procedures for using the database management system (keying, correcting, and viewing data) are detailed in the 117-topic “Help” feature accessible from the opening screen of the system.

Procedures for extracting data stored in the system are detailed in the Coastal Fisheries Database Users Manual (N:\SQL\Sybase ops manual.pdf).

## ***EDIT LISTINGS AND DISPLAY SCREENS***

Edit listings (Figures 21-24) and display screens closely resemble raw data sheets. Programmed error checks have been revised and expanded in the system. Entries falling outside the programmed range will be flagged with a shaded box on edit listings and with a red background on display screens. Flagged entries may or may not represent errors but must be carefully examined.

## ***HOW TO MARK EDIT LISTINGS FOR ON-SCREEN UPDATING***

Ecosystem teams will contrast original data sheets with edit listings. Needed changes (corrections, deletions and additions) for both key and non-key fields are to be marked with red ink as outlined below.

### **Correction/Deletion of an Individual Field**

- Draw line through entire field containing errant value.
- Enter all characters of correct value above errant value.
- Write a "C" in left margin next to line needing the change.

### **Addition to a Blank Individual Field**

- Enter correct value in blank field. Be sure to enter all characters relevant to the field.
- Write a "C" in left margin next to line needing the change.

### **Deletion of a Line of Data**

- Draw line through entire line of data to be deleted.
- Write a "D" in left margin next to line needing deletion.

### **Addition of a Line of Data**

- Below last printed line of an edit listing with less than ten lines of data, write in desired line of data including line number. Use last printed line as a guide for proper alignment.
- Write an "A" in left margin next to line being added.

## DOCUMENT SPECIFICATION

### *BAY SYSTEM DESCRIPTIONS*

The following bay system descriptions have been in effect since the start of the Harvest Monitoring Program in 1974.

**NOTE:** Descriptions do not reflect the coastal water boundary established in 1986 to delineate area for required possession of Saltwater Sportfishing Stamp.

<u>Bay System</u>	<u>Code</u>	<u>Description</u>
<b>Sabine Lake</b>	1	All waters, including all saltwater bayous, bounded by a line behind the surflines from the north edge of Sabine Lake where the mouths of the Sabine and Neches Rivers enter the Lake to the bridge over the ICWW at High Island.
<b>Galveston</b>	2	All waters, including all saltwater bayous, bounded by a line behind the surflines from the bridge over the ICWW at High Island to Salt Bayou on the ICWW between Cedar Lakes and Caney Creek and the north edge of Trinity Bay where the Trinity River enters the bay. The Freeport area was added to the Galveston Bay system on 15 May 1982. On 21 November 1982, the area between the Baytown tunnel and the junction of the San Jacinto River and the Houston Ship Channel was added to the Galveston Bay system.
<b>East Matagorda</b>	9	All waters behind the surflines from Salt Bayou between Cedar Lakes and Caney Creek including the lower portion of Caney Creek to the western edge of East Matagorda Bay including the Intracoastal Waterway (ICWW) and all saltwater bayous entering the ICWW. On the Harvest Program, East Matagorda Bay is considered a minor bay in the Matagorda Bay system.
<b>Matagorda</b>	3	All waters, including all saltwater bayous, between the surflines from the eastern edge of the Lower Colorado River (below the ICWW) to the eastern edge of the Chain of Islands in Pass Cavallo and the lower portion of the Tres Palacios and Lavaca Rivers. Also, includes all waters in East Matagorda Bay.
<b>San Antonio</b>	4	All waters, including all saltwater bayous, between the eastern edge of the Chain of Islands in Pass Cavallo to the Chain of Islands in the western edge of Ayres Bay and all waters from the mouth of the Guadalupe River including Mission Lake, Guadalupe Bay and the lower delta of the Guadalupe River.

***BAY SYSTEM DESCRIPTIONS (Continued)***

<u>Bay System</u>	<u>Code</u>	<u>Description</u>
<b>Aransas</b>	5	All waters, including all saltwater bayous behind the surfline from the eastern edge of Mesquite Bay to the causeway between Aransas Pass and Port Aransas, including the ICWW.
<b>Corpus Christi</b>	6	All waters, including all saltwater bayous, between the surfline from the western edge of the causeway between Aransas Pass and Port Aransas to the powerline connecting Demit Island to Mustang Island, and the mouth of the Nueces River.
<b>Upper Laguna Madre</b>	7	All waters, including all saltwater bayous, behind the surfline from the powerline connecting Demit Island to Mustang Island to the Land Cut (Middle Ground to Rincon De San Jose), including Baffin Bay and its tributaries.
<b>Lower Laguna Madre</b>	8	All waters behind the surfline, including all saltwater bayous, from Rincon De San Jose to the south edge of South Bay and including the Arroyo Colorado and Brownsville Ship Channel.

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes****CRITERIA FOR ASSIGNING A MINOR BAY CODE**

The latest NOAA nautical charts will be used as a standard. These charts are used because they are admissible in a court of law under TPWD Code Section 12.113. All bays and lakes, passes connecting gulf to bays, and rivers that enter directly into the gulf that are designated on these charts will be numbered. A pass is considered to be one mile beyond a pass in the gulf from the point where the bay and pass meet. Definitions of passes and rivers will be based on observable landmarks designated on NOAA nautical charts. All rivers and bayous entering a minor bay will be considered a part of the minor bay.

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
GULF OF MEXICO			
		Non-defined gulf (no longer used)	989
		Gulf off Sabine Lake less than or equal to 10 miles	998
		Gulf off Sabine Lake greater than 10 miles	999
		Gulf off Galveston-Freeport less than or equal to 10 miles	990
		Gulf off Galveston-Freeport greater than 10 miles	991
		Gulf off Matagorda-San Antonio less than or equal to 10 miles	992
		Gulf off Matagorda-San Antonio greater than 10 miles	993
		Gulf off Aransas-Corpus Christi-upper Laguna Madre less than or equal to 10 miles	994
		Gulf off Aransas-Corpus Christi-upper Laguna Madre greater than 10 miles	995
		Gulf off lower Laguna Madre less than or equal to 10 miles	996
		Gulf off lower Laguna Madre greater than 10 miles	997

**NOTE:** If party fishes within one nautical mile gulfward of the gulfward end of a bay-to-gulf pass, use the pass minor bay code rather than the gulf minor bay code.

**NOTE:** Although the gulf-ward mouth of Cedar Bayou is located about 4.5 miles north of latitude 28°N (the boundary between NMFS statistical zones 19 and 20), the Gulf in this area (i.e., up to 5 miles northeast of the gulf-ward mouth of Cedar Bayou) should be considered as part of the Gulf off Aransas-Corpus Christi-upper Laguna Madre rather than part of the Gulf off Matagorda-San Antonio for creel survey purposes.

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
<b>SABINE LAKE</b>	1		
		Sabine Lake (includes Neches and Sabine Rivers downstream from bridges on IH 10)	700
		Keith Lake	701
		Johnson Lake	702
		Salt Lake	703
		Fence Lake	704
		Knight Lake	705
		Lost Lake	706
		Cabin Lake	707
		Clam Lake	708
		Star Lake	709
		Sabine Pass (area between bridge on Hwy. 82 to end of jetties)	710
		Willow Lake	711
		Barnett Lake	712
		Mud Lake (High Island area)	713
		Sabine Lake area (includes saltwater areas behind the gulf surfline from junction of Taylor Bayou Outfall Canal and ICWW to Hwy. 124 bridge over ICWW at High Island)	714
		Shell Lake	715
		Mud Lake (Sabine Pass area)	716
		Peters Lake	717
<b>GALVESTON BAY</b>		Areas with the designation "Harvest Monitoring only" are coded under Major bay code 2 for Harvest Monitoring and under 11-Cedar Lakes-for Resource Monitoring.	
		Alligator Lake	11
		Ash Lake	12
		Bryan Lake (Harvest Monitoring only)	42
		Bastrop Bay (includes Bastrop Bayou downstream from junction with Austin Bayou)	50
		Burnett Bay	53
		Black Duck Bay	54

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
<b>GALVESTON BAY</b>	2	Carancahua Lake	61
		Cedar Lakes (Harvest Monitoring only)	62
		Cotton Lake	63
		Crystal Bay	64
		Bolivar Roads (area east of a line between the ferry landing on Port Bolivar to range marker at the Coast Guard station at Fort Point to the end of the jetties)	91
		Quintana Channel (area between the ICWW southeast to the end of the jetties) (Harvest Monitoring only)	92
		Chocolate Bay	100
		Choctaw Lake (Harvest Monitoring only)	101
		Christmas Bay	110
		Clear Lake (includes Clear Creek downstream from the bridge on Hwy. 3)	111
		Crab Lake	123
		Cox Lake	131
		Dickinson Bay (includes Dickinson Bayou downstream from bridge on Hwy. 146)	141
		Dollar Bay	142
		Drum Bay	144
		Cow Trap Lakes (Harvest Monitoring only)	145
		East Bay (also includes all waters from bridge over ICWW at High Island to junction of ICWW and East Bay)	150
		Freeport Bay Area (includes saltwater areas behind the gulf surfline from Drum Pt. to Salt Bayou on the ICWW not defined with a minor bay code) (Harvest Monitoring only)	172
		Galveston Bay	180
		Green's Lake	181
		Hall's Lake (includes Hall's Bayou downstream from the bridge on Hwy. 2004)	191
		Horseshoe Lake	192

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
<b>GALVESTON BAY</b>	2	Jones Lake (includes Highland Bayou downstream from the railroad bridge that connects Texas City with the GC&SF railroad)	201
		Jones Lake (Freeport area) (Harvest Monitoring only)	203
		Lake Como	214
		Lost Lake	222
		Lost Bay	225
		Moses Lake	241
		McNeal Lake (Harvest Monitoring only)	244
		Mud Lake	245
		Nicks Lake	253
		Oyster Lake (near Bastrop Bay)	261
		Oyster Creek (Harvest Monitoring only)	265
		Old Brazos River (from end of harbor to junction with ICWW) (Harvest Monitoring only)	266
		Oyster Lake (Bolivar Peninsula)	267
		Pelican Lake (Harvest Monitoring only)	268
		Swan Lake (Freeport area) (Harvest Monitoring only)	269
		Rollover Bay	286
		Salt Lake	291
		Swan Lake	311
		Tabb's Bay	312
		San Jacinto Bay	318
		Scott Bay	319
		Taylor Lake	321
		Sweetwater Lake	324
		Trinity Bay (includes Trinity River Delta south of Big Hog Bayou)	330
		West Bay	350
		Rollover Pass (area between junction with Rollover Bay and the gulf surfline)	500
		San Luis Pass (area ½ mile bayward and ½ mile gulfward off Vacek Bridge)	530

## DATA ENCODING LISTS

**Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
<b>GALVESTON BAY</b>	2	San Bernard River (includes all waters downstream from the Narrows subdivision to the junction with the gulf) (Harvest Monitoring only)	560
		Brazos River (includes all waters downstream from the Dow Chemical floodgate to the junction with the gulf) (Harvest Monitoring only)	570
<b>MATAGORDA BAY</b>	3	Areas with the designation "Harvest Monitoring Only" are coded under Major Bay Code 3 for Harvest Monitoring and under 9 (East Matagorda Bay) for Resource Monitoring	
		Boggy Lake (Harvest Monitoring only)	51
		Carancahua Bay (downstream from where the Carancahua River enters the bay)	60
		Matagorda Ship Channel (area from Marker 13 southeast to end of jetties)	98
		Chocolate Bay	112
		Crab Lake	121
		Coon Island Bay	122
		Cox Bay	140
		East Matagorda Bay (includes Caney Creek downstream from Sargent and also the ICWW from Salt Bayou to Caney Creek) (Harvest Monitoring only)	160
		Freshwater Lake	171
		Gottschalk Lake (Harvest Monitoring only)	182
		Kilbride Lake (Harvest Monitoring only)	202
		Keller Bay	210
		Lavaca Bay (includes Lavaca River below the junction of Redfish Bayou and the Lavaca River)	220
		Lake Austin (Harvest Monitoring only)	223
		Live Oak Bay (Harvest Monitoring only)	224
		McNabb Lake (Harvest Monitoring only)	242
Mad Island Lake	243		
Oyster Lake	264		
Powderhorn Lake	271		
Pelton Lake (Harvest Monitoring only)	273		

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE		
<b>MATAGORDA BAY</b>	3	Redfish Lake (Carancahua Bay area)	281		
		Redfish Lake (Lavaca River area)	283		
		Robbins Lake	287		
		Salt Lake	292		
		Swan Lake	316		
		Tres Palacios Bay (includes Tres Palacios River downstream from bridge on Hwy. 521)	320		
		Turtle Bay	340		
		Matagorda Bay	360		
		Venado Lake	371		
		Brown Cedar Cut (area between the two land masses southeast to the gulf surfline) (Harvest Monitoring only)	580		
		Colorado River (includes all waters downstream from Selkirk Island to the junction with the gulf)	590		
		Pass Cavallo (area south of a line between Decros Pt. and Saluria Bayou to a line drawn between Marker 13 and the Matagorda Light on Matagorda Island)	620		
		<b>SAN ANTONIO BAY</b>	4		
				Ayres Bay	30
Barroom Bay	52				
Espiritu Santo Bay	170				
Guadalupe Bay	190				
Hynes Bay	200				
Long Lake (Matagorda Island)	212				
Lucas Lake	213				
Long Lake (Guadalupe Delta)	215				
Mustang Lake	251				
Mission Lake	252				
Pringle Lake	272				
San Antonio Bay	300				
Shoalwater Bay	301				

## DATA ENCODING LISTS

**Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE		
SAN ANTONIO BAY	4	Southpass Lake	302		
		Contee Lake	303		
		Long Lake (Aransas Wildlife Refuge)	304		
		Pats Bay	305		
		Power Lake	306		
		Twin Lakes	307		
		Cedar Lake	308		
		Panther Point Lake	309		
		Swan Lake (Guadalupe Delta)	322		
		Swan Lake (Matagorda Island)	323		
		ARANSAS BAY	5		
				Allyns Bight	13
				Aransas Bay	20
Big Brundrett Lake	43				
Little Brundrett Lake	44				
Carlos Bay	70				
Cedar Bayou (area between a line drawn from Cedar Pt. southeast to the point of land on Matagorda Island to the gulf surfline including Vincents Bayou)	90				
Lydia Ann Channel (north of a line between Aransas Channel Marker 2 to Range Light on San Jose Island and south of a line between ICWW Marker 84 at north end of Lydia Ann Island)	94				
Aransas Channel (area between Marker 4 in the Aransas Channel southeast to a line drawn between the Radio Beacon Tower and the range marker on San Jose Island)	95				
Copano Bay (includes Aransas River downstream from the earthen dam)	120				
Dunham Bay	143				
Long Lake	226				
Little Bay	227				

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
<b>ARANSAS BAY</b>	5	Mission Bay (includes Mission River downstream from bridge on Hwy. 2678)	240
		Mesquite Bay	250
		Port Bay	270
		Redfish Bay (Aransas Bay system)	280
		South Bay (all waters inside of a line drawn from where Stedman Island and the low bridge connect, along the channel by Hog Island to Corpus Christi Bayou thence the Quarantine Shore to where the Aransas Shrimp Channel and Lydia Ann Channel meet thence along the west shore of the Aransas Shrimp Channel to Marker 4 thence along the East Shore of the Shrimp Channel and then to the point of Stedman Island and the low bridge)	285
		Salt Lake	293
		St. Charles Bay	310
		Sundown Bay	315
		Swan Lake (Aransas Bay system)	317
		<b>CORPUS CHRISTI BAY</b>	6
	Port Aransas Pass (area between a line drawn from the range marker on San Jose Island to the Radio Beacon Tower to the end of the jetties)	93	
	Corpus Christi Channel (area west of a line between Fina Docks and Radio Beacon Tower to Marker 14 on Corpus Christi Channel)	96	
	Corpus Christi Bay	130	
	Nueces Bay	260	
	Oso Bay	263	
	Redfish Bay (area north of a line running from the ICWW at the southwest end of the Dagger Island chain, along Dagger Island to the southeast tip of South Ransom Island, then due East to Harbor Island)	284	
	Sunset Lake	314	
	Water Exchange Channel (area between junction with Corpus Christi Bay and the gulf surfline)	680	

**DATA ENCODING LISTS**      **Figure 6. Major Area and Minor Bay Codes (Continued)**

MAJOR AREA	MAJOR AREA CODE	MINOR BAY	MINOR BAY CODE
<b>UPPER LAGUNA MADRE</b>	7		
		Alazan Bay	10
		Baffin Bay	40
		Cayo del Grulla	80
		Laguna Salada	211
		Upper Laguna Madre	370
		Packery Channel Pass (area between Hwy. 361 bridge and end of jetties)	670
		Corpus Christi Pass (area between junction with Upper Laguna Madre and the gulf surfline)	690
<b>LOWER LAGUNA MADRE</b>	8		
		Brownsville Ship Channel (area from Marker 30 to Port Brownsville Turning Basin)	41
		Port Mansfield Channel (area between Marker 12 and end of jetties)	97
		Brazos Santiago Channel (area between a line drawn from the Radio Beacon Tower on South Padre Island due south to Brazos Island to the end of the jetties)	99
		El Realito Bay	151
		Lower Laguna Madre (area south of Port Mansfield channel)	230
		Arroyo Colorado (includes all waters downstream from Port Harlingen to the junction with the ICWW)	262
		Redfish Bay (includes all water between the Port Mansfield Channel and the Land Cut) (For Harvest Monitoring only, this area also includes the south-most portion of the Land Cut).	282
		San Martin Lake	294
		South Bay (lower Laguna Madre)	313
		Rio Grande (includes all water in Texas downstream from the International Toll Bridge in Brownsville to the junction with the gulf)	691

*DATA ENCODING LISTS*    **Figure 7. Boat-Access Site Codes**

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Sabine Lake	714	1		29°47'26"	93°44'59"	Deep Bayou Landing Public Ramp (Louisiana)
	700	2		29°46'04"	93°53'33"	Lake Sabine Causeway Public Ramp (Louisiana side)
	700	3	(4)	29°45'54"	93°53'53"	Lake Sabine Causeway Public Ramp and adjoining shoreline (Texas side) (Pleasure Island Marina Docks F & G - Deleted 11/21/08)
	700	**5		29°52'06"	93°55'40"	Pleasure Island Marina Dock A (53 wet slips)
	700	6	(7)	29°52'02"	93°55'18"	Pleasure Island Marina Public Ramp
	714	9	(8)	29°42'39"	93°51'38"	(Pleasure Island North Levy Ramp - Deleted 11/21/93)
	710	10		29°44'04"	93°52'30"	(Sea Rim State Park Ramp - Deleted 5/15/94) Texas Bayou Public Ramp
	701	11		29°45'35"	93°56'09"	Sabine Pass Battleground State Historic Site Ramp (includes safety basin bulkhead)
	714	12		29°49'27"	93°57'53"	Keith Lake Ramp
	700	13		29°59'53"	93°57'07"	Public Ramp at ICWW and State Hwy. 87
	714	*14		29°58'12"	93°52'27"	Port Neches Park Public Ramp
	714	15	(16)	29°59'48"	93°52'04"	Ancelet's Marina Ramp (includes wet slips) Rainbow Bridge Public Ramp
	714	*18	(17)	30°03'54"	93°44'54"	(Bailey's Fish Camp Ramp - Deleted 11/21/07) (LeBlanc's Ramp - Deleted 11/21/95)
	710	20	(19)	29°44'22"	93°53'21"	Orange Boat Club Ramp (includes wet slips and associated bulkhead)
	714	21		30°03'57"	93°44'50"	(River Road Marina Ramp - Deleted 5/15/96) Broadway Public Ramp
	714	27	(22)	30°03'52"	94°03'06"	Lottie's Landing Ramp
	714	28	(23)	29°42'48"	94°18'53"	(Pleasure Island Commission Ramp - Deleted 5/15/99)
	714	29	(24)	30°04'12"	93°44'42"	(Taylor's Bayou Ramp - Deleted 5/15/90)
	714	33	(25)	30°02'31"	93°48'14"	(Percy's Ramp - Deleted 11/21/90)
	714	34	(26)	29°58'10"	93°54'54"	(Waterfront Restaurant Ramp - Deleted 11/21/90) Public ramp off Carpenter Road at Cow Bayou
	714	36	(27)	30°00'04"	93°51'59"	Public ramp off Sara Jane Road at bridge over dredged canal (Ramp at base of Rainbow Bridge - Deleted 11/21/93)
	710	37	(28)	29°45'51"	93°53'52"	Energy Canal Public Ramp (northeast approach to bridge over canal at State Hwy. 87)
	714	38	(29)	30°02'48"	93°49'17"	State Hwy. 87)
	700	39	(30)	29°51'35"	93°55'49"	Mesquite Point Public Ramp
	714	40	(31)	30°02'15"	93°47'42"	Cow Bayou Public Ramp
	710	**41	(32)	29°44'08"	93°52'57"	Logan Park Public Ramp
	714	*42	(33)	30°03'53"	93°44'49"	Albair's Ramp
	700	43	(34)	30°05'45"	93°43'29"	Sabine Pass Port Authority Marina Docks (6 docks with 87 wet slips) Muddy Waters Ramp (south side of Adams Bayou bridge) (includes associated bulkhead) City of Orange Public Ramp

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Sabine Lake (Cont'd.)	714	44		30°06'42"	93°43'38"	Bluebird Fish Camp Ramp Public ramp at Sabine River and Interstate Hwy. 10 (Texas side) Boat trailers at non-designated launching sites
	700	45		30°07'37"	93°42'10"	
			52			

A site number preceded by one asterisk indicates presence of wet slips at the site that are not counted on roves.  
 A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.  
 See April 11, 2012 e-mail entitled "Relationship Between Boat-Access Site Characteristics, Trailer Location Coding, and Rove Procedures" for detailed procedural information.

## Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston	180	4	(1)	29°40'51"	94°56'10"	(Cedar Bayou HL&P Outflow Ramp - Deleted 12/1/77)
	312	5	(2)	29°43'22"	94°56'39"	(Woodall's Bait Camp Ramp - Deleted 7/26/81)
			(3)			(Crawley's Membership Fishing Camp Ramp - Deleted 11/21/98)
			(6)			Thompson's Ramp
	180	8	(7)	29°38'57"	95°00'40"	Roseland Park Public Ramp
			(9)			(Tabbs Bay Ramp - Deleted 11/21/96)
			(10)			(Morgans Point Ramp - Deleted 5/15/10)
	180	11	(13)	29°30'44"	94°58'44"	Sylvan Beach Public Ramp
	180	12	(16)	29°30'21"	94°57'26"	(Oddo's Ramp - Deleted 9/1/80)
	180	14	(17)	29°29'50"	94°54'36"	(Clear Creek Channel State Ramp - Deleted 11/21/83)
	180	15	(18)	29°28'16"	94°55'31"	Galveston County Park Ramp (Bacliff)
			(19)			HL&P Galveston County Park Ramp
			(20)			(San Leon Marina Ramp and Lift - Deleted 11/21/08)
			(21)			Eagle Point Camp Ramp and Lift
			(22)			April Fool Point Ramp
			(23)			(Marge's Bait Camp Ramp - Deleted 5/15/04)
	180	24	(25)	29°23'24"	94°53'09"	(Fiesta Marina Ramp - Deleted 11/21/82)
	180	26	(28)	29°23'01"	94°51'59"	(Lakeway Ramp and Simpson's Ramp - Deleted 5/15/84)
	180	27	(31)	29°22'26"	94°50'11"	(White Heron Resorts Ramp - Deleted 8/31/75)
	180	29	(32)	29°21'56"	94°48'55"	(Moses Lake Bait Camp Ramp - Deleted 11/21/82)
	201	30	(33)	29°18'24"	94°54'23"	(Mowles Camp Ramp - Deleted 5/15/84)
			(36)			(50/50 Camp Ramp - Deleted 5/15/05)
			(42)			(Dollar Point Public Ramp - Deleted 8/31/75)
	201	34	(25)	29°19'53"	94°56'35"	Tackle Time Ramp
	191	35	(28)	29°17'01"	95°07'45"	(Curl's Ramp - Deleted 11/21/08)
	100	37	(31)	29°14'52"	95°14'10"	Schaper Public Ramp
	100	38	(32)	29°12'40"	95°12'29"	Noah Welch Public Ramp
	50	39	(33)	29°05'23"	95°16'36"	(Texas City Dike Public Ramp - Deleted 5/15/84)
	50	40	(36)	29°05'42"	95°17'00"	Sansom-Yarbrough Ramp
	50	**41	(42)	29°05'08"	95°17'18"	Jones Lake State Ramp (Fat Boys)
	110	43		29°02'55"	95°09'55"	(Intracoastal Inn Ramp - Deleted 9/1/78)
	110	44		29°04'46"	95°07'52"	(Salty's Bait Camp Ramp - Deleted 11/21/00)
						(Pat and Sue's Bait Camp Ramp - Deleted 11/21/02)
						Louis' Ramp (includes rent boats)
						Halls Bayou Camp Ramp and Lift
						(Snug Harbor Marina Ramp - Deleted 12/1/78)
						Lute's Marina Ramp and Lift
						Chocolate Bay State Ramp
						Marlin Marina Ramp
						Bastrop Bayou County Road 227 Bridge State Ramp
						Bastrop Marina Ramp and Lift (12 wet slips)
						(Christmas Bay Shell Ramp - Deleted 12/1/78)
					Ernie's Bait Barn Public Ramp	
					San Luis Pass County Park Ramp	

## Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont'd.)	350	47	(45) (46)	29°07'50"	95°04'26"	(Shoreline Public Launching - Deleted 9/1/80) (San Luis Pass Bait Camp Ramp - Deleted 5/15/82) Bay Harbor Ramp
	350	49	(48)	29°08'39"	95°02'51"	(Terramar Beach Private Ramp - Deleted 11/21/94) Sea Isle Ramp
	350	51	(50)	29°11'20"	94°58'47"	(Jamaica Beach Marina Ramp - Deleted 11/21/85) Jamaica Beach Ramp
	350	52				Boat trailers at non-designated launching sites
	350	53				Marina at Lafitte's Harbour Ramp
	350	55	(54)	29°12'26"	94°56'58"	(Pirate's Beach Ramp - Deleted 5/15/93)
	350	55	(56)	29°15'53"	94°53'59"	8-Mile Road Bait Camp Ramp
	350	57	(56)	29°17'07"	94°50'11"	(73rd Street County Park Ramp - Deleted 7/28/81) 61st Street County Park Ramp
			(58)			(Bayou Bay Marina Ramp - Deleted 9/1/79)
			(59)			(Newell Marina Ramp - Deleted 5/15/84)
			(60)			(M&M Camp Ramp - Deleted 9/1/79)
			(61)			(Payco Marina Ramp and Docks AA and B - Deleted 11/21/08)
	350	62	(63)	29°17'22"	94°52'26"	Galveston Bait and Tackle Camp Ramp
			(64)			(Jim Reid's Ramp - Deleted 11/21/85)
			(65)			(Shirley's Cafeteria Ramp - Deleted 5/15/04)
			(66)			(Johnson Road Ramp - Deleted 3/20/78)
	150	66	(67)	29°25'50"	94°42'34"	Siever's Cut Bait Camp Ramp
			(68)			(2-J's Harbor Ramp (Demi-John) - Deleted 11/21/89)
			(69)			(B&P Bait Camp Ramp - Deleted 7/15/81)
			(70)			(Bob's Camp Ramp - Deleted 9/6/79)
	150	70	(71)	29°28'53"	94°36'16"	Stingaree Marina Ramp
	286	72		29°30'55"	94°30'43"	(Chocolate Bayou Marina Ramp - Deleted 8/31/75)
	330	73		29°32'46"	94°47'13"	L. K. Lauderdale County Ramp
330	74		29°39'11"	94°41'30"	Smith Point Ramp (Van-Et-Un and Robbin's Park)	
330	75		29°45'07"	94°41'32"	Oak Island County Ramp	
		(76)			Fort Anahuac Park Public Ramp	
		(77)			(Anahuac State Ramp - Deleted 12/1/78)	
141	78		29°27'46"	94°58'23"	(Crawley's Bait Camp Ramp - Deleted 11/21/08)	
63	79		29°48'30"	94°48'28"	Dickinson Bayou State Hwy. 146 Bridge Public Ramp Cotton Lake Public Ramp	
		(80)			(Colonel's Lady Ramp - Deleted 11/21/91)	
		(81)			(Waddell's Ramp and Wilson's Ramp - Deleted 11/21/91)	
		(82)			(North Galveston Jetty Ramp - Deleted 11/21/83)	
180	83		29°19'05"	94°46'35"	Galveston Yacht Basin Ramp	
241	84		29°25'07"	94°55'30"	Moses Lake Marina Ramp	
111	85		29°33'49"	95°04'10"	Clear Lake Public Ramps (main ramp and ramp by building)	
		(86)			(Dollar Bay Ramp - Deleted 11/21/94)	
		(87)			(Cotton's Bait Camp Ramp - Deleted 5/15/93)	
		(88)			(Brazoria County Ramp 57A at Third Street - Deleted 11/21/08)	

## Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont'd.)	150	89	(90) (91) (92)	29°35'38"	94°23'27"	High Island State Ramp (San Jacinto Bay Bridge Ramp - Deleted 10/3/81) (Shore Acres Private Ramp - Deleted 11/21/98) (Tiger Marina Ramp - Deleted 10/3/81)
	191	93		29°17'10"	95°07'50"	Halls Bayou Bridge Public Ramp
	100	94		29°14'35"	95°13'53"	Horseshoe Bend Ramp
	150	95		29°28'45"	94°36'16"	The Oasis II Ramp
	560	98	(96) (97)	28°53'57"	95°29'33"	(Omega Bay Private Ramp - Deleted 11/21/94) (Bastrop Bayou Private Ramp - Deleted 11/21/94)
	172	100	(99)	28°58'46"	95°16'06"	2 J's Ramp (Freeport) (Dolphin Street Ramp (Freeport) - Deleted 5/15/93)
	265	104	(101)	29°00'38"	95°19'41"	Swan Lake Public Ramp (Bay Street, Freeport)
	266	105	(102)	28°57'43"	95°22'15"	(Bridge Harbor Marina Ramp (Freeport) - Deleted 5/15/84)
	266	106	(103)	28°57'21"	95°21'44"	(Freeport State Ramp (under ICWW bridge) - Deleted 11/21/92) (Ducroz Ramp (Freeport) - Deleted 5/15/97)
	560	108	(107)	28°52'35"	95°27'34"	Oyster Creek Ramp (Freeport)
	560	109		28°52'11"	95°26'46"	Freeport Municipal Park Public Ramp Freeport Community Center Public Ramp
	570	111		28°54'08"	95°23'05"	(Turtle Cove Ramp (Freeport) - Deleted 11/21/87) Bennet's Motel Ramp
	241	113	(110)	29°25'12"	94°55'31"	San Bernard River Public Ramp
111	114	(112)	29°33'00"	95°01'46"	(Linda L's Bait Camp Ramp (Freeport) - Deleted 5/15/93) New Brazos River Dike Public Ramp (Teakwood Marina Ramp - Deleted 11/21/07) Three Stars Marina Ramp	
180	**117	(115)	29°19'09"	94°46'25"	Clear Lake Shores Public Ramp	
180	**118	(116)	29°19'07"	94°46'29"	(Boyt Road Private Ramp - Deleted 11/21/94) (Galveston Yacht Basin Boat Barn - Deleted 11/21/08)	
180	**119		29°19'08"	94°46'30"	Galveston Yacht Basin Dock A (50 wet slips; party boats)	
180	**120		29°19'10"	94°46'30"	Galveston Yacht Basin Dock B (119 wet slips; party boats) Galveston Yacht Basin Dock C (121 wet slips; party boats) Galveston Yacht Basin Dock D (95 wet slips; party boats)	
50	128	(121) (122) (123) (124) (125) (126) (127)	29°05'43"	95°17'00"	(Turtle Lake Apartments Ramp - Deleted 5/15/94) (Turtle Cove North Shore Boat Shed - Deleted 11/21/83) (Turtle Cove South Shore Boat Shed - Deleted 11/21/83) (Hide-A-Way on the Gulf Ramp - Deleted 5/15/88) (Kirby Marina Docks - Deleted 11/21/97) Under the Bridge Bar Bait Camp Ramp (Marlin Marina Boat Shed - Deleted 11/21/85) (Horseshoe Bend Camp Boat Shed - Deleted 11/21/95) (Timber Cove Private Ramp - Deleted 11/21/94) (Bridge Harbor Canal Front Slips - Deleted 5/15/84)	

## Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont'd.)	172	**133		28°57'45"	95°17'28"	Bridge Harbor Canal Dock A (34 wet slips; party boats)
	172	**134	(135)	28°57'43"	95°17'30"	Bridge Harbor Canal Docks B and C (70 wet slips; party boats) (Bridge Harbor Canal Dock C - Deleted 5/15/85)
	172	**136	(138)	28°57'41"	95°17'34"	Bridge Harbor Canal Docks D and E (76 wet slips; party boats)
	172	**137	(139)	28°57'40"	95°17'36"	Bridge Harbor Canal Docks F, G, H, and I (85 wet slips; party boats) (Harbor Cove Docks - Deleted 11/21/83)
	172	141	(140)	28°57'55"	95°18'27"	(Payco Marina Docks C, CC, and F - Deleted 11/21/08) (Lutes Marina Boat House - Deleted 11/21/99) Saltgrass Bait Camp Ramp (San Leon Marina Boat Sheds - Deleted 5/15/95)
	570	145	(143)	28°58'00"	95°22'23"	(Bonno's Bait Camp Ramp - Deleted 5/15/85) (El Jardin Private Ramp - Deleted 11/21/94) Freeport New Brazos River Public Ramp (Key Largo Ramp - Deleted 11/21/89)
	111	152	(146)	29°30'42"	95°06'10"	(Texas City Dike Marina Lift - Deleted 5/15/95)
	141	153	(147)	29°27'22"	95°02'51"	(Public Ramp just East of Cedar Cut - Deleted 5/15/85) (Public Ramp just West of Cedar Cut - Deleted 11/21/94) Not previously assigned (The Galley Ramp - Deleted 11/21/97)
	201	155	(148)	29°20'08"	95°01'23"	Walter Hall County Park Ramp (League City)
	570	156	(149)	28°56'47"	95°22'50"	Dickinson Bayou County Ramp (State Hwy. 3) (Payco Marina Dock D - Deleted 11/21/08) Hitchcock Public Ramp
	350	158	(150)	29°15'33"	94°54'40"	New Brazos River State Hwy. 36 Bridge Public Ramp (Lea's Bolivar Bait Camp Ramp - Deleted 11/21/04) Sportsman Road Ramp
	111	160	(151)	29°32'53"	95°01'20"	(Dan's Ramp - Deleted 11/21/00) Ben Blackledge Public Ramp (under State Hwy. 146, Kemah side) (Gulf Coast Guide Service Dock - Deleted 11/21/08)
	172	168	(161)	28°57'22"	95°17'39"	(Ermin Pilsner Public Ramp - Deleted 11/21/08)
	350	**169	(162)	29°08'42"	95°02'49"	(Clear Lake Parkside Lift - Deleted 5/15/07)
	180	170	(163)	29°23'21"	94°45'55"	(Cold Pass Marina Ramp - Deleted 11/21/01)
	150	171	(164)	29°36'49"	94°31'43"	(Sneak'N Out Ramp - Deleted 11/21/07)
	150	172	(165)	29°34'30"	94°33'21"	(Club Nautico at Payco Marina (rent boats only) - Deleted 5/15/92) (Bay Oaks Harbor Private Ramp - Deleted 11/21/94)
111	173	(166)	29°32'06"	95°05'41"	Bridge Bait Ramp	
111	174	(167)	29°33'03"	95°01'24"	Bayview Marina Ramp (includes 4 docks with 62 wet slips) Hornbeck's Bait Camp Ramp	
180	176	(175)	29°25'19"	94°53'23"	Anahuac National Wildlife Refuge Oyster Bayou Ramp Anahuac National Wildlife Refuge Bay Ramp League City Farm Road 270 Public Ramp Seabrook State Hwy. 146 Bridge Public Ramp (Quintana Public Ramp - Deleted 5/15/05) Dollar Point Public Ramp	

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Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont'd.)	312	177		29°42'45"	94°59'32"	V. H. "Buddy" McBride Public Ramp
	172	**178	(179)	28°57'42"	95°17'31"	Bridge Harbor Canal Dock X (30 wet slips; party boats) (Red Tin Building Ramp - Deleted 11/21/08) (Eddie Gray Wetlands Center Public Ramp - Deleted 5/15/12) Village of Surfside Public Ramp Quintana Bridge Public Ramp (Farm Road 1495 at ICWW)
	92	181	(180)	28°56'34"	95°18'04"	
	172	182		28°55'20"	95°20'34"	

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A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.  
See April 11, 2012 e-mail entitled "Relationship Between Boat-Access Site Characteristics, Trailer Location Coding, and Rove Procedures" for detailed procedural information.

## Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Matagorda	170	1		28°25'58"	96°25'59"	Froggie's Public Ramp
	170	2	(3)	28°26'21"	96°24'51"	Fishing Center Ramp (Tweety's Bait Ramp - Deleted 11/21/04)
	271	4		28°30'42"	96°29'18"	Indianola Marina Ramp
	220	5		28°33'40"	96°32'22"	Magnolia Public Ramp
	112	6		28°34'43"	96°39'01"	Chocolate Bayou Public Ramp
	220	7		28°35'42"	96°37'11"	Harbor Refuge Public Ramp
	220	8		28°38'22"	96°36'43"	Lavaca Causeway Public Ramp (State Hwy. 35)
	220	9		28°40'54"	96°33'46"	Point Comfort Public Ramp
	210	10		28°38'24"	96°27'31"	Florence Bait Camp Ramp
	60	11		28°44'16"	96°24'07"	Crescent V Public Ramp
	60	*12		28°38'12"	96°21'15"	At Last Marina Ramp (includes wet slips)
	340	13		28°43'15"	96°16'24"	Turtle Bridge Public Ramp
	320	14		28°41'47"	96°13'51"	Turning Basin Ramp (Palacios Bait Camp Ramp - Deleted 11/21/96)
	320	16	(15)	28°42'16"	96°12'33"	East Bay Public Ramp
	320	17		28°42'53"	96°12'02"	Grassy Point Bait Camp Ramp
	320	18		28°47'11"	96°09'00"	Palacios River Public Ramp
	590	19		28°40'12"	95°57'52"	River Bend Public Ramp (Al's Ramp - Deleted 5/15/03)
	590	22	(20)			(Gilmer's Ramp - Deleted 6/15/82)
	160	24	(21)	28°37'40"	95°58'13"	Rawlings Ramp
160	25	(23)	28°46'20"	95°38'03"	(UFO Ramp - Deleted 5/15/84)	
160	28	(26)	28°46'16"	95°37'05"	Caney Creek Marina Ramp Bridge Cove Marina Ramp (Cherry's Ramp - Deleted 5/15/84)	
220	31	(27)	28°45'28"	95°46'26"	(Bulkhead Marina Lift - Deleted 5/15/80)	
320	**33	(29)			Chinquapin Ramp (The Wharf Ramp - Deleted 5/15/94)	
340	35	(30)	28°41'39"	96°39'50"	(St. Marys Bayou Ramp - Deleted 11/21/05)	
60	**36	(32)	28°42'34"	96°12'36"	Six Mile Public Ramp (Don Juan Marina Ramp - Deleted 5/15/97)	
		(34)	28°41'15"	96°16'27"	Brookings Boat Shed (34 wet slips) (Collegeport Ramp - Deleted 11/21/85)	
		(37)	28°39'27"	96°24'58"	Jensen's Point Public Ramp Port Alto Ramp & Boat Sheds (includes 107 wet slips in 2 sheds) (Ramp at East End of Port Lavaca Causeway - Deleted 11/21/86)	
		(38)			(Coloma Creek Bridge (launching from shore) - Deleted 11/21/86)	
		(39)			(Fishing Center Boat Sheds - Deleted 5/15/84)	
		(40)			Not previously assigned	
		(41)			(McKinney Boat Sheds - Deactivated as crossover site 5/15/92)	
		(42)			(Power's Boat Sheds - Deleted 5/15/99)	
		(43)			(Alligator Head East Boat Sheds - Deactivated as crossover site 5/15/92)	
		(44)			(Alligator Head West Boat Sheds - Deactivated as crossover site 5/15/92)	

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Matagorda (Cont'd.)	590	47	(45) (46)	28°46'05"	96°00'02"	(Weathersby's Boat Sheds - Deactivated as crossover site 5/15/92) (C and R Bait Camp Ramp - Deleted 11/21/06) Selkirk Island Ramp
	220	49	(48)	28°49'59"	96°34'35"	(Karen's Ramp - Deleted 5/15/92) Lolita Public Ramp
	220	50	(51)	28°49'22"	96°34'28"	Frell's Landing Ramp (Holiday Harbor Marina Ramp - Deleted 11/21/87) Boat trailers at non-designated launching sites
	271	52 53	(54) (55) (56)	28°30'35"	96°30'23"	Powderhorn RV Park Ramp (Jackson County Ramp - Deleted 5/15/94) (Boco Chico Ramp - Deleted 5/15/94) (Allen's Landing Ramp - Deleted 11/21/04) Garcita Creek Ramp
	220	57		28°46'39"	96°41'55"	West Carancahua River Ramp
	60	58		28°49'12"	96°24'09"	Matagorda Turning Basin Public Ramp
	160	59		28°41'34"	95°57'29"	Railroad Park Public Ramp
	320	60		28°41'53"	96°13'05"	La Salle Ramp
	220	61		28°44'38"	96°39'47"	Clark's Seafood Ramp (includes wet slips)
	170	*62	(63)	28°26'25"	96°24'53"	(Linda's Bait Camp Ramp - Deleted 5/15/08) Matagorda Turning Basin Boat Stalls (104 wet slips)
	160	**64		28°41'38"	95°57'19"	Olivia Park Public Ramp
	210	65		28°38'11"	96°27'25"	Caney Club Ramp
	160	66		28°46'22"	95°38'04"	Colorado River Park Public Ramp (Farm Road 521)
	590	67	(68)	28°47'14"	95°59'44"	(Southwest Cut Ramp - Deleted 5/15/05) Mitchell's Cut Public Ramp
	160	69		28°45'48"	95°37'55"	Charlie's Bait Ramp
	160	70		28°46'11"	95°38'06"	Peninsula Park Ramp
	220	71		28°37'04"	96°37'15"	

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Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
San Antonio	170	1		28°26'21"	96°24'51"	Fishing Center Ramp
	170	2		28°25'58"	96°25'59"	Froggie's Public Ramp (Tweety's Bait Ramp - Deleted 11/21/04)
	170	4	(3)	28°21'56"	96°34'41"	Shoalwater Flats Association Ramp
	300	5		28°23'29"	96°42'34"	Swan Point Public Ramp
	300	6		28°24'29"	96°42'42"	Seadrift Harbor Ramp
	200	7		28°23'44"	96°50'22"	Austwell Public Ramp
	300	8		28°20'48"	96°47'41"	Hopper's Landing Ramp (Pete's Bait Camp Ramp - Deleted 8/17/79)
						(Morgan's Bait Camp Ramp - Deleted 8/17/79)
	170	**13		28°26'15"	96°24'57"	(Fishing Center Boat Sheds - Deleted 5/15/84) (Beacon 21 Ramp - Deleted 11/21/91)
	170	**15	(14)	28°26'16"	96°25'07"	McKinney Boat Sheds (12 wet slips) (Power's Boat Sheds - Deleted 5/15/99)
	170	**16		28°26'14"	96°25'12"	Alligator Head East Boat Sheds (28 wet slips)
	170	**17		28°26'04"	96°25'49"	Alligator Head West Boat Sheds (49 wet slips) Weathersby's Boat Sheds (38 wet slips) (Louie Walker's Ramp - Deleted 11/21/94)
	310	20	(18)	28°07'41"	96°59'08"	(Carbide Ramp - Deleted 11/21/02)
	170	*21	(19)	28°26'25"	96°24'53"	Goose Island State Park Ramp
	170	22		28°21'52"	96°34'53"	Clark's Seafood Ramp (includes wet slips)
	300	23		28°24'34"	96°43'23"	Charlie's Bait Ramp
	170	**24		28°26'02"	96°25'44"	Seadrift Park Public Ramp
	170	**25		28°26'18"	96°24'54"	Voss' Boat Sheds (24 wet slips)
	170	**26		28°26'27"	96°24'46"	Fishing Center Dock (17 wet slips)
	170	**27		28°25'57"	96°25'58"	Dolphin Point Boat Shed (30 wet slips)
	170	**28		28°25'46"	96°26'15"	Las Palmas Marina Boat Sheds (16 wet slips in 2 buildings) Larry's Harbor Marina Ramp (includes 28 wet slips in 1 building) Boat trailers at non-designated launching sites

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A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.

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Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Aransas	227	1		28°01'50"	97°02'17"	Little Bay Public Ramp
	20	2		28°03'37"	97°02'00"	Fulton Harbor Public Ramp
	120	3		28°06'48"	97°01'28"	South Copano Causeway Public Ramp (State Hwy. 35)
	20	*4		28°08'14"	97°00'24"	Sea Gun Marina Ramp (includes wet slips)
	310	5		28°07'41"	96°59'08"	Goose Island State Park Ramp
	310	6		28°08'31"	96°58'36"	St. Charles Marina Public Ramp
	120	7		28°09'49"	97°00'29"	Holiday Beach South Ramp
						(Herndon's Hideaway Ramp - Deleted 2/29/88)
						(Klein's Rattlesnake Point Ramp - Deleted 5/15/84)
	270	10		27°59'32"	97°09'53"	Redfish Camp Ramp
	120	11		28°04'15"	97°13'09"	Egery Island Marina Ramp
						(12)
	280	13		27°54'00"	97°08'09"	(North Conn Brown Harbor Ramp - Deleted 11/21/85)
						(14)
	285	*15		27°52'52"	97°05'57"	South Bay Marina Ramp (includes wet slips)
	280	**16		27°58'03"	97°05'21"	Fin & Feather Marina Ramp - Deactivated as crossover site 5/15/05
	280	*17		27°59'30"	97°04'21"	Palm Harbor Marina Docks (39 wet slips)
						(18)
						(19)
	285	*20		27°52'29"	97°05'35"	Cove Harbor North Public Ramp (includes wet slips)
						(21)
	120	22		28°04'38"	97°13'15"	(Port Bay Ramp - Deleted 11/21/82)
						(23)
	20	*24		28°04'23"	97°02'06"	(Rockport Turning Basin Ramp - Deleted 11/21/94)
						(25)
						(26)
						(27)
	284	28		27°53'22"	97°08'54"	Tarpon Shores Ramp (includes wet slips)
	96	*29		27°50'17"	97°04'00"	(Pouze's Ramp - Deleted 11/21/95)
						(30)
						(31)
						(32)
						(33)
						(34)
						(35)
						(36)
						(37)
						(38)
						(39)
						(40)
						(41)
	240	42		28°10'58"	97°13'06"	Bayside Public Ramp
						(Lonyo's Cajun Marina Ramp - Deleted 5/15/03)
						(43)
					(44)	
					Sand Dollar Ramp (includes wet slips)	
					(Key Allegro Marina - Deleted 5/15/82)	
					(Key Allegro North Ramp - Deleted 12/1/80)	
					(Racquet Club Ramp - Deleted 5/15/82)	
					Aransas Pass Airport Public Ramp	
					(Woody's Ramp - Deleted 11/21/98)	
					(Harbor Oaks Ramp - Deleted 5/15/92)	
					(Key Allegro Boat Shed B - Deleted 5/15/96)	
					(Key Allegro Boat Shed A and T-Head - Deleted 5/15/96)	
					(Sea Foam Motel Ramp - Deleted 2/29/88)	
					(Harbor East Docks - Deactivated as crossover site 5/15/92)	
					(Harbor West Docks - Deactivated as crossover site 5/15/92)	
					(Woody's West Docks - Deactivated as crossover site 5/15/92)	
					(Woody's East Docks - Deleted 11/21/92)	
					(Sports Center South Dock - Deleted 11/21/92)	
					(Sports Center North Dock - Deleted 11/21/92)	
					(Keller's Marina Boat Ramp - Deleted 11/21/85)	
					Mission River Public Ramp	
					(Lindsay's Landing Ramp - Deleted 5/15/99)	
					(Hampton's Landing Dock - Deactivated as crossover site 5/15/92)	

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Aransas (Cont'd.)	284	46	(45)	27°53'20"	97°08'49"	(Stinky's Bait Camp Ramp - Deleted 5/15/04) Ransom Channel Park Public Ramp (Ateberry's Ramp - Deleted 11/21/06)
	280	48	(47)	27°59'23"	97°04'44"	Cove Harbor South Public Ramp
	280	**49		27°59'34"	97°04'29"	Cove Harbor Marina Drystack (2 multi-level buildings with 429 dry storage slots; includes rent boats)
	120	50		28°09'57"	97°00'51"	Holiday Beach North Ramp
	280	**51		27°59'41"	97°04'31"	Cove Harbor Marina Docks (163 wet slips)
	280	52				Boat trailers at non-designated launching sites
		**53		27°54'37"	97°08'04"	Redfish Bay Boat House (1 multi-level building with 277 dry storage slots)

A site number preceded by one asterisk indicates presence of wet slips at the site that are not counted on roves.  
 A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.  
 See April 11, 2012 e-mail entitled "Relationship Between Boat-Access Site Characteristics, Trailer Location Coding, and Rove Procedures" for detailed procedural information.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Corpus Christi	260	*1	(2)	27°50'12"	97°22'54"	South Nueces Causeway Public Ramp (includes wet slips) (North Nueces Causeway Ramp - Deleted 10/27/80)
	130	3		27°50'11"	97°13'13"	Ingleside Cove Public Ramp
	130	**4	(5)	27°49'52"	97°13'25"	Bahia Marina Ramp (includes 46 wet slips) (Channel View Ramp - Deleted 5/15/86)
	284	7	(6)	27°53'22"	97°08'54"	Warren's Ramp - Deleted 8/10/79)
	284	*8		27°53'18"	97°06'43"	Aransas Pass Airport Public Ramp
	130	9		27°44'12"	97°08'12"	Fin & Feather Marina Ramp (includes wet slips) Wilson's Cut Ramp
	130	11	(10)	27°47'29"	97°23'20"	Oso Bridge Public Ramp - Deleted 11/21/96)
	96	*12	(13)	27°50'17"	97°04'00"	L-Head Public Ramp
	284	14	(15)	27°53'20"	97°08'49"	Port Aransas Public Ramp (includes wet slips)
			(16)			(Woody's Ramp - Deleted 11/21/98)
			(17)			Ransom Channel Park Public Ramp
			(18)			(Sun Oil Ramp - Deleted 11/21/92)
			(19)			(Billing's Public Ramp - Deactivated as crossover site 5/15/92)
			(29)			(Naval Ramp - Deactivated as crossover site 5/15/92)
			(30)			(South Bay Marina Ramp - Deactivated as crossover site 5/15/94)
			(31)			(Gunderland Marine Ramp - Deleted 11/21/97)
	260	20		27°51'29"	97°21'10"	Portland Shell Bank Ramp
	280	21		27°54'00"	97°08'09"	South Conn Brown Harbor Public Ramp
	284	**22		27°53'20"	97°08'55"	Harbor East Docks (1 dock and 2 bulkheads with 74 wet slips)
284	**23		27°53'27"	97°08'57"	Harbor West Docks (6 bulkheads with 47 covered and 18 uncovered wet slips in basin, and 19 uncovered wet slips along adjacent channel)	
96	**24		27°50'19"	97°03'52"	West City Docks (2 docks and 1 bulkhead with 84 wet slips; party boats)	
96	**25		27°50'22"	97°03'50"	East City Docks (5 docks and 2 bulkheads with 135 wet slips; party boats)	
96	**26		27°50'13"	97°04'04"	Deep Sea Headquarters Docks (12 party-boat wet slips)	
96	**27		27°50'12"	97°03'57"	Dolphin Docks (4 party-boat wet slips)	
96	**28		27°50'19"	97°03'39"	Woody's West Docks (2 docks with 29 wet slips; party boats) (Woody's East Docks - Deleted 11/21/92)	
96	**32		27°50'23"	97°03'35"	(Sports Center South Dock - Deleted 11/21/92)	
93	**33		27°50'20"	97°03'11"	(Sports Center North Dock - Deleted 11/21/92)	
130	**34		27°48'25"	97°05'10"	Fisherman's Wharf Dock (4 party-boat wet slips)	
284	**35		27°53'22"	97°08'54"	University of Texas Boat Basin Docks (1 dock and bulkhead with 42 wet slips) Island Moorings Marina Docks (285 wet slips)	
96	**37	(36)	27°50'21"	97°03'38"	Hampton's Landing Dock (1 dock and 1 bulkhead with 31 wet slips) (Marker 37 Ramp - Deactivated as crossover site 5/15/09)	
96	**38	(39)	27°50'20"	97°03'34"	Sportsplex Docks (2 docks with 58 wet slips; party boats) Trout Street Yacht Basin Docks (2 docks and 1 bulkhead with 36 wet slips; party boats)	
		(40)			(Lonyo's Cajun Marina Ramp - Deleted 5/15/03)	
					(Crab Man Ramp - Deactivated as crossover site 5/15/05)	

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Corpus Christi (Cont'd.)	280	*41		27°59'30"	97°04'21"	Cove Harbor North Public Ramp (includes wet slips) Boat trailers at non-designated launching sites
		52				

A site number preceded by one asterisk indicates presence of wet slips at the site that are not counted on roves.

A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.

See April 11, 2012 e-mail entitled "Relationship Between Boat-Access Site Characteristics, Trailer Location Coding, and Rove Procedures" for detailed procedural information.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Upper Laguna Madre	370	**1		27°36'43"	97°17'53"	Catchin' Connection Ramp (includes 91 wet slips)
	370	*2	(3)	27°37'01"	97°17'49"	Laguna Shores Resort & Marina Ramp (includes wet slips and rent boats) (Tropic Isles Ramp - Deleted 11/21/08)
			(4)			(Laguna Marine Ramp - Deleted 5/15/95)
			(5)			(Toll Gate Ramp - Deleted 5/15/90)
			(6)			(Whitt's Ramp - Deleted 5/15/82)
			(7)			(Fisherman's Folly Ramp - Deleted 5/15/81)
			(8)			(JFK Inn Ramp - Deleted 11/21/01)
			(9)			(Land & Sea Marina Ramp - Deleted 5/15/10)
			(10)			(Rainbow Ramp - Deleted 11/21/85)
		370	**11		27°38'05"	97°14'17"
	370	12		27°38'03"	97°14'11"	Billing's Public Ramp
	370	13	(14)	27°37'24"	97°13'31"	Padre Isle Investment Ramp I
	80	16	(15)	27°19'11"	97°40'55"	(Boat Hole Ramp - Deleted 5/15/99) Naval Air Station Ramp - Deleted 11/21/10) Kaufer Park Public Ramp
	211	*18	(17)	27°16'40"	97°42'30"	(Kratz's Ramp - Deleted 11/21/97)
	370	19	(20)	27°28'23"	97°18'35"	Williamson's Ramp (includes wet slips) Bird Island Basin Ramp (Padre Island National Seashore) (Whiteley's Basin Ramp - Deleted 5/15/85)
	370	21		27°36'10"	97°14'26"	Padre Isle Investment Ramp II (White Cap and Caravel)
	370	22		27°36'43"	97°14'22"	Padre Isle Investment Ramp III (End of Cobo de Caba)
	370	23		27°36'00"	97°13'48"	Padre Isle Investment Ramp IV (Gypsy and Bounty)
	370	24		27°35'46"	97°13'53"	Padre Isle Investment Ramp V (Fortuna Bay and Monte Pelle)
	370	25		27°35'24"	97°13'37"	Padre Isle Investment Ramp VI (Encatada and Cruiser)
	370	26		27°36'01"	97°14'31"	Padre Isle Investment Ramp VII (Cartagena)
	370	*27		27°37'53"	97°14'22"	Marker 37 Ramp (includes wet slips)
	370	**28		27°39'28"	97°15'45"	Cosway Bait & Tackle Dock (4 wet slips; party boats)
	670	29		27°37'06"	97°12'45"	Packery Channel Public Ramp
		52				Boat trailers at non-designated launching sites

A site number preceded by one asterisk indicates presence of wet slips at the site that are not counted on roves.

A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.

See April 11, 2012 e-mail entitled "Relationship Between Boat-Access Site Characteristics, Trailer Location Coding, and Rove Procedures" for detailed procedural information.

Texas Marine Sport-Harvest Monitoring Program - Boat-Access Site List for High-Use Season 2012.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification	
		In use	Deleted				
Lower Laguna Madre	230		(1)	26°04'37"	97°09'55"	(Fisherman's Wharf Ramp - Deleted 11/21/07)	
		**3	(2)			(Jim's Pier Ramp - Deleted 11/21/11)	
			(4)			Sea Ranch Marina Dock & Dry Storage Shed (includes 16 wet slips; party boats; 260-boat capacity dry storage shed)	
	230	294	**7	(5)	26°04'27"	97°12'52"	(Jetties Ramp - Deleted 5/15/80)
			8	(6)			(Marchan's Ramp - Deleted 9/1/78)
			**9				(Port Isabel Ramp - Deleted 9/1/76)
	230	230		(10)	26°00'08"	97°17'54"	White Sands Ramp (includes 16 wet slips)
				(11)			Jaime J. Zapata Memorial Public Ramp
				(12)			Laguna Vista Ramp (includes 17 wet slips)
	230	230		(15)	26°06'11"	97°17'26"	(Gabby's on the Arroyo Ramp - Deleted 5/15/04)
							(Ready's Bait Stand Ramp - Deleted 5/15/10)
							(Al's Place Ramp - Deleted 3/27/82)
	230	230	13	(15)	26°33'10"	97°25'41"	Willacy County Navigation District Ramp
			14				Port Mansfield State Ramp
							(Redfish Motel Ramp - Deleted 5/15/84)
	230	230	**16		26°08'00"	97°10'34"	South Padre Marina Docks (72 wet slips)
			**17				Port Mansfield Boat Basin Docks (6 docks with 117 wet slips)
			**18				Port Isabel Channel East Side Docks (2 marinas with 26 wet slips; party boat)
	230	230	**19	(20)	26°04'32"	97°09'55"	Sea Ranch Marina South Docks (5 docks with 42 wet slips; party boats)
			21				(Bermuda's Ramp - Deleted 11/21/91)
			22				Rio Hondo Public Ramp
	230	230	**23		26°14'22"	97°35'07"	Pompano Park Public Ramp (includes wet slips)
			**24				The Traveler Trailer Park Ramp (includes 3 wet slips)
							Sea Ranch Marina II Dry Storage Shed at Southpoint (100-boat capacity dry storage shed)
	230	230	**26	(25)	26°04'35"	97°13'01"	(Southpoint Marina Docks - Deleted 11/21/96)
			27				Anchor Harbor Ramp (includes 22 wet slips)
							South Padre Island State Ramp
	230	230	**29	(28)	26°04'46"	97°10'09"	(Arroyo City Resort Ramp - Deleted 11/21/93)
			30				Parrot Eyes Ramp (includes 9 wet slips)
			31				Adolph Tomae County Park Ramp
	230	230	**32	(33)	26°04'15"	97°12'45"	Park Center Ramp
			35	(34)			Channel View RV Park Ramp (includes 30 wet slips)
			52				(Arroyo City RV Resort Ramp - Deleted 11/21/00)
	230	230			26°19'54"	97°26'28"	(Sea Ranch Marina Dry Storage Shed - Deleted 11/21/03)
				Isia Blanca County Park Ramp			
				26°04'09"	97°09'47"	Boat trailers at non-designated launching sites	

A site number preceded by one asterisk indicates presence of wet slips at the site that are not counted on roves.  
 A site number preceded by two asterisks indicates presence of wet slips or dry storage slots at the site that are counted on roves.  
 See April 11, 2012 e-mail entitled "Relationship Between Boat-Access Site Characteristics, Trailer Location Coding, and Rove Procedures" for detailed procedural information.

## CROSSOVER BOAT-ACCESS SITES (High-Use 2012 thru Low-Use 2012-13)

### Matagorda / San Antonio

- 1 - 2 (Froggie's Ramp)
- 2 - 1 (Fishing Center Ramp)
- 62 - 21 (Clark's Seafood Ramp)

### San Antonio / Aransas

- 20 - 5 (Goose Island State Park Ramp)

### Aransas / Corpus Christi

- 13 - 21 (S. Conn Brown Harbor Public Ramp)
- 17 - 41 (Cove Harbor North Ramp)
- 28 - 7 (Aransas Pass Airport Ramp)
- 29 - 12 (Port Aransas Public Ramp)
- 46 - 14 (Ransom Channel Park Ramp)

NOTE: Underlining of site numbers indicates actual location of site.

NOTE: All target data were available for determining these sites.

LMG (4-2012)

May 2012

**DATA ENCODING LISTS**     **Figure 8. Stratum Codes****Current Year**

82 = Boat-access site

**Previous Years** (not in use)

81 = Headboat

83 = Wade/bank

84 = Bay lighted commercial piers

85 = Gulf piers and jetties

86 = Private piers

87 = Commercial shrimp interviews (SSC = 69)

88 = Seafood/bait dealer shoreline sites

89 = Recreational boat-access shoreline sites with known and unknown history of commercial landings

90 = Commercial vessel docking structure shoreline sites

**DATA ENCODING LISTS**      **Figure 9. Activity Codes****Current Year**

- 0 = Other (includes boat/motor trouble or testing; duck blind or cabin maintenance; looking for future fishing and hunting spots; boat haul-outs not associated with end of another Activity; student field trips; fishing in a private pond accessed via public waters but not connected to public waters; and anything else that does not fit another code)
- 1 = Sport fishing (also includes divers using spear guns, non-commercial bait fish procurement trips, and scouting prior to tournaments)
- 2 = Party-boat fishing (also includes guided tournament fishing)
- 3 = Tournament fishing
- 4 = Sport shrimping (also includes non-commercial bait-shrimp procurement trips)
- 5 = Sport oystering
- 6 = Sport crabbing
- 7 = Sailing / pleasure riding (also includes water skiing, jet skiing, for-hire eco-tours, and trips for beach combing, bird watching, dolphin watching, camping, or swimming)
- 8 = Hunting (guided and non-guided)
- 9 = Diving (does not include divers using spear guns)
- 10 = Work boat (includes petroleum and seismic companies; government agencies and universities collecting data or specimens; etc.)
- 11 = Commercial bait shrimping
- 12 = Commercial bay shrimping
- 14 = Commercial gulf shrimping
- 16 = Commercial finfish fishing (includes commercial fishing with gig, trotline [baiting and harvesting], and pole and line; and use of cast nets, push nets, seine nets, traps [baiting and harvesting], or trawls to capture bait fish for commercial purposes)
- 17 = Commercial crabbing (includes baiting and harvesting traps)
- 18 = Commercial oystering
- 94 = Missed or refused Activity 8 interview (includes Activity 8 parties with incomplete party-member or landings information)
- 95 = Missed or refused Activity 2 interview (includes Activity 2 parties with incomplete party-member or landings information)
- 96 = Missed or refused commercial interview (includes commercial parties with incomplete party-member or landings information)
- 97 = Missed interview (for Activity 1 and 3 parties with incomplete party-member or landings information)
- 98 = Refused interview (for non-commercial, non-Activity-2, and non-Activity-8 parties missed due to refusal to be interviewed or refusal to have landings examined; includes parties that drive away before an interview can be conducted after interviewer communicated in some manner the intent to conduct an interview)
- 99 = Missed interview (for non-commercial, non-Activity-2, and non-Activity-8 parties missed due to time constraints, heavy rain, or language barrier; includes parties that drive away before an interview can be conducted without having had the interviewer communicate in some manner the intent to conduct an interview)

**DATA ENCODING LISTS**     **Figure 9. Activity Codes (Continued)****Previous Years** (not in use)

- 13 = Bait/bay commercial shrimping
- 15 = Other combination commercial shrimping
- 19 = Bait/gulf commercial shrimping
- 20 = Bay/gulf commercial shrimping
- 21 = Bait/bay/gulf commercial shrimping

**County Codes**

Anderson.....	001	Concho.....	048	Hale.....	095
Andrews.....	002	Cooke.....	049	Hall.....	096
Angelina.....	003	Coryell.....	050	Hamilton.....	097
Aransas.....	004	Cottle.....	051	Hansford.....	098
Archer.....	005	Crane.....	052	Hardeman.....	099
Armstrong.....	006	Crockett.....	053	Hardin.....	100
Atascosa.....	007	Crosby.....	054	Harris.....	101
Austin.....	008	Culberson.....	055	Harrison.....	102
Bailey.....	009	Dallam.....	056	Hartley.....	103
Bandera.....	010	Dallas.....	057	Haskell.....	104
Bastrop.....	011	Dawson.....	058	Hays.....	105
Baylor.....	012	Deaf Smith.....	059	Hemphill.....	106
Bee.....	013	Delta.....	060	Henderson.....	107
Bell.....	014	Denton.....	061	Hidalgo.....	108
Bexar.....	015	De Witt.....	062	Hill.....	109
Blanco.....	016	Dickens.....	063	Hockley.....	110
Borden.....	017	Dimmit.....	064	Hood.....	111
Bosque.....	018	Donley.....	065	Hopkins.....	112
Bowie.....	019	Duval.....	066	Houston.....	113
Brazoria.....	020	Eastland.....	067	Howard.....	114
Brazos.....	021	Ector.....	068	Hudspeth.....	115
Brewster.....	022	Edwards.....	069	Hunt.....	116
Briscoe.....	023	Ellis.....	070	Hutchinson.....	117
Brooks.....	024	El Paso.....	071	Irion.....	118
Brown.....	025	Erath.....	072	Jack.....	119
Burleson.....	026	Falls.....	073	Jackson.....	120
Burnet.....	027	Fannin.....	074	Jasper.....	121
Caldwell.....	028	Fayette.....	075	Jeff Davis.....	122
Calhoun.....	029	Fisher.....	076	Jefferson.....	123
Callahan.....	030	Floyd.....	077	Jim Hogg.....	124
Cameron.....	031	Foard.....	078	Jim Wells.....	125
Camp.....	032	Ft. Bend.....	079	Johnson.....	126
Carson.....	033	Franklin.....	080	Jones.....	127
Cass.....	034	Freestone.....	081	Karnes.....	128
Castro.....	035	Frio.....	082	Kaufman.....	129
Chambers.....	036	Gaines.....	083	Kendall.....	130
Cherokee.....	037	Galveston.....	084	Kenedy.....	131
Childress.....	038	Garza.....	085	Kent.....	132
Clay.....	039	Gillespie.....	086	Kerr.....	133
Cochran.....	040	Glasscock.....	087	Kimble.....	134
Coke.....	041	Goliad.....	088	King.....	135
Coleman.....	042	Gonzales.....	089	Kinney.....	136
Collin.....	043	Gray.....	090	Kleberg.....	137
Collingsworth.....	044	Grayson.....	091	Knox.....	138
Colorado.....	045	Gregg.....	092	Lamar.....	139
Comal.....	046	Grimes.....	093	Lamb.....	140
Comanche.....	047	Guadalupe.....	094	Lampasas.....	141

**County Codes (Continued)**

LaSalle .....	142	Oldham.....	180	Sutton.....	218
Lavaca.....	143	Orange.....	181	Swisher .....	219
Lee.....	144	Palo Pinto .....	182	Tarrant.....	220
Leon .....	145	Panola .....	183	Taylor.....	221
Liberty .....	146	Parker .....	184	Terrell .....	222
Limestone.....	147	Parmer .....	185	Terry .....	223
Lipscomb.....	148	Pecos .....	186	Throckmorton.....	224
Live Oak.....	149	Polk .....	187	Titus .....	225
Llano.....	150	Potter .....	188	Tom Green .....	226
Loving .....	151	Presidio.....	189	Travis .....	227
Lubbock.....	152	Rains .....	190	Trinity .....	228
Lynn.....	153	Randall .....	191	Tyler .....	229
Madison .....	154	Reagan.....	192	Upshur.....	230
Marion .....	155	Real .....	193	Upton.....	231
Martin.....	156	Red River.....	194	Uvalde .....	232
Mason .....	157	Reeves.....	195	Val Verde .....	233
Matagorda.....	158	Refugio .....	196	Van Zandt .....	234
Maverick .....	159	Roberts.....	197	Victoria .....	235
McCulloch.....	160	Robertson.....	198	Walker .....	236
McLennan .....	161	Rockwall.....	199	Waller .....	237
McMullen.....	162	Runnels.....	200	Ward .....	238
Medina .....	163	Rusk .....	201	Washington.....	239
Menard .....	164	Sabine .....	202	Webb.....	240
Midland.....	165	San Augustine ....	203	Wharton.....	241
Milam .....	166	San Jacinto.....	204	Wheeler .....	242
Mills .....	167	San Patricio .....	205	Wichita.....	243
Mitchell .....	168	San Saba .....	206	Wilbarger .....	244
Montague.....	169	Schleicher .....	207	Willacy.....	245
Montgomery.....	170	Scurry .....	208	Williamson.....	246
Moore .....	171	Shackelford .....	209	Wilson.....	247
Morris .....	172	Shelby .....	210	Winkler .....	248
Motley .....	173	Sherman .....	211	Wise .....	249
Nacogdoches .....	174	Smith.....	212	Wood .....	250
Navarro .....	175	Somervell .....	213	Yoakum .....	251
Newton.....	176	Starr.....	214	Young .....	252
Nolan.....	177	Stephens .....	215	Zapata.....	253
Nueces .....	178	Sterling .....	216	Zavala .....	254
Ochiltree.....	179	Stonewall.....	217		

**DATA ENCODING LISTS**      **Figure 10. County, State, and Country Codes****State Codes**

Alabama .....	301	Montana .....	326
Alaska .....	302	Nebraska .....	327
Arizona .....	303	Nevada .....	328
Arkansas .....	304	New Hampshire.....	329
California .....	305	New Jersey .....	330
Colorado.....	306	New Mexico.....	331
Connecticut.....	307	New York .....	332
Delaware .....	308	North Carolina .....	333
Florida .....	309	North Dakota.....	334
Georgia .....	310	Ohio .....	335
Hawaii .....	311	Oklahoma.....	336
Idaho.....	312	Oregon.....	337
Illinois.....	313	Pennsylvania .....	338
Indiana .....	314	Rhode Island.....	339
Iowa .....	315	South Carolina.....	340
Kansas .....	316	South Dakota .....	341
Kentucky .....	317	Tennessee .....	342
Louisiana.....	318	Texas .....	343
Maine.....	319	Utah .....	344
Maryland.....	320	Vermont .....	345
Massachusetts.....	321	Virginia.....	346
Michigan .....	322	Washington.....	347
Minnesota .....	323	West Virginia.....	348
Mississippi.....	324	Wisconsin .....	349
Missouri .....	325	Wyoming.....	350

**NOTE:** Use code 320 for Washington, D.C.

**Country Codes**

Mexico .....	351
Canada .....	352
Other Country .....	353

**Other Residence Codes**

(Created May 1999 to accommodate migration of database from M204 to Sybase)

Residence unknown .....	888
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**DATA ENCODING LISTS**      **Figure 11. Gear Codes****Current Year**

- 0 = Trawl (shrimp trawl unless otherwise specified in comments section)
- 1 = Rod and reel
- 2 = Gig
- 3 = Cast net
- 4 = Seine net (minnow seine unless otherwise specified in comments section)
- 5 = Push net
- 6 = Trotline
- 7 = Crab trap
- 8 = Handline
- 9 = Other
- 11 = Spear gun
- 44 = Baitfish trap (minnow traps, perch traps, etc.; reinstated 5-15-06)
- 55 = Dredge/tongs
- 66 = Longline
- 77 = Fly rod
- 88 = Sail line
- 99 = Combination (for gear combinations that cannot be coded with two digits)

**Previous Years** (not in use)

- 22 = Trammel net
- 33 = Gill net

**DATA ENCODING LISTS**      **Figure 12. Bait Codes****Current Year**

- 0 = **Dead shrimp**      Non-living decapod crustaceans of the Family Penaeidae, either fresh dead or previously iced or frozen.
- 1 = **Live shrimp**      Living decapod crustaceans of the Family Penaeidae.
- 2 = **Spoons**      Curved or flattened, chrome plated or painted metal of different colors with one hook, either single or treble, attached.
- 3 = **Soft-plastic jigs**      Soft, flexible and rubbery tails of various lengths, colors and shapes (worm-like, shrimp-like, fish-like, crab-like or squid-like) threaded onto a weighted or non-weighted hook (e.g., Tout Tails, Sassy Shads, Kelley Wigglers, Texas Long-Johns, Cocahoe Minnows, Swimming Grubs, Hoagies, Mister Twisters, Tube Lures, Split Tails, Slugs, Bass Worms, Gulp! baits in various shapes, etc.). These may be plastic or plastic-like in composition.
- 4 = **Other jigs**      Natural (e.g., feathers, horse hair, etc.) or artificial (e.g., nylon, plastic, rubber, etc.) materials of various colors attached in a skirt-like manner to a weighted or non-weighted hook (e.g., Hooties, Feathered Jigs, Skirted Jigs, Speck Rigs, Spinners, etc.).
- 5 = **Plugs (fish type)**      Artificial fish-like baits of various materials, shapes and colors that usually have multiple treble hooks attached (e.g., Mirrolures, Rapalas, Bingos, Humps, Bagley Mulletts, Rebels, Cordell Redfins, Broken Backs, Rattle Traps, Russell Lures, Hoganars, Sonars, etc.).
- 6 = **Other**      Any artificial (non-fishlike) or natural bait that does not fit into any other category (e.g., all fly-rod baits, sliced dowel rods, sliced cork, oleander leaves, cranberries, ghost shrimp, chicken parts, rock shrimp, artificial strip baits, jarred baits, etc.).
- 7 = **Squid**      Cephalopods of the Order Teuthoidea.
- 8 = **Live fish**      Any living finfish.
- 9 = **Dead fish**      Any non-living finfish, either salted, fresh dead or previously iced or frozen.
- 11 = **Crabs**      Crustaceans of the Order Decapoda that are non-shrimp like (dead or alive). Does not include ghost shrimp.
- 22 = **Sea lice (mantis shrimp)**      Crustaceans of the Order Stomatopoda.

**DATA ENCODING LISTS**      **Figure 12. Bait Codes** (Continued)**Current Year** (Continued)

- 33 = **Crabs and dead shrimp**      See definitions for bait codes 11 and 0.
- 44 = **Sea lice and dead shrimp**      See definitions for bait codes 22 and 0.
- 55 = **Crabs and sea lice**      See definitions for bait codes 11 and 22.
- 99 = **Combination**      Any combination of bait codes requiring more than two digits.

**Previous Years** (not in use)

- 66 = **Leaves**

***DATA ENCODING LISTS***     **Figure 13. Trailer Location Codes**

- 0 = Trailer in area unattached to vehicle
- 1 = Trailer in area attached to vehicle
- 2 = Trailer not in area (includes boat moored in wet slip that is unrented or not counted on roves)
- 3 = Wet slip (moored) (i.e., boat moored in rented wet slip that is counted on roves) (includes wet slips with boat-lifting slings)
- 4 = Boat house (dry storage) (does not include wet slips with boat-lifting slings)
- 5 = Wet slip or boat house with trailer at associated ramp (i.e., ramp is part of same access site as wet slip or boat house)



NON-SPECIFIC SPECIES LIST (2012)  
(Numeric Order)

CODE NO.	REF.	NAME (DESCRIPTION) - USAGE
1245		BBS (bought bait shrimp) - Creel
1246		CBS (caught bait shrimp) - Creel
1800		NOCATCH (no catch) - Resource
3000		TARBALL (tar ball) - Resource
*800		*NOCATCH (no fish caught) - Resource
*801		*NODATATAKE (no data taken) - Resource
*845		*SUBSAMPLE (subsample) - Resource
*850		*MIXEDSPECI (mixed species) - Resource
*1247		*BBM (bought bait mullet) - Creel
*1248		*CBM (caught bait mullet) - Creel
*1249		*BBC (bought bait croaker) - Creel
*1250		*CBC (caught bait croaker) - Creel
*1289		*BF (bait fish) - Creel
*1801		*NODATATAKE (no data taken) - Commercial Intercept
*1802		*REFUSEDINS (refused inspection) - Commercial Intercept
*1803		*ALTERNATE (alternate source data) - Commercial Intercept
*1850		*MIXEDSPECI (mixed species) – Resource, Creel, and Commercial Intercept
*1888		*TROTLINES (trotlines) - SS 36
*1900		*TCATCH (total catch weight) - SS 66 & 80
*1901		*TSAMPLE (total sub-sample weight) - SS 66 & 80
*1902		*TSHRIMP (total shrimp weight) - SS 66
*1903		*TBCATCH (total bycatch weight) - SS 66
*1904		*SAMPLEBYC (total bycatch subsample weight) - SS 66
*1905		*TSAMPSSH (total shrimp subsample weight) - SS 66
*1906		*CULBYWT (total bycatch after subsample weight) - SS 80
*1907		*CULSHWT (total shrimp after subsample weight) - SS 80
*1908		*FISHPARTS (total unidentified fish parts weight) - SS 80
*1909		*INVRTPARTS (total unidentified invertebrate parts weight) - SS 80
*2000		*ECON (post-trip economics) - Creel
*2001		*SOCIO (post-trip sociology) - Creel
*2002		*PRESOCIO or *PRETRIP (pre-trip sociology) - Creel
*4200		*BCULLVEGAL (total vegetation, etc. after subsample weight) - SS 80
*4220		*ACULLVEGAL (total vegetation, etc. weight) - SS 80

\* = Discontinued; do not use.

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
994		African pompano	<u><i>Alectis ciliaris</i></u>
675		Alligator gar	<u><i>Atractosteus spatula</i></u>
059		Alligator snapping turtle	<u><i>Macrochelys temminckii</i></u>
997		Almaco jack	<u><i>Seriola rivoliana</i></u>
024	15	Amazon molly	<u><i>Poecilia formosa</i></u>
281		American alligator	<u><i>Alligator mississippiensis</i></u>
066		American black duck	<u><i>Anas rubripes</i></u>
107		American bullfrog	<u><i>Rana catesbeiana</i></u>
053		American coot	<u><i>Fulica americana</i></u>
701		American eel	<u><i>Anquilla rostrata</i></u>
705		American plaice	<u><i>Hippoglossoides platessoides</i></u>
264	14	American widgeon	<u><i>Anas americana</i></u>
990		Anchor tilefish	<u><i>Caulolatilus intermedius</i></u>
929		Antenna codlet	<u><i>Bregmaceros atlanticus</i></u>
525		Armored searobin	<u><i>Peristedion miniatum</i></u>
103	58, 59	Atlantic anchoveta	<u><i>Cetengraulis edentulus</i></u>
857		Atlantic angel shark	<u><i>Squatina dumeril</i></u>
927	01	Atlantic batfish	<u><i>Dibranchius atlanticus</i></u>
807		Atlantic bearded brotula	<u><i>Brotula barbata</i></u>
542		Atlantic bonito	<u><i>Sarda sarda</i></u>
669		Atlantic bumper	<u><i>Chloroscombrus chrysurus</i></u>
826		Atlantic chub mackerel	<u><i>Scomber colias</i></u>
979		Atlantic creolefish	<u><i>Paranthias furcifer</i></u>
602		Atlantic croaker	<u><i>Micropogonias undulatus</i></u>
680		Atlantic cutlassfish	<u><i>Trichiurus lepturus</i></u>
943		Atlantic flyingfish	<u><i>Cheilopogon melanurus</i></u>
897		Atlantic guitarfish	<u><i>Rhinobatos lentiginosus</i></u>
690		Atlantic midshipman	<u><i>Porichthys plectrodon</i></u>
754		Atlantic moonfish	<u><i>Selene setapinnis</i></u>
665		Atlantic needlefish	<u><i>Strongylura marina</i></u>
763		Atlantic sharpnose shark	<u><i>Rhizoprionodon terraenovae</i></u>
634		Atlantic spadefish	<u><i>Chaetodipterus faber</i></u>
724		Atlantic stingray	<u><i>Dasyatis sabina</i></u>
712		Atlantic thread herring	<u><i>Opisthonema oglinum</i></u>
641		Atlantic threadfin	<u><i>Polydactylus octonemus</i></u>
672		Atlantic tripletail	<u><i>Lobotes surinamensis</i></u>
020	15	Balao	<u><i>Hemiramphus balao</i></u>
940		Ballyhoo	<u><i>Hemiramphus brasiliensis</i></u>
673		Banded drum	<u><i>Larimus fasciatus</i></u>
998		Banded rudderfish	<u><i>Seriola zonata</i></u>
495		Bandtail puffer	<u><i>Sphoeroides spengleri</i></u>
773		Bandtail searobin	<u><i>Prionotus ophryas</i></u>
935		Bank cusk-eel	<u><i>Ophidion holbrooki</i></u>
961		Bank sea bass	<u><i>Centropristis ocyurus</i></u>
014	38	Bantam sunfish	<u><i>Lepomis symmetricus</i></u>
814		Bar jack	<u><i>Caranx ruber</i></u>
694		Barbfish	<u><i>Scorpaena brasiliensis</i></u>
820		Barred grunt	<u><i>Conodon nobilis</i></u>
523		Barred searobin	<u><i>Prionotus martis</i></u>

Species, COMMON.VERTEBRATE, 5/18/2012

May 2012

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
198	15	(Batfish - unidentified)	Genus <i>Ogcocephalus</i>
601		Bay anchovy	<i>Anchoa mitchilli</i>
647		Bay whiff	<i>Citharichthys spilopterus</i>
692		Bayou killifish	<i>Fundulus pulvereus</i>
952		Beardfish	<i>Polymixia lowei</i>
567		Beaugregory	<i>Stegastes leucostictus</i>
983		Belted sandfish	<i>Serranus subligarius</i>
578		Bermuda chub	<i>Kyphosus sectatrix</i>
841		Bigeye	<i>Priacanthus arenatus</i>
816		Bigeye scad	<i>Selar crumenophthalmus</i>
775		Bigeye searobin	<i>Prionotus longispinosus</i>
644		Bighead searobin	<i>Prionotus tribulus</i>
623		Bigmouth buffalo	<i>Ictiobus cyprinellus</i>
766		Bigmouth sleeper	<i>Gobiomorus dormitor</i>
261		Black-bellied whistling-duck	<i>Dendrocygna autumnalis</i>
736		Black bullhead	<i>Ameiurus melas</i>
719		Black crappie	<i>Pomoxis nigromaculatus</i>
625		Black drum	<i>Pogonias cromis</i>
503		Black durgon	<i>Melichthys niger</i>
974		Black grouper	<i>Mycteroperca bonaci</i>
119	15	Black jack	<i>Caranx lugubris</i>
592		Black margate	<i>Anisotremus surinamensis</i>
108	15	Black snapper	<i>Apsilus dentatus</i>
010		Blackbar drum	<i>Pareques iwamotoi</i>
646		Blackcheek tonguefish	<i>Symphurus plagiusa</i>
813		Blackear bass	<i>Serranus atrobranchus</i>
703		Blackedge cusk-eel	<i>Lepophidium brevibarbe</i>
783		Blackedge moray	<i>Gymnothorax nigromarginatus</i>
837		Blackfin snapper	<i>Lutjanus buccanella</i>
540		Blackfin tuna	<i>Thunnus atlanticus</i>
859		Blackline tilefish	<i>Caulolatilus cyanops</i>
988		Blackmouth bass	<i>Synagrops bellus</i>
887		Blacknose shark	<i>Carcharhinus acronotus</i>
787		Blacktip shark	<i>Carcharhinus limbatus</i>
945		Blackwing flyingfish	<i>Hirundichthys rondelietii</i>
827		Blackwing searobin	<i>Prionotus rubio</i>
306		Blotched cusk-eel	<i>Ophidion grayi</i>
575		Blue angelfish	<i>Holacanthus bermudensis</i>
617		Blue catfish	<i>Ictalurus furcatus</i>
536		Blue marlin	<i>Makaira nigricans</i>
871		Blue runner	<i>Caranx crysos</i>
023		Blue tilapia	<i>Oreochromis aureus</i>
267	14	Blue-winged teal	<i>Anas discors</i>
531		Bluefin driftfish	<i>Psenes pellucidus</i>
539		Bluefin tuna	<i>Thunnus thynnus</i>
752		Bluefish	<i>Pomatomus saltatrix</i>
718		Bluegill	<i>Lepomis macrochirus</i>
958		Bluespotted cornetfish	<i>Fistularia tabacaria</i>
522		Bluespotted searobin	<i>Prionotus roseus</i>

Species, COMMON.VERTEBRATE, 5/18/2012

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
948		Bluntnose flyingfish	<u>Prognichthys occidentalis</u>
815		Bluntnose jack	<u>Hemicarax amblyrhynchus</u>
877		Bluntnose sixgill shark	<u>Hexanchus griseus</u>
873		Bluntnose stingray	<u>Dasyatis say</u>
007	29	Bobcat	<u>Lynx rufus</u>
118	15	Bonefish	<u>Albula vulpes</u>
725		Bonnethead	<u>Sphyrna tiburo</u>
247		Bottlenose dolphin	<u>Tursiops truncatus</u>
074		Bowfin	<u>Amia calva</u>
985		Bridle cardinalfish	<u>Apogon aurolineatus</u>
856		Broad flounder	<u>Paralichthys squamilentus</u>
738		Brown bullhead	<u>Ameiurus nebulosus</u>
569		Brown chromis	<u>Chromis multilineata</u>
956		Buckler dory	<u>Zenopsis conchifera</u>
560		Bucktooth parrotfish	<u>Sparisoma radians</u>
277	14	Bufflehead	<u>Bucephala albeola</u>
755		Bull shark	<u>Carcharhinus leucas</u>
586		Burro grunt	<u>Pomadasyς crocro</u>
972		Butter hamlet	<u>Hypoplectrus unicolor</u>
220		Canada goose	<u>Branta canadensis</u>
276	14	Canvasback	<u>Aythya valisineria</u>
541		Cero	<u>Scomberomorus regalis</u>
886		Chain dogfish	<u>Scyliorhinus retifer</u>
654		Chain pipefish	<u>Syngnathus louisianae</u>
622		Channel catfish	<u>Ictalurus punctatus</u>
494		Checkered puffer	<u>Spherooides testudineus</u>
269	14	Cinnamon teal	<u>Anas cyanoptera</u>
849		Class ray-finned fishes	Class Actinopterygii
797		Clearnose skate	<u>Raja eglanteria</u>
771		Clown goby	<u>Microgobius gulosus</u>
656		Cobia	<u>Rachycentron canadum</u>
566		Cocoa damselfish	<u>Stegastes variabilis</u>
792		Code goby	<u>Gobiosoma robustum</u>
652		Common carp	<u>Cyprinus carpio</u>
242		Common goldeneye	<u>Bucephala clangula</u>
132	17	Common loon	<u>Gavia immer</u>
279	14	Common merganser	<u>Mergus merganser</u>
019	42	Common muskrat	<u>Ondatra zibethicus</u>
016		Common raccoon	<u>Procyon lotor</u>
715		Common snook	<u>Centropomus undecimalis</u>
117	15	Coney	<u>Cephalopholis fulva</u>
863		Conger eel	<u>Conger oceanicus</u>
324		Cottonmouth jack	<u>Uraspis secunda</u>
116	15	Cottonwick	<u>Haemulon melanurum</u>
660		Cownose ray	<u>Rhinoptera bonasus</u>
678		Crested blenny	<u>Hypoleurochilus geminatus</u>
679		Crested cusk-eel	<u>Ophidion josephi</u>
628		Crevalle jack	<u>Caranx hippos</u>
894		Cuban dogfish	<u>Squalus cubensis</u>

Species, COMMON.VERTEBRATE, 5/18/2012

May 2012

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
311		Cubbyu	<u>Pareques umbrosus</u>
115	15	Cubera snapper	<u>Lutianus cyanopterus</u>
770		Darter goby	<u>Ctenogobius boleosoma</u>
957		Deepbody boarfish	<u>Antigonia capros</u>
511	04	Deepwater dab	<u>Poecilopsetta beanii</u>
289		Diamond-backed terrapin	<u>Malaclemys terrapin</u>
742		Diamond killifish	<u>Adinia xenica</u>
548		Doctorfish	<u>Acanthurus chirurgus</u>
726		Dog snapper	<u>Lutianus jocu</u>
597		Dolphinfish	<u>Coryphaena hippurus</u>
258		Dotterel filefish	<u>Aluterus heudelotii</u>
860		Duckbill flathead	<u>Bembrops anatisrostris</u>
734		Dusky anchovy	<u>Anchoa lyolepis</u>
<b>NOTE:</b> Database includes records for synonym of above species (*292, *Longnose anchovy, * <u>Anchoa nasuta</u> ).			
568		Dusky damselfish	<u>Stegastes adustus</u>
513		Dusky flounder	<u>Syacium papillosum</u>
747		Dusky pipefish	<u>Syngnathus floridae</u>
890		Dusky shark	<u>Carcharhinus obscurus</u>
822		Dwarf goatfish	<u>Upeneus parvus</u>
125	04	Dwarf herring	<u>Jenkinsia lamprotaenia</u>
812		Dwarf sand perch	<u>Diplectrum bivittatum</u>
746		Dwarf seahorse	<u>Hippocampus zosterae</u>
288	17	Eared grebe	<u>Podiceps nigricollis</u>
121	29	Eastern cottontail	<u>Sylvilagus floridanus</u>
033		Eastern river cooter	<u>Pseudemys concinna concinna</u>
765		Emerald sleeper	<u>Erotelis smaragdus</u>
028		Escolar	<u>Lepidocybium flavobrunneum</u>
741		False silverstripe halfbeak	<u>Hyporhamphus meeki</u>
373		Family American soles	Family Achiridae
457		Family anchovies	Family Engraulidae
476		Family angel sharks	Family Squatinidae
430		Family armorheads	Family Pentacerotidae
396		Family barracudas	Family Sphyraenidae
443		Family batfishes	Family Ogcocephalidae
431		Family beardfishes	Family Polymixiidae
418		Family bigeyes	Family Priacanthidae
381		Family billfishes	Family Istiophoridae
415		Family bluefishes	Family Pomatomidae
427		Family boarfishes	Family Caproidae
368		Family boxfishes	Family Ostraciidae
380		Family butterfishes	Family Stromateidae
401		Family butterflyfishes	Family Chaetodontidae
417		Family cardinalfishes	Family Apogonidae
485		Family carpet sharks	Family Rhincodontidae
451		Family carps and minnows	Family Cyprinidae
481		Family cat sharks	Family Scyliorhinidae
515		Family cichlids	Family Cichlidae
446		Family clingfishes	Family Gobiesocidae
391		Family clinids	Family Clinidae

Species, COMMON.VERTEBRATE, 5/18/2012

May 2012

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
414		Family cobias	Family Rachycentridae
442		Family codlets	Family Bregmacerotidae
441		Family cods	Family Gadidae
390		Family combtooth blennies	Family Blenniidae
460		Family conger eels	Family Congridae
426		Family cornetfishes	Family Fistulariidae
487		Family cow sharks	Family Hexanchidae
440		Family cusk-eels	Family Ophidiidae
384		Family cutlassfishes	Family Trichiuridae
400		Family damselfishes	Family Pomacentridae
477		Family dogfish sharks	Family Squalidae
411		Family dolphinfishes	Family Coryphaenidae
428		Family dories	Family Zeidae
389		Family dragonets	Family Callionymidae
405		Family drums	Family Sciaenidae
461		Family duckbill eels	Family Nettastomatidae
255		Family ducks, geese, and swans	Family Anatidae
468		Family eagle rays	Family Myliobatidae
473		Family electric rays	Family Torpedinidae
252		(Family emydid turtles)	Family Emydidae
370		Family filefishes	Family Monacanthidae
394		Family flatheads	Family Percophidae
376		Family flying gurnards	Family Dactylopteridae
436		Family flyingfishes	Family Exocoetidae
463		Family freshwater eels	Family Anguillidae
444		Family frogfishes	Family Antennariidae
105		Family frogs	Family Ranidae
465		Family gars	Family Lepisosteidae
404		Family goatfishes	Family Mullidae
387		Family gobies	Family Gobiidae
445		Family goosefishes	Family Lophiidae
454		Family greeneyes	Family Chlorophthalmidae
438		Family grenadiers	Family Macrouridae
407		Family grunts	Family Haemulidae
474		Family guitarfishes	Family Rhinobatidae
478		Family hammerhead sharks	Family Sphyrnidae
458		Family herrings	Family Clupeidae
412		Family jacks	Family Carangidae
395		Family jawfishes	Family Opistognathidae
453		Family lancetfishes	Family Alepisauridae
452		Family lanternfishes	Family Myctophidae
433		Family livebearers	Family Poeciliidae
455		Family lizardfishes	Family Synodontidae
254	34	Family loons	Family Gaviidae
482		Family mackerel sharks	Family Lamnidae
383		Family mackerels	Family Scombridae
466		Family mantas	Family Mobulidae
359	15	Family medusafishes	Family Centrolophidae
408		Family mojarras	Family Gerreidae

Species, COMMON.VERTEBRATE, 5/18/2012

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
365		Family molas	Family Molidae
456		Family mooneyes	Family Hiodontidae
462		Family morays	Family Muraenidae
397		Family mullets	Family Mugilidae
435		Family needlefishes	Family Belontiidae
432		Family New World silversides	Family Atherinopsidae
449		Family North American catfishes	Family Ictaluridae
398		Family parrotfishes	Family Scaridae
439		Family pearlfishes	Family Carapidae
424		Family pipefishes	Family Syngnathidae
366		Family porcupinefishes	Family Diodontidae
406		Family porgies	Family Sparidae
367		Family puffers	Family Tetraodontidae
434		Family pupfishes	Family Cyprinodontidae
199	17	Family rails, gallinules, and coots	Family Rallidae
413		Family remoras	Family Echeneidae
480		Family requiem sharks	Family Carcharhinidae
374		Family righteye flounders	Family Pleuronectidae
469		Family round stingrays	Family Urolophidae
375		Family sand flounders	Family Paralichthyidae
484		Family sand tigers	Family Odontaspidae
475		Family sawfishes	Family Pristidae
379		Family scorpionfishes	Family Scorpaenidae
421		Family sea basses	Family Serranidae
448		Family sea catfishes	Family Ariidae
403		Family sea chubs	Family Kyphosidae
377		Family searobins	Family Triglidae
876	35	Family seaturtles (scuted shell)	Family Chelonidae
472		Family skates	Family Rajidae
388		Family sleepers	Family Eleotridae
459		Family snake eels	Family Ophichthidae
490		Family snake mackerels	Family Gempylidae
410		Family snappers	Family Lutjanidae
425		Family snipefishes	Family Macroramphosidae
423		Family snooks	Family Centropomidae
402		Family spadefishes	Family Ehippidae
369		Family spikefishes	Family Triacanthodidae
429		Family squirrelfishes	Family Holocentridae
393		Family stargazers	Family Uranoscopidae
471		Family stingrays	Family Dasyatidae
450		Family suckers	Family Catostomidae
419		Family sunfishes	Family Centrarchidae
385		Family surgeonfishes	Family Acanthuridae
382		Family swordfishes	Family Xiphiidae
491		Family tarpons	Family Megalopidae
422		Family temperate basses	Family Moronidae
464		Family tenpounders	Family Elopidae
392		Family threadfins	Family Polynemidae
483		Family thresher sharks	Family Alopiidae

Species, COMMON.VERTEBRATE, 5/18/2012

May 2012

VERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
416		Family tilefishes	Family Malacanthidae
447		Family toadfishes	Family Batrachoididae
372		Family tonguefishes	Family Cynoglossidae
489		Family topminnows	Family Fundulidae
371		Family triggerfishes	Family Balistidae
409		Family tripletails	Family Lobotidae
095		Family trouts	Family Salmonidae
386		Family wormfishes	Family Microdesmidae
399		Family wrasses	Family Labridae
723		Fat sleeper	<u>Dormitator maculatus</u>
761		Feather blenny	<u>Hypsoblennius henz</u>
068		Feral hog	<u>Sus scrofa</u>
658		Finescale menhaden	<u>Brevoortia gunteri</u>
784		Finetooth shark	<u>Carcharhinus isodon</u>
036		Flagfin mojarra	<u>Eucinostomus melanopterus</u>
986		Flamefish	<u>Apogon maculatus</u>
949		Flat needlefish	<u>Ablennes hians</u>
739		Flathead catfish	<u>Pylodictis olivaris</u>
753		Florida pompano	<u>Trachinotus carolinus</u>
855		Florida smoothhound	<u>Mustelus norrisi</u>
157		(Flounder - unidentified)	Genus Paralichthys
521		Flying gurnard	<u>Dactylopterus volitans</u>
939		Flying halfbeak	<u>Euleptorhamphus velox</u>
762		Freckled blenny	<u>Hypsoblennius ionthas</u>
205	15	Freckled cardinalfish	<u>Phaeoptyx conklini</u>
798		Freckled pikeconger	<u>Hoplunnis macrura</u>
556		Freckled stargazer	<u>Gnathagnus egregius</u>
573		French angelfish	<u>Pomacanthus paru</u>
757		Freshwater drum	<u>Aplodinotus grunniens</u>
550		Freshwater goby	<u>Ctenogobius shufeldti</u>
546		Frigate mackerel	<u>Auxis thazard</u>
767		Frillfin goby	<u>Bathygobius soporator</u>
004		Fringed filefish	<u>Monacanthus ciliatus</u>
779		Fringed flounder	<u>Etropus crossotus</u>
012	15	Fringed pipefish	<u>Anarchopterus criniqer</u>
781		Fringed sole	<u>Gymnachirus texae</u>
262		Fulvous whistling-duck	<u>Dendrocygna bicolor</u>
272	14	Gadwall	<u>Anas strepera</u>
611		Gafftopsail catfish	<u>Bagre marinus</u>
976		Gag	<u>Mycteroperca microlepis</u>
606		Gizzard shad	<u>Dorosoma cepedianum</u>
015		Glasseye snapper	<u>Priacanthus cruentatus</u>
557		Goby flathead	<u>Bembrops gobioides</u>
165		Gold brotula	<u>Gunterichthys longipenis</u>
046	24	Golden shiner	<u>Notemigonus crysoleucas</u>
674		Golden topminnow	<u>Fundulus chrysotus</u>
721		Goldeye	<u>Hiodon alosoides</u>
100		Goldfish	<u>Carassius auratus</u>
965		Goliath grouper	<u>Epinephelus itajara</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
922		Goosefish	<u>Lophius americanus</u>
179	24	Grass carp	<u>Ctenopharyngodon idella</u>
574		Gray angelfish	<u>Pomacanthus arcuatus</u>
722		Gray snapper	<u>Lutianus griseus</u>
507		Gray triggerfish	<u>Balistes capricus</u>
980		Graysby	<u>Cephalopholis cruentata</u>
823		Great barracuda	<u>Sphyraena barracuda</u>
795		Great hammerhead	<u>Sphyrna mokarran</u>
996		Greater amberjack	<u>Seriola dumerili</u>
200	17	Greater scaup	<u>Aythya marila</u>
011		Greater siren	<u>Siren lacertina</u>
984		Greater soapfish	<u>Rypticus saponaceus</u>
060		Greater white-fronted goose	<u>Anser albifrons</u>
710		Green goby	<u>Microgobius thalassinus</u>
869		Green sea turtle	<u>Chelonia mydas</u>
488		Green sunfish	<u>Lepomis cyanellus</u>
265	14	Green-winged teal	<u>Anas crecca</u>
824		Guaguanche	<u>Sphyraena guachancho</u>
683		Gulf butterfish	<u>Peprilus burti</u>
780		Gulf flounder	<u>Paralichthys albigutta</u>
808		Gulf hake	<u>Urophycis cirrata</u>
702		Gulf killifish	<u>Fundulus grandis</u>
676		Gulf kingfish	<u>Menticirrhus littoralis</u>
604		Gulf menhaden	<u>Brevoortia patronus</u>
713		Gulf pipefish	<u>Syngnathus scovelli</u>
689		Gulf toadfish	<u>Opsanus beta</u>
554		Hairy blenny	<u>Labrisomus nuchipinnis</u>
610		Hardhead catfish	<u>Ariopsis felis</u>
682		Harvestfish	<u>Peprilus paru</u>
868		Hawksbill sea turtle	<u>Eretmochelys imbricata</u>
580		High-hat	<u>Pareques acuminatus</u>
684		Highfin goby	<u>Gobionellus oceanicus</u>
619		Hogchoker	<u>Trinectes maculatus</u>
561		Hogfish	<u>Lachnolaimus maximus</u>
904		Honeycomb moray	<u>Gymnothorax saxicola</u>
278	14	Hooded merganser	<u>Lophodytes cucullatus</u>
226		Horned grebe	<u>Podiceps auritus</u>
524		Horned searobin	<u>Bellator militaris</u>
520		Horned whiff	<u>Citharichthys cornutus</u>
648		Horse-eye jack	<u>Caranx latus</u>
951		Houndfish	<u>Tylosurus crocodilus</u>
530		Hunchback scorpionfish	<u>Scorpaena dispar</u>
062		Hybrid bass (striped x white)	<u>Morone x (M. saxatilis x M. chrysops)</u>
615		Inland silverside	<u>Menidia beryllina</u>
645		Inshore lizardfish	<u>Synodus foetens</u>
102	15	Irish pompano	<u>Diapterus auratus</u>
498		Jambeau	<u>Parahollandia lineata</u>
585		Jolthead porgy	<u>Calamus bajonado</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
989	01	Keelcheek bass	<u>Synagrops spinosus</u>
104		Keeltail needlefish	<u>Platybelone argalus</u>
867		Kemp's ridley seaturtle	<u>Lepidochelys kempii</u>
163		(Killifish - unidentified)	Genus Fundulus
772		King mackerel	<u>Scomberomorus cavalla</u>
363		King snake eel	<u>Ophichthus rex</u>
162		(Kingfish - unidentified)	Genus Menticirrhus
555		Knobbed porgy	<u>Calamus nodosus</u>
659		Ladyfish	<u>Elops saurus</u>
862		Lancer stargazer	<u>Kathetostoma albiquitta</u>
671		Lane snapper	<u>Lutianus synagris</u>
791		Largemouth bass	<u>Micropterus salmoides</u>
002		Largescale fat snook	<u>Centropomus mexicanus</u>
735		Largescale lizardfish	<u>Saurida brasiliensis</u>
764		Largescaled spinycheek sleeper	<u>Eleotris amblyopsis</u>
896		Largetooth sawfish	<u>Pristis pristis</u>
650		Least puffer	<u>Sphoeroides parvus</u>
865		Leatherback seaturtle	<u>Dermochelys coriacea</u>
668		Leatherjacket	<u>Oligoplites saurus</u>
790		Lemon shark	<u>Negaprion brevirostris</u>
776		Leopard searobin	<u>Prionotus scitulus</u>
350		Leopard toadfish	<u>Opsanus pardus</u>
003		Lesser amberjack	<u>Seriola fasciata</u>
796		Lesser electric ray	<u>Narcine bancroftii</u>
273	14	Lesser scaup	<u>Aythya affinis</u>
662		Lined seahorse	<u>Hippocampus erectus</u>
714		Lined sole	<u>Achirus lineatus</u>
544		Little tunny	<u>Euthynnus alletteratus</u>
866		Loggerhead seaturtle	<u>Caretta caretta</u>
534		Longbill spearfish	<u>Tetrapturus pfluegeri</u>
126	24	Longear sunfish	<u>Lepomis megalotis</u>
114	15	Longfin mako	<u>Isurus paucus</u>
008		Longnose batfish	<u>Ogcocephalus corniger</u>
697		Longnose gar	<u>Lepisosteus osseus</u>
918		Longnose greeneye	<u>Parasudis truculenta</u>
691		Longnose killifish	<u>Fundulus similis</u>
919		Longnose lancetfish	<u>Alepisaurus ferox</u>
677		Longspine porgy	<u>Stenotomus caprinus</u>
853		Longspine scorpionfish	<u>Pontinus longispinis</u>
959		Longspine snipefish	<u>Macroramphosus scolopax</u>
955		Longspine squirrelfish	<u>Holocentrus rufus</u>
970		Longtail bass	<u>Hemanthias leptus</u>
508		Longtail tonguefish	<u>Symphurus pelicanus</u>
655		Lookdown	<u>Selene vomer</u>
768		Lyre goby	<u>Evorthodus lyricus</u>
156		(Mackerel - unidentified)	Genus Scomberomorus
271	14	Mallard	<u>Anas platyrhynchos</u>
532		Man-of-war fish	<u>Nomeus gronovii</u>
903		Manta	<u>Manta birostris</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
885	02	Marbled cat shark	<u>Galeus arae</u>
113	15	Marbled grouper	<u>Dermatolepis inermis</u>
496		Marbled puffer	<u>Sphoeroides dorsalis</u>
941		Margined flyingfish	<u>Cheilopogon cyanopterus</u>
661		Margintail conger	<u>Paraconger caudilimbatus</u>
938		Marlin-spike	<u>Nezumia bairdi</u>
993		Marlinsucker	<u>Remora osteochir</u>
932	01	Metallic codling	<u>Physiculus fulvus</u>
828		Mexican flounder	<u>Cyclopsetta chittendeni</u>
774		Mexican searobin	<u>Prionotus paralatus</u>
048		Mexican tetra	<u>Astyanax mexicanus</u>
017		Mink	<u>Mustela vison</u>
553		Molly miller	<u>Scartella cristata</u>
913		Mooneye	<u>Hiodon tergisus</u>
270	14	Mottled duck	<u>Anas fulvigula</u>
756		Mottled mojarra	<u>Eucinostomus lefroyi</u>
559		Mountain mullet	<u>Agonostomus monticola</u>
204	17	Mourning dove	<u>Zenaida macroura</u>
596		Mutton snapper	<u>Lutjanus analis</u>
626		Naked goby	<u>Gobiosoma bosc</u>
968		Nassau grouper	<u>Epinephelus striatus</u>
006		Neotropic cormorant	<u>Phalacrocorax brasilianus</u>
571		Night sergeant	<u>Abudefduf taurus</u>
858		Night shark	<u>Carcharhinus signatus</u>
038		Nilgai	<u>Boselaphus tragocamelus</u>
250		Northern bobwhite quail	<u>Colinus virginianus</u>
759		Northern kingfish	<u>Menticirrhus saxatilis</u>
266	14	Northern pintail	<u>Anas acuta</u>
748		Northern pipefish	<u>Syngnathus fuscus</u>
268	14	Northern shoveler	<u>Anas clypeata</u>
878		Nurse shark	<u>Ginglymostoma cirratum</u>
253		Nutria	<u>Myocastor coypus</u>
492		Ocean sunfish	<u>Mola mola</u>
504		Ocean triggerfish	<u>Canthidermis sufflamen</u>
944		Oceanic two-wing flyingfish	<u>Exocoetus obtusirostris</u>
889		Oceanic whitetip shark	<u>Carcharhinus longimanus</u>
649		Ocellated flounder	<u>Ancylopsetta ommata</u>
239		Ocellated frogfish	<u>Antennarius ocellatus</u>
803		Offshore lizardfish	<u>Synodus poeyi</u>
838		Offshore tonguefish	<u>Symphurus civitatum</u>
001		Oilfish	<u>Ruvettus pretiosus</u>
009		Opossum pipefish	<u>Microphis brachyurus</u>
501		Orange filefish	<u>Aluterus schoepfii</u>
499		Orangespotted filefish	<u>Cantherhines pullus</u>
563		Painted wrasse	<u>Halichoeres caudalis</u>
704		Palespotted eel	<u>Ophichthus puncticeps</u>
599		Palometa	<u>Trachinotus goodei</u>
804		Pancake batfish	<u>Halieutichthys aculeatus</u>
937		Pearlfish	<u>Carapus bermudensis</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
562		Pearly razorfish	<u>Xyrichtys novacula</u>
999		Permit	<u>Trachinotus falcatus</u>
106		Pig frog	<u>Rana grylio</u>
642		Pigfish	<u>Orthopristis chrysoptera</u>
633		Pinfish	<u>Laodon rhomboides</u>
549		Pink wormfish	<u>Microdesmus longipinnis</u>
699		Planehead filefish	<u>Stephanolepis hispidus</u>
357		Polka-dot batfish	<u>Ogcocephalus cubifrons</u>
598		Pompano dolphinfish	<u>Coryphaena equiselis</u>
493		Porcupinefish	<u>Diodon hystrix</u>
591		Porkfish	<u>Anisotremus virginicus</u>
112	15	Puddingwife	<u>Halichoeres radiatus</u>
326		Pygmy filefish	<u>Stephanolepis setifer</u>
981		Pygmy sea bass	<u>Serraniculus pumilio</u>
509		Pygmy tonguefish	<u>Symphurus parvus</u>
506		Queen triggerfish	<u>Balistes vetula</u>
825		Ragged goby	<u>Bollmannia communis</u>
995		Rainbow runner	<u>Elagatis bipinnulata</u>
693		Rainwater killifish	<u>Lucania parva</u>
971		Red barbier	<u>Hemanthias vivanus</u>
280	14	Red-breasted merganser	<u>Mergus serrator</u>
629		Red drum	<u>Sciaenops ocellatus</u>
152		Red-eared slider	<u>Trachemys scripta elegans</u>
821		Red goatfish	<u>Mullus auratus</u>
966		Red grouper	<u>Epinephelus morio</u>
257		Red hind	<u>Epinephelus guttatus</u>
565		Red hogfish	<u>Decodon puellaris</u>
005	15	Red porgy	<u>Pagrus pagrus</u>
818		Red snapper	<u>Lutjanus campechanus</u>
637		Redear sunfish	<u>Lepomis microlophus</u>
950		Redfin needlefish	<u>Strongylura notata</u>
274	14	Redhead	<u>Aythya americana</u>
576		Reef butterflyfish	<u>Chaetodon sedentarius</u>
843		Remora	<u>Remora remora</u>
907		Ridged eel	<u>Neoconger mucronatus</u>
275	14	Ring-necked duck	<u>Aythya collaris</u>
545		Rio Grande cichlid	<u>Cichlasoma cyanoguttatum</u>
184		Rock bass	<u>Ambloplites rupestris</u>
963		Rock hind	<u>Epinephelus adscensionis</u>
811		Rock sea bass	<u>Centropristis philadelphica</u>
898		Rosette skate	<u>Leucoraia garmani</u>
817		Rough scad	<u>Trachurus lathami</u>
667		Rough silverside	<u>Membras martinica</u>
505		Rough triggerfish	<u>Canthidermis maculata</u>
806		Roughback batfish	<u>Ogcocephalus parvus</u>
900		Roughtail stingray	<u>Dasyatis centroura</u>
846		Round herring	<u>Etrumeus teres</u>
875		Round scad	<u>Decapterus punctatus</u>
899		Roundel skate	<u>Raja texana</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
018		Ruddy duck	<u><i>Oxyura jamaicensis</i></u>
909		Sailfin eel	<u><i>Letharchus velifer</i></u>
947		Sailfin flyingfish	<u><i>Parexocoetus brachypterus</i></u>
745		Sailfin molly	<u><i>Poecilia latipinna</i></u>
537		Sailfish	<u><i>Istiophorus platypterus</i></u>
588		Sailors choice	<u><i>Haemulon parra</i></u>
743		Saltmarsh topminnow	<u><i>Fundulus jenkinsi</i></u>
914		Sand diver	<u><i>Synodus intermedius</i></u>
579		Sand drum	<u><i>Umbrina coroides</i></u>
962		Sand perch	<u><i>Diplectrum formosum</i></u>
613		Sand seatrout	<u><i>Cynoscion arenarius</i></u>
880		Sand tiger	<u><i>Carcharias taurus</i></u>
992		Sand tilefish	<u><i>Malacanthus plumieri</i></u>
786		Sandbar shark	<u><i>Carcharhinus plumbeus</i></u>
221	56	Sandhill crane	<u><i>Grus canadensis</i></u>
960		Sargassum pipefish	<u><i>Syngnathus pelagicus</i></u>
502		Sargassum triggerfish	<u><i>Xanthichthys ringens</i></u>
926		Sargassumfish	<u><i>Histrio histrio</i></u>
512		Sash flounder	<u><i>Trichopsetta ventralis</i></u>
584		Saucereye porgy	<u><i>Calamus calamus</i></u>
732		Scaled sardine	<u><i>Harengula jaguana</i></u>
794		Scalloped hammerhead	<u><i>Sphyrna lewini</i></u>
977		Scamp	<u><i>Mycteroperca phenax</i></u>
670		Schoolmaster	<u><i>Lutianus apodus</i></u>
497		Scrawled cowfish	<u><i>Acanthostracion quadricornis</i></u>
500		Scrawled filefish	<u><i>Aluterus scriptus</i></u>
041		Sea bream	<u><i>Archosargus rhomboidalis</i></u>
164		(Seatrout - unidentified)	Genus Cynoscion
552		Seaweed blenny	<u><i>Parablennius marmoratus</i></u>
572		Sergeant major	<u><i>Abudefduf saxatilis</i></u>
236		(Shark - unidentified)	Order Lamniformes/Squaliformes
685		Sharksucker	<u><i>Echeneis naucrates</i></u>
621		Sheepshead	<u><i>Archosargus probatocephalus</i></u>
686		Sheepshead minnow	<u><i>Cyprinodon variegatus</i></u>
582		Sheepshead porgy	<u><i>Calamus penna</i></u>
360	24	(Shiner - unidentified)	Genus Notropis
829		Shoal flounder	<u><i>Syacium gunteri</i></u>
291		Short bigeye	<u><i>Pristigenys alta</i></u>
883		Shortfin mako	<u><i>Isurus oxyrinchus</i></u>
805		Shortnose batfish	<u><i>Ogcocephalus nasutus</i></u>
729		Shortnose gar	<u><i>Lepisosteus platostomus</i></u>
916		Shortnose greeneye	<u><i>Chlorophthalmus agassizi</i></u>
777		Shortwing searobin	<u><i>Prionotus stearnsi</i></u>
731		Shrimp eel	<u><i>Ophichthus gomesi</i></u>
362		Silk snapper	<u><i>Lutianus vivanus</i></u>
888		Silky shark	<u><i>Carcharhinus falciformis</i></u>
630		Silver jenny	<u><i>Eucinostomus gula</i></u>
627		Silver perch	<u><i>Bairdiella chrysoura</i></u>
533		Silver-rag	<u><i>Ariomma bondi</i></u>

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657		Silver seatrout	<u>Cynoscion nothus</u>
924		Singlespot frogfish	<u>Antennarius radiosus</u>
688		Skilletfish	<u>Gobiesox strumosus</u>
717		Skipjack herring	<u>Alosa chrysochloris</u>
543		Skipjack tuna	<u>Katsuwonus pelamis</u>
528		Slender searobin	<u>Peristedion gracile</u>
564		Slippery dick	<u>Halichoeres bivittatus</u>
893		Smalleye hammerhead	<u>Sphyrna tudes</u>
065		Smallmouth bass	<u>Micropterus dolomieu</u>
631		Smallmouth buffalo	<u>Ictiobus bubalus</u>
141		Smallscale fat snook	<u>Centropomus parallelus</u>
061	15	Smallscale lizardfish	<u>Saurida caribbaea</u>
788		Smalltail shark	<u>Carcharhinus porosus</u>
895		Smalltooth sawfish	<u>Pristis pectinata</u>
946		Smallwing flyingfish	<u>Oxyporhamphus micropterus</u>
901		Smooth butterfly ray	<u>Gymnura micrura</u>
892		Smooth dogfish	<u>Mustelus canis</u>
782		Smooth puffer	<u>Lagocephalus laevis</u>
131		Smooth softshell (turtle)	<u>Apalone mutica</u>
021	48	Smooth trunkfish	<u>Lactophrys triqueter</u>
854		Smoothhead scorpionfish	<u>Scorpaena calcarata</u>
111	15	Snake mackerel	<u>Gempylus serpens</u>
915		Snakefish	<u>Trachinocephalus myops</u>
912		Snapper eel	<u>Echiophis punctifer</u>
225		Snow goose	<u>Chen caerulescens</u>
256		Snowy grouper	<u>Hyporthodus niveatus</u>
872		Sooty eel	<u>Bascanichthys bascanium</u>
616		Southern flounder	<u>Paralichthys lethostigma</u>
809		Southern hake	<u>Urophycis floridana</u>
758		Southern kingfish	<u>Menticirrhus americanus</u>
063		Southern leopard frog	<u>Rana sphenoccephala</u>
101	54	Southern sailfin catfish	<u>Pterygoplichthys anisitsi</u>
696		Southern stargazer	<u>Astroscopus y-graecum</u>
635		Southern stingray	<u>Dasyatis americana</u>
969		Spanish flag	<u>Gonioplectrus hispanus</u>
589		Spanish grunt	<u>Haemulon macrostomum</u>
681		Spanish mackerel	<u>Scomberomorus maculatus</u>
802		Spanish sardine	<u>Sardinella aurita</u>
964		Speckled hind	<u>Epinephelus drummondhavi</u>
664		Speckled worm eel	<u>Myrophis punctatus</u>
793		Spinner shark	<u>Carcharhinus brevipinna</u>
864		Spiny flounder	<u>Engyophrys senta</u>
031		Spinycheek scorpionfish	<u>Neomerinthe hemingwayi</u>
608		Spot	<u>Leiostomus xanthurus</u>
577		Spotfin butterflyfish	<u>Chaetodon ocellatus</u>
551		Spotfin dragonet	<u>Foetorepus agassizi</u>
518		Spotfin flounder	<u>Cyclopsetta fimbriata</u>
942		Spotfin flyingfish	<u>Cheilopogon furcatus</u>
075	15	Spotfin hogfish	<u>Bodianus pulchellus</u>

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874		Spotfin mojarra	<u>Eucinostomus argenteus</u>
706		Spottail goby	<u>Ctenogobius stigmaturus</u>
581		Spottail pinfish	<u>Diplodus holbrookii</u>
137	04	Spottail tonguefish	<u>Symphurus urospilus</u>
197	04	Spotted batfish	<u>Ogcocephalus pantostictus</u>
727		Spotted eagle ray	<u>Aetobatus narinari</u>
728		Spotted gar	<u>Lepisosteus oculatus</u>
810		Spotted hake	<u>Urophycis regia</u>
663		Spotted moray	<u>Gymnothorax moringa</u>
799		Spotted pike-conger	<u>Hoplunnis tenuis</u>
852		Spotted scorpionfish	<u>Scorpaena plumieri</u>
614		Spotted seatrout	<u>Cynoscion nebulosus</u>
716		Spotted snake eel	<u>Ophichthus ophis</u>
910		Spotted spoon-nose eel	<u>Echiophis intertinctus</u>
013		Spotted sunfish	<u>Lepomis punctatus</u>
519		Spotted whiff	<u>Citharichthys macrops</u>
510		Spottedfin tonguefish	<u>Symphurus diomedeanus</u>
861		Spreadfin skate	<u>Dipturus olseni</u>
954		Squirrelfish	<u>Holocentrus adscensionis</u>
620		Star drum	<u>Stellifer lanceolatus</u>
740		Stippled clingfish	<u>Gobiesox punctulatus</u>
925		Striated frogfish	<u>Antennarius striatus</u>
733		Striped anchovy	<u>Anchoa hepsetus</u>
751		Striped bass	<u>Morone saxatilis</u>
651		Stretchjaw blenny	<u>Chasmodes longimaxilla</u>
687		Striped burrfish	<u>Chilomycterus schoepfii</u>
936		Striped cusk-eel	<u>Ophidion marginatum</u>
587		Striped grunt	<u>Haemulon striatum</u>
612		Striped mullet	<u>Mugil cephalus</u>
934	01	Stripefin brotula	<u>Neobythites marginatus</u>
570		Sunshinefish	<u>Chromis insolata</u>
538		Swordfish	<u>Xiphias gladius</u>
558		Swordtail jawfish	<u>Lonchopisthus micrognathus</u>
730		Tarpon	<u>Megalops atlanticus</u>
982		Tattler	<u>Serranus phoebe</u>
064		Texas silverside	<u>Menidia clarkhubbsi</u>
711		Threadfin shad	<u>Dorosoma petenense</u>
908		Threadtail conger	<u>Uroconger syringinus</u>
778		Three-eye flounder	<u>Ancylopsetta dilecta</u>
881		Thresher shark	<u>Alopias vulpinus</u>
212		Tidewater silverside	<u>Menidia peninsulae</u>
891		Tiger shark	<u>Galeocerdo cuvier</u>
361		(Tilapia - unidentified)	Genus Tilapia
991		Tilefish	<u>Lopholatilus chamaeleonticeps</u>
666		Timucu	<u>Strongylura timucu</u>
590		Tomtate	<u>Haemulon aurolineatum</u>
928		Tricorn batfish	<u>Zalieutes mcgintyi</u>
351		Twospot flounder	<u>Bothus robinsi</u>
110	15	Unicorn filefish	<u>Aluterus monoceros</u>

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594		Vermilion snapper	<u>Rhomboplites aurubens</u>
769		Violet goby	<u>Gobioides broussoneti</u>
547		Wahoo	<u>Acanthocybium solandri</u>
720		Warmouth	<u>Lepomis gulosus</u>
967		Warsaw grouper	<u>Hyporthodus nigritus</u>
819		Wenchman	<u>Pristipomoides aquilonaris</u>
978		Western comb grouper	<u>Mycteroperca acutirostris</u>
073		Western diamond-backed rattlesnake	<u>Crotalus atrox</u>
744		Western mosquitofish	<u>Gambusia affinis</u>
879		Whale shark	<u>Rhincodon typus</u>
842		Whalesucker	<u>Remora australis</u>
844		Whip eel	<u>Bascanichthys scuticaris</u>
906		Whiptail conger	<u>Rhynchoconger gracilior</u>
749		White bass	<u>Morone chrysops</u>
336		White crappie	<u>Pomoxis annularis</u>
026	15	White grunt	<u>Haemulon plumieri</u>
535		White marlin	<u>Tetrapturus albidus</u>
760		White mullet	<u>Muqil curema</u>
624		White perch	<u>Morone americana</u>
882		White shark	<u>Carcharodon carcharias</u>
224		White-tailed deer	<u>Odocoileus virginianus</u>
090	17	White-winged dove	<u>Zenaida asiatica</u>
583		Whitebone porgy	<u>Calamus leucosteus</u>
109	60, 15	Whitefin sharksucker	<u>Echeneis neucratoides</u>
143	15	Whitespotted soapfish	<u>Rypticus maculatus</u>
514		Windowpane	<u>Scophthalmus aquosus</u>
263	14	Wood duck	<u>Aix sponsa</u>
022	15	Wrasse bass	<u>Liopropoma eukrines</u>
750		Yellow bass	<u>Morone mississippiensis</u>
737		Yellow bullhead	<u>Ameiurus natalis</u>
789		Yellow chub	<u>Kyphosus incisor</u>
905		Yellow conger	<u>Rhynchoconger flavus</u>
785		Yellow jack	<u>Caranx bartholomaei</u>
902		Yellow stingray	<u>Urobatis jamaicensis</u>
364		Yellowedge grouper	<u>Hyporthodus flavolimbatus</u>
237		Yellowfin grouper	<u>Mycteroperca venenosa</u>
593		Yellowfin mojarra	<u>Gerres cinereus</u>
240	15	Yellowfin tuna	<u>Thunnus albacares</u>
975		Yellowmouth grouper	<u>Mycteroperca interstitialis</u>
595		Yellowtail snapper	<u>Ocyurus chrysurus</u>
*953	01	*Armorhead	* <u>Hoplostethus mediterraneus</u>
*930	01	*(Barbelless codlet)	* <u>Gadella maraldi</u>
*884	01	*Black cat shark	* <u>Apristurus indicus</u>
*516	01	*(Close-eyed flounder)	* <u>Paralichthys triocellatus</u>
*987	01	*(Cycloid-scale cardinalfish)	* <u>Epigonus pandionis</u>
*529	01	*(Deep-line scorpionfish)	* <u>Setarches guentheri</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
*378		*Family armored searobins	*Family Peristediidae
*470	01	*Family butterfly rays	*Family Gymnuridae
*486		*Family carpet sharks	*Family Orectolobidae
*467		*Family cownose rays	*Family Rhinopteridae
*437		*Family halfbeaks	*Family Hemiramphidae
*479		*Family smooth dogfishes	*Family Triakidae
*420		*Family soapfishes	*Family Grammistidae
*923	01	*(Frogfish)	* <u>Antennarius nuttingi</u>
*921	01	*(Intermediate lanternfish)	* <u>Diaphus intermedius</u>
*292	15	*Longnose anchovy (Synonym of Dusky anchovy)	* <u>Anchoa nasuta</u> (Synonym of <u>A. lyolepis</u> )
*526	01	*(Longpath searobin)	* <u>Peristedion longispathum</u>
*920	01	*(Low-spot lanternfish)	* <u>Diaphus dumerili</u>
*917	01	*(Medium-nose greeneye)	* <u>Chlorophthalmus chalybeius</u>
*931	01	*(Notched-fin codfish)	* <u>Merluccius magnoculus</u>
*933	01	*(Paired-fin brotula)	* <u>Dicrolene intronigra</u>
*527		*Prickly armored searobin	* <u>Peristedion greyi</u>
*911		*Snapper eel	* <u>Echiophis mordax</u> (Synonym of <u>E. punctifer</u> )
*870		*(Turtle-unidentified)	*Order Testudinata
*973		*Yellowtail hamlet	* <u>Hypoplectrus chlorurus</u>

\* = Discontinued; do not use.

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9183	05	Alternate tellin	<u>Tellina alternata</u>
9009		Amber glassy-bubble	<u>Haminoea succinea</u>
9159	05	Angelwing	<u>Cyrtopleura costata</u>
9217	05	Antilles glassy-bubble	<u>Haminoea antillarum</u>
9204	05	Arctic hiatella	<u>Hiatella arctica</u>
9338	08	Arrow shrimp	<u>Tozeuma carolinense</u>
9835		Atlantic brief squid	<u>Lolliguncula brevis</u>
9094	05	Atlantic calico scallop	<u>Argopecten gibbus</u>
9092	05	Atlantic distorsio	<u>Distorsio clathrata</u>
9139	26	Atlantic ghost crab	<u>Ocypode quadrata</u>
9308		Atlantic giant cockle	<u>Dinocardium robustum</u>
9112	05	Atlantic papermussel	<u>Amygdalum papyrium</u>
9299	05	Atlantic rangia	<u>Rangia cuneata</u>
9221		Atlantic surfclam	<u>Spisula solidissima</u>
9064	05	Atlantic thorny oyster	<u>Spondylus americanus</u>
9179	05	Atlantic wing-oyster	<u>Pteria colymbus</u>
9118	36	Australian spotted jellyfish	<u>Phyllorhiza punctata</u>
9061	05	Awl miniature cerith	<u>Cerithiopsis emersonii</u>
9014		(Banded brittle star)	<u>Hemipholis elongata</u>
9232	22	Banded porcelain crab	<u>Petrolisthes galathinus</u>
9341	18	(Banded sea star)	<u>Luidia alternata</u>
9031	08	Banded snapping shrimp	<u>Alpheus armillatus</u>
9261	05	Banded tulip	<u>Fasciolaria liliium liliium</u>
9046	06	Bareye hermit	<u>Dardanus fucosus</u>
9653		Bay scallop	<u>Argopecten irradians</u>
9025	26	(Beach flea)	<u>Orchestia grillus</u>
9167	06	Beach ghost shrimp	<u>Callichirus isla grande</u>
9298		Beach mole crab	<u>Albunea paretii</u>
9059	08	Bigclaw snapping shrimp	<u>Alpheus heterochaelis</u>
9085	06	Blackpoint sculling crab	<u>Cronius ruber</u>
9296		Blood ark	<u>Anadara ovalis</u>
9359		Blotched swimming crab	<u>Portunus spinimanus</u>
9605		Blue crab	<u>Callinectes sapidus</u>
9225		Blue land crab	<u>Cardisoma guanhumi</u>
9283	06	(Blue-spot hermit)	<u>Paguristes hummi</u>
9158	50	Brazilian armina	<u>Armina muelleri</u>
9028		Bristled river shrimp	<u>Macrobrachium olfersii</u>
9015		(Brittle star)	<u>Microphiopholis atra</u>
9100	06	Broadback mud crab	<u>Eurytium limosum</u>
9164	06	Broadspine ghost shrimp	<u>Dawsonius latispina</u>
9211	08	(Brown-banded hermit)	<u>Pagurus annulipes</u>
9109	28	Brown grass shrimp	<u>Leander tenuicornis</u>
9203	05	Brown rangia	<u>Rangia flexuosa</u>
9831		Brown rock shrimp	<u>Sicyonia brevirostris</u>
9618		Brown shrimp	<u>Farfantepenaeus aztecus</u>
9290	10	Bruised nassa	<u>Nassarius vibex</u>
9342		By-the-wind sailor	<u>Velella velella</u>
9491		Calico box crab	<u>Hepatus epheliticus</u>
9054	05	Calico clam	<u>Macrocallista maculata</u>

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9202	05	Cancellate cantharus	<u>Cantharus cancellarius</u>
9353		Cannonball jelly or cabbagehead	<u>Stomolophus meleagris</u>
9154	22	Caribbean spiny lobster	<u>Panulirus argus</u>
9066		Carolina marshclam	<u>Polymesoda caroliniana</u>
9137	05	Cayenne keyhole limpet	<u>Diodora cayenensis</u>
9122	22	Cinnamon river shrimp	<u>Macrobrachium acanthurus</u>
9090	11	Class acorn worms	Class Enteropneusta
9216	12	Class brittle stars	Class Ophiuroidea
9095	11	Class hydrozoans	Class Hydrozoa
9196	12	Class jellyfish	Class Scyphozoa
9026		(Class malacostracan crustaceans)	Class Malacostraca
9187		Class polychaete worms	Class Polychaeta
9259	12	Class sea cucumbers	Class Holothuroidea
9314	07	Class sessile tunicates	Class Ascidiacea
9110		(Class snails)	Class Gastropoda
9060		Class squids and octopuses	Class Cephalopoda
9700	12	Class starfishes	Class Asteroidea
9178	06	Coastal mud shrimp	<u>Upogebia affinis</u>
9102	11	(Colonial hydroid - unidentified)	Genus Bougainvillia
9123	05	Common Atlantic slippersnail	<u>Crepidula fornicata</u>
9200	44	(Common bugula)	<u>Bugula neritina</u>
9120	05	Common jingle	<u>Anomia simplex</u>
9603		(Common mantis shrimp)	<u>Squilla empusa</u>
9315		Common nutmeg	<u>Cancellaria reticulata</u>
9323	05	Common octopus	<u>Octopus vulgaris</u>
9295	05	Common sundial	<u>Architectonica nobilis</u>
9184	05	Concentric nutclam	<u>Nuculana concentrica</u>
9201	05	Convex slippersnail	<u>Crepidula convexa</u>
9192		Crested oyster	<u>Ostrea equestris</u>
9241	05	Cross-barred venus	<u>Chione cancellata</u>
9325	06	Cryptic teardrop crab	<u>Pelidnota mutica</u>
9078	05	Cut-ribbed ark	<u>Anadara floridana</u>
9193		Daggerblade grass shrimp	<u>Palaemonetes pugio</u>
9050	19	(Damselfly nymphs)	Suborder Zygoptera
9152	39	(Dark-banded mantis shrimp)	<u>Bigelowina biminiensis</u>
9115	05	Dark falsemussel	<u>Mytilopsis leucophaeata</u>
9013		Delicate ark	<u>Barbatia tenera</u>
9032	08	Delicate swimming crab	<u>Portunus anceps</u>
9040		Diffuse ivory bush coral	<u>Oculina diffusa</u>
9082	06	Dimpled hermit	<u>Pagurus impressus</u>
9176	05	Disk dosinia	<u>Dosinia discus</u>
9257	64	(Dorid nudibranch)	<u>Monteireina branneri</u>
9004	25	(Dovesnail - unidentified)	Genus Costoanachis
9125	37	(Dragonfly nymphs)	Suborder Anisoptera
9210	05	Dwarf surf clam	<u>Mulinia lateralis</u>
9020	05	Eastern auger	<u>Terebra dislocata</u>
9037	05	Eastern melampus	<u>Melampus bidentatus</u>
9300	05	Eastern oyster	<u>Crassostrea virginica</u>
9141	06	Eastern tube crab	<u>Polyonyx gibbesi</u>

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9044	05	Eastern white slippersnail	<u>Crepidula plana</u>
9107		Elongate macoma	<u>Macoma tenta</u>
9174	06	Estuarine ghost shrimp	<u>Lepidophthalmus louisianensis</u>
9334	06	Estuarine mud crab	<u>Rhithropanopeus harrisi</u>
9638		Estuarine snapping shrimp	<u>Alpheus estuariensis</u>
9345		Eyespot rock shrimp	<u>Sicyonia stimpsoni</u>
9282	06	False arrow crab	<u>Metoporhaphis calcarata</u>
9247	63	(False shark eye)	<u>Neverita delessertiana</u>
9038		Family bristle worms	Family Amphinomidae
9007		(Family cerith snails)	Family Cerithiidae
9213	21	Family crayfishes	Family Astacidae
9230		(Family elongate squids)	Family Loliginidae
9035		Family freshwater clams	Family Unionidae
9258	11	(Family hyperiid amphipods)	Family Hyperiidae
9033	08	Family longeye shrimps	Family Ogyrididae
9069	06	(Family majid crabs)	Family Majidae
9302		Family mud crabs	Family Panopeidae
9027	26	(Family mysid shrimps)	Family Mysidae
9042	05	(Family nerite snails)	Family Neritidae
9103	06	Family pea crabs	Family Pinnotheridae
9708		Family penaeid shrimps	Family Penaeidae
9006		Family porcelain crabs	Family Porcellanidae
9301		Family right-handed hermit crabs	Family Paguridae
9240	57	(Family skeleton shrimps)	Family Caprellidae
9130		Family slipper lobsters	Family Scyllaridae
9096	08	Family snapping shrimps	Family Alpheidae
9304		Family swimming crabs	Family Portunidae
9056	05	(Family tellin and macoma bivalves)	Family Tellinidae
9045	05	Family tritons	Family Ranellidae
9168	08	(Fiddler crab - unidentified)	Genus Uca
9134	05	Fine-ribbed auger	<u>Terebra protexta</u>
9354		(Five-holed sand dollar)	<u>Mellita quinquiesperforata</u>
9490		Flame box crab	<u>Calappa flammea</u>
9036		Flamingo tongue	<u>Cyphoma gibbosum</u>
9214	08	Flatback mud crab	<u>Eurypanopeus depressus</u>
9329		Flatclaw hermit	<u>Pagurus pollicaris</u>
9297		Flecked box crab	<u>Hepatus pudibundus</u>
9173	05	Florida fighting conch	<u>Strombus alatus</u>
9198	43	Florida grass shrimp	<u>Palaemon floridanus</u>
9839	27	Florida lady crab	<u>Ovalipes floridanus</u>
9328	05	Florida rocksnail	<u>Stramonita haemastoma floridana</u>
9151	05	Florida spiny jewelbox	<u>Arcinella cornuta</u>
9226	47	(Four-tentacle box jelly)	<u>Tamoya haplonema</u>
9254		Fragile surfclam	<u>Mactrotoma fragilis</u>
9239	42	Furcate spider crab	<u>Stenocionops furcatus</u>
9157		Furrowed frog crab	<u>Raninoides loevis</u>
9049	25	(Ghost shrimp)	<u>Glypturus acanthochirus</u>
9238	05	Giant eastern murex	<u>Hexaplex fulvescens</u>
9262	08	Giant hermit	<u>Petrochirus diogenes</u>

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9136	13	(Giant mantis shrimp)	<u>Lysiosquilla scabricauda</u>
9181	05	Giant tun	<u>Tonna galea</u>
9131	37	(Giant waterbug - unidentified)	Genus Belostoma
9194		Granulate shellback crab	<u>Hypoconcha arcuata</u>
9062	08	Granulose purse crab	<u>Acanthilia intermedia</u>
9609		(Grass shrimp - unidentified)	Genus Palaemonetes
9086	05	Greedy dovesnail	<u>Costoanachis avara</u>
9310	06	Green porcelain crab	<u>Petrolisthes armatus</u>
9073	05	Gulf dovesnail	<u>Costoanachis semiplicata</u>
9348		Gulf frog crab	<u>Raninoides louisianensis</u>
9876		Gulf grassflat crab	<u>Dyspanopeus texanus</u>
9142	27	Gulf sand fiddler	<u>Uca panacea</u>
9209	22	Gulf squareback crab	<u>Speocarcinus lobatus</u>
9636		Gulf stone crab	<u>Menippe adina</u>
9148		Hairy sponge crab	<u>Cryptodromiopsis antillensis</u>
9220	05	(Hays' rock shell)	<u>Stramonita haemastoma canaliculata</u>
9352		(Heart urchin)	<u>Brissopsis alta</u>
9255	45	(Hermit crab - unidentified)	Superfamily Paguroidea
9252		Hooked mussel	<u>Ischadium recurvum</u>
9076	05	Horse conch	<u>Pleuroploca gigantea</u>
9360		Humpback shrimp	<u>Solenocera vioscai</u>
9249		(Hydromedusa)	<u>Nemopsis bachei</u>
9145	05	Incongruous ark	<u>Anadara brasiliiana</u>
9128	05	Intermediate cyphoma	<u>Pseudocyphoma intermedium</u>
9830		Iridescent swimming crab	<u>Portunus gibbesii</u>
9162	08	Kinglet rock shrimp	<u>Sicyonia typica</u>
9177	06	Knobbed mud crab	<u>Hexapanopeus paulensis</u>
9126	05	Lady-in-waiting venus	<u>Puberella intapurpurea</u>
9836	03	Lesser blue crab	<u>Callinectes similis</u>
9851		(Lesser mantis shrimp)	<u>Gibbesia neglecta</u>
9832		Lesser rock shrimp	<u>Sicyonia dorsalis</u>
9294	10	Lettered olive	<u>Oliva sayana</u>
9327	05	Lightning whelk	<u>Busycon sinistrum</u>
9236	53	Lion's mane	<u>Cyanea capillata</u>
9133	08	Lobate mud crab	<u>Eurypanopeus abbreviatus</u>
9833		Longfin inshore squid	<u>Loligo pealeii</u>
9039	08	Longfinger neck crab	<u>Podochela riisei</u>
9313	06	Longnose spider crab	<u>Libinia dubia</u>
9358		Longspine swimming crab	<u>Portunus spinicarpus</u>
9643	08	Longwrist hermit	<u>Pagurus longicarpus</u>
9337	08	(Luciferid shrimp)	<u>Lucifer faxoni</u>
9113		(Many-ribbed papillaed jellyfish)	<u>Rhacostoma atlanticum</u>
9242	53	(Many-ribbed non-papillaed jellyfish)	<u>Aequorea forskalea</u>
9101	22	Marsh grass shrimp	<u>Palaemonetes vulgaris</u>
9155	05	Marsh periwinkle	<u>Littoraria irrorata</u>
9022	05	Matagorda macoma	<u>Macoma mitchelli</u>
9041		(Mayfly nymph - unidentified)	Genus Isonychia
9003		Mexilhao mussel	<u>Perna perna</u>
9043	05	Miniature moonsnail	<u>Tectonatica pusilla</u>

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CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9188		Minor jacknife	<u>Ensis minor</u>
9083	05	(Mitchell's wentletrap)	<u>Amaea mitchelli</u>
9088	06	(Mole crab)	<u>Lepidopa benedicti</u>
9318	09	Moon jelly	<u>Aurelia aurita</u>
9317		(Moonsnail - unidentified)	Genus Neverita
9084	05	Mossy ark	<u>Arca imbricata</u>
9837	27	Mottled purse crab	<u>Persephona mediterranea</u>
9243	09	Mottled seahare	<u>Aplysia brasiliiana</u>
9063		(Mud-burrowing heart urchin)	<u>Moira atropos</u>
9156	06	Mudflat fiddler	<u>Uca rapax</u>
9235	11	Mushroom jellyfish	<u>Rhopilema verrilli</u>
9104	08	(Night shrimp)	<u>Processa hemphilli</u>
9052	08	Ocellated box crab	<u>Calappa ocellata</u>
9284	13	(Offshore mantis shrimp)	<u>Squilla chydæa</u>
9607		Ohio shrimp	<u>Macrobrachium ohione</u>
9019		Olive nerite	<u>Neritina usnea</u>
9180	06	Olivepit porcelain crab	<u>Euceramus praelongus</u>
9098	11	(Onion anemone)	<u>Paranthus rapiformis</u>
9075		Order amphipods	Order Amphipoda
9339	12	Order anemones	Order Actiniaria
9121	37	Order bugs	Order Hemiptera
9208	23	Order hydroids	Order Hydroidea
9053	11	Order isopods	Order Isopoda
9119	07	Order nudibranchs	Order Nudibranchia
9079	12	Order sea pens	Order Pennatulacea
9285	12	Order soft corals	Order Alcyonacea
9111		(Order veneroid bivalves)	Order Veneroida
9335		Oystershell mud crab	<u>Panopeus simpsoni</u>
9067	30	Pacific white shrimp	<u>Litopenaeus vannamei</u>
9346		Paper scallop	<u>Amusium papyraceum</u>
9169	09	Parchment tube worm	<u>Chaetopterus variopedatus</u>
9253	64	Pearwhelk	<u>Busycotypus spiratus</u>
9303		(Pearwhelk - unidentified)	Genus Busycotypus
9248		Peppermint shrimp	<u>Lysmata wurdemanni</u>
9319	09	(Phosphorus jelly)	<u>Mnemiopsis mccradyi</u>
9287	11	Phylum comb jellies or sea walnuts	Phylum Ctenophora
9847		Phylum mollusks	Phylum Mollusca
9051		Phylum moss animals	Phylum Bryozoa
9185	12	Phylum nemertean worms	Phylum Nemertinea
9070		Phylum segmented worms	Phylum Annelida
9206	12	Phylum sponges	Phylum Porifera
9331	06	Pink purse crab	<u>Persephona crinita</u>
9640		Pink shrimp	<u>Farfantepenaeus duorarum</u>
9233	49	(Pipe cleaner sea pen)	<u>Virgularia presbytes</u>
9034		Plicate hornsnail	<u>Cerithidea pliculosa</u>
9005	25	Pointed venus	<u>Anomalocardia auberiana</u>
9171	05	Ponderous ark	<u>Noetia ponderosa</u>
9698		Portly spider crab	<u>Libinia emarginata</u>
9124	26	Portuguese man o' war	<u>Physalia physalis</u>

Species, COMMON.INVERTEBRATE, 5/18/2012

May 2012

INVERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9140	06	Puerto Rican sand crab	<u><i>Emerita portoricensis</i></u>
9165	41	(Purple jellyfish)	<u><i>Pelagia noctiluca</i></u>
9057	06	Purple marsh crab	<u><i>Sesarma reticulatum</i></u>
9321	09	(Purple-spined sea urchin)	<u><i>Arbacia punctulata</i></u>
9018		Radial-ridged corbula	<u><i>Corbula swiftiana</i></u>
9153	05	Ragged seahare	<u><i>Bursatella leachii pleii</i></u>
9199	06	Red-joint fiddler	<u><i>Uca minax</i></u>
9160		Red swamp crawfish	<u><i>Procambarus clarkii</i></u>
9099	08	Redleg humpback shrimp	<u><i>Exhippolysmata oplophoroides</i></u>
9834		(Rimapenaeid shrimp - unidentified)	Genus Rimapenaeus
9024	08	(River shrimp - unidentified)	Genus Macrobrachium
9029		(Rock-boring urchin)	<u><i>Echinometra lucunter</i></u>
9260	22	Rose shrimp	<u><i>Parapenaeus politus</i></u>
9093	07	(Rosette-scaled brittle star)	<u><i>Ophiolepis elegans</i></u>
9146	08	Rough shellback crab	<u><i>Hypoconcha parasitica</i></u>
9707		Roughback shrimp	<u><i>Rimapenaeus similis</i></u>
9223		Roughneck shrimp	<u><i>Rimapenaeus constrictus</i></u>
9175	06	Roughwrist soft crab	<u><i>Chasmocarcinus mississippiensis</i></u>
9231		Royal red shrimp	<u><i>Pleoticus robustus</i></u>
9163		Royal sea star	<u><i>Astropecten articulatus</i></u>
9224		Sand snapping shrimp	<u><i>Alpheus floridanus</i></u>
9097	06	(Sargassum crab)	<u><i>Callinectes marginatus</i></u>
9182	11	Sargassum nudibranch	<u><i>Scyllaea pelagica</i></u>
9127	22	Sargassum shrimp	<u><i>Latreutes parvulus</i></u>
9227		Sargassum swimming crab	<u><i>Portunus sayi</i></u>
9068		(Sauerkraut bryozoan)	<u><i>Zoobotryon verticillatum</i></u>
9207	08	Sawtooth elbow crab	<u><i>Platylambrus serratus</i></u>
9320	05	Sawtooth penshell	<u><i>Atrina serrata</i></u>
9191		Scorched mussel	<u><i>Brachidontes exustus</i></u>
9309		Scotch bonnet	<u><i>Phalium granulatum</i></u>
9087	09	(Sea cucumber)	<u><i>Allothyone mexicana</i></u>
9197	11	(Sea cucumber - unidentified)	Genus Leptosynapta
9312	07	Sea nettle	<u><i>Chrysaora quinquecirrha</i></u>
9356		(Sea pansy)	<u><i>Renilla muelleri</i></u>
9108		Sea scallop	<u><i>Placopecten magellanicus</i></u>
9008		(Sea slug)	<u><i>Polycera hummi</i></u>
9234	51, 52	(Sea squirt)	<u><i>Ciona intestinalis</i></u>
9055	09	(Sea squirt)	<u><i>Molgula manhattensis</i></u>
9237	18, 55	(Sea star - unidentified)	Genus Echinaster
9343		(Sea walnut)	<u><i>Beroe ovata</i></u>
9215	09	(Sea wasp)	<u><i>Chiropsalmus quadrumanus</i></u>
9077	05	Sea-whip simnia	<u><i>Simnialena marferula</i></u>
9709		Seabob	<u><i>Xiphopenaeus kroveri</i></u>
9089	05	(Seahare - unidentified)	Genus Aplysia
9244	08	(Sergestid shrimp)	<u><i>Acetes americanus</i></u>
9250	63	Shark eye	<u><i>Neverita duplicata</i></u>
9212	05	Sharp nassa	<u><i>Nassarius acutus</i></u>
9195		(Short-fingered hermit)	<u><i>Pagurus brevidactylus</i></u>
9002		Short macoma	<u><i>Macoma brevifrons</i></u>

Species, COMMON.INVERTEBRATE, 5/18/2012

May 2012

INVERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9219		(Short-spined sea urchin)	<u>Lytechinus variegatus</u>
9166	06	Shortfinger neck crab	<u>Podochela sidneyi</u>
9246	64	Shouldered pearwhelk	<u>Busycotypus plagosus</u>
9000	64	(Side-gilled sea slug)	<u>Pleurobranchaea inconspicua</u>
9143	05	Silky tegula	<u>Tegula fasciata</u>
9072		Slender inshore squid	<u>Loligo pleii</u>
9071		Slender sargassum shrimp	<u>Latreutes fucorum</u>
9023	08	Smooth duckclam	<u>Anatina anatina</u>
9091	06	Smooth elbow crab	<u>Heterocrypta granulata</u>
9222		Smooth mud crab	<u>Hexapanopeus angustifrons</u>
9021		Smooth scallop	<u>Amusium pleuronectes</u>
9106		Southern clamworm	<u>Nereis succinea</u>
9080	05	Southern marshclam	<u>Polymesoda maritima</u>
9293	05	Southern quahog	<u>Mercenaria campechiensis</u>
9245	05	Southern ribbed-mussel	<u>Geukensia granosissima</u>
9349		Speckled snapping shrimp	<u>Synalpheus fritzmuelleri</u>
9840		Speckled swimming crab	<u>Arenaeus cribrarius</u>
9016	25	Spined fiddler	<u>Uca spinicarpa</u>
9074		(Spiny-back scud)	<u>Gammarus mucronatus</u>
9105	11	(Spiny snail fur)	<u>Hydractinia americana</u>
9116		(Spiral bryozoan)	<u>Amathia alternata</u>
9305	06	Spotted porcelain crab	<u>Porcellana sayana</u>
9047	26	Squatter pea crab	<u>Tumidotheres maculatus</u>
9344		Stilt spider crab	<u>Anasimus latus</u>
9048		(Stonefly nymph - unidentified)	Genus Claassenia
9186	05	Stout tagelus	<u>Tagelus plebeius</u>
9218	05	Striate bubble	<u>Bulla striata</u>
9012		Striped false limpet	<u>Siphonaria pectinata</u>
9058		Striped porcelain crab	<u>Porcellana sigsbeiana</u>
9307	07	(Striped sea star)	<u>Luidia clathrata</u>
9010		Striped snapping shrimp	<u>Alpheus formosus</u>
9848		Suborder crabs and lobsters	Suborder Reptantia
9138	26	Surf hermit	<u>Isocheles wurdemanni</u>
9251		Surf mole crab	<u>Albunea gibbesii</u>
9332	06	(Swimming crab)	<u>Portunus ventralis</u>
9190		Tampa tellin	<u>Tellina tampaensis</u>
9149		Texas quahog	<u>Mercenaria campechiensis texana</u>
9150	05	Texas venus	<u>Agriopoma texasianum</u>
9129	05	Thick lucine	<u>Lucina pectinata</u>
9170	05	Thick-ringed venus	<u>Lirophora clenchi</u>
9144	05	Thin cyclinella	<u>Cyclinella tenuis</u>
9330	06	Thinstripe hermit	<u>Clibanarius vittatus</u>
9011	05	Tinted cantharus	<u>Pollia tincta</u>
9161	05	Transverse ark	<u>Anadara transversa</u>
9117		(Tricolor anemone)	<u>Calliactis tricolor</u>
9355		(Two-spined starfish)	<u>Astropecten duplicatus</u>
9030		Variable cerith	<u>Cerithium lutosum</u>
9135	05	Variable coquina	<u>Donax variabilis</u>
9147		Virgin nerite	<u>Neritina virginea</u>

Species, COMMON.INVERTEBRATE, 5/18/2012

INVERTEBRATE SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
9001	05	(Vitrinella)	<u>Solariorbis blakei</u>
9132	37	(Water scorpion - unidentified)	Genus Ranatra
9316	05	White baby ear	<u>Sinum perspectivum</u>
9081	05	White-beard ark	<u>Barbatia candida</u>
9340		White elbow crab	<u>Leiolambrus nitidus</u>
9600		White shrimp	<u>Litopenaeus setiferus</u>
9489		Yellow box crab	<u>Calappa sulcata</u>
9017		Yellow cone	<u>Conus stimpsoni</u>
9172	05	Yellow eggcockle	<u>Laevicardium mortoni</u>
9286	05	Yellow pricklycockle	<u>Trachycardium muricatum</u>
9322	06	Yellowline arrow crab	<u>Stenorhynchus seticornis</u>
9065	22	Zostera shrimp	<u>Hippolyte zostericola</u>
*9695	03	*Dana swimming crab	* <u>Callinectes danae</u>
*9205	45	*Family mud crabs	*Family Panopeidae
*9189		*Phylum ribbon worms	*Phylum Rhynchocoela (Synonym of Phylum Nemertinea)
*9347		*(Portunid crab - unidentified)	*Genus Portunus
*9639		*(Squid)	* <u>Loliqo brevis</u>

\* = Discontinued; do not use.

VEGETATION SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
4034	20	(Alga - brown)	<u>Cladosiphon occidentalis</u>
4019	20	(Alga - brown)	<u>Dictyota dichotoma</u>
4036	20	(Alga - brown)	<u>Padina vickersiae</u>
4027	20	(Algae - brown)	Family Ectocarpaceae
4056		(Alga - green)	<u>Caulerpa mexicana</u>
4057		(Alga - green)	<u>Caulerpa prolifera</u>
4054	20	(Alga - green)	<u>Enteromorpha linquata</u>
4030	20	(Alga - red)	<u>Centroceras clavulatum</u>
4033	20	(Alga - red)	<u>Digenia simplex</u>
4059		(Alga - red)	<u>Jania capillacea</u>
4029	20	(Alga - red)	<u>Laurencia poitei</u>
4020	20	(Algae - red)	Family Gracilariaceae
4005		Algae - unidentified	ALGAE
4055	16	Alligatorweed	<u>Alternanthera philoxeroides</u>
4058	16	American wild celery	<u>Vallisneria americana</u>
4041		Annual glasswort	<u>Salicornia bigelovii</u>
4032		Black mangrove	<u>Avicennia germinans</u>
4071	20	(Branched uniseriate green algae - unidentified)	Genus Cladophora
4072	20,65	(Broad-blade alga)	<u>Petalonia fascia</u>
4017	20	(Broad-leaf sargassum)	<u>Sargassum fluitans</u>
4068	20	(Broad-thallus sea lettuce)	<u>Ulva lactuca</u>
4046	32	Bushy sea-ox-eye	<u>Borrchia frutescens</u>
4039		Carolina fanwort	<u>Cabomba caroliniana</u>
4060	16	Coast sea purslane	<u>Sesuvium maritimum</u>
4048	32	Coastal saltgrass	<u>Distichlis spicata</u>
4028		Common duckweed	<u>Lemna minor</u>
4067		Common hornwort (coontail)	<u>Ceratophyllum demersum</u>
4024	16	Common reed	<u>Phragmites australis</u>
4021	16	Common water hyacinth	<u>Eichhornia crassipes</u>
4015	16	(Cordgrass - unidentified)	Genus Spartina
4044	32	Creeping glasswort	<u>Salicornia depressa</u>
4061	16	Delta arrowhead	<u>Sagittaria platyphylla</u>
4043	16	Duck-lettuce	<u>Ottelia alismoides</u>
4004		Emergent vegetation	VEGEMERGEN
4035	16	Eurasian water milfoil	<u>Myriophyllum spicatum</u>
4040	16	Fennel-leaf pondweed	<u>Potamogeton pectinatus</u>
4031		Giant cane	<u>Arundinaria gigantea</u>
4066		Giant salvinia	<u>Salvinia molesta</u>
4062	33	Grassleaf mudplantian	<u>Heteranthera dubia</u>
4064		(Green fleece)	<u>Codium isthmocladum</u>
4022	16	(Hornwort or coontail - unidentified)	Genus Ceratophyllum
4012	20	Manatee grass	<u>Cymodocea filiformis</u>
4045	32	Maritime saltwort	<u>Batis maritima</u>
4049	32	Marshhay cordgrass	<u>Spartina patens</u>
4023	20	Mermaid's wine cup	<u>Acetabularia crenulata</u>
4018	20	(Narrow-leaf sargassum)	<u>Sargassum natans</u>
4037	20	(Narrow-thallus sea lettuce)	<u>Ulva fasciata</u>
4000		No vegetation	VEGNONE

Species, COMMON.VEGETATION, 5/18/2012

May 2012

VEGETATION SPECIES LIST (2012)  
(Common Name Order)

CODE NO.	REF.	COMMON NAME	SCIENTIFIC NAME
4042		Saltmarsh bulrush	<u>Scirpus robustus</u>
4016	20	(Sargassum - unidentified)	Genus Sargassum
4069	20	(Sea lettuce - unidentified)	Genus Ulva
4050	31	Sea oats	<u>Uniola paniculata</u>
4013	20	Shoal grass	<u>Halodule beaudettei</u>
4047	32	Shoregrass	<u>Monanthochloe littoralis</u>
4025	16	Smooth cordgrass	<u>Spartina alterniflora</u>
4010	20	Star grass	<u>Halophila engelmannii</u>
4003		Submergent vegetation	VEGSUBMERG
4051	32	Sugarcane plumegrass	<u>Saccharum giganteum</u>
4063	33	Thin-leaf pondweed	<u>Potamogeton pusillus</u>
4070	61,62	(Tri-lobe segmented alga)	<u>Halimeda incrassata</u>
4011	20	Turtle grass	<u>Thalassia testudinum</u>
4065	33	Umbrella water-pennywort	<u>Hydrocotyle umbellata</u>
4001		Vegetation presence undetermined	VEGUNDETER
4002		Vegetation type unidentified	VEGUNIDENT
4053	16	Water-lettuce	<u>Pistia stratiotes</u>
4052	16	Water spangles	<u>Salvinia minima</u>
4038		(Waterweed - unidentified)	Genus Egeria
4014	20	Widgeon grass	<u>Ruppia maritima</u>
4026	16	Yellow waterlily	<u>Nymphaea mexicana</u>

SOURCE DOCUMENTS

DATA ENCODING SHEETS

Figure 15. Interview Data Sheet

TEXAS PARKS AND WILDLIFE  
MARINE HARVEST MONITORING - INTERVIEW DATA

MAJOR AREA	MINOR BAY	STATION	COMP. DATE (mm-dd-yyyy)	COMP. TIME (hh:mm)	STRATUM	DAY TYPE	User Def. Field	Page	Total Pages	Special Studies Code
------------	-----------	---------	-------------------------	--------------------	---------	----------	-----------------	------	-------------	----------------------

COMMENTS:

Ln	ID No.	Interview Time	Tip Length (0.5 ft)	Activity	Origin		Minor Bay	Gear	Bait	Tr. Loc.	User Def. Fields			Species Name	Species Code	Number	Weight Kg.	Length T, S, or F					
					No.	Res.					A	B	C									D	E
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

- ACTIVITY CODES**
- 0. Other
  - 1. Sport fishing
  - 2. Sport fishing
  - 3. Tournament fishing
  - 4. Sport crabs
  - 5. Sport oystering
  - 6. Sport oystering
  - 7. Sport oystering
  - 8. Sport oystering
  - 9. Sport oystering
  - 10. Work boat
- GEAR CODES**
- 0. Trawl
  - 1. Rod & reel
  - 2. Cast net
  - 3. Crab trap
  - 4. Seine net
  - 5. Push net
  - 6. Trawl
  - 7. Crab trap
  - 8. Other
- BAIT CODES**
- 0. Dead shrimp
  - 1. Live shrimp
  - 2. Spoon
  - 3. Crab
  - 4. Other bait
  - 5. Plugs (fish type)
  - 6. Other
  - 7. Squid
  - 8. Live fish
  - 9. Dead fish
- TRAILER LOCATION CODES**
- 0. In area unattached
  - 1. In area attached
  - 2. Not in area
  - 3. Boat house (dry storage)
  - 4. Boat house (dock)
  - 5. Wet slip or boat house with trailer at associated ramp
- SPECIES SIGHT CODES**
- 0. No preference
  - 1. Red drum
  - 2. Spotted seatrout
  - 3. Blue crab
  - 4. Flounder
  - 5. Atlantic croaker
  - 6. Black drum
  - 7. King mackerel
  - 8. Red snapper
  - 9. Other
  - 10. Sheepshead
  - 11. Weakfish
  - 12. Spotted seatrout
  - 13. Gulf snook
  - 14. Spanish mackerel
  - 15. Atlantic croaker
  - 16. Black drum
  - 17. King mackerel
  - 18. Lanner blank if not answered or not asked.
- TRIP GRADE QUESTION**
- "On a scale of 0 to 10, with 0 being the least and 10 being the most, how satisfied were you with the trip?"
98. Not answered  
99. Not asked
- SPECIES SIGHT QUESTIONS**
0. What species of fish today?  
1. What species of fish today?  
If yes: "What is it?"

## DATA ENCODING SHEETS

**Figure 16. Meteorological and Hydrological Data Sheet**

TEXAS PARKS AND WILDLIFE

**MARINE RESOURCE/HARVEST MONITORING — Meteorological and Hydrological Data**

MAJOR AREA: \_\_\_\_\_ MINOR BAY: \_\_\_\_\_ STATION: \_\_\_\_\_ Alt: \_\_\_\_\_

GEAR/STRATUM: \_\_\_\_\_ GEAR SIZE (m)/DAY TYPE: \_\_\_\_\_

COMPLETION DATE (mm-dd-yyyy): \_\_\_\_\_ COMPLETION TIME (hhmm): \_\_\_\_\_

Special Studies Code: \_\_\_\_\_ Surface Area (0.01 ha): \_\_\_\_\_

Common Gear/Stratum Codes (see operations manuals for additional codes):

1. Gill net 5. Shrimp trawl 7. Bag seine 16. Oyster dredge 82. Boat-access site

**CONDITIONS WHEN SAMPLING BEGAN:**

Start date (mm-dd-yyyy): \_\_\_\_\_ Start time (hhmm): \_\_\_\_\_

Start lighting condition: 1. Daylight 2. Night 3. Twilight

Latitude (deg-min-sec): \_\_\_\_\_ Longitude (deg-min-sec): \_\_\_\_\_

Wind speed (mph): \_\_\_\_\_ Wind direction: 1. N 2. NE 3. E 4. SE 5. S 6. SW 7. W 8. NW

Cloud cover (%): 1. 0-9 2. 10-25 3. 26-50 4. 51-75 5. 76-90 6. 91-100

Barometric pressure (00.01 Hg): \_\_\_\_\_ Precipitation: 1. Yes 2. No Fog: 1. Yes 2. No

Wave height (ft): 0. 0.1 1. 0.1-0.4 2. 0.4-1.2 3. 1.2-3.0 4. 3.0-5.0 5. 5.0-8.0 6. 8.0-12.0 7. 12.0-16.0

Tide: observed: 1. Slack 2. Ebb 3. Flood published: 4. Slack 5. Ebb 6. Flood

Shallow water depth (0.1 m): \_\_\_\_\_ Deep water depth (0.1 m): \_\_\_\_\_

Max. station water depth (0.1 m): \_\_\_\_\_

Temperature (0.1 C): \_\_\_\_\_ Dissolved oxygen (0.1 ppm): \_\_\_\_\_ Salinity (0.1 ppt): \_\_\_\_\_

Turbidity (NTU): \_\_\_\_\_

Bottom type (circle all types present): 1. Clay 2. Silt 3. Sand 4. Shell 5. Gravel 6. Rocks

Personnel: \_\_\_\_\_

Authority notified and date: \_\_\_\_\_

Completion lighting condition: 1. Daylight 2. Night 3. Twilight

**CONDITIONS WHEN SAMPLING WAS COMPLETED** (see operations manuals to determine when to complete):

Latitude (deg-min-sec): \_\_\_\_\_ Longitude (deg-min-sec): \_\_\_\_\_

Wind speed (mph): \_\_\_\_\_ Wind direction: 1. N 2. NE 3. E 4. SE 5. S 6. SW 7. W 8. NW

Cloud cover (%): 1. 0-9 2. 10-25 3. 26-50 4. 51-75 5. 76-90 6. 91-100

Barometric pressure (00.01 Hg): \_\_\_\_\_ Precipitation: 1. Yes 2. No Fog: 1. Yes 2. No

Wave height (ft): 0. 0.1 1. 0.1-0.4 2. 0.4-1.2 3. 1.2-3.0 4. 3.0-5.0 5. 5.0-8.0 6. 8.0-12.0 7. 12.0-16.0

Tide: observed: 1. Slack 2. Ebb 3. Flood published: 4. Slack 5. Ebb 6. Flood

Shallow water depth (0.1 m): \_\_\_\_\_ Deep water depth (0.1 m): \_\_\_\_\_

Max. station water depth (0.1 m): \_\_\_\_\_

Temperature (0.1 C): \_\_\_\_\_ Dissolved oxygen (0.1 ppm): \_\_\_\_\_ Salinity (0.1 ppt): \_\_\_\_\_

Turbidity (NTU): \_\_\_\_\_

Bottom type (circle all types present): 1. Clay 2. Silt 3. Sand 4. Shell 5. Gravel 6. Rocks

Personnel: \_\_\_\_\_

**SAMPLE DISPOSITION:** \_\_\_\_\_

OF V3400-011 (3/02)

TEXAS PARKS AND WILDLIFE

MARINE HARVEST MONITORING — ROVING COUNT DATA

<b>MAJOR AREA</b>	<b>MINOR BAY</b>	<b>COMPLETION DATE (mm-dd-yyyy)</b>	<b>COMPLETION TIME (hhmm)</b>	<b>STRATUM</b>	<b>DAY TYPE</b>	<b>User Def. Field</b>	<b>Page</b>	<b>Total Pages</b>	<b>Special Studies Code</b>

COMMENTS:

Line No.	Station	Count Time	Total Count
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

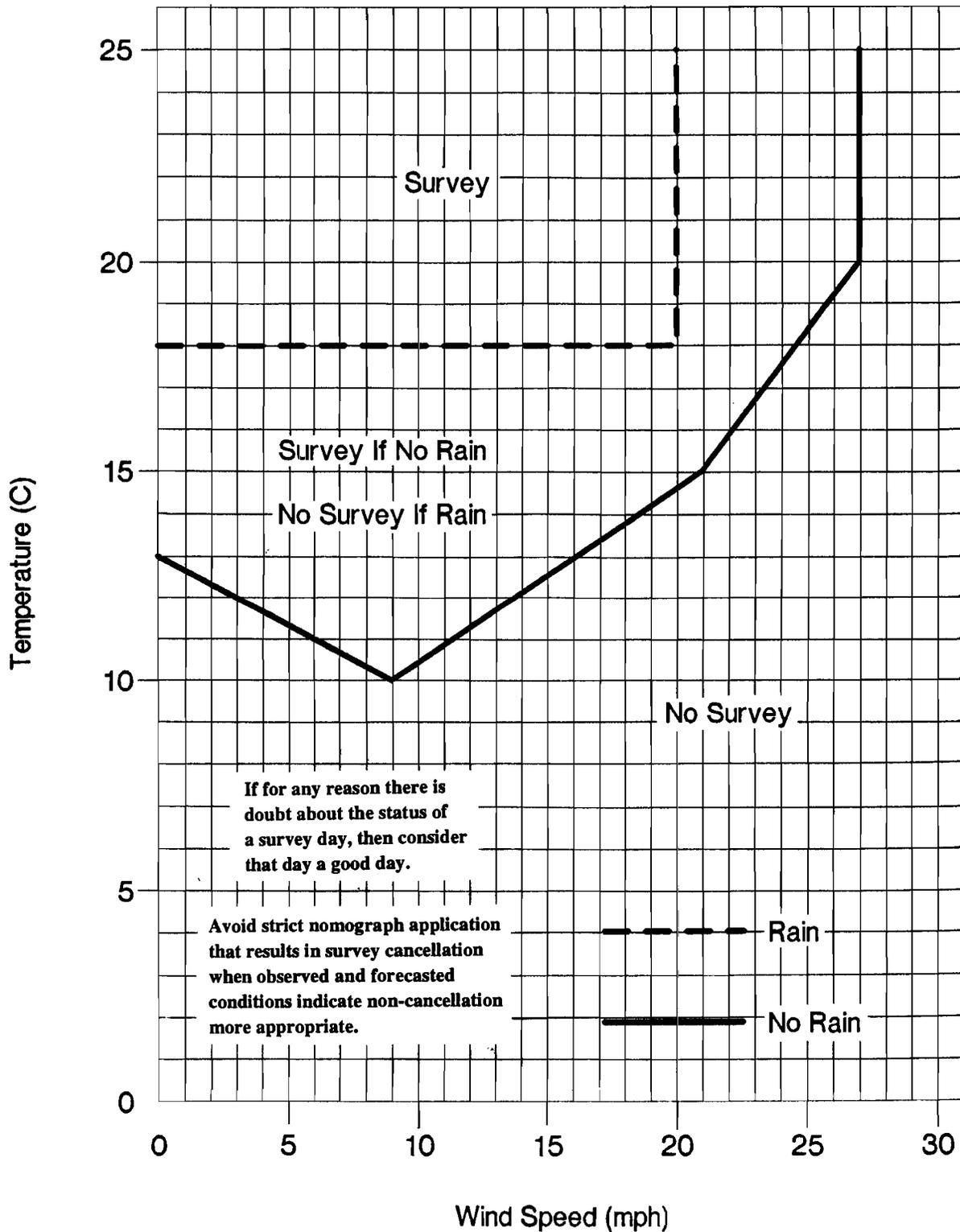
Line No.	Station	Count Time	Total Count
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

*OTHER DOCUMENTS*

**Figure 18. Weekday Nomographs**

# WEEKDAY NOMOGRAPH

## Low-Use Season

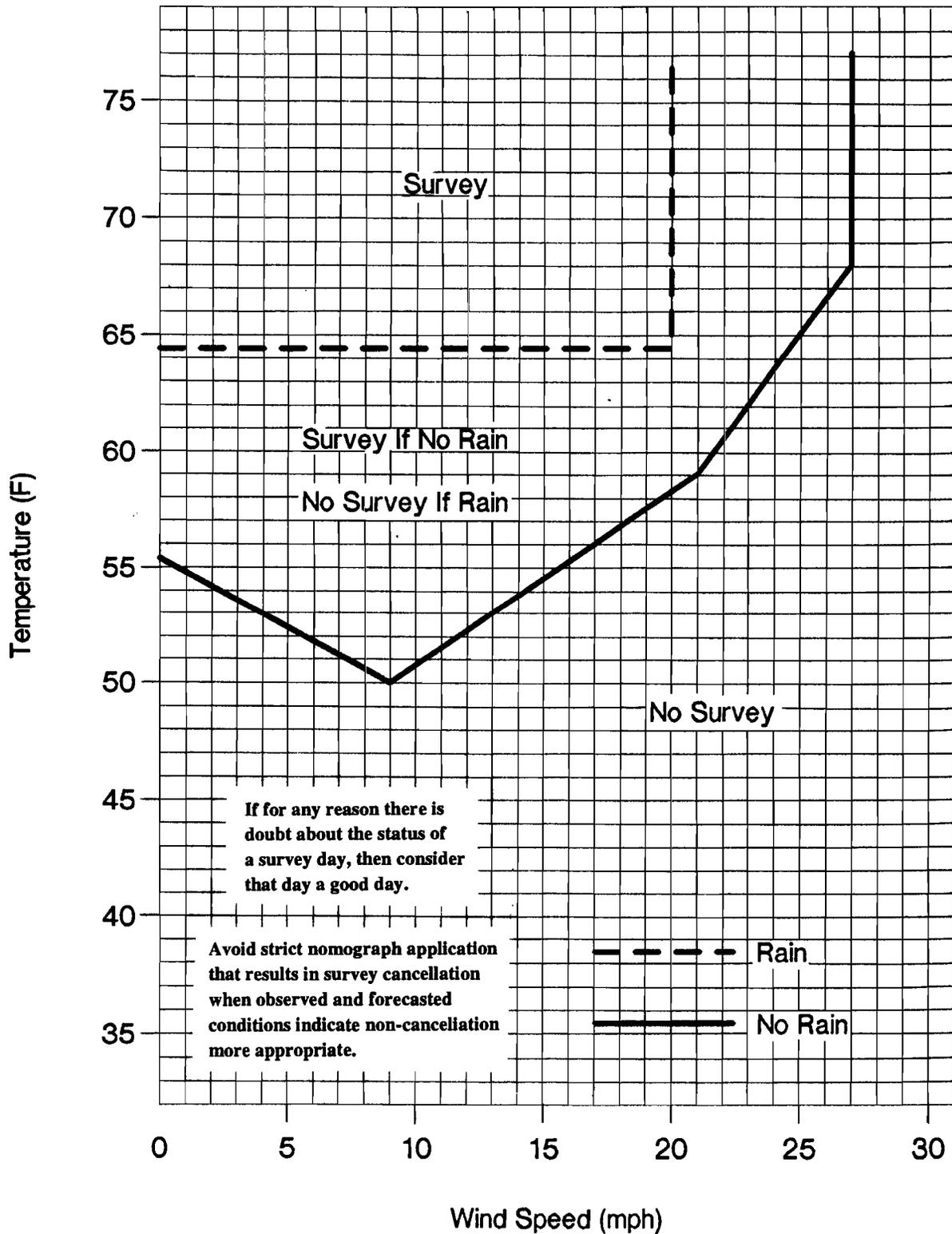


**LMG (6-93)**

May 2012

# WEEKDAY NOMOGRAPH

## Low-Use Season

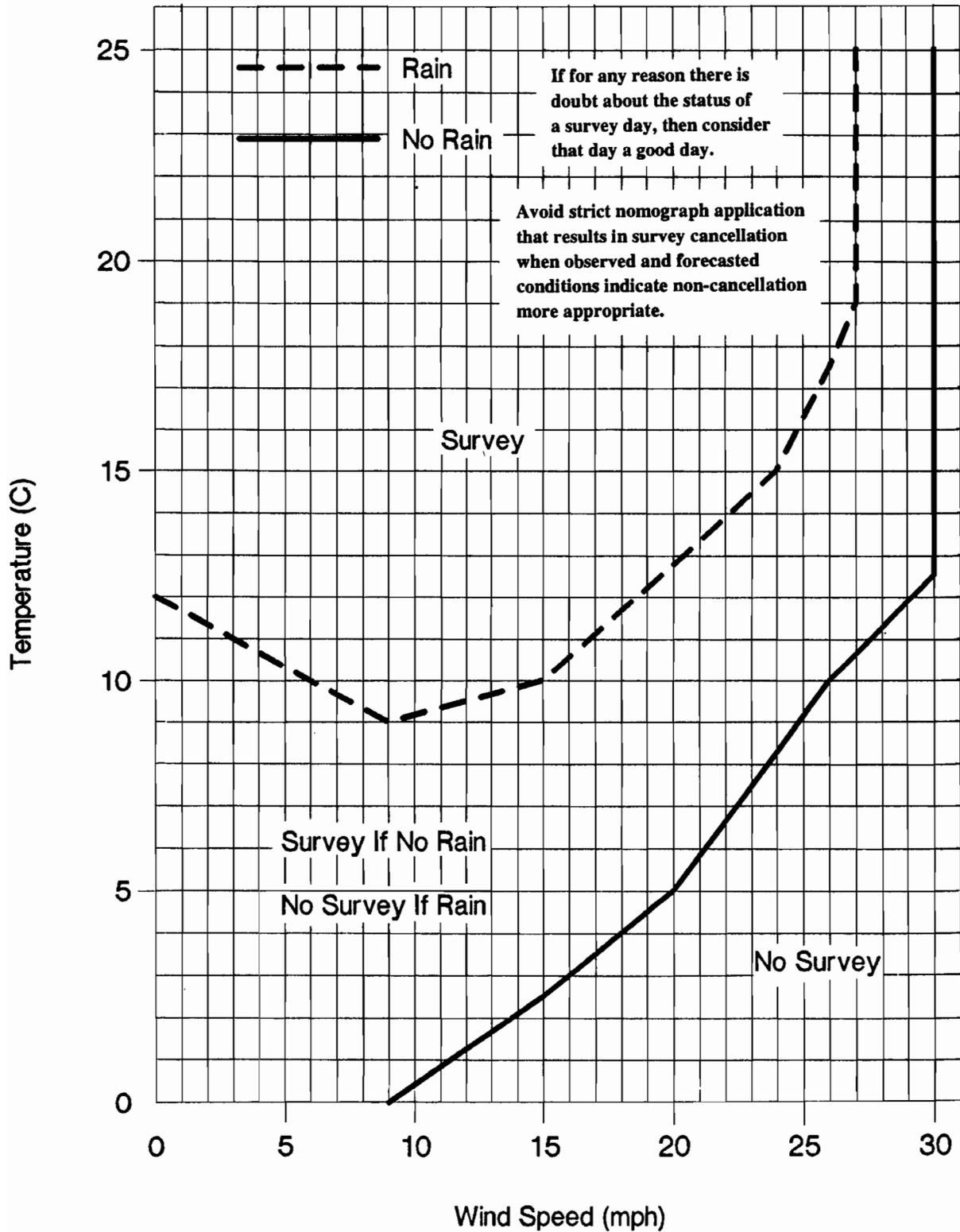


*OTHER DOCUMENTS*

**Figure 19. Weekend Nomographs**

# WEEKEND NOMOGRAPH

## Low-Use Season

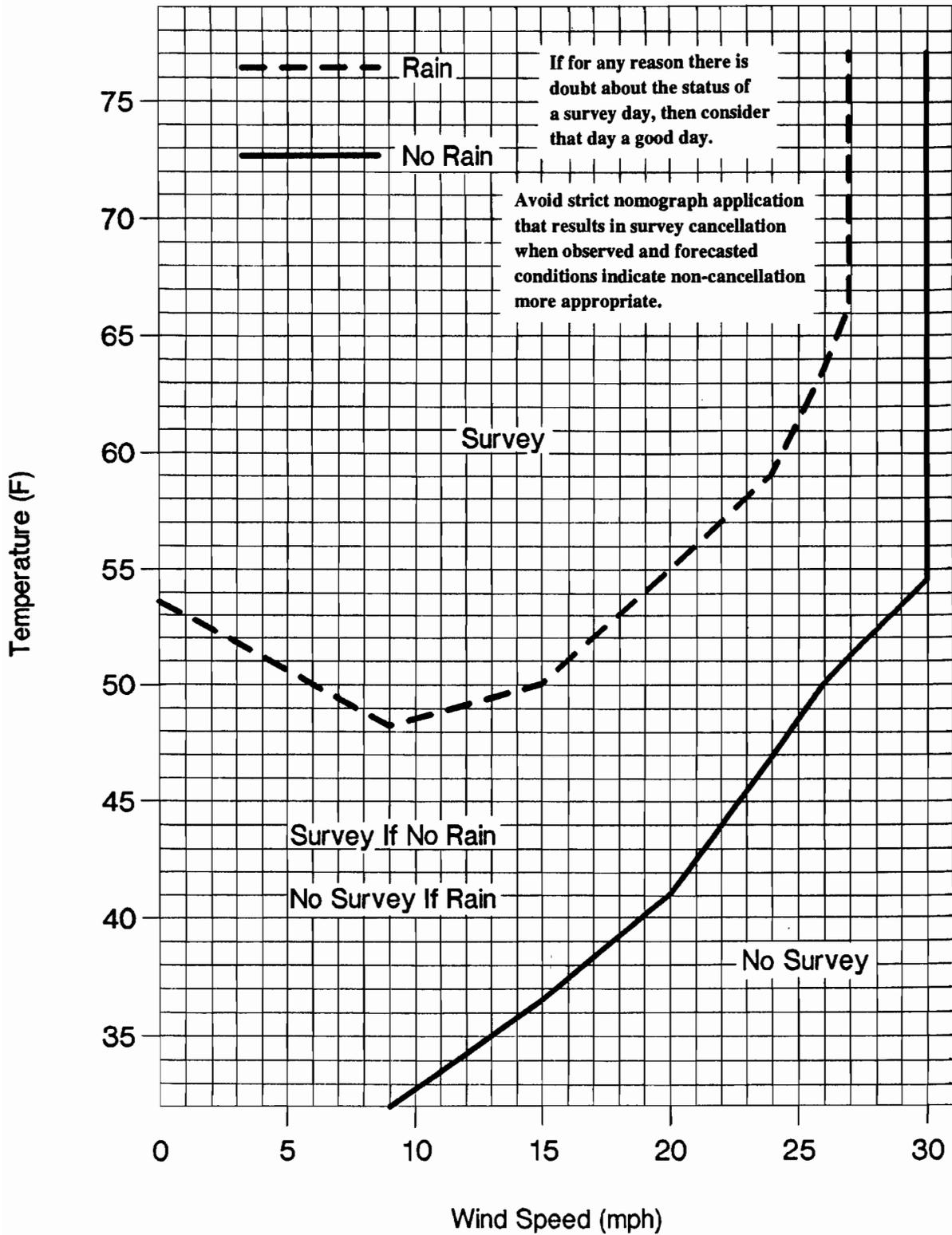


LMG (6-93)

May 2012

# WEEKEND NOMOGRAPH

## Low-Use Season



*OTHER DOCUMENTS*

**Figure 20. Quality Control Field Visitation Report Forms**

## COASTAL FISHERIES QUALITY CONTROL FIELD VISITATION REPORT

Harvest Monitoring Program (Surveys)

Page 1 of 2

Major Area: \_\_\_\_\_ Month-Year: \_\_\_\_\_ Type: RD or SS or EL or NEL -- A or UA

Instructions: Quality control visits are to be conducted in a positive manner and viewed as teaching opportunities. To evaluate performance, use the checklists provided below. Enter a check mark if item achieved, NA if item not applicable, or NO if item not observed; leave blank if item not achieved. All items left blank require explanation in the "Comments/Actions Taken" section. Observed deficiencies requiring remedial action to be taken and reported back to QC visitor should be marked with an asterisk (\*). If a problem is detected, advise individual(s) of correct procedure during the survey. Be sure to point out and document areas of exceptional performance. Complete this form for every visit conducted. Keep the original on file. Send five copies to the regional quality control coordinator. For external visits, also send one copy to the Ecosystem Leader as soon as possible.

PERSONNEL

- \_\_\_1. Neat appearance and dressed as required [i.e., TPWD-issued hat with CF patch, khaki shirt with tail tucked in, acceptable pants (or shorts) with belt (if loops present), and appropriate shoes (no flip-flops, slaps, slip-ons, etc)].
- \_\_\_2. Knowledgeable of all survey components, including field procedures for selecting an alternate survey site and for early terminating a survey.
- \_\_\_3. Public information requests adequately fulfilled [e.g., handout materials, and TPWD toll-free (1-800-792-1112) and Operation Game Thief (1-800-792-4263) telephone numbers distributed as needed, etc.].
- \_\_\_4. Cellular phone use (if any) did not disrupt interviewing efforts, produce unsafe situations, or create a negative public image.
- \_\_\_5. Discretion exercised when passing time between interviews so as not to create a negative public image (e.g., sleeping, viewing DVD's, grilling food, fishing, etc.).

Comments/Actions Taken:

SAFETY

- \_\_\_1. Traffic laws observed (e.g., seat belts, speed limits, turn signals, etc.) and vehicle operated safely based on existing conditions. Vehicle has valid state inspection sticker.
- \_\_\_2. Appropriate safety equipment (e.g., first-aid kit with appropriate items, drinking water, sun screen, adequately charged fire extinguisher, etc.).

Comments/Actions Taken:

EQUIPMENT

- \_\_\_1. Department vehicle properly parked.
- \_\_\_2. Survey sign properly displayed and in good repair.
- \_\_\_3. Latest version of Marine Sport-Harvest Monitoring Operations Manual with seasonal survey schedule and necessary code lists included.
- \_\_\_4. Current versions of fishing regulation booklets, bag/size limit cards, and water safety digests.
- \_\_\_5. Wristwatch set to correct time or adequately-charged cellular phone.
- \_\_\_6. Thermometer and compass for on-site measurement of meteorological conditions.
- \_\_\_7. Map of surrounding waters to aid in "minor bay" determination.
- \_\_\_8. Suitable fish identification book(s) and TPWD shark identification/regulations brochure.
- \_\_\_9. Ample supply of data sheets and pencils.
- \_\_\_10. Waterproof data sheets and rain gear.
- \_\_\_11. Appropriate measuring boards readable and in good repair (i.e., 1-meter board for all surveys and 2-meter board for gulf-access surveys). Flexible, non-corroding measuring tape for backup.
- \_\_\_12. Catch handling equipment (e.g., 5-gallon bucket; bushel-size tub or basket; etc.). Leak-proof containers preferred.
- \_\_\_13. Cloth or paper toweling to clear/dry hands.
- \_\_\_14. Special studies equipment (if applicable).

Comments/Actions Taken:

**COASTAL FISHERIES QUALITY CONTROL FIELD VISITATION REPORT**  
 Harvest Monitoring Program (Surveys)  
 Page 2 of 2

METHODOLOGY

- \_\_\_1. In low-use season, nomograph properly used to cancel survey due to inclement weather.
  - \_\_\_2. Meteorological data properly obtained and recorded. On-site measurements taken at beginning and end of survey.
  - \_\_\_3. Survey conducted from 1000 to 1800 unless properly early terminated.
  - \_\_\_4. Interviews initiated with acceptable greeting and explanation of intent.
  - \_\_\_5. Interviews conducted in a courteous and professional manner.
  - \_\_\_6. Survey questions properly asked in a non-leading manner with appropriate scrutiny of responses.
  - \_\_\_7. Presence of landings determined at beginning of interview. Minor bay, gear, and bait queried with specific reference to landings when present.
  - \_\_\_8. Survey data properly and accurately recorded.
    - Trip length determined by subtracting launch time from interview time and properly rounding to nearest 0.5 hour.
    - "Most" rule used for determination of minor bay. "85%" rule used for determination of gear and bait.
  - \_\_\_9. Landings correctly identified, measured (randomly selected and laid flat with mouth closed and tail fin compressed), counted, and recorded. Two-handed measuring technique used.
  - \_\_\_10. Effort made to avoid soiling boat surfaces with slime and blood when fish are measured and counted on-board.
  - \_\_\_11. Bought bait shrimp (BBS) or caught bait shrimp (CBS) for that day's trip queried on all Activity 1, 2, and 3 interviews.
  - \_\_\_12. One angler per party randomly selected and adequately isolated for trip satisfaction and species sought questions. Trip satisfaction question asked before species sought question. Both questions asked verbatim.
  - \_\_\_13. Anglers informed when in violation of size and bag limits, and tagging requirement for oversize red drum.
  - \_\_\_14. Special study data properly collected and recorded (if applicable).
  - \_\_\_15. Reasonable effort made to keep up with angler flow.
  - \_\_\_16. Missed interviews recorded and effort made to include ID numbers. "Missed" Activity codes appropriately used.
  - \_\_\_17. Species name always recorded when species code recorded.
  - \_\_\_18. Data sheets legibly filled out during survey as completely as time allowed.
  - \_\_\_19. Comments section used to provide additional information for clarification as required.
  - \_\_\_20. When two or more interviewers present, they worked together efficiently and communicated status of incoming parties.
- Comments/Actions Taken:

OTHER OBSERVATIONS & ACTIONS TAKEN

Number of Interviews Observed: \_\_\_\_\_ Period of Time Observed: \_\_\_\_\_

Note: For "Number of Interviews Observed", include only those interviews in which all components were carefully observed. Do not include interviews the observer assisted with or witnessed only portions of. For "Period of Time Observed", enter a start time and an end time.

Observer: \_\_\_\_\_ Personnel: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## COASTAL FISHERIES QUALITY CONTROL FIELD VISITATION REPORT

Harvest Monitoring Program (Roves)

Page 1 of 1

Major Area: \_\_\_\_\_ Month-Year: \_\_\_\_\_ Type: RD or SS or EL or NEL — A or UA

**Instructions:** Quality control visits are to be conducted in a positive manner and viewed as teaching opportunities. To evaluate performance, use the checklists provided below. Enter a check mark if item achieved, NA if item not applicable, or NO if item not observed; leave blank if item not achieved. All items left blank require explanation in the "Comments/Actions Taken" section. Observed deficiencies requiring remedial action to be taken and reported back to QC visitor should be marked with an asterisk (\*). If a problem is detected, advise the individual of correct procedure during the rove. Be sure to point out and document areas of exceptional performance. Complete this form for every visit conducted. Keep the original on file. Send five copies to the regional quality control coordinator. For external visits, also send one copy to the Ecosystem Leader as soon as possible.

PERSONNEL

- \_\_\_1. Dressed as required [i.e., TPWD-issued hat with CF patch or khaki shirt with CF patch and tail tucked in, acceptable pants (or shorts) with belt (if loops present), and appropriate shoes (no flip-flops, slaps, slip-ons, etc.)].
- \_\_\_2. Knowledgeable of all rove components and familiar with route taken and sites counted.
- \_\_\_3. Cellular phone use (if any) did not disrupt roving count efforts, produce unsafe situations, or create a negative public image.

Comments/Actions Taken:

SAFETY

- \_\_\_1. Traffic laws observed (e.g., seat belts, speed limits, turn signals, etc.) and vehicle operated safely based on existing conditions. Vehicle has valid state inspection sticker.
- \_\_\_2. Appropriate safety equipment (e.g., first-aid kit with appropriate items, drinking water, adequately charged fire extinguisher, adequately-charged cellular phone, etc.).

Comments/Actions Taken:

EQUIPMENT

- \_\_\_1. Department vehicle in good operating condition.
- \_\_\_2. Latest version of Marine Sport-Harvest Monitoring Operations Manual and updated boat-access site list.
- \_\_\_3. Thermometer and compass for on-site measurement of meteorological conditions.
- \_\_\_4. Sites listed on rove tally sheet in the order they are to be counted to reduce chance of data recording errors.
- \_\_\_5. Any device capable of displaying the correct time.

Comments/Actions Taken:

METHODOLOGY

- \_\_\_1. Rove conducted on a "good" day as differentially prescribed for high-use season and low-use season.
- \_\_\_2. Meteorological data properly obtained and recorded. On-site measurements taken at first site counted. If rove took more than 4 hours to complete, on-site measurements taken at last site counted.
- \_\_\_3. Starting site at opposite end of route from previous rove of same day type (i.e., weekend or weekday).
- \_\_\_4. Rove counts taken only between 0800 and 1230. Explanation provided in comments section when circumstances cause counts to be taken outside the 0800-1230 rove period.
- \_\_\_5. Chosen route reasonable to conserve time.
- \_\_\_6. Counts carefully made with derelict trailers ignored.
- \_\_\_7. Closed sites not counted but noted in comments section.
- \_\_\_8. Adjustments for wet-slip sites sought during rove where possible.
- \_\_\_9. Trailers at non-designated sites tallied under site code 52 with no count time.
- \_\_\_10. Notes recorded in comments section to document unusual circumstances encountered at sites during rove.

Comments/Actions Taken:

OTHER OBSERVATIONS & ACTIONS TAKEN

Observer: \_\_\_\_\_ Personnel: \_\_\_\_\_

QC/HR (2-2012). Previous editions obsolete - destroy stock.

May 2012

EDIT LISTINGS

Figure 21. Example of Interview Data

05-25-2012  
06:30 pm  
Page 2 of 5

TEXAS PARKS AND WILDLIFE DEPARTMENT  
COASTAL FISHERIES DETAIL MASTER  
COASTAL SURVEY DATA

MARINE HARVEST MONITORING - INTERVIEW DATA

Ln	No	ID No.	Intr Time	Trip Len.	Act No.	Origin Res.	Minor Bay	Ge Ba	Tr. Loc	User Def. Fields			Species		No.	Weight Kg.	Len. T, S, F				
										A	B	C	D	E							F
1	15742	HW	1031	2.5	1	149	282	1	3	3	10	1									
2	3054	HJ	1139	4.5	1	227	230	1	3	3	7	1	CNEBULOSUS	614	2	520	472				
3	3054	HJ	1139	4.5	1	210	230	1	3	3	7	1									
4	4511	KC	1154	4.5	1	13	282	1	1	3	3	1	BBS	1245	200						
5	5	BAMMBA	1202	4.0	1	2108	996	1	7	3	9	8	LCAMPECHAN	618	24	622	466	434	442	465	681
6	6	BAMMBA	1202	4.0	1	323	996	1	7	3	9	8									
7	7	BAMMBA	1202	4.0	1	3245	996	1	7	3	9	8									
8	8	2226	RE	1210	5.0	1	3149	282	1	3	3	10	3	CNEBULOSUS	614	15	481	487	615	575	745
9	9	2109	JH	1215	6.0	1	227	97	7	6	3	7									
10	10	2109	JH	1215	6.0	1	27	97	7	6	3	7									

EDIT LISTINGS

**Figure 22. Example of Meteorological/Hydrological Data (Detailed)**

05-25-2012  
06:30 pm  
Page 1 of 5

TEXAS PARKS AND WILDLIFE DEPARTMENT  
COASTAL FISHERIES DETAIL MASTER  
COASTAL SURVEY DATA

**MARINE RESOURCE/HARVEST MONITORING - Meteorological and Hydrological Data**

MAJOR AREA: 8 MINOR BAY: 230 STATION: 17 ALT:  
GEAR/STRATA: 82 GEAR SIZE: 22.0  
COMPLETION DATE/TIME: 03-25-2012 1800

Special Studies Code: Surface Area:

Initials of Data Collector: Batch Name: CRL2RS03121

**CONDITIONS WHEN SAMPLING BEGAN**

Start Date/Time: 03-25-2012 1000

Lighting Condition:

Latitude: 26-33-06 Longitude: 97-25-42  
Wind Speed: 10 Wind Direction: 4

Cloud Cover: Precipitation: 2 Fog: 2

Barometric Pressure: Wave Height:

Tide:

Shallow Water Depth: Deep Water Depth:

Max. Station Water Depth: Temperature: 27.5 Dissolved Oxygen: Salinity:

Turbidity:

Bottom Type: Clay: Silt: Sand: Shell: Gravel: Rocks:

**Completion Lighting Condition:**

Latitude: Longitude:

Wind Speed: 15 Wind Direction: 4

Cloud Cover: Precipitation: 2 Fog: 2

Barometric Pressure: Wave Height:

Tide:

Shallow Water Depth: Deep Water Depth:

Max. Station Water Depth: Temperature: 28.0 Dissolved Oxygen: Salinity:

Turbidity:

Bottom Type: Clay: Silt: Sand: Shell: Gravel: Rocks:

EDIT LISTINGS

**Figure 23. Example of Meteorological/Hydrological Data (Consolidated)**

d\_hydro\_sum\_rpt

TEXAS PARKS AND WILDLIFE DEPARTMENT  
 COASTAL FISHERIES DETAIL MASTER  
 CONSOLIDATED COASTAL HYDRO/METEORO DATA SHEET

05-25-2012  
 06:31 pm  
 Page 1 of 1

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MAJ	MIN	STAT	A	GR	SIZE	SSC	AREA	SURF	COMPLETION	DATE	TIME	L	LAT.	LONG.	WSP	W	C	BARO	P	F	W	T	WATER DEPTH				
																							DO	TEMP	SAL		
8	230	17	82	22.0					03-25-2012	1000			26-33-06	97-25-42	10	4			2	2							27.5
Batch: CRL2RS03121												15	4			2	2									28.0	

1 Hydro data sheet(s) are on this report

EDIT LISTINGS

Figure 24. Example of Roving Count Data

05-25-2012  
06:26 pm  
Page 2 of 3

TEXAS PARKS AND WILDLIFE DEPARTMENT  
COASTAL FISHERIES DETAIL MASTER  
COASTAL SURVEY DATA

MARINE HARVEST MONITORING - ROVING COUNT DATA										
MAJOR AREA	MINOR BAY	COMP. DATE/TIME	STRATUM	DAY TYPE	USER DEF. FIELD	SPECIAL STUDIES CODE	PAGE			
8	0	03-25-2012 1214	82	22			1			
Line No.	Station	Count Time	Total Count	Line No.	Station	Count Time	Total Count			
1	8	0816	8	21	17	1210	16			
2	24	0834	0	22	14	1214	45			
3	31	0839	11	23	52		4			
4	18	0844	3							
5	27	0854	5							
6	3	0804	4							
7	19	0809	0							
8	35	0817	12							
9	16	0835	0							
10	29	0838	3							
11	2	0845	2							
12	7	0854	2							
13	23	0856	0							
14	22	0959	19							
15	26	1003	0							
16	9	1012	6							
17	30	1050	90							
18	32	1108	0							
19	21	1128	1							
20	13	1208	37							

## HISTORY OF PROCEDURES – ORIGINAL DESIGN

### *MARCH 1974 – AUGUST 1974*

A preliminary study began in the Aransas Bay system in March 1974. Bay boat ramps, wade/bank areas, private piers, commercial lighted piers, and jetties were inventoried in each bay system.

In June 1974, the preliminary study was extended to the Galveston, San Antonio and upper Laguna Madre Bay systems.

### *SEPTEMBER 1974 – AUGUST 1975*

Surveys were conducted in Galveston, San Antonio, Aransas, and upper Laguna Madre Bay systems.

The year was divided into quarters: Fall (Sept.-Nov.), Winter (Dec.-Feb.), Spring (March-May) and Summer (June-Aug.).

Three strata - wade/bank, lighted piers and boat ramps - were surveyed on weekend days (WE) and weekdays (WD).

Wade/Bank and Lighted Piers - 4 WE and 4 WD surveys per quarter per bay system.

Boat Ramps - 6 WE and 4 WD surveys per quarter per bay system except Galveston where 2 boat ramp surveys per survey day were conducted.

Interview sites were chosen at random during the fall quarter. During later quarters, wade/bank and boat ramp sites were chosen at random but were weighted in proportion to use. Lighted piers were chosen at random during the whole year.

Interview and rove periods were:

For boat ramps and wade/bank areas, interviews and roves were conducted during early (0600 to 1400) or late (1400 to 2200) periods.

For lighted pier surveys, interviews and roves were conducted during early (1400 to 2200) or late (2200 to 0600) periods.

Roves were conducted on the same day and time period as interviews. The count effort was distributed evenly over the entire rove period by adding the total areas to be counted for the day minus 1 and dividing into the total minutes in the sample period.

Major holidays were counted as weekend days - July 4, Labor Day, Memorial Day, Thanksgiving, and New Year's Day.

***SEPTEMBER 1974 – AUGUST 1975 (Continued)***

Only target bay fishermen were interviewed; however, all parties for boat ramps and individuals for other strata were tallied on the summary form when leaving the access point.

Data Forms completed were: Interview Sheet; Interview and Weather Summary Form; Roving Data Form; and Creel Sample Form.

Fishes were weighed in pounds and ounces.

Private piers were included in the wade/bank stratum.

***SEPTEMBER 1975 – AUGUST 1976***

Surveys were conducted in Sabine Lake, Matagorda, Corpus Christi, and lower Laguna Madre Bay systems. Changes from 1974-75 procedures were:

Lighted pier interviews were conducted from 2200 to 0600. No reason for this change is known. This reduces the effect on the harvest but overall landings are not affected.

Interviews in other strata were conducted from 1000 to 1800. The interview times for boat ramps and wade/bank areas were based on diurnals of fishermen activity.

***SEPTEMBER 1976 – AUGUST 1977***

All bay systems except Sabine Lake were surveyed. Changes from 1974-75 and 1975-76 procedures were:

Only weekend boat ramps were surveyed (8 WE per quarter in all bays except Galveston which had 16). This change was made because weekend boat fishermen were landing a large percentage of fish and there was a good correlation between these landings and the overall total landings.

Roves and interviews were conducted from 1000 to 1800 on the same day. This change was made to get the most information for time and money spent as denoted by information from diurnals of fishermen activity.

Interview sites were selected at random but were weighted according to historical roving counts.

Pressure diurnals were conducted at predetermined boat ramps to obtain an adjustment factor for use in deciding an optimum roving period and for expanding pressure estimated from interview and rove periods to total pressure.

Socioeconomic questions were asked on sport fishing interviews. Data were given to Water Resources Board for analysis.

Tags were secretly implanted in fish during sport fishing interviews to determine tag-reporting rates.

***SEPTEMBER 1976 – AUGUST 1977 (Continued)***

Commercial fish house checks were conducted one day per week to determine size composition and catch per effort of commercially important finfish. Commercial fishermen were randomly interviewed in fish houses, on site, while they were fishing and on their return to the dock.

Starting in December 1976, monthly summaries were kept on red drum caught by boat and wade fishermen.

***SEPTEMBER 1977 – AUGUST 1978***

Procedures were the same as 1976-77, except that:

· Roves were conducted from 0800 to 1600 on the same day as interviews since 1976-77 diurnals showed that the majority of boat trailers were parked at sites during this period.

All parties returning to a site, not just target bay fishermen, were interviewed.

A new interview form was used that combined the original interview sheet and the form with the socio-economic questions on it.

Activity codes 1-9 were added to the interview sheet.

2 pressure diurnals per quarter were conducted from 0500 to 2000 CST in all bays except in Galveston where 3 per quarter were conducted.

The Commercial Fish House Survey was continued weekly in all bay systems on randomly selected weekdays.

A study on surface and bottom trotlines using different baits was conducted in the upper and lower Laguna Madre.

An additional survey of commercial fish houses was conducted between Port O'Connor and Corpus Christi to investigate the reliability of commercial fish landings reported to the TPWD. The study consisted of a fixed survey where a biologist stayed at one fish house and a roving survey where a biologist drifted from one fish house to another on a prearranged schedule.

***SEPTEMBER 1978 – AUGUST 1979***

Procedures were the same as 1977-78, except that:

The red drum boat and wade fishermen monthly summary was no longer required.

Socioeconomic questions, the trotline study, diurnals, and secret tagging were eliminated from the program.

*SEPTEMBER 1978 – AUGUST 1979 (Continued)*

Interview samples were increased in:

Galveston to 18 WE and 2 WD per quarter.

Aransas to 10 WE and 2 WD per quarter.

East Matagorda to 4 WE per quarter.

Roves were reduced to 4 in each bay except Galveston, which was reduced to 8. This was due to the gas shortage that caused high gas prices and irregular operating hours for gas stations. This was the area where cutbacks affected the program the least.

Roves did not have to be conducted on the same day as interviews because of a personnel shortage. The result was a less reliable estimate of pressure although there was no systematic bias (lowering or raising) of harvest estimates. There may or may not be a bias due to this change.

Starting in March, surveyors were permitted to interview fishermen throughout the entire period when a diurnal was taken. This information was to be used to check if catch rates vary according to time of day. The summary sheet was required to match number of parties on interview sheets.

Commercial fish house checks were continued on 26 randomly selected weekdays per quarter in all bay systems.

Gulf piers and jetties were surveyed in the High Island-Galveston-Freeport, Port Aransas-Corpus Christi-upper Laguna Madre and the Port Isabel Area. Surveys were conducted on randomly selected days during early (0800 to 1600) or late (1600 to 2400) periods. Jetties were surveyed only from 0800 to 1600.

4 WE and 12 WD per quarter in Galveston Area.

4 WE and 8 WD per quarter in Aransas Area.

2 WE and 6 WD per quarter in the lower Laguna Madre Area.

Charterboats and headboats were inventoried.

Galveston and Aransas Areas: 12 headboats (4 WE and 8 WD) and 10 charterboats (3 WE and 7 WD) per quarter.

Lower Laguna Madre: 8 headboats (2 WE and 6 WD) and 10 charterboats (3 WE and 7 WD) per quarter.

Starting in April 1978, target bay fishermen were asked the number of spotted seatrout not returned to the dock but released back into the water.

**SEPTEMBER 1979 – AUGUST 1980**

This year a full-scale survey was done to compare to the first two years (1974-75 and 1975-76) to see if there had been any changes in fishing pressure and harvest patterns between strata and day types.

Gulf piers and jetties, headboats, and charterboats were dropped from the survey for this year.

Commercial interviews were conducted 2 days per quarter.

Wade/bank areas, lighted piers and boat ramps were surveyed on weekends and weekdays.

8 WE and 4 WD surveys per quarter at boat ramps in each bay except San Antonio where 12 WE and 4 WD surveys were conducted. Galveston Bay had surveys of 2 boat ramps per survey day.

4 WE and 4 WD wade/bank and lighted pier surveys were conducted per quarter in each bay.

Site selection was made in the following manner:

Boat ramp survey sites were chosen in proportion to their use in each quarter.

Wade/bank interview sites were chosen at random during the first quarter and at random but were weighed in proportion to use the rest of the year.

Lighted pier survey sites were chosen at random the entire year.

Interviews were conducted:

At boat ramps from 1000 to 1800.

At wade/bank areas during early (0600 to 1400) or late (1400 to 2200) periods in the fall and from 1000 to 1800 the rest of the year.

At lighted piers during early (1400 to 2200) or late (2200 to 0600) periods.

Fishermen were also asked what species they were fishing for.

Roves were conducted during early or late periods in each quarter and were conducted the same day as interviews.

St. Charles Bay Survey: Boat ramps were surveyed two weekend days a month to obtain long term catch rates in St. Charles Bay. These will be used to determine if stocking of red drum has affected the sport fishermen's catch rate. Surveys are conducted like regular boat ramp surveys.

Monthly summaries were kept on red drum and spotted seatrout caught by boat and wade fishermen.

## HISTORY OF PROCEDURES – CURRENT DESIGN

### *HIGH-USE SEASON 1980 through LOW-USE SEASON 1980-81*

Major changes were made in procedures because of time and budget constraints. The program was made more efficient from both data gathering and estimating standpoints. Estimates obtained with the new procedures were better for a given sample size than those obtained with the old procedures. The number of estimating parameters was simplified and reduced.

The sampling year was changed to high-use (15 May - 20 Nov.) and low-use (21 Nov. - 14 May) seasons based on an analysis of seasonal fisherman activity (rove data and interview catch/effort data).

During low-use season, personnel kept track of "good" and "bad" days by completing a weather sheet (record type 2) each and every day. Good and bad days were defined by a regression analysis using data from interview summaries and weather summaries. Nomographs were constructed using response surface techniques.

#### Boat Ramp Surveys:

During high-use season, 27 WE and 61 WD surveys were conducted in each bay system.

During low-use season, 8 WE (6 "good" days and 2 "bad" days) and 15 WD surveys (12 "good" days and 3 "bad" days) were conducted in each bay system.

Some boat ramps in the Matagorda, San Antonio, Aransas, Corpus Christi, and upper Laguna Madre Bay systems were included in other adjacent bay system surveys based on interview data evaluated against rove data where 1% or more of a boat ramp's pressure is in the additional target bay.

#### Roves:

High-use season - 5 WE and 5 WD in each bay.

Low-use season - 3 WE and 3 WD in each bay. Roves were made only on "good" days.

Roves are conducted from 0800 to 1100 starting at opposite ends of the bay system each time. Roves did not have to be conducted the same day as the interviews.

During high-use season 1980, 2 WE and 2 WD were not included in the total season's harvest estimate due to Hurricane Allen.

Diurnals were conducted at heavy pressure sites twice a month (1 WE and 1 WD) in March, June, August, October and December on "good" days in all bay systems to refine estimates.

***HIGH-USE SEASON 1980 through LOW-USE SEASON 1980-81 (Continued)***

Party-boat and headboat surveys were reestablished:

Small bay and Gulf party boats were surveyed at their return to dock 8 times each month in June, July and August in all 3 areas.

Red snapper headboats were surveyed 3 WD a month in Galveston and 2 WD a month in the Port Aransas and Port Isabel areas.

Commercial fishermen were interviewed and the catch measured at fish houses 1 WD per month.

Special fisheries (mini-creels):

Fall Red Drum Gulf Pier Fishery: Surveys were conducted in 12-hour shifts for up to 48 hours during a run (10 WD and 3 WE) from 15 August to 31 October in the Galveston area.

Fall Wade/Bank Flounder Fishery: In the Galveston-Colorado River area, 8 WD and 2 WE surveys were conducted in October and November from 1000 to 1800.

Winter Wade/Bank Spotted Seatrout Fishery: Surveys were conducted on 12 WD and 4 WE from 1000 to 1800 at the Bacliff Outfall in Galveston, the Sea Gun Basin and Aransas Pass Basin in Aransas and 12 WD and 3 WE at the Alcoa Shoreline in Matagorda.

Spring Black Drum Fishery: From February to March surveys were conducted from 1000 to 1800 in Galveston (9 WD and 3 WE) and in Port O'Connor, Port Aransas and lower Laguna Madre (8 WD and 4 WE in each area).

Light Plant Fishery: From September 80 to August 81, 27 WD and 9 WE surveys were conducted at pre-selected boat ramps in the lower Laguna Madre from 1 hour before sunrise to 1300.

The red drum and spotted seatrout boat and wade fishing summaries were no longer required.

Random (stratum 2) and proportional random (stratum 9) boat ramp strata were pooled, as there was no difference in catch rates.

***HIGH-USE SEASON 1981 through LOW-USE SEASON 1981-82***

During low-use season, personnel continued keeping track of "good" and "bad" days by completing a weather sheet (record type 2) each and every day.

Diurnals were continued at heavy pressure sites twice a month (1 WD and 1 WE) in March, June, August, October and December on "good" days in all bay systems to refine estimates.

***HIGH-USE SEASON 1981 through LOW-USE SEASON 1981-82 (Continued)***

Beginning with low-use season, commercial fish lengths were obtained at fish houses 2 WD per month.

Procedures were the same as those for 1980-81, except that:

**Boat Ramp Surveys:**

During high-use season, 27 WE and 61 WD surveys were conducted in each bay system except that in San Antonio and lower Laguna Madre 2 boat ramps were surveyed on 4 of the scheduled weekend days and 2 boat ramps were surveyed on 6 of the scheduled weekdays.

During low-use season, 12 WE and 24 WD surveys were conducted in each bay system with San Antonio and the lower Laguna Madre having double surveys on 4 of the scheduled weekend days and 12 weekdays.

***HIGH-USE SEASON 1982 through LOW-USE SEASON 1982-83***

During low-use season, personnel continued keeping track of "good" and "bad" days by completing a weather sheet (record type 2) each and every day.

Continued obtaining fish lengths at commercial fish houses 2 WD per month.

Procedures were the same as those for 1981-82, except that:

**Boat Ramp Surveys:**

During high-use season, 31 WE and 66 WD surveys were conducted in Galveston Bay system.

**Roves:**

During high-use season, two must be conducted on a Sunday.

During low-use season, one must be conducted on a Sunday.

**Headboat Surveys:**

Gulf "snapper" headboats were surveyed on two weekday or weekend days per month in Galveston Bay, Port Aransas and Port Isabel and on one weekday or weekend day per month in Freeport.

Bay headboats were surveyed two weekend or weekdays per month in Galveston Bay, Corpus Christi Bay and in the lower Laguna Madre and one weekend or weekday day per month in Aransas Bay.

***HIGH-USE SEASON 1982 through LOW-USE SEASON 1982-83 (Continued)*****Party-Boat Surveys:**

Surveys were conducted during summer (June-August).

Galveston Area - 2 bay party-boat surveys/month; 3 Galveston Gulf party-boat surveys/month; 3 Freeport Gulf party-boat surveys/month.

Matagorda - San Antonio Area - 2 bay and 2 Gulf party-boat surveys/month.  
Aransas - Corpus Christi - upper Laguna Madre - 4 bay and 4 Gulf party-boat surveys/month.

Lower Laguna Madre - 4 bay and 4 Gulf party-boat surveys/month.

Two questions were asked of activity 1 fishermen to determine the total days fishing and the days fishing in bay:

During the last 30 days, how many days have you gone fishing (please include today's trip)?

Of those days fishing, how many days were spent fishing from a boat in Texas bays (please include today's trip)?

***HIGH-USE SEASON 1983 through LOW-USE SEASON 1983-84***

Continued obtaining fish lengths at commercial fish houses 2 WD per month.

Procedures were the same as those for 1982-83, except that:

Areas of shore-based boat access were incorporated into the surveys (e.g., marinas, boat houses, etc.). Area biologists made their best guess as to how much pressure these sites generate for the site selection program.

New data forms for all coastal fisheries projects were created and codes were standardized.

Party boats were incorporated into the routine monitoring program.

**Boat-Access Site Surveys:**

During high-use season, 31 WE and 66 WD surveys were conducted in each bay system except San Antonio where 26 WE and 46 WD surveys were conducted.

During low-use season, 12 WE and 24 WD surveys were conducted in each bay system.

**Roves:**

Roves were conducted from 0800 to 1230.

***HIGH-USE SEASON 1983 through LOW-USE SEASON 1983-84 (Continued)*****Headboat Surveys:**

Gulf headboats were surveyed on 14 WD and 7 WE per season in Galveston/Freeport, Port Aransas and Port Isabel.

Bay headboats were surveyed 14 WD and 7 WE per season in Galveston Bay, Corpus Christi/Aransas Bays and in the lower Laguna Madre.

The questions of days fishing and days fishing in the bay were no longer asked. The wade fishing column was eliminated.

**Sport fishermen were asked two new questions:**

Did you buy or catch your bait shrimp? (response recorded in UDF\_B where 1=bought and 2=caught own)

How much did you buy or catch? (response recorded as a volume in pints in UDF\_C and/or as a weight in pounds in UDF\_D)

Lengths of fishes were emphasized. Total weights of a species weighed en masse were eliminated except under certain conditions. Total lengths were preferred. Up to six organisms of each species in each party were measured.

Boat registration numbers were obtained from each party and placed on data sheets.

Began recording county of residence of all party members rather than just boat owner.

Activity, gear, bait, and trailer location codes were changed.

***HIGH-USE SEASON 1984 through LOW-USE SEASON 1984-85***

Procedures were the same as those for 1983-84, except that:

Visitations to commercial fish houses were terminated in September 1984 due to manpower constraints.

**Boat-Access Site Surveys:**

Based on an analysis of previous interview data, WE surveys during low-use season could be terminated at 1400 if no angling interviews (activity 1, 2, or 3) were conducted prior to that time.

**Headboat Surveys:**

Gulf headboat surveys were terminated in September 1984 due to manpower constraints.

***HIGH-USE SEASON 1984 through LOW-USE SEASON 1984-85 (Continued)***

The boundary between Redfish Bay (code 284) and Corpus Christi Bay (code 130) was changed from the Corpus Christi Ship Channel to a line running from the ICWW at the southwest end of the Dagger Island chain, along Dagger Island to the southeast tip of South Ransom Island, then due east to Harbor Island.

Data obtained from two survey questions (Did you buy or catch your bait shrimp? and How much did you buy or catch?) were removed from the User Defined Fields B, C, and D and recorded under species name, species code, number, and weight.

Sport fishermen were asked if they fished an oil or gas platform during any portion of their trip. Data were recorded under User Defined Field E.

Weight conversion factors were introduced for blue crabs, oysters and shrimp. If weights were estimated it was indicated in User Defined Field F.

Counts of avian species retained by hunters were emphasized.

***HIGH-USE SEASON 1985 through LOW-USE SEASON 1985-86***

Procedures were the same as those for 1984-85, except that:

Boat access site surveys on weekend days could be terminated at 1400 throughout the year if no angling interviews (activity 1, 2 or 3) were conducted prior to that time.

Based on analyses of previous survey data, a boat access site survey could be canceled in the low-use season if the day qualified as a "bad" survey day based on the comparison of that day's air temperature, wind speed, and precipitation with the respective nomograph.

A new trailer code (5 - Wet slip or boat house with trailer at adjacent ramp) and three new bait codes (33 - crabs and dead shrimp; 44 - sea lice and dead shrimp; and 55 - crabs and sea lice) were added.

***HIGH-USE SEASON 1986 through LOW-USE SEASON 1986-87***

Procedures were the same as those for 1985-86, except that:

Effective at beginning of low-use season, boat access site surveys on weekdays could be terminated at 1600 throughout the year if no angling interviews (activity 1, 2 or 3) were conducted prior to that time.

***HIGH-USE SEASON 1987 through LOW-USE SEASON 1987-88***

Procedures were the same as those for 1986-87, except that:

Sabine Lake system boat-access sites were surveyed on 26 WE and 46 WD in high-use season and on 12 WE and 24 WD in low-use season.

Sociologic and economic questions were asked of one member of each angling party at the beginning and end of their trip. Data were recorded on the Harvest Data sheet.

***HIGH-USE SEASON 1987 through LOW-USE SEASON 1987-88 (Continued)***

Anglers were no longer asked if they fished on oil or gas platform during a portion of their trip.

Two new activity codes were added (98 - Refused Interview and 99 - Missed Interview).

***HIGH-USE SEASON 1988 through LOW-USE SEASON 1988-89***

Procedures were the same as those for 1987-88, except that:

A new activity code 97 was added to distinguish parties missed because the landings or party members could not be accurately counted. Activity code 99 was modified to signify that a party was missed because interviewer was busy with other duties.

Government or university-sanctioned parties were no longer interviewed.

The wording of sociological and economic questions was changed.

***HIGH-USE SEASON 1989 through LOW-USE SEASON 1989-90***

Procedures were the same as those for 1988-89, except that:

The number and wording of sociological and economic questions were changed.

Added gear code 77 (fly rod) effective 21 November 1989.

Began coding "private-pond fishing" at Sabine Lake site 28 as activity 0 rather than 1.

***HIGH-USE SEASON 1990 through LOW-USE SEASON 1990-91***

Procedures were the same as those for 1989-90, except that:

Wade/bank areas (stratum 83) and lighted public piers (stratum 84) were surveyed.

Lighted piers and wade/bank sites on the Gulf beach and jetties were included in the survey; lighted piers and jetties were roved and sampled as wade/bank sites.

For both strata, the total number of surveys conducted coastwide was allocated among bay systems roughly in proportion to the distribution of sites among bay systems.

Surveys were partitioned equally between weekends and weekdays and between high-use and low-use seasons.

The wording of sociological questions was changed.

***HIGH-USE SEASON 1991 through LOW-USE SEASON 1991-92***

Procedures were the same as those for 1990-91, except that:

Wade/bank areas (stratum 83) and lighted public piers (stratum 84) were not surveyed.

Throughout high-use season, a weekend survey was terminated at 1300 (previously 1400) and a weekday survey was terminated at 1400 (previously 1600) if no angling interviews (activity 1, 2, 3) were conducted prior to that time.

Six blue crabs from each recreational landing were measured while total weight of landings was no longer recorded.

The social and economic questionnaire was reduced, and the procedures for asking the two remaining questions (i.e., trip grade and species sought) were included in the Harvest Operations Manual. The pre-trip interview was eliminated.

The wording of the trip satisfaction question was changed to, "On a scale of zero to 10 with zero being the least and 10 being the most, how satisfied were you with today's trip?"

The "species sought" question was moved from pre-trip to post-trip interviews to achieve a sample size necessary for calculating catch rates as a function of directed effort. Moreover, the number of individual species and species combinations that can be coded was increased.

Lighting conditions, wave height, and tide were no longer recorded on hydrological data sheets.

This was the last year PL1 programming was used to generate harvest estimates.

A survey of the nighttime flounder gig fishery (Special Study 59) was conducted in all bay systems from 15 July to 15 December 1991.

***HIGH-USE SEASON 1992 through LOW-USE SEASON 1992-93***

Procedures were the same as those for 1991-92, except that:

The method for determining relative pressures among boat-access sites within bay systems was modified to more accurately reflect bay/pass, private-boat fishing activity. This was achieved with SAS programming which replaced previously used PLI programming.

A method for annually determining "crossover" sites was initiated using SAS programming. The list of crossover sites was updated and procedures for "double" surveying such sites were modified, resulting in better distribution of pressure and landings data between bay systems, decreased effort at heavily surveyed crossover sites and reduced man-power needs.

***HIGH-USE SEASON 1992 through LOW-USE SEASON 1992-93 (Continued)***

The above two changes reduced the historical, high-use season level of Gulf sampling effort off Matagorda/San Antonio and Aransas/Corpus Christi. This reduction was compensated for by conducting a total of 31 "gulf-only" surveys at sites around Port O'Connor and Port Aransas. No gulf-only surveys were needed in low-use season. Gulf-only surveys were differentiated from routine surveys by entering a 9 in the User Defined Field blank of the harvest data sheet.

Interviewing procedures were modified to allow full interviewing of parties that drop off a portion of their party just prior to landing at the survey site, rather than terminating the interview and coding as activity 97.

Interviewing procedures were modified to disallow early termination of surveys if an activity 97, 98, or 99 interview had been recorded.

A new gear code (88) was added for sail lines. This gear was previously coded as a trotline, with an explanatory notation recorded on the comments line.

Recording the use of bought and caught bait mullet in the same manner as for bait shrimp was begun.

The recording of barometric pressure on the hydrological data sheet was terminated.

***HIGH-USE SEASON 1993 through LOW-USE SEASON 1993-94***

Began using SAS programming rather than PLI programming, to generate seasonal survey schedules.

Science Specialist began making on-line corrections to data stored in M204 Master File.

20 "gulf-only" surveys were conducted at sites around Port O'Connor and Port Aransas during high-use season.

Information was collected during high-use season surveys to characterize and estimate finfish bycatch of private-boat anglers (Special Study 72).

Quality control visits during surveys and roves were initiated in January 1994.

Procedures were the same as those for 1992-93, except that:

Species names were standardized to BBS, CBS, BBM and CBM for recording bought bait shrimp, caught bait shrimp, bought bait mullet and caught bait mullet, respectively.

Start and completion times for nomograph-canceled surveys were standardized to 1000 and 1001, respectively.

The time at which the nomograph must be passed for a "good" rove day in low-use season was standardized to 0800 to provide coastwide consistency on roves.

***HIGH-USE SEASON 1993 through LOW-USE SEASON 1993-94 (Continued)***

Data flow procedures were modified in August when Regional Editors were established to receive and edit incoming data from ecosystems and to forward it to Austin for keying. Regional Editors were also assigned to coordinate the distribution of keyed data to ecosystems for editing and to forward needed corrections to Austin for keying.

Reaffirmed that activity 0, 7, 8, 9 and 10 interviews must have complete information (i.e., ID number, interview time, trip length, activity, origin, minor bay and trailer location) and that activity 97, 98 and 99 interviews must have limited information (i.e., ID number, interview time and activity).

During "gulf-only" surveys, only activity 1, 2 and 3 interviews of Gulf anglers must have complete information; all other interviews must have limited information (i.e., ID number, interview time, activity, minor bay, and trailer location).

***HIGH-USE SEASON 1994 through LOW-USE SEASON 1994-95***

Completed SAS programming for generation of bay/pass private-boat pressure, landings and catch rate estimates and associated standard errors. Generated preliminary estimates for 1992-93 and 1993-94.

Regional Editors began making on-line corrections to current data stored in M204 Holding File based on editing by Ecosystem Teams. Science Specialist began uploading edited and corrected data from M204 Holding File to M204 Master File.

20 "gulf-only" surveys were conducted at sites around Port O'Connor and Port Aransas during high-use season.

Quality control visits during surveys and roves were continued.

Procedures were the same as those for 1993-94, except that:

Established guidelines for conducting interviews in the rain and for dealing with iced-down fish (Memo dated 6-27-94).

Clarified and expanded guidelines for use of activity codes 97, 98 and 99 (Memo dated 12-20-94).

Expanded use of activity code 99 to include interviews missed because of heavy rain and because of language barriers.

Redefined gear code 99 from combination of  $\geq 3$  gears to any gear combination that cannot be coded with 2 digits.

Redefined bait code 99 from combination of  $\geq 3$  baits to any bait combination that cannot be coded with 2 digits.

Revised and expanded bait code definitions.

***HIGH-USE SEASON 1994 through LOW-USE SEASON 1994-95 (Continued)***

Terminated use of check marks in User Defined Field F when recording weight of bought bait shrimp and bought bait mullet.

Changed rounding unit from 0.05 to 0.01 for conversion of volume or weight measurements to kilograms.

Changed rounding unit from 0.5 to 0.1 for conversion of temperature from F to C.

Eliminated cobia from survey summary sheet.

For roving counts, changed high-use weekend requirement from “two must be on Sunday” to “two must be on Saturday and two must be on Sunday” and changed low-use weekend requirement from “one must be on Sunday” to “one must be on Saturday and one must be on Sunday”.

Added comments section to roving count data sheet.

***HIGH-USE SEASON 1995 through LOW-USE SEASON 1995-96***

Completed SAS programming for creation of Gulf private-boat pressure files and for generation of Gulf private-boat pressure, landings and catch rate estimates and associated standard errors. Generated preliminary Gulf estimates for 1994-95.

Generated preliminary bay/pass private-boat estimates for 1994-95.

Completed SAS programming for generation of other survey statistics for bay/pass and Gulf private-boats, including number of interviews, number of people interviewed, mean party size, mean trip length, and residential origin. Generated preliminary bay/pass and Gulf statistics for 1994-95.

Completed extensive effort to identify and correct interview data coding errors in the M204 Master File for May 1983 through November 1995.

Collected information from angling parties with trip lengths greater than 12.0 hours for possible adjustment of such trip lengths to obtain comparability with “daily” trips of 12.0 hours or less.

Began administering the Sportfishing Valuation Questionnaire in Aransas, Corpus Christi and upper Laguna Madre ecosystems on 1 May 1996 as contracted by the Corpus Christi Bay National Estuary Program.

Conducted 19 “gulf-only” surveys at sites around Matagorda, Port O’Connor and Port Aransas during high-use season.

Added a total of 17 “gulf-only” surveys at sites in the Sabine Lake, Galveston and lower Laguna Madre ecosystems to increase number of Gulf interviews conducted during high-use season.

***HIGH-USE SEASON 1995 through LOW-USE SEASON 1995-96 (Continued)***

Quality control visits during surveys and roves were continued.

Procedures were the same as those for 1994-95, except that:

Clarified precipitation to include drizzle for application of nomograph.

Clarified and expanded guidelines on proper attire and equipment for conducting surveys.

Expanded guidelines for use of comments section on Interview Data Sheet.

Recorded use of bought and caught bait croaker rather than mullet.

Recorded types of baitfish used when live or dead fish was recorded as bait (i.e., with species name of BF, species code of 1289, and types of bait fish coded in number column).

Ended recording of gear used to catch bait shrimp or bait fish unless some were retained and landed.

Expanded guidelines on proper equipment for conducting roves.

Emphasized need for rove counts at boat-slip sites to be properly adjusted to accurately reflect daily boating activity.

Replaced 15-line Interview Data Sheet with 10-line version on 1 July 1995.

***HIGH-USE SEASON 1996 through LOW-USE SEASON 1996-97***

Administered the Sportfishing Valuation Questionnaire in Aransas, Corpus Christi and upper Laguna Madre ecosystems as contracted by the Corpus Christi Bay National Estuary Program.

Completed SAS programming for production of ASCII files containing sport-boat pressure, landings, catch rate and other estimates to aid in generation of report tables.

Completed extensive effort to recalculate private-boat bay/pass pressure files for eventual recalculation of harvest estimates from May 1983 to May 1996. Effort included creation of adjustment factors to reduce inflated rove counts at wet slip sites.

Identified and corrected M204 Master File coding errors in rove data for May 1983 through May 1996 and in interview data for November 1995 through May 1996.

Generated preliminary bay/pass private-boat estimates for 1995-96.

Conducted 37 "gulf-only" surveys during high-use season.

Quality control visits during surveys and roves were continued.

***HIGH-USE SEASON 1996 through LOW-USE SEASON 1996-97 (Continued)***

Procedures were the same as those for 1995-96, except that:

Ended recording use of bought and caught bait croaker.

Ended recording types of bait fish used when live or dead fish recorded as bait.

Clarified what constitutes the end of a fishing trip for the purpose of conducting an interview when a boat party returns to the launch site for a period of time before continuing the fishing trip.

Clarified that activity for guided tournament fishing should be coded as party-boat fishing.

Clarified that activity for non-commercial bait procurement trips should be coded as sport fishing if fish were targeted, and as sport shrimping if shrimp were targeted.

Clarified that activity 97 should not be used when fish are consumed on a fishing trip; rather, conduct interview in usual manner and enumerate only the fish that are present, if any.

Clarified that when a portion of the landings is baitfish or bait shrimp, then both the gear used to capture the bait and the gear used to capture the rest of the landings should be recorded.

Clarified that bait code 6 (other) should be used for ghost shrimp.

Clarified that trailer location code 3 (wet slip) should not be used at sites where slips are not counted during roves.

***HIGH-USE SEASON 1997 through LOW-USE SEASON 1997-98***

Generated preliminary bay/pass private-boat estimates for 1996-97.

Identified and corrected M204 Master File coding errors in interview and rove data for May 1996 through May 1997.

Recalculated private-boat gulf pressure files for May 1983 through May 1997.

Recalculated private-boat and party-boat bay/pass and gulf harvest estimates for May 1983 through May 1997 based on recalculated pressure files. ASCII-format files of these estimates were transformed into report tables using personal computer software, thus eliminating error-prone hand transcription.

Conducted 38 "gulf-only" surveys during high-use season.

Quality control visits during surveys and roves were continued.

Procedures were the same as those in 1996-97, except that:

***HIGH-USE SEASON 1997 through LOW-USE SEASON 1997-98 (Continued)***

Clarified that bait code 6 (other) should be used for rock shrimp.

Clarified early termination procedures for gulf-only surveys.

Clarified that use of established conversion factors to obtain kilogram weights does not change actual observations or measurements into estimated values.

Clarified start and completion times for rove counts on the meteorological/hydrological data sheet.

Clarified that trailers that appear not to have been moved for some time should be ignored on roving counts.

***HIGH-USE SEASON 1998 through LOW-USE SEASON 1998-99***

Generated private-boat bay/pass and gulf pressure files and harvest estimates for 1997-98, and incorporated estimates into annual report tables.

Identified and corrected many M204 Master File errors for 1974-98 in preparation for migration of database from mainframe-based M204 to client/server-based Sybase.

Developed programming for and field tested ScriptWriter portable data collection devices for possible use on surveys to record interview data.

Revised the Data Transmittal memorandum in March 1999 for submitting data to Austin for keying.

Tropical Storm Charley caused cancellation of four surveys on 22 August 1998.

Tropical Storm Frances caused cancellation of eleven surveys on 10-13 September 1998.

Conducted 37 "gulf-only" surveys during high-use season.

Quality control visits during surveys and roves were continued.

Procedures were the same as those in 1997-98, except that:

Clarified procedures for dealing with landings not caught by party, landings caught by party on a previous trip, and landings caught by party on a multi-day trip.

Emphasized need to determine whether any bait shrimp were bought or caught on all sportfishing trips.

Clarified coding of gear and bait when crabs represent greater than 85% of landings and fish are present.

Clarified coding of gear when oysters are gathered by hand.

***HIGH-USE SEASON 1998 through LOW-USE SEASON 1998-99 (Continued)***

Clarified that guides should not be asked trip grade and species sought questions on party-boat interviews.

Data collected after 31 December 1998 entered the database through Sybase rather than M204.

***HIGH-USE SEASON 1999 through LOW-USE SEASON 1999-2000***

Generated preliminary sport-boat harvest estimates for high-use 1998.

Completed tables and figures for sport-boat harvest MDS through the 1997-98 survey year.

Database was migrated from M204 to Sybase on 22 May 1999; access to database with M204 ended on 24 July 1999; and access to database on tape with SAS ended on 19 August 1999.

Entry of calendar-1999 raw data into Sybase began on 24 May 1999 with species name no longer being keyed. Regional editors began correcting non-key-field errors on 27 September 1999.

Pressure file for low-use season survey scheduling could not be created in the established manner due to lack of access to calendar-1999 data in Sybase. Instead, the low-use pressure file for 1998-99 was modified for use in 1999-2000.

Hurricane Bret, which made landfall south of Baffin Bay in Kenedy County around 6:00 PM on 22 August 1999, caused cancellation of four surveys on 22 August 1999 and four surveys on 23 August 1999. 22 and 23 August 1999 were considered "non-fishable" days in Aransas, Corpus Christi, upper Laguna Madre, and lower Laguna Madre bay systems.

Conducted 36 "gulf-only" surveys during high-use season.

Quality control visits during surveys and roves were continued.

Procedures were the same as those in 1998-99, except that:

Emphasized need for interviewers to always strive to project a professional image during surveys.

Added guidelines for dealing with anglers in violation of size and bag limits.

Added guidelines for leaving survey site for short period of time when only one interviewer present.

Clarified that all landings must be examined and enumerated.

***HIGH-USE SEASON 1999 through LOW-USE SEASON 1999-2000 (Continued)***

Added guidelines for interviewing two parties that fished together and had all landings in one boat.

Added guidelines for enumerating captured bait species that angler is trying to keep alive for later use.

Added new activity code 96 for missed or refused commercial interviews to be used instead of codes 97, 98, and 99.

Clarified that activity code 97 is reserved for sportfishing parties (i.e., those parties that would otherwise be coded with activity codes of 1, 2, or 3).

Ended practice of ignoring government- or university-sanctioned parties during surveys and roves.

Clarified that survey site measurements of weather conditions are preferred, except during nomograph use.

Changed recording of year in start and completion dates from two to four digits.

Added guidelines to prevent duplication of "TI/interview time" ID numbers on surveys.

Clarified start and end of trip for determination of trip length.

Began use of residence code 888 as an absolute last resort when residence of a party member cannot be determined.

Added National Weather Service definition of Small Craft Advisory.

***HIGH-USE SEASON 2000 through LOW-USE SEASON 2000-01***

No sport-boat harvest estimates were generated during the 1999-2000 survey year.

Began revision of text for sport-boat harvest MDS through the 1997-98 survey year.

Much time was spent assisting Information Resources Division staff resolving problems with new database (Sybase).

Regional editors began correcting key-field errors in new database in late May 2000.

Pressure files for high-use and low-use season scheduling could not be created in the established manner due to continued lack of access to calendar-1999 data in Sybase. Instead the high-use pressure file for 1999 was modified for use in 2000 and the low-use pressure file for 1999-2000 was modified for use in 2000-01.

Began use of revised Meteorological and Hydrological Data sheets in all bay systems on 1 August 2000. Completion date and completion time fields were moved from middle area of page to top area of page to reduce key-field, data-entry errors.

*HIGH-USE SEASON 2000 through LOW-USE SEASON 2000-01 (Continued)*

Tropical Storm Beryl threatened the lower Texas coast in mid-August, but made landfall in Mexico about 130 miles southwest of Brownsville and did not result in cancelled surveys or “non-fishable” days.

Special Study 91 (Redfish Bay/Nine Mile Hole Seagrass Angler Survey) was initiated on November 1 in cooperation with the Resource Protection Division of TPWD to evaluate seagrass conservation efforts. For one year, interviewers collected mailing addresses from anglers who had fished Redfish Bay or Nine Mile Hole and were willing to participate in follow-up mail surveys.

All 24 batches of sport-harvest data from 1999 were transferred from Holding File to Master File by 29 December 2000.

Old mainframe computer tape files, which stored creel data collected prior to 15 May 1983, were converted on 23 March 2001 into text files for future access with personal computer if needed.

Converted the crossover-site selection SAS program in late April and the bay/pass pressure file creation SAS program in early May 2001 for use with new database.

Old mainframe computer tape files, which stored creel data collected prior to 31 December 1999, were converted by mid-May 2001 into text files for future access with personal computer if needed.

By end of survey year, a nine-month, data-entry backlog had developed with data collected after June 2000 not yet keyed.

Conducted 36 “gulf-only” surveys during high-use season.

Quality control visits during surveys and roves were continued.

Procedures were the same as those in 1999-2000, except that:

Clarified procedures for making “Alternate Site Changes”.

Clarified that captured bait species landed alive for later use must be examined when estimating number present of each species.

Stressed need to first record species name then species code to reduce coding errors due to lack of entry of species name in new database.

Added guidelines for enumerating recreational stone crab claws.

Clarified wind speed used by National Weather Service to issue Small Craft Advisories.

Clarified rove postponement advice when nomograph indicates a “good” day, but Small Craft Advisories are in effect.

***HIGH-USE SEASON 2001 through LOW-USE SEASON 2001-02***

Converted the gulf pressure file creation SAS program in mid-May 2001 and the sport-boat harvest estimation SAS program in late September 2001 for use with the new database.

Generated final private-boat bay/pass pressure files and harvest estimates for 1998-99, 1999-2000, and 2000-01 during December 2001, January 2002, and February 2002.

Generated estimates of bought and caught bait shrimp in March 2002 for May 1983 through May 2001.

Completed sport-boat harvest MDS 204 through the 1997-98 survey year and submitted for in-house review in October 2001.

A decreasing amount of time was spent assisting Information Resources Division staff resolving problems with new database.

Pressure files for high-use and low-use season scheduling could not be created in the established manner due to delays in data entry (i.e., data from most recent high-use and low-use seasons were not available). Annual selection of crossover survey sites was affected in a similar manner.

Tropical Storm Allison formed quickly in the northwest Gulf of Mexico on 5 June 2001 and came ashore around midnight between Freeport and Galveston with minimal winds and no storm surge. Remnants of the storm lingered over southeast Texas for 4-5 days producing excessive rainfall and flooding. No surveys were cancelled and no days were deemed "non-fishable", but fishing pressure was reduced. High water hindered boat access in portions of Galveston Bay system.

Special Study 93 (Charter Boat Survey - Pilot Study) was initiated on 1 July 2001 in cooperation with the Gulf States Marine Fisheries Commission and the National Marine Fisheries Service to evaluate a method of estimating charter-boat effort and landings based on field and rove intercepts, and a telephone survey. The study was expected to last 12-16 months.

Vehicular traffic was severed between Port Isabel and South Padre Island when a portion of the Queen Isabella Causeway collapsed after being struck by a barge on 15 September 2001. Although a temporary ferry service was established, fishing pressure decreased at South Padre Island boat-access sites. The causeway was reopened to traffic on 21 November 2001.

All 24 batches of sport-harvest data from 2000 were transferred from Holding File to Master File by 17 December 2001.

By end of survey year, an eight-month, data-entry backlog existed with data collected after July 2001 not yet keyed.

Conducted 35 "gulf-only" surveys during high-use season.

***HIGH-USE SEASON 2001 through LOW-USE SEASON 2001-02 (Continued)***

Quality control visits during surveys and roves were continued.

Procedures were the same as those in 2000-01, except that:

Completion of the survey summary sheet was no longer required effective 15 May 2001, but was resumed in September 2001 at direction of Division Director. Surveys not summarized since 15 May 2001 were subsequently summarized. Survey summary sheet originals were retained by Ecosystem Teams rather than sent to Regional Editors.

Routine and “gulf-only” surveys could no longer be terminated early if it was known that a party-boat trip would return to survey site prior to 1800 hours.

A dress code was established for conducting roves to ensure a professional appearance.

Use boat name for vessel ID number was allowed effective 13 September 2001 when state registration and Coast Guard documentation numbers were not available.

Full interviews were to be conducted on commercial-fishing parties even if all or portion of catch was off-loaded elsewhere.

Data submission and editing duties were clarified and described in greater detail.

***HIGH-USE SEASON 2002 through LOW-USE SEASON 2002-03***

The Meteorological/Hydrological (pink), Interview (green), and Roving (white) data sheets were revised to accommodate elevation of the special studies code variable to the primary table in the database. Use of the revised data sheets began on 1 July 2002. The Interview data sheet was later revised to include new activity code 95. Copies of this data sheet became available in mid-February 2003.

Pressure files for high-use and low-use season scheduling could not be created in the established manner due to delays in data entry (i.e., data from most recent high-use and low-use seasons were not available). Annual selection of crossover survey sites was affected in a similar manner.

MDS 204 (Trends in finfish landings of sport-boat anglers in Texas marine waters, May 1974-May 1998) was printed in July 2002.

All 25 batches of sport-harvest data from 2001 were transferred from Holding File to Master File by 30 August 2002.

The broad and poorly defined center of Tropical Storm Fay crossed the Matagorda Peninsula between Pass Cavallo and mouth of Colorado River before dawn on 7 September 2002. High tides and squalls in the Galveston Bay system and high tides and the threat of dangerous weather in the Matagorda Bay system on 7 September 2002 caused one survey to be cancelled in each bay system. 7 September 2002 was deemed a “non-fishable” day for both bay systems.

***HIGH-USE SEASON 2002 through LOW-USE SEASON 2002-03 (Continued)***

Hurricane Lili threatened the upper Texas coast in early October 2002, but made landfall along the central Louisiana coast during the morning of 3 October 2002. Voluntary evacuations in Jefferson and Orange Counties in advance of the storm on 2 October 2002 and high tides and winds on 3 October 2002 caused these days to be deemed “non-fishable” for the Sabine Lake system. The survey scheduled for 3 October 2002 in Sabine Lake was cancelled.

37 “gulf-only” surveys were conducted during high-use season.

By end of the survey year, a seven-month data-entry backlog existed with data collected after August 2002 not yet keyed.

Quality control visits during surveys and roves were continued.

The following tasks were completed:

Generated bay-pass party-boat harvest estimates for 1998-99, 1999-2000, and 2000-01 in May 2002.

Converted the gulf private-boat final pressure file creation SAS program in August 2002 to function with the new database.

Generated final gulf private-boat pressure files and harvest estimates for 1998-99, 1999-2000, and 2000-01 in August 2002.

Converted the bay-pass and gulf, mean length and mean weight calculation SAS programs in September 2002 to function with the new database and to produce an organized listing.

Generated bay-pass and gulf, private-boat and party-boat mean length and mean weight estimates for 1998-99, 1999-2000, and 2000-01 in September 2002.

Converted the bay-pass and gulf “other” species determination SAS programs in October 2002 to function with the new database and to produce an organized listing.

Generated bay-pass and gulf, private-boat and party-boat “other” species percentages for 1998-99, 1999-2000, and 2000-01 in October 2002.

Generated gulf party-boat harvest estimates for 1998-99, 1999-2000, and 2000-01 in February 2002.

Prepared SAS programming and summarized sport-boat species sought data for the pre-trip question asked during 1987-91 in February 2002.

Prepared SAS programming and summarized bay-pass private-boat and party-boat species sought data for the post-trip question asked during 1991-2002 in February 2002.

***HIGH-USE SEASON 2002 through LOW-USE SEASON 2002-03 (Continued)***

Summarized gulf private-boat and party-boat species sought data for 1991-2001 in March 2002.

Generated final bay-pass and gulf private-boat pressure files for 2001-02 in March 2002.

Generated bay-pass and gulf, private-boat and party-boat harvest estimates for 2001-02 in March 2002.

Procedures were the same as those in 2001-02, except that:

Resumed enumeration of bought and caught bait croaker on activity 1, 2, and 3 interviews (previously collected during the 1995-96 survey year).

Added new activity code 95 for missed or refused activity 2 interviews to be used for party boats instead of activity codes 97, 98, and 99.

Clarified that activity code 97 is now reserved for missed activity 1 and 3 interviews.

Clarified that activity code 98 is now reserved for all refused interviews, except those known to involve party boats or commercial vessels.

Clarified that activity code 99 is now reserved for all missed interviews involving time constraints, heavy rainfall, and language barriers, except those known to involve party boats and commercial vessels.

Clarified that bait code 6 (other) should be used for fly-rod baits.

Clarified that a rove should not be conducted when there is doubt whether a potential rove day is "good".

Clarified that a ramp clogged with water hyacinth or sea grass should not be considered closed during roves.

Specified that a belt must be worn during surveys and roves if belt loops present on pants or shorts.

Specified that appropriate shoes for surveys and roves do not include flip-flaps, slaps, slip-ons, etc.

***HIGH-USE SEASON 2003 through LOW-USE SEASON 2003-04***

The color of the Roving Count data sheet was changed from white to light-blue effective 1 June 2003.

Enumeration of bought and caught bait croaker on activity 1, 2, and 3 interviews was continued.

***HIGH-USE SEASON 2003 through LOW-USE SEASON 2003-04 (Continued)***

Pressure files for high-use season survey scheduling could not be created in the established manner due to delays in data entry (i.e., all data from most recent high-use season were not available). Annual selection of crossover survey sites was affected in a similar manner.

Pressure files for low-use season survey scheduling were created in the established manner (i.e., all data from most recent low-use season were available).

All 25 batches of sport-boat survey data from 2002 were transferred from Holding File to Master File by 19 September 2003.

Much progress was made on next edition of sport-harvest MDS to cover surveys conducted through the 2002-03 survey year.

The center of Hurricane Claudette made landfall along the Matagorda Peninsula at mid-morning on 15 July 2003. Radar images indicated that foul weather conditions extended much farther north of the eye than south of the eye. One survey was cancelled in Matagorda Bay system that day. Based on observed conditions and National Weather Service warnings, 15 July 2003 was deemed "non-fishable" for all bay systems except Upper Laguna Madre and Lower Laguna Madre.

The poorly defined center of Tropical Storm Grace made landfall near Port O'Connor at mid-morning on 31 August 2003 and was quickly downgraded to a tropical depression. Fishing activity was reduced along portions of the coast but no surveys were cancelled and no days were deemed "non-fishable".

35 "gulf-only" surveys were conducted during high-use season.

By end of survey year, a four-month data-entry backlog existed with data collected after November 2003 not yet keyed.

Quality control visits during surveys and roves were continued.

The following tasks were completed:

Generated bay-pass and gulf, private-boat and party-boat "other" species percentages for 2001-02 in June 2003 and for 2002-03 in January 2004.

Generated bay-pass and gulf, private-boat and party-boat mean length and mean weight estimates for 2001-02 in June 2003 and for 2002-03 in January 2004.

Prepared SAS programming and summarized bay-pass private-boat and party-boat trip satisfaction data for 1987-88 through 2001-02 in June 2003 and for 2002-03 in February 2004.

Summarized gulf private-boat and party-boat trip satisfaction data for 1987-88 through 2001-02 in July 2003 and for 2002-03 in February 2004.

***HIGH-USE SEASON 2003 through LOW-USE SEASON 2003-04 (Continued)***

Prepared SAS programming and summarized activity coding from routine and gulf-only surveys for 1983-84 through 2001-02 in July 2003 and for 2002-03 in January 2004.

Summarized gulf private-boat and party-boat species sought data for 2001-02 in September 2003 and for 2002-03 in February 2004.

Generated bay-pass private-boat pressure files and harvest estimates for trips lasting greater than 12 hours for 1998-99 through 2001-02 in October 2003 and for 2002-03 in February 2004.

Generated bay-pass and gulf, private-boat and party-boat pressure files and harvest estimates for 2002-03 in December 2003.

Summarized bay-pass private-boat and party-boat species sought data for 2002-03 in February 2004.

Procedures were the same as those in 2002-03, except that:

Clarified procedures for selecting an alternate survey site when it is known in advance that a site will be closed and not available for an upcoming survey.

Clarified that strict nomograph application is to be avoided when observed and forecasted conditions indicate non-cancellation more appropriate.

Clarified that extension arrows are not to be drawn from one interview into the next interview on Interview Data sheets.

Clarified that procedures for documenting non-commercial bait procurement trips also apply to fish guides procuring bait one day for use the next day.

Specified that a flexible non-corroding measuring tape is to be present during all surveys.

Specified that Regional Editors are to track receipt of survey and rove data for timely submission and adherence to schedule. (This procedure was being followed, but was not listed in this manual.)

***HIGH-USE SEASON 2004 through LOW-USE SEASON 2004-05***

Pressure files for high-use season survey scheduling could not be created in the established manner due to delays in data entry (i.e., all data from most recent high-use season were not available). Annual selection of crossover sites was affected in a similar manner.

Pressure files for low-use season survey scheduling were created in the established manner (i.e., all data from most recent low-use season were available).

All 25 batches of sport-boat survey data from 2003 were transferred from Holding File to Master File by 4 August 2004.

***HIGH-USE SEASON 2004 through LOW-USE SEASON 2004-05 (Continued)***

All 24 batches of sport-boat survey data from 2004 were transferred from Holding File to Master File by 13 April 2005.

Tropical Depression Ivan made landfall in the Sabine Pass area prior to midnight on 23 September 2004. No surveys were cancelled and no days were deemed "non-fishable".

35 "gulf-only" surveys were conducted during high-use season.

By end of survey year, data collected through February 2005 had been keyed.

Quality Control visits during surveys and roves were continued.

The following tasks were completed.

Generated bay-pass private-boat pressure files for trips lasting greater than 12 hours for 1983-84 through 1997-98 in June 2004, and then generated associated harvest estimates in July 2004.

Generated final 2003-04 bay-pass private-boat pressure files and harvest estimates in December 2004, and mean lengths and mean weights estimates in January 2005.

Generated final high-use 2004 gulf private-boat pressure files in April 2005.

MDS 234 (Trends in finfish landings of sport-boat anglers in Texas marine waters, May 1974-May 2003) was completed and submitted for printing on 26 April 2005.

Procedures were the same as those in 2003-04, except that:

Enumeration of bought and caught bait croaker on activity 1, 2, and 3 interviews was terminated.

Clarified procedures for selecting an alternate survey site at end of season when no scheduled surveys remain for the day type.

Specified that Ecosystem Leaders must assure that interviewers are thoroughly trained and closely observed before conducting interviews without supervision.

Emphasized that data shall be recorded in a legible manner and data sheets shall be filled out as completely as time allows during the survey.

Clarified structure of recorded interviews in regards to no leaving blank lines between species entries.

Clarified method for enumerating guided duck hunting trips where guide fishes while party hunts.

Stipulated recording of full common names in comments to avoid confusion when species sought is "other".

***HIGH-USE SEASON 2004 through LOW-USE SEASON 2004-05 (Continued)***

Specified in Figure 13 that spinner baits should be considered “Other Jigs” (bait code 4).

Clarified in Figure 14 that wet slips with boat-lifting straps should be considered wet slips (trailer location code 3).

Clarified that use of User Defined Field F (estimated weight) was for commercial landings only.

Stipulated documenting in comments when bait shrimp bought or caught on previous trip or by another party.

Stipulated recording of amount of dead bought bait shrimp as a weight and of live bought bait shrimp as a number.

Stipulated not including fish released alive at interview site as part of party’s landings.

Stipulated documenting in comments when fish present and lengths not obtained.

Emphasized that commercially landed fish should be measured whenever possible.

Eliminated recording of latitude and longitude on completion portion of Meteorological and Hydrological Data sheet for surveys.

Stipulated the action to be taken by an Ecosystem Team when there is a failure to conduct a rove during one of the specified time intervals.

Provided documentation on application of ongoing Coastal Fisheries Quality Control Program to sport-boat surveys and roves.

Specified need for Ecosystem Teams to contrast the Regional Editor’s list of detected errors with corresponding edit listings to be sure all issues are resolved.

Provided documentation on information sources for using the database and extracting data from it.

***HIGH-USE SEASON 2005 through LOW-USE SEASON 2005-06***

With the data-entry backlog eliminated, high-use and low-use survey schedules were created in the established manner (i.e., all data from most recent high-use and low-use seasons were used).

MDS 234 (Trends in finfish landings of sport-boat anglers in Texas marine waters, May 1974 – May 2003) was printed in July 2005.

All 24 batches of sport-boat survey data from 2005 were transferred from Holding File to Master File by 23 March 2006.

***HIGH-USE SEASON 2005 through LOW-USE SEASON 2005-06 (Continued)***

The center of Hurricane Emily made landfall in Mexico about 75 miles south of Brownsville around 6:00 AM on 20 July 2005. Based on observed conditions and National Weather Service warnings, 19 and 20 July were deemed “non-fishable” for the Lower Laguna Madre system where one survey was cancelled on 20 July.

The center of Hurricane Rita made landfall at Sabine Pass on the Texas/Louisiana border around 3:00 AM on 24 September 2005. Surveys were cancelled and “non-fishable” days were declared in all ecosystems except the Lower Laguna Madre. This was due largely to evacuation orders that were motivated by the size, strength, and projected movement of the storm as well as recent memories of destructive Hurricane Katrina that struck the Mississippi/Louisiana coast in August 2005. Evacuation orders were based on the hitherto untested authority granted to county judges and municipality mayors by the Texas Legislature (H.B. No. 3111) effective 1 September 2005. The following numbers of “non-fishable” days and cancelled surveys (in parentheses) were observed: 19(8) in Sabine Lake system, 5(3) in Galveston Bay system, 3(2) in Matagorda Bay system, 3(1) in San Antonio Bay system, 2(1) in Aransas Bay system, 2(1) in Corpus Christi Bay system, and 2(1) in Upper Laguna Madre system.

35 “gulf-only” surveys were conducted during high-use season.

By the end of the survey year, data collected through February 2006 had been keyed.

Quality Control visits during surveys and roves were continued.

The following tasks were completed.

Assembled SAS programming to detect errors in the database Master File and applied it to data collected during 2003-05. There were 89 errors detected and corrected in 2003-04 data and 57 errors detected and corrected in 2004-05 data.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2004-05 by end of December 2005.

Created final bay-pass private-boat pressure files and generated harvest estimates for trips lasting greater than 12 hours during 2004-05 in January 2006.

Procedures were the same as those in 2004-05, except for the following.

Terminated completion of the “Marine Harvest Monitoring – Survey Summary” sheet for each survey effective 8 June 2005.

Clarified that when a survey site is closed permanently, or at least closed for the rest of the season, a replacement site will be selected by choosing a site with similar pressure in the same geographic area when possible.

Stated that interviews shall be conducted in a courteous and professional manner.

***HIGH-USE SEASON 2005 through LOW-USE SEASON 2005-06 (Continued)***

Stipulated that interviewers shall determine presence of landings at beginning of interview so that minor bay, gear, and bait can be queried with specific reference to the landings when present.

Stated that the following equipment shall be present during all surveys: bushel basket or tub; 5-gallon bucket; cloth or paper towels; sun screen; first-aid kit; fire extinguisher; weather radio; and drinking water.

Clarified that all trip-ending motorized and non-motorized (canoes, kayaks, punts, rowboats, rubber rafts, and sailboats) boat parties shall be interviewed.

Clarified that a commercial shrimper trawling for bait croaker is not shrimping, and that a commercial crabber cast netting fish for crab bait is not crabbing.

Clarified that the 1 September 2003 regulation limiting the overall catch on guided trips to the combined bag limits of the customers does not exclude counting the guide as a party member.

Stipulated that a bait code should not be recorded when the gear code is 0, 2, 3, 4, 5, 11, or 55.

Specified rules for rounding converted weights to nearest 0.01 kg.

Created a new conversion for the live and meat weights of a 5-gallon bucket full of live oysters.

Clarified that the live weight of oysters is the sum of shells and meat.

Stated that the following equipment shall be present during all roves: rove tally sheet with sites listed in the order they are to be counted; thermometer and compass for on-site measurement of meteorological conditions; first-aid kit; fire extinguisher; and mobile phone.

Clarified that Regional Editors are responsible for printing edit listings of keyed data.

Described the procedure for Regional Editors to initiate database batch entry records.

***HIGH-USE SEASON 2006 through LOW-USE SEASON 2006-07***

In 2007, daylight savings time was extended by one month (i.e., it began three weeks sooner in the spring and ended one week later in the fall). The spring start date changed from the first Sunday in April to the second Sunday in March. The fall end date changed from the last Sunday in October to the first Sunday in November.

Data entry remained timely such that all target data were available for generation of high-use and low-use survey schedules.

***HIGH-USE SEASON 2006 through LOW-USE SEASON 2006-07 (Continued)***

All 24 batches of sport-boat survey data from 2006 were transferred from Holding File to Master File by 11 April 2007.

No tropical cyclones affected the Texas coast in 2006.

35 "gulf-only" surveys were conducted during high-use season.

By end of survey year, data collected through February 2007 had been keyed.

Quality Control visits during surveys and roves were continued.

The following tasks were completed.

SAS programming designed to detect errors in the database Master File was applied to 2005-06 data resulting in the detection and correction of 52 errors.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2005-06 by mid-January 2007.

Created final bay-pass private-boat pressures files and generated harvest estimates for trips lasting greater than 12 hours during mid-January 2007.

Completed draft of a manuscript (MDS) on survey of baitfish use by sport-boat anglers during 1995-96 and submitted for peer review in mid-March 2007.

Procedures were the same as those in 2005-06, except for the following.

Expanded description of procedures that are followed when survey schedules are generated.

Clarified role of Ecosystem Leaders in determining "non-fishable" days after tropical weather events.

Clarified that if all or a portion of a sportfishing party's catch was given away, then the party should be coded as "missed".

Clarified procedures for recording parties that both hunted and fished.

Clarified activity coding when a commercial crabber cast nets fish for crab bait.

Clarified the need for the guide to always be counted as a party member.

Clarified residence coding for temporary Texas residents.

Clarified application of 85% rule for gear coding when oysters present on a sport-boat fishing interview.

Reactivated gear code 44 (baitfish trap).

***HIGH-USE SEASON 2006 through LOW-USE SEASON 2006-07 (Continued)***

Eliminated use of tag column (User Defined Field A) to indicate that interviewer examined the catch and queried the angler for presence of fish tags.

Clarified comment section entry when species sought code 9 is used for species combinations requiring three or more digits.

Added procedures for proper measurement of air temperature.

Added drinking water as required equipment during roves.

***HIGH-USE SEASON 2007 through LOW-USE SEASON 2007-08***

Data entry remained timely such that all target data were available for generation of high-use and low-use survey schedules.

All 25 batches of sport-boat survey data from 2007 were transferred from Holding File to Master File by 15 April 2008.

The center of Hurricane Humberto made landfall about 5 miles east of High Island near Sea Rim State Park around 2:00 AM on 13 September 2007. This Category 1 storm developed very quickly during the day on 12 September and departed the area by midday on September 13. One day was deemed “non-fishable” and one survey was cancelled for the Sabine Lake system.

35 “gulf-only” surveys were conducted during high-use season.

By end of survey year, data collected through February 2008 had been keyed.

Quality Control visits during surveys and roves were continued.

The following tasks were completed.

SAS programming designed to detect errors in the database Master File was applied to 2006-07 data resulting in the detection and correction of 60 errors.

Submitted MDS 250 (Baitfish types used by sport-boat anglers in Texas marine waters, May 1995 – May 1996) for printing on 14 December 2007.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2006-07 by 11 January 2008.

Created final bay-pass private-boat pressure files for trips lasting greater than 12 hours and generated harvest estimates for these trips by 23 January 2008.

Completed revision of wet-slip rove-count adjustment factors used in pressure file creation SAS programs on 8 April 2008. These adjustment factors had last been revised in December 2001.

***HIGH-USE SEASON 2007 through LOW-USE SEASON 2007-08 (Continued)***

MDS 250 (Baitfish types used by sport-boat anglers in Texas marine waters, May 1995 – May 1996) was printed in March 2008.

Procedures were the same as those in 2006-07, except for the following.

Stated that interviewers must be knowledgeable of all survey components, including field procedures for selecting alternate survey sites.

Stated that interviewers must be prepared to adequately fulfill public information requests and needs (i.e., fishing regulation booklets, bag/size limit cards, and water safety digests).

Stated that survey questions must be asked in a non-leading manner with appropriate scrutiny of responses.

Clarified that when surveying alone an interviewer must leave the survey site for a short time, the interviewer must count trailers before and after the absence and record counts in comments section to determine whether any interviews should be recorded as missed.

Clarified that species entries (if any) must begin on the first line of each interview.

Clarified that gear and bait used should be recorded for commercial finfishing and crabbing parties on trips to place or bait fishing gear even if there were no landings.

Clarified that survey weather conditions are to be measured on-site.

Established additional items that should be documented in comments section: full boat ID numbers or names that have greater than six digits or letters; unexpected minor bay codes; and odd-sized (small and large) measurements.

Established guidelines for rounding calculated trip-length minutes to nearest half hour.

Expanded definition of sailing/pleasure riding (Activity 7) to include for-hire eco-tours and dolphin watching.

Established additional criteria for considering an interview to be refused: parties that are uncooperative, evasive, and/or seemingly untruthful.

Designated that state code 320 (Maryland) be used for Washington, D.C.

Clarified that when landings present, only the gear(s) and bait(s) used to capture the landings should be recorded.

Clarified that when fillets present, they should be counted and the total count divided by two to determine number of fish.

Clarified that live bait fish captured by non-commercial parties should be examined to estimate number present of each species.

*HIGH-USE SEASON 2007 through LOW-USE SEASON 2007-08 (Continued)*

Clarified that the number of each species of live bait fish captured by commercial parties should be determined by inquiry.

Further clarified that bait shrimp from a previous trip should not be recorded when determining number of bought and caught bait shrimp taken on or caught during the fishing trip.

Clarified that lengths are not to be recorded when a total weight is recorded.

Clarified that a total count of fish present in required when length measurements of commercially-caught fish are taken; if count not possible, then omit lengths and record total weight.

Clarified that entry of code 2 in the "Alt" field of Meteorological and Hydrological Data sheet should occur only if field conditions on day of survey necessitated use of an alternate site.

Clarified that appropriately-colored legal-size paper should be used to photocopy the duplicate set of data sheets for double surveys.

Stated that roving counters must be thoroughly trained, knowledgeable of all rove components, and familiar with route to be taken and sites to be counted; and that Ecosystem Leaders are responsible for assuring these requirements are met.

Stated that an explanation is required in comments section of rove data sheet when counts are conducted outside the 0800-1230 rove period.

Further clarified that weather conditions during roves will be measured on-site and recorded at first site counted and at last site counted (if rove takes more than 4 hours).

Documented that night roves are conducted (and have been for a number of years) in Galveston Bay and Lower Laguna Madre at selected wet-slip sites where contacting the property owner or operator is not useful in determining number of slips actually occupied.

Further clarified the meaning of the "within 7 working days" deadline for an Ecosystem Team to submit original data sheets to Regional Editors as not including weekend days or TPWD-approved holidays.

Stated that Regional Editors are to verify that all flagged entries on edit listings have been addressed.

Stated that Regional Editors are to send original data sheets to Science Specialist in ascending date order.

***HIGH-USE SEASON 2008 through LOW-USE SEASON 2008-09***

Data entry remained timely such that all target data were available for generation of high-use and low-use schedules.

All 24 batches of sport-boat survey data from 2008 were transferred from Holding File to Master File by 10 March 2009.

Hurricane Dolly made landfall about 35 miles northeast of Brownsville as a Category 2 storm around 1:00 PM on 23 July 2008. The following numbers of “non-fishable” days and cancelled surveys (in parentheses) were observed: 2(1) in Aransas Bay system, 2(1) in Corpus Christi Bay system, 2(1) in Upper Laguna Madre system, and 1(0) in Lower Laguna Madre system.

Tropical Storm Edouard made landfall halfway between High Island and Sabine Lake around 7:00 AM on 5 August 2008. One day was deemed “non-fishable” and one survey was cancelled in Sabine Lake system.

Hurricane Gustav made landfall near Cocodrie, Louisiana, as a Category 2 storm around 10:00 AM on 1 September 2008. Two days were deemed “non-fishable” in Sabine Lake system. No surveys were cancelled.

Hurricane Ike made landfall at Galveston as a Category 2 storm around 2:10 AM on 13 September 2008. The following numbers of “non-fishable” days and cancelled surveys (in parentheses) were observed: 11(4) in Sabine Lake system, 16(8) in Galveston Bay system, 4(1) in Matagorda Bay system, 4(1) in San Antonio Bay system, 3(2) in Aransas Bay system, 3(2) in Corpus Christi Bay system, and 3(0) in Upper Laguna Madre system. In addition, two “gulf-only” surveys were cancelled in Galveston Bay system. Also, the September weekend (1) and weekday (1) roves were cancelled in Galveston Bay system.

33 “gulf-only” surveys were conducted during high-use season.

By end of survey year, data collected through March 2009 had been keyed.

Quality control visits during surveys and roves were continued.

The following tasks were completed.

PDF files for the supporting documentation listed on the last page of this manual were created and placed on the N-drive (N:\CREEL\Documentation\).

SAS programming designed to detect errors in the database Master File was applied to 2007-08 data resulting in the detection and correction of 64 errors.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2007-08 by 19 December 2008.

Created final bay-pass private-boat pressure files for trips lasting greater than 12 hours and generated harvest estimates for these trips for 2008-09 by 30 January 2009.

***HIGH-USE SEASON 2008 through LOW-USE SEASON 2008-09 (Continued)***

Created high-use 2008 gulf private-boat pressure files and generated high-use 2008 gulf private-boat and party-boat harvest estimates for NMFS by 18 March 2009.

Created high-use 2008 bay-pass private-boat pressure files and generated high-use 2008 bay-pass private-boat and party-boat harvest estimates for NMFS by 23 March 2009.

Procedures were the same as those in 2007-08, except for the following.

Stated that each interviewer shall wear a wristwatch set to the correct time.

Stated that interviewers shall strive to avoid soiling boat surfaces with slime and blood when fish are measured and counted on-board.

Eliminated fish tag information sheets from list of items that shall be present during all surveys. Also eliminated instruction for completing these sheets.

Clarified that for the purpose of conducting an interview, a trip ends anytime landings (in all cases) or people (in most cases) are off-loaded.

Clarified that when a party both hunted and fished, the party should be considered a fishing party even if there were hunted landing and no fished landings.

Stated that gear and bait should be recorded even if there were no landings for sport crabbing parties on trips to place or bait fishing gear.

Stated that a commercial finfisher using crab traps to catch crabs for trotline bait is not finfishing.

Expanded description of a refused interview to include parties that decline an interview due to being "in a hurry".

Clarified that minor bay on non-fishing interviews and on fishing interviews with no landings should be selected based on where "most" rather than "majority" of the activity took place.

Clarified that bait shrimp from a previous trip should not be recorded as "bought bait shrimp" for current trip.

Stated that odd-sized (small or large) length measurements should be acknowledged in comments section.

Stated that route(s) taken and number of personnel assigned should insure that roving counts are conducted within the 0800-1230 rove period.

Stated that roving count data should not be transcribed from one data sheet to another to obtain a neater copy.

***HIGH-USE SEASON 2008 through LOW-USE SEASON 2008-09 (Continued)***

Expanded instructions on completing roving data sheets when greater than 20 and greater than 40 sites are counted.

Stated that blank lines should not be placed between non-blank lines on roving data sheets.

Stated that site 52 counts on “mini-roves” should be recorded in the comments section.

Added “scouting prior to tournaments” as an example of sportfishing (activity=1) in Figure 9.

Clarified that hunting (activity=8) includes both “guided and non-guided” trips in Figure 9.

***HIGH-USE SEASON 2009 through LOW-USE SEASON 2009-10***

Data entry remained timely such that all target data were available for generation of high-use and low-use schedules.

All 24 batches of sport-boat survey data from 2009 were transferred from Holding File to Master File by 7 July 2010.

No tropical weather events affected the Texas coast during 2009; thus, no surveys were cancelled and no days were deemed “non-fishable”.

34 “gulf-only” surveys were conducted during high-use season.

By end of survey year, data collected through February 2010 had been keyed.

Quality control visits during surveys and roves were continued.

The following tasks were completed.

SAS programming designed to detect errors in the database Master File was applied to 2008-09 data resulting in the detection and correction of 70 errors.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2008-09 by 28 December 2009.

Created final bay-pass private-boat pressure files for trips lasting greater than 12 hours and generated harvest estimates for these trips for 2008-09 by 23 February 2010.

Created high-use 2009 gulf private-boat pressure files and generated high-use 2009 gulf private-boat and party-boat harvest estimates for NMFS by 13 April 2010.

Submitted MDS 257 (Trends in finfish landings of sport-boat anglers in Texas marine waters, May 1974-May 2008) for printing on 20 April 2010.

***HIGH-USE SEASON 2009 through LOW-USE SEASON 2009-10 (Continued)***

MDS 257 (Trends in finfish landings of sport-boat anglers in Texas marine waters, May 1974-May 2008) was printed in April 2010.

Created high-use 2009 bay-pass private-boat pressure files and generated high-use 2009 bay-pass private-boat and party-boat harvest estimates for NMFS by 11 June 2010.

Arranged for the following items to be available on the N-drive: the quality control visitation report forms for surveys and roves, the quality control operations manual, and the Regional Editor procedures document.

Procedures were the same as those in 2008-09, except for the following.

Clarified that survey-day selection of an alternate survey site must take into account availability of personnel to adequately cover anticipated number of angling parties.

Emphasized need for personnel to be knowledgeable of procedures for early-terminating a survey.

Emphasized that interviewers must personally identify, measure, and count all sport-boat landings rather than seeking or accepting angler assistance.

Clarified that participation in "catch-and-release" fishing or in a "live-fish" tournament should not result in a "missed" interview due to the release of fish.

For documentation of bait shrimp use, clarified that bought shrimp must not have been left over from a previous trip, that captured shrimp must have been acquired during that day's trip, and that shrimp bought or caught by another party must not be included.

Clarified that passive resistance to the interview process should not be considered outright refusal until some form of persuasion has failed to obtain needed cooperation.

Changed designation of bait code 3 from "worm" jigs to "soft-plastic" jigs and added "Gulp!" baits to the list of examples for this bait category.

Added "artificial strip baits" and "jarred baits" to the list of examples for bait code 6 (other).

Clarified that bait code 6 (other) should be used for any artificial or natural bait that does not fit into any other bait category.

Emphasized that the purchase or capture of bait shrimp should be determined for all activity 1, 2 and 3 parties regardless of whether bait codes 0 or 1 are recorded.

Emphasized that trip grade and species sought questions must be asked verbatim.

Clarified that random selection for the trip grade and species sought questions requires that each party member has an equal and independent chance of being chosen.

***HIGH-USE SEASON 2009 through LOW-USE SEASON 2009-10 (Continued)***

Clarified that a check mark should be entered into the estimated commercial weight blank for a weight determined from an estimated number or estimated volume associated with sport shrimping or sport oystering.

Clarified that landings of shrimp that can not be individually examined for species identification should be recorded as Family Penaeidae.

Added examples for rounding converted weights.

Added factor to convert number of boxes of bait shrimp to kilograms in the Lower Laguna Madre (i.e., multiply by 0.257).

Clarified that only fish and recreationally-caught blue crabs should be measured.

Clarified that an interview from neither bay system at a crossover site during a double survey should be assigned to the nearest bay system.

Clarified that with the exception of sites counted during “mini-roves”, all sites in a bay system must be counted on the same rove day.

Clarified that a site not counted during a rove should not be listed but rather recorded in comments section with the reason for non-count.

***HIGH-USE SEASON 2010 through LOW-USE SEASON 2010-11***

Data entry remained timely such that all target data were available for generation of high-use and low-use schedules.

All 24 batches of sport-boat survey data from 2010 were transferred from Holding File to Master File by 20 May 2011.

Hurricane Alex made landfall along the coast of Mexico about 110 miles south of Brownsville as a Category 2 storm around 9:00 PM on 30 June 2010. Alex was a large storm with tropical storm force winds extending over 200 miles from the center. Rain and breezy conditions persisted along the Texas coast on 1 July. The number of “non-fishable” days and cancelled surveys (in parentheses) were observed: 1(1) in Aransas Bay system, 1(1) in Corpus Christi Bay system, 1(1) in Upper Laguna Madre system, and 1(0) in Lower Laguna Madre system.

Tropical Storm Hermine made landfall along the coast of Mexico about 40 miles south of Brownsville as a strong tropical storm around 8:30 PM on 6 September 2010. The storm moved quickly across South Texas and circulation characteristics produced quick clearing along the southern coast but squally conditions lingered along the central coast. No surveys were canceled and no “non-fishable” days were declared.

35 “gulf-only” surveys were conducted during high-use season.

By end of survey year, data collected through February 2011 had been keyed.

***HIGH-USE SEASON 2010 through LOW-USE SEASON 2010-11 (Continued)***

Quality control visits during surveys and roves were continued.

The following tasks were completed.

SAS programming designed to detect errors in the database Master File was applied to 2009-10 data resulting in the detection and correction of 107 errors.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2009-10 by 4 October 2010.

Created final bay-pass private-boat pressure files for trips lasting greater than 12 hours and generated harvest estimates for these trips for 2009-10 by 31 December 2010.

Created high-use 2010 bay-pass private-boat pressure files and generated high-use 2010 bay-pass private-boat and party-boat harvest estimates for NMFS by 17 March 2011.

Created high-use 2010 gulf private-boat pressure files and generated high-use 2010 gulf private-boat and party-boat harvest estimates for NMFS by 22 March 2011.

Procedures were the same as those in 2009-10, except for the following.

Clarified that for a survey site to be considered closed for the purpose of deactivation in the site list, there must be a physical barrier that prevents use of the site.

Stated the availability of boat-access site maps from Program Leader.

Clarified that for a survey site to be considered closed for the purpose of conducting a survey, there must be a physical barrier that prevents use of the site.

For the purpose of informing the Program Leader of a failure to conduct a survey as scheduled, added conducting a survey at the wrong site and early-terminating a survey improperly to the criteria list.

For interview initiation, provided suggestions for content of the acceptable greeting, the brief explanation of survey intent, and the description of agency affiliation.

Clarified that Comments section should also be used to explain reason for leaving a required data field blank.

Stated that the recording of departure times in the left margin of the data sheet was a reasonable means of increasing the accuracy of trip length of trip-length calculations.

Clarified that all fly-rod baits should be recorded with Bait code of 6.

Clarified trailer location coding at dry storage sites.

Clarified trailer location coding at wet slip or boat house sites with an associated ramp.

***HIGH-USE SEASON 2010 through LOW-USE SEASON 2010-11 (Continued)***

Stated that the Trip Grade question must be asked before the Species Sought question.

Provided guidance for identification of fillets and of specimens with tails and/or heads removed.

Clarified that claw weights are required for commercial stone crabs.

Added a whole-weight conversion for a single oyster.

Clarified distribution of bay/gulf interviews on data sheets during double survey write-up.

Clarified that monthly tracking for timely submission of survey and rove data by Regional Editors should be shared with Ecosystem Leaders.

Clarified Minor Bay coding when party fishes within one nautical mile gulfward of the gulfward end of a bay-to-gulf pass.

Clarified Minor Bay coding for gulf waters off Cedar Bayou (Aransas Bay system).

***HIGH-USE SEASON 2011 through LOW-USE SEASON 2011-12***

Data entry remained timely such that all target data were available for generation of high-use and low-use schedules.

All 24 batches of sport-boat survey data from 2010 were transferred from Holding File to Master File by 18 April 2012.

Tropical Storm Don made landfall near Baffin Bay around 10:00 PM on 29 July 2011 with maximum sustained winds of 35 mph. The storm dissipated very rapidly. No surveys were canceled and no "non-fishable" days were declared.

37 "gulf-only" surveys were conducted during high-use season.

By end of survey year, data collected through February 2012 had been keyed.

Quality control visits during surveys and roves were continued.

The following tasks were completed.

SAS programming designed to detect errors in the database Master File was applied to 2010-11 data resulting in the detection and correction of 88 errors.

Created final bay-pass and gulf private-boat pressure files and generated bay-pass and gulf private-boat and party-boat harvest estimates for 2010-11 by 21 November 2011.

Created final bay-pass private-boat pressure files for trips lasting greater than 12 hours and generated harvest estimates for these trips for 2010-11 by 6 December 2011.

***HIGH-USE SEASON 2011 through LOW-USE SEASON 2011-12 (Continued)***

Created high-use 2011 bay-pass private-boat pressure files and generated high-use 2011 bay-pass private-boat and party-boat harvest estimates for NMFS by 30 March 2012.

Created high-use 2011 gulf private-boat pressure files and generated high-use 2011 gulf private-boat and party-boat harvest estimates for NMFS by 30 March 2012.

Procedures were the same as those in 2010-11, except for the following.

Easter Sunday was added to the list of holidays not scheduled for surveys.

Stated that discretion shall be exercised when passing time between interviews so as not to create a negative public image.

Allowed use of adequately-charged cellular phones to determine interview times during surveys and roves.

Stated that cellular phone use during surveys and roves shall not disrupt interviewing efforts, produce unsafe situations, or create a negative public image.

Stated that because poor handwriting contributes to errors in computer entry of data, all data sheets must be checked for legibility prior to submission.

Added TPWD shark identification and regulations brochure to list of "other" equipment that shall be present during all surveys.

Clarified that a trip ends for the purpose of conducting an interview when a party returns to survey site to pick up additional party members.

Clarified that a party that launches their boat, parks their trailer, never leaves the ramp area, and then hauls-out the boat should be considered to have completed a trip for the purpose of conducting an interview.

Stated that bought or caught bait shrimp should be proportionally split between boats when two parties fished together and returned to survey site with all landings in one boat.

Stated that if all or a portion of a sportfishing party's catch was offloaded elsewhere at a non-survey site, then consider that a "missed" interview.

Stated that if all or a portion of a sportfishing party's catch was offloaded elsewhere at another survey site, then consider that a "haul-out" interview.

Clarified that a party that fished the gulf and had no gulf landings but fished a bay/pass area and had bay/pass landings should not be recorded as a gulf interview during "gulf-only" surveys.

Clarified that a party that fished both the gulf and a bay/pass area and had no landings from either area should be recorded as a gulf interview only if most fishing activity occurred in the gulf during "gulf-only" surveys.

***HIGH-USE SEASON 2011 through LOW-USE SEASON 2011-12 (Continued)***

Stated that “gulf-only” should be written at top of Meteorological and Hydrological Data sheet for “gulf-only” surveys.

Added new activity code 94 for missed or refused hunting parties.

Clarified that “permanent” residence of each party member should be determined.

Stated that a check mark should be entered into User Defined Field F for an estimated or reported number of captured bait fish associated with sport or commercial fishing.

Stated that a weight recorded on a commercial dealer receipt for landings offloaded prior to arrival at the survey site should be considered an estimate.

Clarified that the 0.23 kg per blue crab conversion should be used only for commercial landings.

Clarified that original pound weights of bought dead bait shrimp that are 2 pounds or less need not be recorded in comments section.

Terminated recording of cloud cover on the Meteorological and Hydrological Data sheet.

Verified that below-zero temperatures should be recorded with a preceding negative sign on the Meteorological and Hydrological Data sheet.

Stated that any person that assisted with a survey but was not present at beginning or end of survey should be listed in the Personnel section of the completion portion of the Meteorological and Hydrological Data sheet.

Stated that “double” should be written at top of each Meteorological and Hydrological Data sheet of a double survey.

Clarified that if nomograph indicates a “good” day but Small Craft Advisories will be in effect during the rove, then consideration should be given to postponing the rove.

Stated that survey and roving count data should be recorded in a legible manner and that ecosystem teams should confirm legibility of all entries prior to submission of data sheets to regional editors.

Added usage procedures to each of the four nomographs.

## HISTORY OF SPECIAL STUDIES

## History of special studies related to marine sport-harvest monitoring.

Code	Name	Comments
10	St. Charles Bay red drum study (boat ramps)	63 records in DB; Major Area 5; 10-13-79 to 4-3-82
11	Extra boat ramp study	73 records in DB; Major Areas 1-7; 3-19-78 to 11-6-81
12	Fall red drum study (gulf piers and jetties)	No records in DB (MDS 42, 1982)
13	Fall daytime flounder study (wade/banks)	70 records in DB; Major Areas 2, 3, 6; 10-8-80 to 12-22-80 (MDS 46, 1982)
14	Spring black drum study (boat ramps)	No records in DB (MDS 43, 1982)
15	Winter spotted seatrout study (wade/banks)	87 records in DB; Major Areas 2, 3, 5; 12-4-80 to 2-27-81 (PR 2-310-R-4, 1981)
16	Lower Laguna Madre light plant study (boat ramps)	No records in DB (PR 2-310-R-4, 1981)
17	Docked boat study	26 records in DB; Major Areas 2, 5-7; 7-7-79 to 4-13-81
18	Gulf pier and jetty study	No records in DB
40	Recreational fish lengths (prior to May 1983)	2971 records in DB; Major Areas 2-8; 1-2-75 to 5-27-85
43	Gulf charter-boat study	24 records in DB; Major Areas 2, 5, 6, 8; 5-24-85 to 10-11-85
45	Historic charter-boat study	129 records in DB; Major Areas 2, 5, 6, 8; 9-9-78 to 8-27-81 (TS 29, 1984)
59	Nighttime flounder gigging study (boat ramps and wade/banks)	624 records in DB; Major Areas 1-3, 5, 7, 8; 7-5-91 to 12-14-91
59	Nighttime flounder gigging study (boat ramps and wade/banks)	221 records in DB; Major Areas 1-3, 5, 7, 8; 10-2-07 to 12-29-07
71	Artificial reef study (boat ramps)	No records in DB
72	Recreational bycatch study (boat ramps)	No records in DB (SKGP NA37FD0084, 1995)
82	CCBNEP sportfishing valuation study (boat ramps)	No records in DB (CCBNEP 18, 1977)
91	Redfish Bay/Nine Mile Hole seagrass angler study (boat ramps)	No records in DB (MDS 252, 2008)
93	Charter-boat pilot study	926 records in DB; Major Areas 2, 3, 4, 6, 8; 7-10-01 to 12-17-08

Notes: A record represents multiple data points. DB=database, MDS=Management Data Series, PR=Project Report, TS=Technical Series, SKGP=Saltonstall-Kennedy Grant Program, and CCBNEP=Corpus Christi Bay National Estuarine Program.

## SUPPORTING DOCUMENTATION

### *List of Reference Memoranda and E-mails from Previous Years*

**NOTE:** PDF files for these documents are located at N:\CREEL\Documentation.

<u>Date</u>	<u>Subject</u>
6-27-94	Procedures for conducting sport-harvest interviews in the rain and for dealing with iced-down fish (Memorandum). (27Jun94.pdf)
12-20-94	Use of activity codes 97, 98 and 99 (Memorandum). (20Dec94.pdf)
3-8-99	Data submission for new database (E-mail). (08Mar99.pdf)
9-12-01	Change in interviewing procedures to allow recording of boat name for ID number when registration or documentation number not present (E-mail). (12Sep01.pdf)
5-16-02	New activity code 95 for missed party-boat interviews (E-mail). (16May02.pdf)
5-19-06	Proper exit of database required after making corrections in Holding File and Master File (E-mail). (19May06A.pdf)
5-19-06	Examination of flagged entries on creel edit listings (E-mail). (19May06B.pdf)
10-11-06	Documentation of interview procedures utilized at Matagorda Turning Basin creel sites 59 and 64 (E-mail). (11Oct06.pdf)
1-22-07	Detection of errors and possible errors in creel data by Regional Editors (E-mail). (22Jan07.pdf)
10-9-07	FW: Recording of rove data on roving count data sheets (E-mail). (09Oct07.pdf)
8-12-09	Order of questioning for trip satisfaction and species sought during creel interviews (E-mail). (12Aug09.pdf)
4-11-12	Relationship between boat-access site characteristics, trailer location, and rove procedures (E-mail). (04Apr12.pdf)